

OFFICIAL STATEMENT DATED JULY 17, 2013

NEW ISSUES - BOOK-ENTRY ONLY

RATINGS: See "RATINGS" herein

In the opinion of McCall, Parkhurst & Horton L.L.P., Bond Counsel to the Corporation, interest on the Tax-Exempt Bonds (as defined herein) will be excludable from gross income for federal income tax purposes under statutes, regulations, published rulings and court decisions existing on the date hereof, subject to the matters discussed under "TAX MATTERS — Tax-Exempt Bonds" herein, including the alternative minimum tax on corporations. The Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds (each as defined herein) are not obligations described in Section 103(a) of the Internal Revenue Code of 1986. See "TAX MATTERS — Taxable Series 2013D Bonds and Taxable Series 2013E Bonds" herein.



GRAND PARKWAY TRANSPORTATION CORPORATION \$2,920,074,856.15 GRAND PARKWAY SYSTEM TOLL REVENUE BONDS, SERIES 2013



\$200,000,000 First Tier Toll Revenue Bonds, Series 2013A	\$1,414,934,856.15 Subordinate Tier Toll Revenue Bonds, Series 2013B (TELA Supported)
\$836,440,000 Subordinate Tier Toll Revenue Tender Bonds, Series 2013C (TELA Supported - Interim Construction Financing)	\$106,890,000 Subordinate Tier Toll Revenue Tender Bonds, Taxable Series 2013D (TELA Supported)
\$361,810,000 Subordinate Tier Toll Revenue Bonds, Taxable Series 2013E (TELA Supported)	

Dated Date: Date of delivery

Due: As shown herein

The Grand Parkway Transportation Corporation (the "Corporation") is issuing its Grand Parkway System Toll Revenue Bonds, Series 2013 (the "Bonds"), as fully registered obligations of the Corporation, a public, non-profit Texas corporation created by the Texas Transportation Commission (the "Commission"), the governing body of the Texas Department of Transportation ("TxDOT"), and organized and existing pursuant to Subchapters A through C of Chapter 431, Texas Transportation Code, as amended, and the Business Organizations Code related to non-profit corporations, including Chapter 22 thereof (collectively, the "Acts"). The Bonds consist of the Corporation's First Tier Toll Revenue Bonds, Series 2013A (the "Series 2013A Bonds"), Subordinate Tier Toll Revenue Bonds, Series 2013B (TELA Supported) (the "Series 2013B Bonds"), Subordinate Tier Toll Revenue Tender Bonds, Series 2013C (TELA Supported - Interim Construction Financing) (the "Series 2013C Bonds"), Subordinate Tier Toll Revenue Tender Bonds, Taxable Series 2013D (TELA Supported) (the "Taxable Series 2013D Bonds") and Subordinate Tier Toll Revenue Bonds, Taxable Series 2013E (TELA Supported) (the "Taxable Series 2013E Bonds"). The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are collectively referred to herein as the "TELA Bonds." The Series 2013A Bonds, the Series 2013B Bonds and the Series 2013C Bonds are collectively referred to herein as the "Tax-Exempt Bonds."

The Corporation is authorized pursuant to a minute order adopted by the Commission on March 29, 2012 to act on behalf of the Commission for the public purpose of developing, financing, refinancing, constructing, designing, expanding, operating or maintaining some or all of the segments of State Highway 99 (Grand Parkway) (the "Grand Parkway Project"). The Bonds are issued for the purpose of providing funds to (i) finance the costs of the acquisition, construction and development of an approximately 55 mile tollway located in northwest Harris County and southeast Montgomery County designated as Segments D (but only a portion located in Harris County as further described herein), E, F-1, F-2 and G of the Grand Parkway Project (such segments are collectively, the "System") including the costs of issuance of the Bonds and a portion of the predevelopment costs of future segments of the Grand Parkway Project with priority given to predevelopment costs of future Segments H, I-1 and I-2, (ii) pay capitalized interest on the Bonds, (iii) fund the Rate Stabilization Fund, and (iv) fund the First Tier Reserve Account, all as more fully described herein. See "PLAN OF FINANCE."

Principal of, premium, if any, and interest on the Bonds will be payable by U.S. Bank National Association, as trustee (the "Trustee"), under a Trust Agreement dated as of August 1, 2013, as amended and supplemented (the "Trust Agreement"), between the Corporation and the Trustee, to The Depository Trust Company, New York, New York ("DTC"), which will make distribution of the amounts so paid to the beneficial owners thereof. See "GENERAL INFORMATION REGARDING THE BONDS — Book-Entry-Only System." The Bonds will be registered in the nominee name of DTC, which will act as securities depository for the Bonds pursuant to its book-entry-only system described herein. No physical delivery of the Bonds will be made to the respective beneficial owners thereof.

The Bonds are authorized by and issued pursuant to (i) the laws of the State of Texas, particularly the Acts, Chapter 1371, Texas Government Code, as amended, and Section 228.053, Texas Transportation Code, as amended, and (ii) resolutions adopted by the Board of Directors of the Corporation on December 21, 2012 and April 5, 2013. The Bonds are payable solely from, and secured solely by the collateral described herein. See "SECURITY AND SOURCES OF PAYMENT FOR THE BONDS."

The Corporation and TxDOT have entered into a Toll Equity Loan Agreement dated as of July 17, 2013 (the "TELA") that, under certain circumstances, makes support available for eligible costs of the System through advances by TxDOT from the State Highway Fund or other available funds in accordance with the terms of the TELA. If at any time toll revenues and certain fund balances under the Trust Agreement are insufficient to pay certain expenses, the Trustee is able to use proceeds of such advances for the payment of certain expenses, including debt service on the TELA Bonds, within the exposure limitations and other provisions of the TELA. See "Toll Equity Loan Agreement" and "APPENDIX D — TOLL EQUITY LOAN AGREEMENT."

NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TEXAS, NOR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. THE CORPORATION HAS NO TAXING POWER.

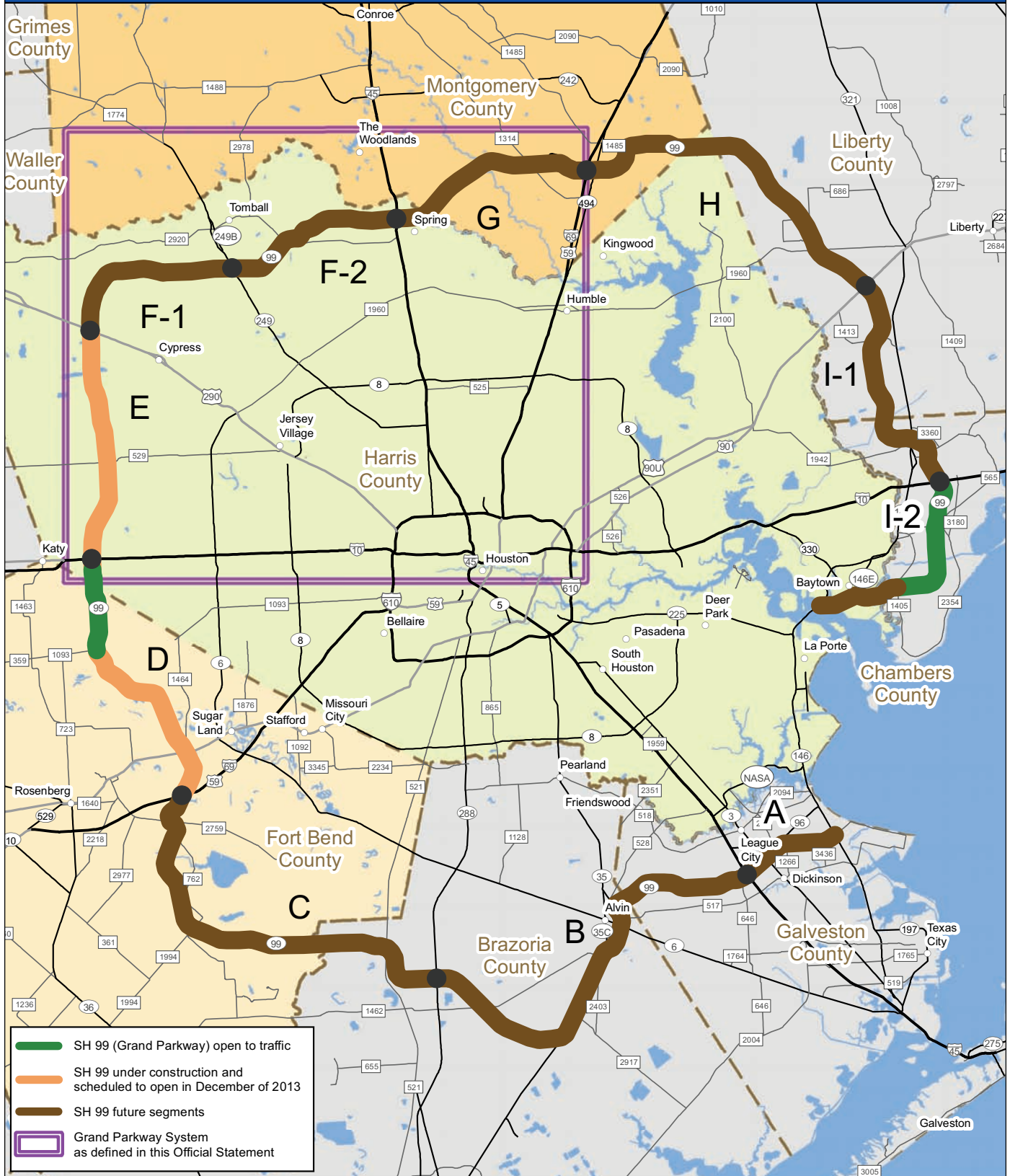
The Bonds are further described in this Official Statement. See pages (ii), (iii), (iv), (v) and (vi) for additional information relating to the Bonds, including provisions relating to maturities, interest rates and yields. This cover page and pages (ii), (iii), (iv), (v) and (vi) contain information for quick reference only. Such pages do not contain a complete summary of the Bonds. Potential investors must read the entire Official Statement to obtain information essential to making an informed investment decision. Investment in the Bonds is subject to certain investment considerations. See "RISK FACTORS."

The Bonds are offered for delivery when, as, and if issued and received by the Underwriters and subject to the approval of the Attorney General of the State of Texas and McCall, Parkhurst & Horton L.L.P., Austin, Texas, Bond Counsel to the Corporation. Certain legal matters will be passed upon for the Corporation by Andrews Kurth LLP, Austin, Texas, Special Disclosure Counsel to the Corporation, and by Haynes and Boone, LLP, Houston, Texas, and Bates & Coleman P.C., Houston, Texas, Co-Counsel for the Underwriters. It is expected that delivery of the Bonds will be made through DTC on or about August 1, 2013.

GOLDMAN, SACHS & CO.

J.P. MORGAN JEFFERIES PIPER JAFFRAY & Co. SIEBERT BRANDFORD SHANK & Co., LLC	BOFA MERRILL LYNCH LOOP CAPITAL MARKETS RBC CAPITAL MARKETS SOUTHWEST SECURITIES	BARCLAYS MORGAN STANLEY RAMIREZ & Co., INC. STIFEL NICOLAUS	CITIGROUP M.R. BEAL & COMPANY RAYMOND JAMES WELLS FARGO SECURITIES
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Map of State Highway 99 (Grand Parkway) Project



0 4 8
Miles

Texas Department of Transportation
Transportation Planning and Programming Division
Data Analysis, Mapping and Reporting Branch
June 26, 2013

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This map was produced for internal use
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**MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, INITIAL YIELDS, CUSIP NUMBERS
FOR THE SERIES 2013A BONDS**

\$200,000,000 Current Interest Term Bonds

\$47,730,000 5.125% Term Bonds due October 1, 2043⁽¹⁾, Price 98.25% (Approximate Yield 5.241%); CUSIP No. 38611TAA5⁽²⁾

\$152,270,000 5.500% Term Bonds due April 1, 2053⁽¹⁾, Price 98.50% (Approximate Yield 5.594%); CUSIP No. 38611TAB3⁽²⁾

⁽¹⁾ Subject to mandatory and optional redemption prior to maturity as set forth herein under the caption “**THE SERIES 2013A BONDS – Redemption.**”

⁽²⁾ CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services managed by Standard & Poor's Financial Services LLC on behalf of the American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Global Services. CUSIP numbers have been assigned by an independent company not affiliated with the Corporation or the Underwriters and are included solely for the convenience of the owners of the Series 2013A Bonds. None of the Corporation, the Co-Financial Advisors or the Underwriters is responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2013A Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the execution and delivery of the Series 2013A Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2013A Bonds.

**MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, INITIAL YIELDS, CUSIP NUMBERS
FOR THE SERIES 2013B BONDS**

\$1,137,935,000 Current Interest Term Bonds

\$575,000,000 5.250% Term Bonds due October 1, 2051⁽¹⁾, Priced to Yield 5.100%⁽²⁾; CUSIP No. 38611TAC1⁽³⁾

\$562,935,000 5.000% Term Bonds due April 1, 2053⁽¹⁾, Price 97.00% (Approximate Yield 5.178%); CUSIP No. 38611TAD9⁽³⁾

\$276,999,856.15 Convertible Capital Appreciation Bonds

Stated Maturity (October 1)⁽¹⁾	Conversion Date (October 1)	Initial Interest Payment Date after Conversion Date (April 1)	Original Principal Amount	Maturity Amount	Initial Principal Amount per \$5,000 Maturity Amount	Approximate Yield to Stated Maturity	Interest Rate	CUSIP No.⁽³⁾
2029	2023	2024	\$ 1,271,284.30	\$ 2,090,000	\$3,041.35	4.950%	4.950%	38611TAF4
2030	2023	2024	4,261,060.25	7,075,000	3,011.35	5.050	5.050	38611TAG2
2031	2023	2024	7,150,229.00	12,050,000	2,966.90	5.200	5.200	38611TAH0
2032	2023	2024	10,322,902.10	17,570,000	2,937.65	5.300	5.300	38611TAJ6
2033	2023	2024	13,641,803.00	23,450,000	2,908.70	5.400	5.400	38611TAK3
2034	2023	2024	17,328,473.45	29,935,000	2,894.35	5.450	5.450	38611TAL1
2035	2023	2024	21,280,689.45	36,945,000	2,880.05	5.500	5.500	38611TAM9
2036	2023	2024	16,733,090.50	29,050,000	2,880.05	5.500	5.500	38611TAN7
2044	2023	2024	42,562,093.00	75,740,000	2,809.75	5.750	5.750	38611TAP2
2045	2023	2024	42,587,148.80	76,160,000	2,795.90	5.800	5.800	38611TAQ0
2046	2023	2024	42,352,293.20	75,740,000	2,795.90	5.800	5.800	38611TAR8
2047	2023	2024	41,400,430.10	74,405,000	2,782.10	5.850	5.850	38611TAS6
2048	2023	2024	16,108,359.00	28,950,000	2,782.10	5.850	5.850	38611TAT4

⁽¹⁾ Subject to mandatory and optional redemption prior to maturity as set forth herein under the caption “THE SERIES 2013B BONDS – Redemption.”

⁽²⁾ Priced to result in the stated yield to the October 1, 2023 optional redemption date.

⁽³⁾ CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services managed by Standard & Poor's Financial Services LLC on behalf of the American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Global Services. CUSIP numbers have been assigned by an independent company not affiliated with the Corporation or the Underwriters and are included solely for the convenience of the owners of the Series 2013B Bonds. None of the Corporation, the Co-Financial Advisors or the Underwriters is responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2013B Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the execution and delivery of the Series 2013B Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2013B Bonds.

MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, INITIAL YIELDS, CUSIP NUMBERS FOR THE SERIES 2013C BONDS

THIS OFFICIAL STATEMENT DESCRIBES THE SERIES 2013C BONDS IN THE MULTIANNUAL MODE ONLY. AT THE TERMINATION OF THE INITIAL MULTIANNUAL PERIOD (THE "2013C INITIAL MULTIANNUAL PERIOD"), THE SERIES 2013C BONDS ARE SUBJECT TO MANDATORY TENDER AND PURCHASE. UPON SUCH MANDATORY TENDER AND PURCHASE, THE SERIES 2013C BONDS ARE EXPECTED TO BE REMARKETED UNLESS OTHERWISE REFUNDED. SEE "THE SERIES 2013C BONDS - INTEREST RATE MODE."

<u>Maturity Date</u>	<u>Mandatory Tender Date</u>	<u>Last Day of Initial Multiannual Period</u>	<u>Principal Amount</u>	<u>Initial Interest Rate</u>	<u>Initial Yield⁽¹⁾</u>	<u>CUSIP No.⁽²⁾</u>
October 1, 2017	February 15, 2014	February 14, 2014	\$836,440,000	2.000%	0.550%	38611TAE7

Redemption. The Series 2013C Bonds are not subject to optional redemption prior to stated maturity. The Series 2013C Bonds are subject to mandatory sinking fund redemption as provided herein. See "THE SERIES 2013C BONDS - Redemption."

Conversion. The Series 2013C Bonds are not subject to conversion to another interest rate mode prior to the end of the 2013C Initial Multiannual Period.

Optional and Mandatory Tender. The Series 2013C Bonds are not subject to optional tender for purchase by the holders thereof prior to the end of the 2013C Initial Multiannual Period. The Series 2013C Bonds are subject to mandatory tender on the Mandatory Tender Date referred to above, subject to the successful remarketing thereof unless otherwise refunded. The Series 2013C Bonds are subject to mandatory tender on any date during the 2013C Stepped Rate Period (as defined below) in the event the Corporation issues refunding bonds to pay the purchase price of the Series 2013C Bonds. See "THE SERIES 2013C BONDS - Optional and Mandatory Tender."

No Credit or Liquidity Facility. As of the date of this Official Statement, the Corporation has not provided any credit or liquidity facility for the payment of the principal of or interest on the Series 2013C Bonds or the payment of the purchase price of the Series 2013C Bonds payable upon the mandatory tender of the Series 2013C Bonds on the Mandatory Tender Date, nor is there any requirement or expectation that such credit or liquidity facility will be obtained. The principal portion of the purchase price of the Series 2013C Bonds is expected to be obtained from the remarketing thereof unless otherwise refunded. The obligation of the Corporation to purchase Series 2013C Bonds on the Mandatory Tender Date is subject to the successful remarketing of such Series 2013C Bonds unless otherwise refunded. The Corporation has no obligation to purchase Series 2013C Bonds except from remarketing proceeds. If the Series 2013C Bonds are not remarketed, the interest rate on the Series 2013C Bonds will be increased to the Stepped Coupon Rate of 8.0% per annum (as defined and described in "THE SERIES 2013C BONDS – Optional and Mandatory Tender – Effects of a Failed Remarketing") through maturity, prior mandatory redemption or mandatory tender due to a successful remarketing (unless otherwise refunded) (the "2013C Stepped Rate Period"). The TELA (as defined herein) is not available to pay the purchase price of the Series 2013C Bonds as a result of the mandatory tender but is available for debt service on such Bonds at the Stepped Coupon Rate. See "THE SERIES 2013C BONDS – Optional and Mandatory Tender – Effects of a Failed Remarketing" and "RISK FACTORS - Conditions Affecting TELA Advances by TxDOT – Other TELA Issues."

⁽¹⁾ Calculated through the last day of the 2013C Initial Multiannual Period.

⁽²⁾ CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services managed by Standard & Poor's Financial Services LLC on behalf of the American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Global Services. CUSIP numbers have been assigned by an independent company not affiliated with the Corporation or the Underwriters and are included solely for the convenience of the owners of the Series 2013C Bonds. None of the Corporation, the Co-Financial Advisors or the Underwriters is responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Series 2013C Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the execution and delivery of the Series 2013C Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Series 2013C Bonds.

MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, INITIAL YIELDS, CUSIP NUMBERS FOR THE TAXABLE SERIES 2013D BONDS

THIS OFFICIAL STATEMENT DESCRIBES THE TAXABLE SERIES 2013D BONDS IN THE MULTIANNUAL MODE ONLY. AT THE TERMINATION OF THE INITIAL MULTIANNUAL PERIOD (THE "2013D INITIAL MULTIANNUAL PERIOD"), THE TAXABLE SERIES 2013D BONDS ARE SUBJECT TO MANDATORY TENDER AND PURCHASE. UPON SUCH MANDATORY TENDER AND PURCHASE, THE TAXABLE SERIES 2013D BONDS ARE EXPECTED TO BE REMARKETED UNLESS OTHERWISE REFUNDED. SEE "THE TAXABLE SERIES 2013D BONDS - INTEREST RATE MODE."

<u>Maturity Date</u>	<u>Mandatory Tender Date</u>	<u>Last Day of Initial Multiannual Period</u>	<u>Principal Amount</u>	<u>Initial Interest Rate</u>	<u>Initial Yield⁽¹⁾</u>	<u>CUSIP No.⁽²⁾</u>
October 1, 2017	February 15, 2014	February 14, 2014	\$106,890,000	1.000%	0.800%	38611TAU1

Redemption. The Taxable Series 2013D Bonds are not subject to optional redemption prior to stated maturity. The Taxable Series 2013D Bonds are subject to mandatory sinking fund redemption as provided herein. See "**THE TAXABLE SERIES 2013D BONDS - Redemption.**"

Conversion. The Taxable Series 2013D Bonds are not subject to conversion to another interest rate mode prior to the end of the 2013D Initial Multiannual Period.

Optional and Mandatory Tender. The Taxable Series 2013D Bonds are not subject to optional tender for purchase by the holders thereof prior to the end of the 2013D Initial Multiannual Period. The Taxable Series 2013D Bonds are subject to mandatory tender on the Mandatory Tender Date referred to above, subject to the successful remarketing thereof unless otherwise refunded. The Taxable Series 2013D Bonds are subject to mandatory tender on any date during the 2013D Stepped Rate Period in the event the Corporation issues refunding bonds to pay the purchase price of the Taxable Series 2013D Bonds. See "**THE TAXABLE SERIES 2013D BONDS - Optional and Mandatory Tender.**"

No Credit or Liquidity Facility. As of the date of this Official Statement, the Corporation has not provided any credit or liquidity facility for the payment of the principal of or interest on the Taxable Series 2013D Bonds or the payment of the purchase price of the Taxable Series 2013D Bonds payable upon the mandatory tender of the Taxable Series 2013D Bonds on the Mandatory Tender Date, nor is there any requirement or expectation that such credit or liquidity facility will be obtained. The principal portion of the purchase price of the Taxable Series 2013D Bonds is expected to be obtained from the remarketing thereof unless otherwise refunded. The obligation of the Corporation to purchase Series 2013D Bonds on the Mandatory Tender Date is subject to the successful remarketing of such Series 2013D Bonds unless otherwise refunded. The Corporation has no obligation to purchase Series 2013D Bonds except from remarketing proceeds. If the Series 2013D Bonds are not remarketed, the interest rate on the Series 2013D Bonds will be increased to the Stepped Coupon Rate of 10.0% per annum (as defined and described in "**THE TAXABLE SERIES 2013D BONDS – Optional and Mandatory Tender – Effects of a Failed Remarketing**") through maturity, prior mandatory redemption or mandatory tender due to a successful remarketing (unless otherwise refunded) (the "2013D Stepped Rate Period"). The TELA (as defined herein) is not available to pay the purchase price of the Taxable Series 2013D Bonds as a result of the mandatory tender but is available for debt service on such Bonds at the Stepped Coupon Rate. See "**THE TAXABLE SERIES 2013D BONDS – Optional and Mandatory Tender – Effects of a Failed Remarketing**" and "**RISK FACTORS - Conditions Affecting TELA Advances by TxDOT – Other TELA Issues.**"

⁽¹⁾ Calculated through the last day of the 2013D Initial Multiannual Period.

⁽²⁾ CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services managed by Standard & Poor's Financial Services LLC on behalf of the American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Global Services. CUSIP numbers have been assigned by an independent company not affiliated with the Corporation or the Underwriters and are included solely for the convenience of the owners of the Taxable Series 2013D Bonds. None of the Corporation, the Co-Financial Advisors or the Underwriters is responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Taxable Series 2013D Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the execution and delivery of the Taxable Series 2013D Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Taxable Series 2013D Bonds.

**MATURITIES, PRINCIPAL AMOUNTS, INTEREST RATES, INITIAL YIELDS, CUSIP NUMBERS
FOR THE TAXABLE SERIES 2013E BONDS**

\$361,810,000 Current Interest Term Bonds

\$361,810,000 5.184% Term Bonds due October 1, 2042⁽¹⁾, Priced to Yield 5.184%; CUSIP No. 38611TAV9⁽²⁾

⁽¹⁾ Subject to mandatory and optional make-whole redemption prior to maturity as set forth herein under the caption “**THE TAXABLE SERIES 2013E BONDS – Redemption.**”

⁽²⁾ CUSIP® is a registered trademark of the American Bankers Association. CUSIP data herein are provided by CUSIP Global Services managed by Standard & Poor's Financial Services LLC on behalf of the American Bankers Association. This data is not intended to create a database and does not serve in any way as a substitute for the CUSIP Global Services. CUSIP numbers have been assigned by an independent company not affiliated with the Corporation or the Underwriters and are included solely for the convenience of the owners of the Taxable Series 2013E Bonds. None of the Corporation, the Co-Financial Advisors or the Underwriters is responsible for the selection or uses of these CUSIP numbers, and no representation is made as to their correctness on the Taxable Series 2013E Bonds or as indicated above. The CUSIP number for a specific maturity is subject to being changed after the execution and delivery of the Taxable Series 2013E Bonds as a result of various subsequent actions including, but not limited to, a refunding in whole or in part of such maturity or as a result of the procurement of secondary market portfolio insurance or other similar enhancement by investors that is applicable to all or a portion of the Taxable Series 2013E Bonds.

GRAND PARKWAY TRANSPORTATION CORPORATION

Name	Title	Term Expires	Occupation
James M. Bass	President, Board of Directors	August 31, 2015	Chief Financial Officer, Texas Department of Transportation
Dee Porter	Vice President, Board of Directors	August 31, 2015	Chief People Officer, Texas Department of Transportation
Scott Haywood	Board Member	August 31, 2015	Chief of Staff, Texas Department of Transportation
Benjamin Asher	Secretary/Treasurer (not a member of the Board of Directors)	N/A	Innovative Financing/Debt Management Officer, Texas Department of Transportation

TEXAS TRANSPORTATION COMMISSION

Name	Title	Term Expires
Ted Houghton	Chairman	February 2015
Jeff Moseley	Commissioner	February 2017
Fred Underwood	Commissioner	February 2015
Jeff Austin, III	Commissioner	February 2019
Victor Vandergriff	Commissioner	February 2019

TEXAS DEPARTMENT OF TRANSPORTATION

Name	Position	Total Service with the Department
Phil Wilson	Executive Director	1 1/2 years
John Barton, P.E.	Deputy Executive Director and Chief Engineer	28 years
James M. Bass	Chief Financial Officer	25 years
Brian Ragland, CPA	Finance Director	7 years
Benjamin Asher	Innovative Financing/Debt Management Officer	1 year
John Muñoz, CPA	Deputy Director, Innovative Financing/Debt Management Office	25 years
Jeff Graham	General Counsel	1 year

Consultants and Advisors

Bond Counsel	McCall, Parkhurst & Horton L.L.P. Austin, Texas
Disclosure Counsel	Andrews Kurth LLP Austin, Texas
Traffic Engineer	CDM Smith, Inc. Austin, Texas
Consulting Engineer	Jacobs Engineering Group Inc. Austin, Texas
System Consulting Engineer	CH2M HILL Houston, Texas
Co-Financial Advisors	Estrada Hinojosa & Company, Inc. Austin, Texas
	Public Financial Management, Inc. Austin, Texas
Trustee and Paying Agent/Registrar	U.S. Bank National Association Houston, Texas

For additional information regarding the Corporation, please contact:

James M. Bass, President, Board of Directors
Grand Parkway Transportation Corporation
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(512) 305-9507

Paul Jack, Managing Director
Estrada Hinojosa & Company, Inc.
823 Congress Avenue, Suite 1550
Austin, Texas 78701
(512) 605-2444

David Miller, Managing Director
Public Financial Management, Inc.
300 S. Orange Avenue, Suite 1170
Orlando, Florida 32801
(407) 648-2208

USE OF INFORMATION IN OFFICIAL STATEMENT

No dealer, broker, salesman, or other person has been authorized by the Corporation or the Underwriters to give any information or to make any representation other than those contained in this Official Statement, and, if given or made, such other information or representation must not be relied upon as having been authorized by the Corporation or the Underwriters. This Official Statement does not constitute an offer to sell or the solicitation of an offer to buy, nor may there be any sale of the Bonds by any person, in any jurisdiction in which it is unlawful for such person to make such offer, solicitation or sale. The information and expressions of opinion herein are subject to change without notice, and neither the delivery of this Official Statement, nor any sale of the Bonds will, under any circumstances, create any implication that there has been no change in the affairs of the Corporation or the Texas Department of Transportation (“*TxDOT*”) since the date hereof. This Official Statement is submitted in connection with the sale of the Bonds and in no instance may this Official Statement be reproduced or used for any other purpose.

This Official Statement is intended to reflect facts and circumstances on the date of this Official Statement or on such other date or at such other time as is identified herein. No assurance can be given that such information will not be misleading at a later date. Consequently, reliance on this Official Statement at times subsequent to the issuance of the Bonds described herein should not be made on the assumption that any such facts or circumstances are unchanged. See “**CONTINUING DISCLOSURE OF INFORMATION**” for a description of the undertakings of the Corporation and *TxDOT*, respectively, to provide certain information on a continuing basis.

The Trustee assumes no responsibility for this Official Statement and has not reviewed or undertaken to verify any information contained in this Official Statement.

None of the Corporation, the Co-Financial Advisors, or the Underwriters makes any representation or warranty with respect to the information contained in this Official Statement regarding the Depository Trust Company (“*DTC*”) or its Book-Entry-Only System, as such information was furnished by *DTC*.

The Underwriters have provided the following statement for inclusion in this Official Statement: The Underwriters have reviewed the information in this Official Statement in accordance with, and as part of, their responsibilities to investors under the federal securities laws as applied to the facts and circumstances of this transaction, but the Underwriters do not guarantee the accuracy or completeness of such information.

The price and other terms respecting the offering and sale of the Bonds may be changed from time to time by the Underwriters after such Bonds are released for sale, and such Bonds may be offered and sold at prices other than the initial offering price, including sales to dealers who may sell such Bonds into investment accounts. In connection with the offering of the Bonds, the Underwriters may over-allot or effect transactions that stabilize or maintain the market price of the Bonds at a level above those that might otherwise prevail in the open market. Such stabilizing, if commenced, may be discontinued at any time.

No registration statement relating to the Bonds has been filed with the United States Securities and Exchange Commission under the Securities Act of 1933, as amended, in reliance upon an exemption provided thereunder. The Bonds have not been registered or qualified under the Securities Act of Texas in reliance upon various exemptions contained therein; nor have the Bonds been registered or qualified under the securities laws of any other jurisdiction. The Corporation assumes no responsibility for the registration or qualification for sale or other disposition of the Bonds under the securities laws of any jurisdiction in which the Bonds may be offered, sold or otherwise transferred. This disclaimer of responsibility for registration or qualification for sale or other disposition of the Bonds will not be construed as an interpretation of any kind with regard to the availability of any exemption from securities registration or qualification provisions.

In making an investment decision, investors must rely on their own examination of the Bonds and the terms of the offering, including the merits and risks involved. The Bonds have not been recommended by any federal or state securities commission or regulatory authority. Furthermore, the foregoing authorities have not confirmed the accuracy or determined the adequacy of this document. Any representation to the contrary is a criminal offense.

The statements contained in this Official Statement, and in other information provided by the Corporation, that are not purely historical, are forward-looking statements, including statements regarding the Corporation’s expectations, hopes, intentions or strategies regarding the future. All forward-looking statements included in this Official Statement are based on information available to the Corporation and *TxDOT* as of the date hereof, and, except as otherwise provided in the Trust Agreement, neither the Corporation nor *TxDOT* assume any obligation to update any such forward-looking statements. See “**RISK FACTORS** — Forward-Looking Statements” and “**CONTINUING DISCLOSURE OF INFORMATION**.”

The five series of Bonds are separate and distinct securities offerings being issued and sold independently pursuant to a common Official Statement, and, while the Bonds share certain common attributes, each series is separate from the others and should be reviewed and analyzed independently, including the type of obligation being offered, its terms for payment, the security for its payment, the federal income tax treatment of payments related thereto, the rights of holders, and other features.

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OFFICIAL STATEMENT
relating to
GRAND PARKWAY TRANSPORTATION CORPORATION

\$2,920,074,856.15

GRAND PARKWAY SYSTEM TOLL REVENUE BONDS, SERIES 2013

\$200,000,000 First Tier Toll Revenue Bonds, Series 2013A	\$1,414,934,856.15 Subordinate Tier Toll Revenue Bonds, Series 2013B (TELA Supported)
\$836,440,000 Subordinate Tier Toll Revenue Tender Bonds, Series 2013C (TELA Supported - Interim Construction Financing)	\$106,890,000 Subordinate Tier Toll Revenue Tender Bonds, Taxable Series 2013D (TELA Supported)
\$361,810,000 Subordinate Tier Toll Revenue Bonds, Taxable Series 2013E (TELA Supported)	

INTRODUCTION

General

This Official Statement (this "*Official Statement*") contains certain information relating to the offer and sale by the Grand Parkway Transportation Corporation (the "*Corporation*") of its Grand Parkway System Toll Revenue Bonds, Series 2013 (the "*Bonds*"). The Bonds consist of the Corporation's First Tier Toll Revenue Bonds, Series 2013A (the "*Series 2013A Bonds*"), Subordinate Tier Toll Revenue Bonds, Series 2013B (TELA Supported) (the "*Series 2013B Bonds*"), Subordinate Tier Toll Revenue Tender Bonds, Series 2013C (TELA Supported - Interim Construction Financing) (the "*Series 2013C Bonds*"), Subordinate Tier Toll Revenue Tender Bonds, Taxable Series 2013D (TELA Supported) (the "*Taxable Series 2013D Bonds*") and Subordinate Tier Toll Revenue Bonds, Taxable Series 2013E (TELA Supported) (the "*Taxable Series 2013E Bonds*"). The Series 2013A Bonds, the Series 2013B Bonds and the Series 2013C Bonds are collectively referred to herein as the "*Tax-Exempt Bonds*". The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are collectively referred to herein as the "*TELA Bonds*." This Official Statement also contains information regarding the support for the TELA Bonds from the Texas Department of Transportation ("*TxDOT*") through the Toll Equity Loan Agreement (the "*TELA*"), the Grand Parkway System (as defined below), and the related design-build contract and design-build contractor for certain segments of such system, the Comprehensive Traffic and Revenue Study Update Final Report dated June 26, 2013 by CDM Smith Inc. and the Grand Parkway Engineer's Report dated June 26, 2013 by Jacobs Engineering Group Inc. See "**APPENDIX G – TRAFFIC AND REVENUE STUDY**" and "**APPENDIX H – ENGINEER'S REPORT**," respectively. Capitalized terms used in this Official Statement that are not otherwise defined herein have the meanings assigned to them in "**APPENDIX C - DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT - Definitions**." The summary of the Trust Agreement and First Supplemental Agreement together with the Form of Toll Rate Agreement and Forms of Bond Counsel Opinions are in substantially final form but are subject to further revision and completion and are included in this final Official Statement.

The Texas Transportation Commission, TxDOT and the Corporation

The Texas Transportation Commission (the "*Commission*") is the governing body of TxDOT which is a state agency charged with the responsibility to develop and maintain a statewide multimodal transportation network and administer federal funds for highway construction and maintenance. TxDOT is headquartered in Austin, with 25 district offices, 4 regional offices and 33 divisions/offices managed by an Executive Director under the direction of the Commission. The Commission is composed of five commissioners appointed by the Governor of the State of Texas, with the advice and consent of the State Senate, serving six-year terms. See "**APPENDIX A – THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND**."

The Corporation is a public, non-profit Texas corporation and an instrumentality of the Commission which authorized the Corporation's creation on March 29, 2012 for the sole purpose of advancing construction of certain segments of the Grand Parkway Project (as defined below). The Commission and TxDOT have delegated to the Corporation the responsibility for developing, financing, refinancing, designing, acquiring, constructing, reconstructing, expanding, operating and maintaining some or all of the segments of the Grand Parkway Project. See "**– Overview of Relationships with Respect**

to Development of the Grand Parkway System." The three-member Board of Directors of the Corporation (the "*Board*") is comprised solely of full-time, permanent employees of TxDOT that are appointed by the Commission. After the terms of the initial directors expire, subsequent and reappointed directors serve for six-year terms. See "**THE GRAND PARKWAY TRANSPORTATION CORPORATION.**"

Grand Parkway Project (State Highway 99)

The Grand Parkway (State Highway 99) Project is a proposed 184-mile highway around the greater Houston area from State Highway 146 in Galveston County, Texas to State Highway 146 in Baytown, Texas and spread across the seven counties of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty and Montgomery (the "*Grand Parkway Project*"). The primary purpose of the Grand Parkway Project is to provide an outer loop around the Houston metropolitan area to improve connectivity within the existing network, reduce transportation congestion and enhance mobility and travel options, reduce unsafe "stop and go" conditions and accommodate demographic and economic growth. The Grand Parkway Project is divided into 11 segments designated A through I-2 as depicted on the map on the inside cover page of this Official Statement. In 2011, TxDOT accepted the right to finance, develop, design, acquire, construct, operate and maintain certain segments of the Grand Parkway Project. The segments located in Harris and Montgomery Counties comprise the "*Grand Parkway System*" which is being financed with the Bonds. In 2012 and 2013, respectively, TxDOT accepted the right to finance, develop, design, acquire, construct, operate and maintain Segments H, I-1 and I-2. Although segments H, I-1 and I-2 are part of the Grand Parkway Project, such segments are not part of the Grand Parkway System, and the Corporation does not expect that such segments will become part of the Grand Parkway System. See "**THE GRAND PARKWAY SYSTEM - Other Segments of the Grand Parkway Project - Segments H and I.**"

TxDOT and the seven counties entered into a Market Valuation Waiver Agreement in 2009 that defined both the minimum scope and the ultimate scope of the Grand Parkway Project and provided a framework for a uniform toll policy. The minimum scope of the Grand Parkway Project includes (i) four-lane tolled facilities in Segments D, E, F-1, F-2, G and I-2, (ii) two-lane tolled facilities planned for Segments A, B, C, H and I-1 and (iii) phased construction of a number of direct connectors. A non-tolled portion of Segment D and all of the tolled Segment I-2 are already open to traffic. The ultimate scope of the Grand Parkway Project includes (i) additional tolled lanes in each direction for all segments and (ii) construction of additional direct connectors, but any such expansions are triggered when daily volumes exceed certain specified thresholds and will require additional environmental approvals.

Grand Parkway System Overview

The proceeds of the Bonds will be used, in part, to finance the design, development, acquisition and construction of five segments of the Grand Parkway Project including the portion of Segment D located in Harris County, Texas ("*Segment D (Harris County)*") and Segments E, F-1, F-2 and G located in northwest Harris County and southeast Montgomery County (collectively, the "*Grand Parkway System*" or "*System*"). These segments total approximately 55 miles of tollway. The System is depicted on the map on the inside cover of this Official Statement.

Segment D (Harris County) and Segment E are currently under construction pursuant to five different design-bid-build contracts and are currently being funded by TxDOT until issuance of the Bonds. TxDOT will be reimbursed from a portion of the Bond proceeds for costs incurred from June 26, 2011. Harris County has advanced certain funds for right-of-way, engineering and other related costs pursuant to an Advanced Funding Agreement with TxDOT. Harris County may also be reimbursed from a portion of the Bond proceeds for all or a portion of such costs. Both Segment D (Harris County) and Segment E are expected to open to traffic by December 2013 with tolling beginning in February 2014 except for two direct connectors of Segment E that are expected to be completed in May 2014. See "**THE GRAND PARKWAY SYSTEM – Segments D and E.**"

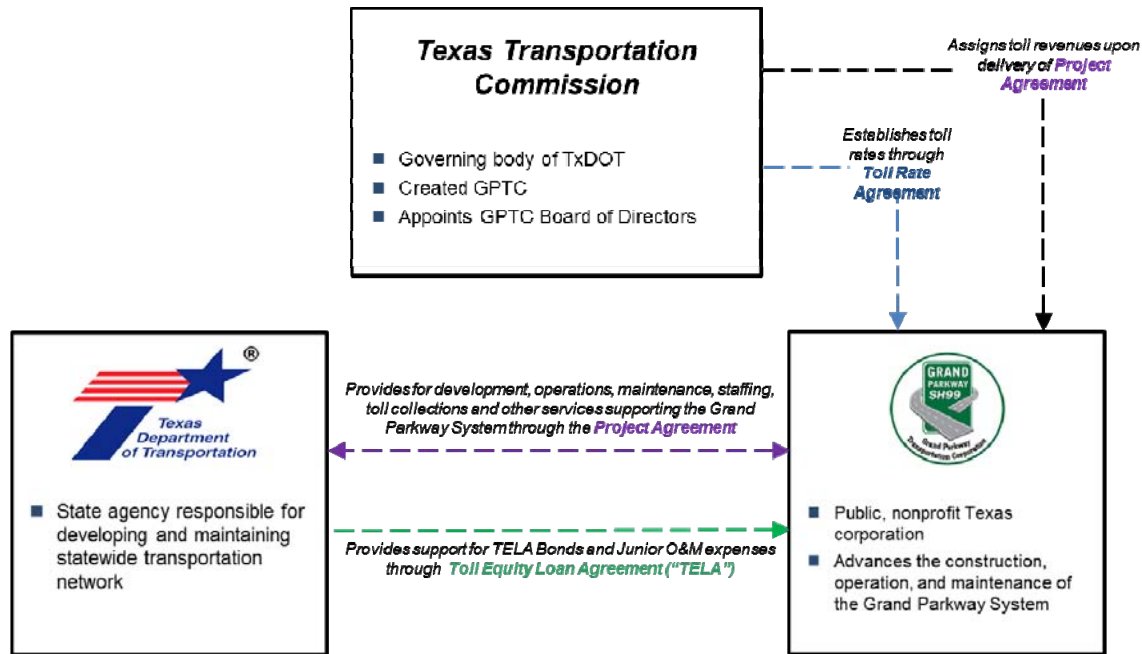
Segments F-1, F-2 and G will be constructed as part of a design-build comprehensive development agreement (the "*Development Agreement*"). In August 2012, TxDOT received four design-build proposals for Segments F-1, F-2 and G in response to a request for detailed proposals issued by TxDOT as part of the procurement process. On September 27, 2012, the Commission conditionally awarded the Development Agreement to Zachry-Odebrecht Parkway Builders, J.V. (the "*Developer*"). On March 22, 2013, TxDOT and the Developer executed the Development Agreement. On March 22, 2013, TxDOT issued the first notice-to-proceed under the Development Agreement and on June 14, 2013, TxDOT issued the second notice-to-proceed under the Development Agreement.

Pursuant to the Development Agreement, TxDOT and the Developer executed a Capital Maintenance Agreement for Segments F-1, F-2 and G (the "*Capital Maintenance Agreement*") with three five-year terms. The first five-year term is mandatory and the second and third terms are at the option of TxDOT. The Developer's obligations under the Capital Maintenance Agreement for any segment commences at the end of the warranty period, which is one year after final

acceptance of such segment. Segments F-1, F-2 and G are expected to be open to traffic by January 2016 with tolling beginning in February 2016. See "**THE GRAND PARKWAY SYSTEM – Segments F-1, F-2 and G.**"

The design-bid-build contracts for Segment D (Harris County) and Segment E, the Development Agreement and the Capital Maintenance Agreement have been or will be assigned by TxDOT to the Corporation as authorized by the Project Agreement. See "**CERTAIN PROJECT DOCUMENTS.**"

Overview of Relationships with Respect to Development of the Grand Parkway System



PLAN OF FINANCE

General

The Bonds are being issued to (i) finance the costs of the acquisition, construction and development of the Grand Parkway System including the costs of issuance of the Bonds and a portion of the predevelopment costs of future segments of the Grand Parkway Project with a priority given to predevelopment costs of future Segments H, I-1 and I-2, (ii) pay capitalized interest on the Bonds, (iii) fund the Rate Stabilization Fund, and (iv) fund the First Tier Reserve Account. The Corporation may also use a portion of the proceeds of the Bonds to finance the construction of an interchange between State Highway 249 and the System (which interchange will not be part of the System), the costs of which will be reimbursed by Harris County, Texas. If needed, the Corporation could use all or a portion of the proceeds expected to be used for predevelopment costs of Segment H, I-1 and I-2 to pay for costs related to the construction of segments of the Grand Parkway System or segments of the Grand Parkway Project that do not become part of the Grand Parkway System. The Corporation does not expect that Segments H, I-1 or I-2 will become part of the Grand Parkway System, even if a portion of the proceeds are used for predevelopment costs of such segments. See "**THE GRAND PARKWAY SYSTEM - Other Segments of the Grand Parkway Project - Segments H and I.**"

The Bonds are being issued by the Corporation pursuant to (i) the laws of the State of Texas (the "State"), particularly Subchapters A through C of Chapter 431, Texas Transportation Code, as amended, the Business Organizations Code, as amended, related to non-profit corporations, including Chapter 22 thereof, Chapter 1371, Texas Government Code, as amended, and Section 228.053, Texas Transportation Code, as amended (collectively, the "Acts"), and (ii) resolutions adopted by the Board on December 21, 2012 and April 5, 2013.

Estimated Sources and Uses of Funds

The proceeds from the sale of the Bonds and the use of such funds are anticipated to be as follows:

(in thousands)

Sources of Funds

First Tier Series 2013A Principal	\$ 200,000
First Tier Series 2013A Original Issue Discount	(3,119)
Subordinate Tier Series 2013B Current Interest Bond Principal	1,137,935
Subordinate Tier Series 2013B Convertible Capital	277,000
Appreciation Bond Principal	
Subordinate Tier Series 2013B Net Original Issue Discount	(10,155)
Subordinate Tier Series 2013C Principal	836,440
Subordinate Tier Series 2013C Original Issue Premium	6,516
Subordinate Tier Taxable Series 2013D Principal	106,890
Subordinate Tier Taxable Series 2013D Original Issue Premium	114
Subordinate Tier Taxable Series 2013E Principal	361,810
Total Sources of Funds⁽³⁾	\$2,913,431

Uses of Funds

Construction Costs ⁽¹⁾	\$2,449,360
Capitalized Interest Fund	329,564
First Tier Debt Service Reserve Account	17,964
Rate Stabilization Fund	100,000
Costs of Issuance ⁽²⁾	16,543
Total Uses of Funds⁽³⁾	\$2,913,431

⁽¹⁾ Includes construction costs, right-of-way acquisition, contingency amount and other costs for Segments D (Harris County), E, F-1, F-2 and G; reimbursements to TxDOT and Harris County for certain costs; and predevelopment costs of future segments of the Grand Parkway Project.

⁽²⁾ Includes legal fees, rating agency fees, underwriters' discount and other costs of issuance.

⁽³⁾ Totals may not add due to rounding.

The Bonds

The Series 2013A Bonds are "First Tier Obligations" and the Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are "Subordinate Tier Obligations" under the Trust Agreement dated as of August 1, 2013, as amended and supplemented (the "*Trust Agreement*") between the Corporation and U.S. Bank National Association, as trustee (the "*Trustee*"). See "**THE SERIES 2013A BONDS**," "**THE SERIES 2013B BONDS**," "**THE SERIES 2013C BONDS**," "**THE TAXABLE SERIES 2013D BONDS**" and "**THE TAXABLE SERIES 2013E BONDS**."

The Series 2013A Bonds, together with other First Tier Obligations issued in the future, are payable solely from, and secured solely by, the sources described herein, including the First Tier Reserve Account which will be funded from a portion of the proceeds of the Series 2013A Bonds. The Corporation reserves the right to exclude future First Tier Obligations from the security of the First Tier Reserve Account pursuant to future Supplemental Agreements. **The Series 2013A Bonds are not entitled to the benefit of the TELA.** See "**SECURITY AND SOURCES OF PAYMENT FOR THE BONDS**."

The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds, the Taxable Series 2013E Bonds and any other Subordinate Tier Obligations issued in the future, are payable solely from, and secured solely by, the sources described herein. **The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are entitled to the benefit of the TELA.** See "**SECURITY AND SOURCES OF PAYMENT FOR THE BONDS**" and "**TOLL EQUITY LOAN AGREEMENT**."

Payment of principal of and interest on First Tier Obligations, Second Tier Obligations, if any, Subordinate Tier Obligations and TELA/Other Tier Obligations is subject to the payment of Senior Operating Expenses. The operation and maintenance expenses of the segments of the initial System constitute TELA Supported Junior Operating Expenses, however, the operation and maintenance expenses of future segments of the Grand Parkway Project that are added to the System could be designated as Senior Operating Expenses. There will not be any Senior Operating Expenses of the initial System. See "**SECURITY AND SOURCES OF PAYMENT FOR THE BONDS**."

Toll Equity Loan Agreement

To assist the Corporation in financing the Grand Parkway System, TxDOT is providing the TELA which makes a loan available to be drawn upon by the Trustee in the event the Revenues of the System and certain funds held within the Trust Estate are insufficient to satisfy debt service on the TELA Bonds, certain operation and maintenance costs and certain major maintenance costs. The Trustee may not draw upon the TELA to pay the redemption price of any TELA Bonds due as a result of an optional redemption of such Bonds by the Corporation or to pay the purchase price of any TELA Bonds due as a result of any optional or mandatory tender of such Bonds. The Commission and the Corporation have executed the TELA in the maximum aggregate principal amount of \$9.6 billion with certain maximum annual limitations. The obligation of TxDOT to make advances under the TELA is subject to legislative appropriation and, in no event, may any advance cause the aggregate amount of all advances under the TELA to exceed the amount of eligible development, construction, operation and maintenance costs of the Grand Parkway System expended or incurred or reasonably anticipated to be expended or incurred by the Corporation. Any advances under the TELA are evidenced by the Toll Equity Loan Note authorized pursuant to the Second Supplemental Agreement to the Trust Agreement and will bear interest at the 10-year "Aaa (pure)" rate provided by the Municipal Market Data and published in The Bond Buyer under the caption "Municipal Market Data General Obligation Yields" plus 100 basis points. The Toll Equity Loan Note is a TELA/Other Tier Obligation of the Corporation pursuant to the Trust Agreement. Repayment of a TELA advance to TxDOT will be subordinate to First Tier Obligations, Second Tier Obligations, if any, and Subordinate Tier Obligations and will be payable from the TELA/Other Tier Obligation Payment Fund. See **"TOLL EQUITY LOAN AGREEMENT"** and **"RISK FACTORS - Conditions Affecting TELA Advances by TxDOT."**

It is currently expected that any TELA advances will be made by TxDOT from the State Highway Fund. See **"APPENDIX A – THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND."**

Letter of Interest for TIFIA Loan and Refinancing of the Series 2013C Bonds and Taxable 2013D Bonds

In January 2013, TxDOT, on behalf of the Corporation, submitted a letter of interest to the U.S. Department of Transportation ("*USDOT*") expressing its desire to receive funding from the Transportation Infrastructure Finance and Innovation Act ("*TIFIA*") credit program for the development of the Grand Parkway System. If the Corporation obtains a TIFIA loan, the earliest expectation for TIFIA funding availability is the fall of 2013. In its letter of interest for the TIFIA loan, the Corporation indicated that the TIFIA loan would be incurred as a Second Tier Obligation under the Trust Agreement and would be used to reimburse the Corporation for eligible costs previously expended. The Corporation currently expects to use any such reimbursements to redeem all or any part of the Series 2013C Bonds (which Bonds are intended to be interim construction financing) and/or the Taxable Series 2013D Bonds. The Corporation has not received any commitment from USDOT with respect to a TIFIA loan and there are no assurances that the Corporation will be able to obtain such a loan. If the Corporation does not obtain a TIFIA loan, the Corporation expects to issue obligations to refund all or a portion of the Series 2013C Bonds and the Taxable Series 2013D Bonds.

Any refunding of the Series 2013C Bonds and the Taxable Series 2013D Bonds is permitted to be issued under the Trust Agreement as First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations (any of which may be Toll Equity Loan Supported Obligations) without further complying with the coverage requirements of the Trust Agreement. The Corporation may also choose to remarket the Series 2013C Bonds and the Taxable Series 2013D Bonds into a new interest rate mode on their respective mandatory tender dates rather than refund such Bonds. See **"RISK FACTORS - Conditions Affecting TELA Advances by TxDOT - Other TELA Issues."**

Other Information

THE PRINCIPAL OF, PREMIUM, IF ANY, AND INTEREST ON THE BONDS IS PAYABLE ONLY FROM TOLLS AND OTHER REVENUES OF THE GRAND PARKWAY SYSTEM HELD BY THE TRUSTEE, THE RIGHT TO RECEIVE REVENUES OF THE GRAND PARKWAY SYSTEM HELD AS PROVIDED UNDER THE MASTER CUSTODIAL AGREEMENT, MONEY HELD BY THE TRUSTEE IN THE FUNDS AND ACCOUNTS CREATED UNDER THE TRUST AGREEMENT, ON THE BASIS AND IN THE PRIORITY DESCRIBED THEREIN AND HEREIN, AND WITH RESPECT TO THE TELA BONDS, TO THE EXTENT SUCH SOURCES ARE AT ANY TIME INSUFFICIENT, FROM ADVANCES MADE TO THE TRUSTEE UNDER THE TELA.

EXCEPT AS SPECIFIED IN THE PRECEDING PARAGRAPH, NONE OF THE STATE OF TEXAS, THE COMMISSION, THE CORPORATION, TXDOT NOR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS IS OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TEXAS, NOR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS IS PLEDGED TO THE PAYMENT OF

THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. THE CORPORATION HAS NO TAXING POWER.

Investment in the Bonds involves certain risks, some of which are discussed in this Official Statement. The statements contained in this Official Statement, including the Appendices herein, that are not purely historical are forward looking statements, including statements regarding the Corporation's expectations, hopes, intentions or strategies regarding the future. Investors should not place undue reliance on forward looking statements. See "**RISK FACTORS**" for a discussion of several risks that should also be considered in evaluating an investment in the Bonds. All forward looking statements included in this Official Statement are based on information available to the Corporation and TxDOT as of the date hereof, and, except as provided in the Trust Agreement or any Supplemental Agreement, neither the Corporation nor TxDOT assumes any obligation to update any such forward looking statements. See "**CONTINUING DISCLOSURE OF INFORMATION**" for a description of the undertakings of the Corporation and TxDOT, respectively, to provide certain information on a continuing basis.

This Official Statement contains, in part, estimates and matters of opinion that are not intended as statements of fact, and no representation or warranty is made as to the correctness of such estimates and matters of opinion. This Official Statement speaks only as of its date, and the information contained herein is subject to change.

THE GRAND PARKWAY TRANSPORTATION CORPORATION

The Corporation is a public, non-profit Texas corporation created by the Commission pursuant to a minute order adopted by the Commission on March 29, 2012, and is organized and existing pursuant to the Acts. The Corporation is authorized to act on behalf of the Commission for the public purpose of developing, financing, refinancing, designing, constructing, reconstructing, expanding, operating or maintaining some or all of the segments of the Grand Parkway Project.

The Corporation is governed by a three-member Board of Directors consisting of individuals appointed by the Commission, all of whom are employees of TxDOT. The directors serve without compensation. The Corporation has no staff, no resources and no taxing power.

The Corporation has all powers not prohibited by law that are available to non-profit corporations in the State and which are necessary or useful to enable the Corporation to perform the purposes for which it is created, including the power to issue bonds, notes or other obligations, execute loan agreements, assign any necessary agreements, rights, duties and obligations and otherwise exercise its borrowing power to accomplish the purposes for which it was created. In particular, the Corporation has the power to issue toll revenue bonds, notes or other obligations and enter into contracts, and assume agreements of TxDOT in connection with the Grand Parkway Project. The Corporation also has the power to enter into agreements with TxDOT regarding the responsibility of each party for the development, financing, refinancing, design, construction, reconstruction, expansion, operation or maintenance of the Grand Parkway Project and the support to be provided to the Corporation by TxDOT, including any necessary toll equity loan agreements between the Corporation and TxDOT, and take other actions necessary or convenient to implementing the Grand Parkway Project. See "**CERTAIN PROJECT DOCUMENTS**."

THE GRAND PARKWAY SYSTEM

General

The Grand Parkway Project is a proposed 184-mile long highway traversing seven counties (Harris, Fort Bend, Brazoria, Galveston, Montgomery, Liberty, and Chambers Counties) (collectively, the "*Counties*") and encircling the greater Houston area. The Grand Parkway Project is divided into eleven segments designated A, B, C, D, E, F-1, F-2, G, H, I-1 and I-2 and is expected to be configured from two to six lanes with overpasses at major intersections and direct connectors at interchanges with other major thoroughfares. Approximately 24% of the proposed lane miles of the Grand Parkway Project is expected to be located in Harris County, consisting largely of Segment E, Segment F-1 and Segment F-2. The remainder of the Grand Parkway Project is located in one or more of the remaining Counties.

The Grand Parkway Project will serve as a major component of the Houston metropolitan area regional transportation network where it is expected to relieve traffic and congestion on the surrounding major roadways including, but not limited to, US Interstate Highway 10, US Interstate Highway 45, US Highway 59, US Interstate Highway 69 and US Highway 290. Upon completion of all segments of the Grand Parkway Project, it will be the third and largest loop serving the Houston metropolitan area.

The System will initially consist only of an approximately 55 mile tollway located in northwest Harris County and southeast Montgomery County designated as "*Segment D (Harris County)*," "*Segment E*," "*Segment F-1*," "*Segment F-2*," and "*Segment G*." All of Segment D (Harris County), Segment E, Segment F-1 and Segment F-2 and a portion of Segment G

are located in Harris County. Most of Segment G is located in Montgomery County. Set forth on the inside cover of this Official Statement is a map showing the Grand Parkway Project, including the portions of the Grand Parkway Project that comprise the initial System.

TxDOT owns or will own the roadway and all access roads and appurtenant facilities comprising the System and the related rights-of-way. Pursuant to a Minute Order of the Commission adopted on September 27, 2012, the Corporation is entitled to all revenues from, or produced as a consequence of, the operation of the System as a toll highway. TxDOT has assigned or will assign to the Corporation the agreements between TxDOT and the contractors/developers who are or will be constructing the System. See “**CERTAIN PROJECT DOCUMENTS – Project Agreement.**”

Segments D and E

Most of Segment D is located in Fort Bend County and includes an existing 19 mile non-tolled portion of the Grand Parkway Project that connects US Highway 59(S) to US Interstate Highway 10. This portion of Segment D has been completed and open to the public since August 31, 1994. **The portion of Segment D located in Fort Bend County is not a part of the System.**

Segment D (Harris County). Segment D (Harris County) extends 2.6 miles from the Fort Bend/Harris County line to 0.30 miles north of Colonial Parkway. Proceeds of the Bonds will be used to construct a four-lane, controlled access toll road with continuous frontage roads, including six direct connectors, from 0.72 miles north of Kingsland Boulevard to 0.30 miles north of Colonial Parkway, which represents the northern most 0.9 miles of Segment D (Harris County). Such construction is currently underway by TxDOT (concurrent with Segment E) pursuant to two design-bid-build contracts and is expected to be open to traffic by December 2013 with tolling beginning in February 2014. The other 1.7 miles portion of Segment D (Harris County) is already constructed and open to traffic.

Segment E. Segment E will be a 14.4-mile, four-lane, controlled access toll road with intermittent frontage roads from 0.30 miles north of Colonial Parkway to US Highway 290 through northwest Harris County. Segment E is currently under construction by TxDOT pursuant to three design-bid-build contracts and is expected to be open to traffic by December 2013 with tolling beginning in February 2014 except for two direct connectors at US Interstate Highway 10 that are expected to be completed in May 2014.

All right-of-way parcels for Segment D (Harris County) and Segment E have been acquired except for two parcels for which payment is in process. Segment D (Harris County) and Segment E are being constructed using a traditional design-bid-build process. Under the design-bid-build process, TxDOT is responsible for preparation of plans and specifications with respect to each project and for paying the costs of obtaining all environmental permits related thereto. Upon completion of plans and specifications, contracts are let for competitive bidding and awarded to the lowest responsive bidder in accordance with TxDOT bidding procedures and State competitive bidding laws. A performance and payment bond in an amount equal to 100% of the contract price is required from every contractor. The contractor constructs the project in accordance with the plans and specifications under the inspection of TxDOT and within the time limit provided in the contract. TxDOT ensures timely completion by requiring liquidated damage payments for work performed after contract time limits are exceeded. With respect to Segment D (Harris County) and Segment E, the design-bid-build contracts collectively provide the potential for liquidated damages equal to \$137,590 for each day after the applicable substantial completion deadline. Under the Trust Agreement, any liquidated damages are to be used to pay System development and construction costs or, if there are no such costs, debt service on the Bonds. In accordance with the Project Agreement, TxDOT will assign as of August 1, 2013 the five design-bid-build contracts to the Corporation, however, TxDOT will retain certain obligations, including obligations with respect to environmental risks, hazardous substances risks and right-of-way acquisition. See “**CERTAIN PROJECT DOCUMENTS - Project Agreement – Obligations of TxDOT**” for more information about such obligations of TxDOT.

In 2009, Harris County and TxDOT entered into an “Advanced Funding Agreement for a Local Government to Construct an On-System Improvement with 100% Local Funds” under which Harris County funded a portion of the costs of design, engineering, right-of-way acquisition and other predevelopment costs of Segment D (Harris County) and Segment E. Harris County will transfer all of its right, title and interest in Segment D (Harris County) and Segment E to TxDOT upon reimbursement of the costs incurred by Harris County. Harris County has the right to collect toll revenues on Segment E until it has been reimbursed for such costs. A portion of the proceeds of the Bonds will be used to reimburse Harris County for all or a portion of such costs and upon such reimbursement, Harris County’s right to collect toll revenues on Segment E will terminate.

Approximately \$522 million of Bond proceeds is expected to be used for costs associated with Segment D (Harris County) and Segment E, including reimbursement to TxDOT and Harris County for predevelopment and construction costs and costs to complete construction of such segments.

Segments F-1, F-2 and G

Segment F-1 will be a 12.1-mile, four-lane, controlled access toll road with intermittent frontage roads from US Highway 290 to State Highway 249 through northwest Harris County. Segment F-2 will be a 12.2-mile, four-lane, controlled access toll road with intermittent frontage roads from State Highway 249 to US Interstate Highway 45(N) through northwest Harris County. Segment G will be a 13.5-mile, four-lane, controlled access toll road with intermittent frontage roads from US Interstate Highway 45(N) to US Interstate Highway 69(N) through northwest Harris County and southeast Montgomery County. Segments F-1, F-2 and G are expected to be open to traffic by January 2016 with tolling beginning in February 2016.

Segments F-1, F-2 and G will be developed, designed and constructed pursuant to the Development Agreement between TxDOT and the Developer. On March 22, 2013, TxDOT issued the first notice-to-proceed under the Development Agreement and, on June 14, 2013, TxDOT issued the second notice-to-proceed under the Development Agreement. See **“CERTAIN PROJECT DOCUMENTS - Development Agreement”** for more information regarding the Development Agreement. In accordance with the Project Agreement, TxDOT has assigned the Development Agreement to the Corporation, however, TxDOT will have certain obligations, including obligations with respect to environmental risks, hazardous substances risks and right-of-way acquisition. See **“CERTAIN PROJECT DOCUMENTS - Project Agreement – Obligations of TxDOT with respect to Segments F-1, F-2 and G”** for more information about such obligations of TxDOT. Approximately \$1.52 billion of proceeds of the Bonds is expected to be used for construction of such segments which amount includes amounts to be paid under the Development Agreement, construction of electronic toll assemblies, purchase of land for right-of-way and environmental mitigation.

Other Segments of the Grand Parkway Project

Segments A, B, C and D

Galveston County currently has the rights to develop Segment A and the portion of Segment B that is located in such county. Brazoria County currently has the rights to develop the portions of Segment B and Segment C that are located in such county. Fort Bend County currently has the rights to develop the portions of Segment C and Segment D that are located in such county. On August 22, 2012, the Fort Bend Grand Parkway Toll Road Authority issued its Limited Contract Tax and Subordinate Lien Toll Road Revenue Bonds, Series 2012, for such purpose.

Segments H, I-1 and I-2

In 2010, Chambers County adopted an order relinquishing its rights to develop the portions of Segment I-1 and Segment I-2 that are located in such county. An approximately 6.6 mile tolled portion of Segment I-2 has been completed and open to the public since 2011. In December 2012, Liberty County adopted an order relinquishing its rights to develop the portions of Segment H and Segment I-1 that are located in such county. Pursuant to a minute order adopted by the Commission on January 31, 2013, the Commission approved TxDOT's determination to exercise its option to develop, finance, construct, and operate Segments H, I-1 and I-2 and, as a result, TxDOT has development rights for such segments. In the January 31, 2013 minute order, the Commission also authorized the Corporation to finance any predevelopment costs of future segments of the Grand Parkway Project up to \$300 million with priority given to predevelopment costs of Segments H, I-1 and potentially I-2. The Corporation expects to use up to \$300 million of proceeds of the Taxable Series 2013E Bonds for predevelopment costs of Segments H, I-1 and I-2; however, such proceeds may be used for the costs of the initial System if not required for predevelopment costs. The Corporation does not currently expect that Segments H, I-1 and I-2 will become part of the Grand Parkway System. At its July meeting, the Commission authorized TxDOT staff to publish a request for qualification to develop, design and construct and potentially finance, maintain and operate Segments H and I-1 and all or part of Segment I-2 in Harris, Liberty, Montgomery and Chambers Counties pursuant to a comprehensive development agreement, but no assurances are given regarding any future development or method of procurement or financing of such segments.

SECURITY AND SOURCES OF PAYMENT FOR THE BONDS

General

THE PRINCIPAL OF, PREMIUM, IF ANY, AND INTEREST ON THE BONDS ARE PAYABLE ONLY FROM TOLLS AND OTHER REVENUES OF THE GRAND PARKWAY SYSTEM HELD BY THE TRUSTEE, REVENUES OF THE GRAND PARKWAY SYSTEM HELD UNDER THE MASTER CUSTODIAL AGREEMENT, AND MONEY HELD BY THE TRUSTEE IN THE FUNDS AND ACCOUNTS CREATED UNDER THE TRUST AGREEMENT, ON THE BASIS AND IN THE PRIORITY DESCRIBED THEREIN AND HEREIN, AND WITH RESPECT TO THE TELA BONDS, PAYMENTS OF ADVANCES MADE UNDER THE TELA. EXCEPT AS SPECIFIED IN THE PRECEDING SENTENCE, NONE OF THE STATE OF TEXAS, THE CORPORATION NOR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS IS OBLIGATED TO PAY THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TEXAS, NOR ANY OTHER AGENCY OR POLITICAL SUBDIVISION OF THE STATE OF TEXAS IS PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF, PREMIUM, IF ANY, OR INTEREST ON THE BONDS. THE CORPORATION HAS NO TAXING POWER.

Under the Trust Agreement, the "*Trust Estate*" consists of (a) all Revenues of the System (as defined below) and all rights to receive the same, whether in the form of accounts receivable, contract rights and the proceeds of such rights whether now owned or held or hereafter coming into existence, including as assigned and transferred to the Corporation by the Commission in accordance with the Project Agreement, (b) all of the Commission's right, title and interest as a "Beneficiary" for the System under the Master Custodial Agreement pursuant to the related joinder agreement among the custodian under such Master Custodial Agreement, TxDOT and the Corporation, and the Toll Rate Agreement, but not as a "Beneficiary" for any other toll projects, (c) all of the Corporation's right, title and interest in and to any Toll Equity Loan Agreement, (d) all money, including investment earnings, held by the Trustee in the various funds and accounts created under the Trust Agreement (but excluding moneys on deposit in a purchase fund or redemption account created for the benefit of only certain Obligations (as defined below) to be purchased or redeemed, the Rebate Fund and any amounts held in an account of the Construction Fund that are restricted to another use such as right-of-way contribution that may be used only for that purpose) and, to the extent set forth in a Supplemental Agreement, any Additional Obligation Security, (e) any insurance proceeds, (f) any condemnation proceeds, (g) any liquidated damages for delayed completion under a construction contract relating to the acquisition or construction of a System Segment, and (h) all payments received by the Corporation pursuant to a Credit Agreement, but only to the extent of the terms and provisions of such Credit Agreement.

Under the Trust Agreement, "*Obligations*" consist of the Bonds and any First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations issued after the issuance of the Bonds.

Under the Trust Agreement, "*Revenues of the System*" consists of (a) the aggregate revenues and all other receipts and income collected, received or derived by the Corporation from the operation of the System in any period, or estimated aggregate revenues and other receipts and income estimated to be collected, received or derived by the Corporation from the operation of the System in any period, including all such revenues, receipts and income assigned to the Corporation by the Commission and TxDOT pursuant to the Toll Rate Agreement and the Project Agreement, and all investment income from the Revenue Fund, the Senior Operation and Maintenance Fund, the Junior Operation and Maintenance Fund, the Operation and Maintenance Reserve Fund, the Construction Fund (excluding investment income from any Capitalized Interest Account within the Construction Fund and any other investment income from the Construction Fund that is deposited or estimated to be deposited to the credit of the Interest Accounts), the Rate Stabilization Fund, the Major Maintenance Fund and the Grand Parkway Enhancement Fund and (b) any other sources of revenues or funds of the Corporation that the Corporation chooses to designate as "Revenues of the System" pursuant to a Supplemental Agreement or as designated, from time to time, by the Corporation Representative in a written certificate provided to the Trustee. Revenues of the System do not include (i) payments or revenues received by the Corporation or the Trustee from TxDOT pursuant to a Toll Equity Loan Agreement for such Fiscal Year, (ii) the investment income from the Interest Accounts, including any Capitalized Interest Accounts within the Interest Accounts, the Redemption Accounts, the Reserve Accounts, the TELA/Other Tier Payment Fund and any Capitalized Interest Account within the Construction Fund, (iii) any investment income from the Construction Fund which is deposited or estimated to be deposited to the credit of the Interest Accounts and (iv) any of the amounts described above collected or received by the Corporation and required to be paid to TxDOT or other Persons as revenue sharing payments pursuant to the Project Agreement or other agreement.

The Grand Parkway System is owned by the Commission and the Commission has not mortgaged, assigned, or pledged any interest in any real or personal property or improvements, including any interest in the Grand Parkway System, as security for payment of the Bonds other than the pledge of the Trust Estate under the Trust Agreement. The Corporation does not own any part of the Grand Parkway System, but the Commission has assigned all Revenues of the System to the

Corporation. The Corporation may sell all or a portion of its accounts receivables provided the Corporation receives fair and reasonable value. The Corporation may create a security interest or lien in or pledge of its accounts receivable component of the Revenues of the System and the proceeds thereof securing an obligation of the Corporation to repurchase or replace accounts receivables sold as long as the aggregate maximum amount secured by any such pledges, liens or security interests does not exceed ten percent of the Revenues of the System of the Fiscal Year preceding the creation of such pledge, lien or security interest. Notwithstanding the foregoing, the Corporation may sell or otherwise create a security interest lien or pledge in the accounts receivables related to video tolling transactions or other tolling transactions that has toll rates greater than the toll rates applicable to base electronic transponder transactions so long as the Corporation receives an amount not less than the revenue the Corporation would have received applying the electronic transponder toll rates to such transactions. All amounts received by the Corporation from accounts receivables sold shall be deposited into the Revenue Fund.

The Series 2013A Bonds are First Tier Obligations of the Corporation payable solely from, and secured solely by the Trust Estate, on the basis and in the priority described herein and in the Trust Agreement, including the First Tier Reserve Account which will be funded from a portion of the proceeds of the Series 2013A Bonds. The Series 2013A Bonds are secured on a parity with all other outstanding First Tier Obligations issued under the Trust Agreement. **The Series 2013A Bonds are not entitled to the benefit of the TELA.**

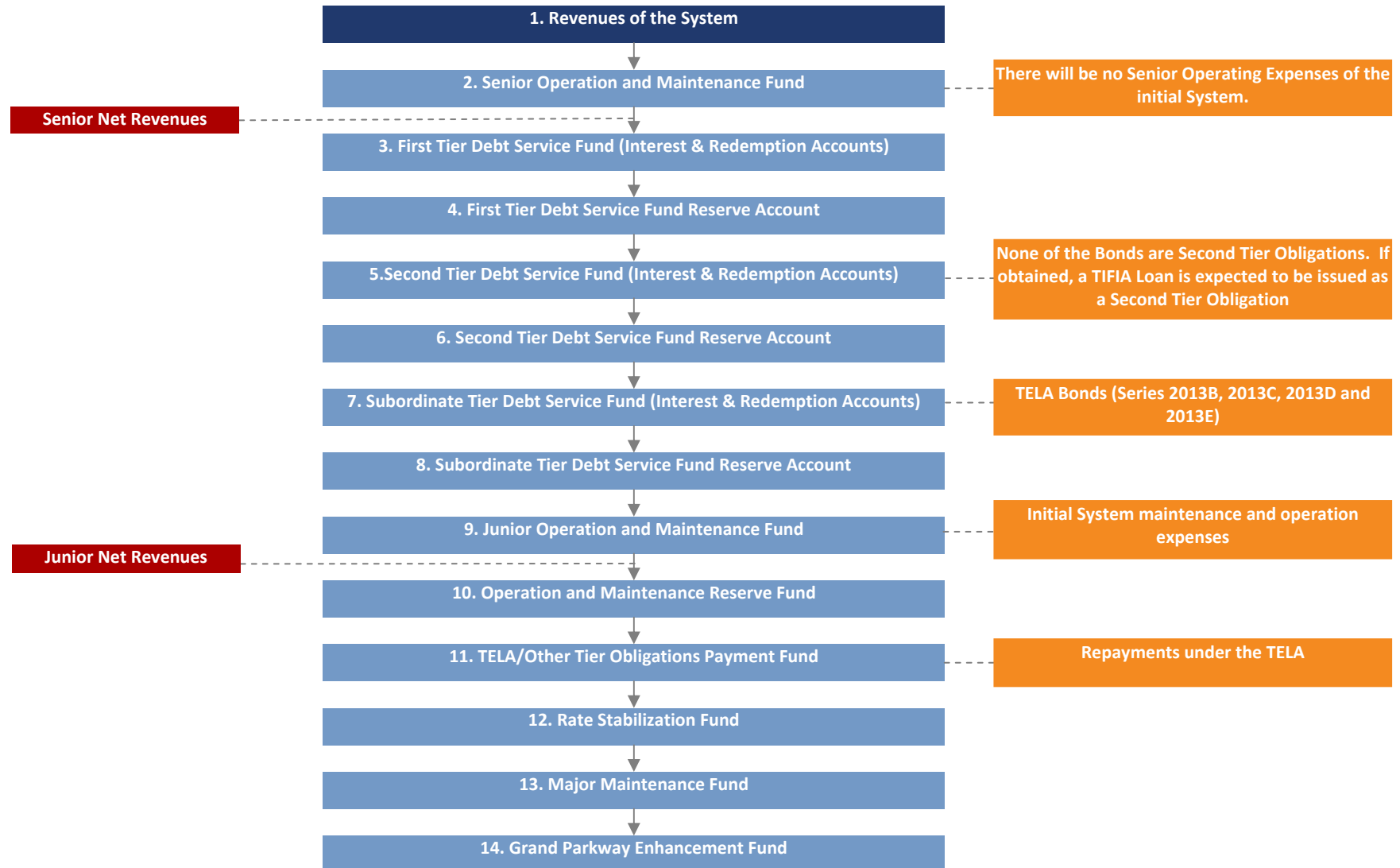
The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are Subordinate Tier Obligations payable solely from, and secured solely by the Trust Estate, on the basis and in the priority described herein and in the Trust Agreement. The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are secured on a parity with all other outstanding Subordinate Tier Obligations issued under the Trust Agreement. Subject to the restrictions in the Trust Agreement, the Corporation has also reserved the right to establish a priority of payment between the respective series of Subordinate Tier Obligations. The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds have been designated as senior Subordinate Tier Obligations in terms of priority of payment among Subordinate Tier Obligations. **The Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are entitled to the benefit of the TELA.** See "TOLL EQUITY LOAN AGREEMENT."

The Trust Estate is pledged to the Trustee pursuant to the Trust Agreement for the benefit and security of all Owners of First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations, on the basis, and in the priority described herein and therein. Payment of principal of and interest on First Tier Obligations is subject to the payment of Senior Operating Expenses. The operation and maintenance expenses of the initial System constitute TELA Supported Junior Operating Expenses; however, the operation and maintenance expenses of future segments of the Grand Parkway Project that are added to the System could be designated as Senior Operating Expenses. There will not be any Senior Operating Expenses of the initial System. Payment of principal of and interest on Second Tier Obligations is subject to the payment of Senior Operating Expenses and payment of principal of and interest on First Tier Obligations. None of the Bonds are being issued as Second Tier Obligations. Payment of principal of and interest on Subordinate Tier Obligations is subject to the payment of Senior Operating Expenses and payment of principal of and interest on First Tier Obligations and Second Tier Obligations. See " — Funds and Accounts — *Revenue Fund*" for a description of the application and priority of payment for funds deposited therein. See also "**APPENDIX C — DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT.**"

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Flow of Funds

The graph below depicts the flow of funds of Revenues of the System:



Funds and Accounts

Master Custodial Agreement; Agreements with Other Turnpikes.

TxDOT has entered into a Master Lockbox and Custodial Account Agreement, dated as of November 9, 2007 (as amended, the "*Master Custodial Agreement*"), with The Bank of New York Mellon Trust Company, N.A., as custodian (the "*Custodian*"). Under the Master Custodial Agreement, the following toll revenues are deposited into custodial accounts with the Custodian: (i) all toll revenues collected by TxDOT from all turnpike projects owned or operated by TxDOT, including the toll revenues derived from the operation of the System, and (ii) all toll revenues received from a third-party transponder issuer in consideration for the use of turnpike projects that are not operated by such third-party transponder issuer by motorists that have been issued a transponder by such transponder issuer, including toll revenues received from Harris County Toll Road Authority ("*HCTRA*") for toll transactions on the System by motorists that have been issued a HCTRA transponder (an "*EZ Tag*") pursuant to the Interoperability Agreement (hereafter defined). The funds received by the Custodian are disbursed on a daily basis to the appropriate beneficiary. The Corporation will enter into a joinder agreement with the Custodian to properly account for and disburse Revenues of the System, including toll revenues received from HCTRA. See "**OTHER PROJECT DOCUMENTS – Toll Collection and Operations.**" On each business day, the Custodian will transfer to the Trustee all toll revenues deposited into such custodial accounts that constitute available funds and that have been reconciled to transactions on the System. The flow of funds under the Master Custodial Agreement has operated as expected since the implementation of the agreement in 2007. Under the terms of the Trust Agreement, funds derived from the operation of the System are required to be transferred to the Revenue Fund (described below) on a daily basis, as far as practicable.

To the extent now or hereafter authorized by law, the Corporation or the Commission or TxDOT, for the benefit of the Corporation, may enter into an agreement or consent to any agreements entered into by the Commission or TxDOT with any other authority or other similar legal body operating a toll road, whether or not connected to the System, for the collection and application of tolls charged for trips over all or a portion of one or more toll roads, which, on the basis of the revenues to be received under any such agreement, will result in the receipt by the Corporation (or the Trustee) of the allocable portion of such tolls (less fees and expenses associated with such arrangement). Amounts relating to the System which constitute Revenues of the System received by the Corporation from such other authority or other similar legal body or pursuant to the Toll Rate Agreement, the Project Agreement and the Master Custodial Agreement, in accordance with such agreements, are required to be deposited with the Trustee for credit to the Revenue Fund.

Revenue Fund

The Corporation has covenanted that all Revenues of the System (except investment income from such funds and accounts that constitute a portion of the Revenues of the System, other than the Revenue Fund, which shall be retained in such funds and accounts except as otherwise required to be transferred as described herein) will be collected by the Corporation and deposited daily, as far as practicable and within the control of the Corporation, with the Trustee for the credit of the Revenue Fund. Commencing on the fifth Business Day preceding the first day of November 2013 and each month thereafter (each such date, a "*Transfer Date*"), transfers from the Revenue Fund shall be made to the below-listed funds and accounts, in the order of priority in which the funds and accounts are listed below.

If, in any month, the Trustee submits a Draw Request under a Toll Equity Loan Agreement solely with respect to (i) any First Tier TELA Obligations and the related First Tier Debt Service Fund, (ii) any Second Tier TELA Obligations and the related Second Tier Debt Service Fund, (iii) the Subordinate Tier TELA Obligations and the related Subordinate Tier Debt Service Fund, (iv) the TELA Supported Junior Operating Expenses and the Junior Operation and Maintenance Fund, or (v) the Major Maintenance Fund, and the amount received by the Trustee pursuant to such Draw Request is insufficient to pay all amounts requested in such Draw Request, the Trustee is required to apply the amounts received under such Draw Request, first, to any amounts required to be deposited in the First Tier Debt Service Fund on such date with respect to any First Tier TELA Obligations, second, to any amounts required to be deposited in the Second Tier Debt Service Fund on such date with respect to any Second Tier TELA Obligations, third, to any amounts required to be deposited in the Subordinate Tier Debt Service Fund on such date with respect to any Subordinate Tier TELA Obligations, fourth, to any amounts required to be deposited in the Junior Operation and Maintenance Fund on such date, and fifth, to any amounts required to be deposited in the Major Maintenance Fund on such date.

- (1) Rebate Fund;
- (2) Senior Operation and Maintenance Fund;
- (3) First Tier Interest Account;

- (4) First Tier Redemption Account;
- (5) First Tier Reserve Account;
- (6) Second Tier Interest Account;
- (7) Second Tier Redemption Account;
- (8) Second Tier Reserve Account;
- (9) Subordinate Tier Interest Account;
- (10) Subordinate Tier Redemption Account;
- (11) Subordinate Tier Reserve Account;
- (12) Junior Operation and Maintenance Fund;
- (13) Operation and Maintenance Reserve Fund;
- (14) TELA/Other Tier Payment Fund;
- (15) Rate Stabilization Fund;
- (16) Major Maintenance Fund; and
- (17) Grand Parkway Enhancement Fund.

In recognition that (i) Obligations and the interest thereon, including Payment Obligations, may come due on various dates, (ii) First Tier Obligations have a security interest in the Senior Net Revenues senior to that securing the Second Tier Obligations and the Subordinate Tier Obligations and senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations, (iii) Second Tier Obligations have a security interest in the Senior Net Revenues senior to that securing the Subordinate Tier Obligations and senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations, (iv) Subordinate Tier Obligations have a security interest in the Senior Net Revenues senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations, (v) Second Tier Obligations or interest thereon, may become due and payable on a date or dates in a Fiscal Year prior to the date a First Tier Obligation or the interest thereon is due, (vi) Subordinate Tier Obligations, or interest thereon, may become due and payable on a date or dates in a Fiscal Year prior to the date a First Tier Obligation or a Second Tier Obligation, or the interest thereon, is due, (vii) a series of Subordinate Tier Obligations may have a priority of payment different than another series of Subordinate Tier Obligations, as may be provided in the applicable Supplemental Agreements and (viii) TELA/Other Tier Obligations, or interest thereon, may become due and payable on a date or dates in a Fiscal Year prior to the date a First Tier Obligation, a Second Tier Obligation or a Subordinate Tier Obligation, or the interest thereon, is due, the Corporation covenants that no transfer from the Revenue Fund to any fund or account, other than the Senior Operation and Maintenance Fund or the First Tier Debt Service Fund, will be made in any Fiscal Year unless, in the opinion of the Corporation Representative (based on the Annual Budget for such Fiscal Year) set forth in a certificate delivered to the Trustee on or before the first business day of such Fiscal Year and updated on the date of delivery of any Additional Obligations issued during such year, such transfers during such Fiscal Year are not anticipated to result in the inability of the Corporation to make a later transfer, as required by the Trust Agreement, to a fund or account securing Obligations that have a security interest in the Senior Net Revenues or the Junior Net Revenues, as the case may be, senior to that securing Obligations that are secured by the fund or account into which the transfer is scheduled to be made. If (A) a Corporation Representative fails to deliver the certificate described in the prior sentence for a Fiscal Year, or (B) at any time during a Fiscal Year the Corporation determines that transfers from the Revenue Fund to any fund or account may result in the inability of the Corporation to make a later transfer within the six (6) month period from the date of such determination, as required by the Trust Agreement, to a fund or account securing Obligations that have a security interest in the Senior Net Revenues or the Junior Net Revenues, as the case may be, senior to that securing Obligations that are secured by the fund or account into which the transfer is scheduled to be made, a Corporation Representative shall deliver to the Trustee a certificate to that effect, then, in either case, for such Fiscal Year (i) transfers from the Revenue Fund to any fund or account shall be made strictly in the priority set forth in the immediately preceding paragraph, (ii) such transfers from the Revenue Fund shall be made once each month, and (iii) after each monthly

deposit to the Senior Operation and Maintenance Fund, no transfer to a fund or account shall be made until all funds and accounts with a higher priority have on deposit therein all amounts to be deposited in such fund or account for such Fiscal Year.

Rate Stabilization Fund

In the priorities established in the Trust Agreement, amounts on deposit in the Rate Stabilization Fund (a) shall be transferred by the Trustee to the Senior Operation and Maintenance Fund, the First Tier Debt Service Fund, the Second Tier Debt Service Fund, the Subordinate Tier Debt Service Fund or the Junior Operation and Maintenance Fund to cure a deficiency therein and (b) upon written direction by the Corporation Representative, may be transferred by the Trustee to any other fund under the Trust Agreement to be used for any other purpose for which Revenues of the System are permitted to be used under applicable law and the Trust Agreement, including as a claims payment fund or any similar function for any self-insurance program of the Corporation. Use of amounts on deposit to the Rate Stabilization Fund for any of the foregoing purposes shall not constitute an Event of Default under the Trust Agreement. In the event that the amounts on deposit in the Rate Stabilization Fund exceed the Rate Stabilization Fund Requirement, the Trustee shall transfer such excess to the Revenue Fund. The moneys in the Rate Stabilization Fund, after their use as provided in this paragraph, need not be replenished; provided, however, the Corporation shall replenish the Rate Stabilization Fund to the Rate Stabilization Fund Requirement upon the issuance of any Additional Obligations for a purpose other than refunding any Outstanding Obligations or completing the initial System (and funding any related reserve or other funds). Notwithstanding anything in this paragraph to the contrary, the Trustee shall replenish the Rate Stabilization Fund to the Rate Stabilization Fund Requirement or a lesser amount at such time and in such manner as directed in writing by a Corporation Representative from available Revenues of the System. Additionally, notwithstanding anything in the Trust Agreement to the contrary, at such time that there is no Toll Equity Loan Agreement outstanding, the Corporation may determine to (i) reduce the Rate Stabilization Fund Requirement to a lesser amount or (ii) eliminate the requirement for the Rate Stabilization Fund and the Rate Stabilization Fund Requirement, and, upon such determination and receipt by the Corporation and the Trustee of (y) written confirmation that such action will not, in and of itself, cause any ratings then assigned to any Outstanding First Tier Obligations or Second Tier Obligations to be adversely affected by Moody's, S&P and/or Fitch, respectively, and (z) an opinion of Bond Counsel that the use of any released amounts from the Rate Stabilization Fund complies with applicable law, the Corporation Representative shall give written notice to the Trustee of such Corporation determination and direct the Trustee to transfer any released amounts from the Rate Stabilization Fund into the Revenue Fund and, if appropriate, close the Rate Stabilization Fund.

First Tier Reserve Account

An amount from the proceeds of the Series 2013A Bonds will be used to initially fund the First Tier Reserve Requirement within the First Tier Reserve Account which will be held and used for the purpose of finally retiring the last of the Series 2013A Bonds and other applicable Outstanding First Tier Obligations (unless a series of future First Tier Obligations is excluded from the security of the First Tier Reserve Account pursuant to a future Supplemental Agreement) and/or for paying interest on, maturing Principal of, and mandatory sinking fund redemption price of the Series 2013A Bonds and applicable First Tier Obligations (unless a series of future First Tier Obligations is excluded from the security of the First Tier Reserve Account pursuant to a future Supplemental Agreement) to the extent that the moneys held for the credit of the First Tier Reserve Account and the First Tier Redemption Account shall be insufficient for such purpose. When and for so long as the cash, investments and Reserve Surety Agreement in the First Tier Reserve Account equal the First Tier Reserve Requirement, no deposits need be made to the credit of the First Tier Reserve Account; but, if and when the First Tier Reserve Account at any time contains less than the First Tier Reserve Requirement, the Corporation covenants and agrees that the Corporation shall cure the deficiency in the First Tier Reserve Account by resuming deposits into the First Tier Reserve Account in amounts equal to not less than 1/36th of the First Tier Reserve Requirement until the First Tier Reserve Requirement has been fully restored. See **“APPENDIX C — DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT - SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS.”**

A Reserve Surety Agreement may be substituted for monies and investments in the First Tier Reserve Account if the substitution of the Reserve Surety Agreement will not, in and of itself, cause any ratings then assigned to the First Tier Obligations by Moody's, S&P and/or Fitch, respectively, to be lowered, the Reserve Surety Agreement is approved by the Texas Attorney General, if then required by State law, and the resolution authorizing the substitution of the Reserve Surety Agreement for all or part of the First Tier Reserve Requirement contains a finding that such substitution is cost effective. The First Tier Reserve Account only secures the Series 2013A Bonds and other applicable First Tier Obligations (unless a series of future First Tier Obligations is excluded from the security of the First Tier Reserve Account pursuant to a future Supplemental Agreement). Any TIFIA loan entered into by the Corporation will not be secured by the First Tier Reserve Account and under no circumstances will amounts in the First Tier Reserve Account be used to pay any such TIFIA loan.

The Corporation has not created reserve accounts securing any of the Second Tier Obligations, Subordinate Tier Obligations or the TELA/Other Tier Obligations; however, the Corporation has reserved the right to create such accounts in the future. See “**APPENDIX C – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT.**”

If (i) the long-term, unsecured credit rating of the issuer of the Reserve Surety Agreement falls below the third highest generic rating category (i.e., "A") by Moody's, S&P and/or Fitch, respectively, (ii) the issuer of the Reserve Surety Agreement defaults in its payment obligations thereunder, or (iii) the issuer of the Reserve Surety Agreement provider becomes insolvent, the Corporation shall within 36 months of such occurrence either, only to the extent Revenues of the System are available, (A) deposit into the First Tier Reserve Account an amount sufficient to cause the cash and investments on deposit therein to accumulate to the First Tier Reserve Requirement, or (B) replace such instrument with a Reserve Surety Agreement meeting the requirements of this Section. Upon replacement, the Corporation may terminate the existing Reserve Surety Agreement. Any cash released from the First Tier Reserve Account as a result of deposit of a Reserve Surety Agreement may be used for any purpose authorized by the Trust Agreement, as instructed in writing to the Trustee by a Corporation Representative and subject to receipt by the Corporation and the Trustee of an opinion of Bond Counsel that such use will not adversely affect the tax-exempt status of such First Tier Obligations and is permitted by State law.

Insurance

Under the Trust Agreement, the Corporation covenants that it will keep the System and its use and operation thereof insured at all times in such amounts, subject to such exceptions and deductibles and against such risks, as are customary for similar organizations, including business interruption insurance. Initially, the Corporation expects to comply with such covenant through the use of self-insurance and to pay any claims with amounts on deposit in the Rate Stabilization Fund. Any self-insurance program shall be deemed actuarially sound in the written opinion of an accredited actuary, which opinion shall be filed with the Trustee at least annually.

For additional details regarding the purpose and function of the various funds and accounts established pursuant to the Trust Agreement and the flow of revenues through such funds and accounts, see "**APPENDIX C — DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT.**"

Toll Rates; Rate Covenant

Market Valuation Waiver Agreement

Consistent with the requirements of Section 228.011, Texas Transportation Code, TxDOT and the Counties entered into the “SH 99 Grand Parkway Toll Project Market Valuation Terms and Conditions” dated September 29, 2008 (the “*Terms and Conditions*”), and entered into a “Market Valuation Waiver Agreement for SH 99 (Grand Parkway)” effective as of February 10, 2009 (the “*Market Valuation Waiver Agreement*”). The Terms and Conditions defined the scope and phasing of the segments of the Grand Parkway Project, established the framework for a uniform toll policy for the Grand Parkway Project including a toll rate calculation methodology that provides minimum annual adjustment of toll rates. Pursuant to the Market Valuation Waiver Agreement, the initial toll rates for the Grand Parkway Project will not exceed the average per mile toll rates for electronic toll transactions in force and effect for HCTRA, exclusive of any congestion priced toll corridor or managed lane project, as of the date of opening of any segment. Also, pursuant to the Market Valuation Waiver Agreement, the toll rate methodology provides for an automatic annual adjustment no less than the greater of (1) the net change in the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W) for the Houston-Galveston-Brazoria Region published by the Bureau of Labor Statistics or (2) the minimum adjustment factor of 2%. Pursuant to Minute Orders of the Commission adopted on December 13, 2012 and February 28, 2013, the Commission established initial toll rates and a toll escalation policy for the System consistent with the terms of the Market Valuation Waiver Agreement.

Toll Rate Agreement; Rate Covenant

The Corporation and the Commission will enter into the SH 99 (Grand Parkway) Harris and Montgomery County Segments Toll Rate Agreement (the “*Toll Rate Agreement*”) whereby the Commission agrees to (1) adopt and maintain in effect a toll rate schedule for the System, in substantial conformity with the recommendation of the Traffic Consultant and in conformity with the toll rate escalation policy of the Commission and (2) establish charges for other uses of the property constituting a part of the System such as property leases designed, collectively, to produce Revenues of the System in each Fiscal Year in an amount sufficient to satisfy the greatest of (1), (2), (3) or (4) below:

- (1) Senior Net Revenues of 1.50 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations for the Fiscal Year; or

(2) Senior Net Revenues of 1.30 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations and all Outstanding Second Tier Obligations for the Fiscal Year; or

(3) Senior Net Revenues of 1.10 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations of the Corporation for the Fiscal Year; or

(4) Senior Net Revenues, less Junior Operating Expenses and less any monthly deposits necessary to maintain the Operation and Maintenance Reserve Requirement, of 1.00 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations of the Corporation for the Fiscal Year.

In the process of developing and adopting the Toll Rate Schedule for a period or portion of a period that constitutes a Construction and Ramp-Up Period for the System and any Construction and Ramp-Up Period for additional System Segments, the Traffic Consultant, the Commission and the Corporation may assume that, for making the calculations required by clauses (3) and (4) above, Revenues of the System for such period include the amounts forecasted to be on deposit in the Rate Stabilization Fund as reflected in the Annual Budget for each Fiscal Year in such period. In making the calculations described in clauses (1), (2), (3) and (4) above, the Traffic Consultant, the Commission and the Corporation may take into account any amounts reasonably expected to be received by the Trustee in the Fiscal Year from or as a result of any Additional Obligation Security the Corporation has pledged for the benefit of all Obligations or the Bonds of any Tier or Series, but, if the pledge is not for the benefit of all Obligations, the amounts reasonably expected to be received may only be taken into account when making the calculation for the affected Obligations.

In the event that for any Fiscal Year Revenues of the System are less than the amounts contemplated above for such Fiscal Year, the Corporation will, before the 15th day of March of the following Fiscal Year, request the Traffic Consultant to make and file its recommendations with the Corporation, the Commission and the Trustee as to a revision in the Toll Rate Schedule then in effect, in order to cause the raising and production of such Revenues of the System in a manner which will enable the Corporation to produce at the earliest feasible time such Revenues of the System in at least the amounts contemplated above for each such Fiscal Year. The Commission covenants that it will promptly and carefully consider such recommendations, and that it will, within sixty days after receipt of such recommendations, either (i) place into effect any Toll Rate Schedule recommended by the Traffic Consultant, or (ii) place into effect any alternative Toll Rate Schedule which, in the opinion of the Commission, will enable it to comply with the covenants described in the previous paragraph.

Anything in the Toll Rate Agreement or the Trust Agreement to the contrary notwithstanding, if the Commission complies with all recommendations of the Traffic Consultant (or such independent engineer or engineering firm or corporation as provided in the Toll Rate Agreement) with respect to the Toll Rate Schedule, it will not constitute an Event of Default under the provisions of the Toll Rate Agreement or the Trust Agreement, if there is a deficiency in any Fiscal Year or Years between the Revenues of the System for such Fiscal Year or Years and the amount required to be produced for such Fiscal Year or Years. However, in the event of any such deficiency, and regardless of any recommendations of the Traffic Consultant or others, or compliance therewith by the Commission, the Trustee may, and the Trustee shall, upon the written request of the Owners of not less than twenty percent (20%) in aggregate principal amount of the Bonds then Outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Commission to comply with its covenant in the Toll Rate Agreement to adopt and keep in effect a Toll Rate Schedule which will raise and produce during each Fiscal Year an amount of Revenues of the System as described above for such Fiscal Year, or to comply with any other covenant as described above. The Commission has covenanted that it will comply with any final order, decree, or judgment entered in any such proceeding, or any modification thereof.

See "**APPENDIX F — FORM OF TOLL RATE AGREEMENT**" for the form of the Toll Rate Agreement.

Additional Obligations under the Trust Agreement

Under the terms of the TELA, as long as the Toll Equity Loan Commitment (as defined herein) will not be terminated in conjunction with, or any amount due and payable under the Toll Equity Note would be outstanding after, the issuance of Additional Obligations secured by the Trust Agreement or by Revenues of the System, the Corporation may not issue Additional Obligations without prior written approval from TxDOT. Subject to the foregoing, the Corporation reserves the right to issue additional First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations, which obligations may or may not be supported by the TELA.

Additional First Tier Obligations. The Corporation may issue additional First Tier Obligations in accordance with the requirements of the Trust Agreement, including delivery of a certificate by a Corporation Representative (except in the case of the issuance of refunding First Tier Obligations to refund Outstanding First Tier Obligations which do not cause an increase in then existing annual Debt Service Requirements of First Tier Obligations in any Fiscal Year) certifying that:

(i) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.50 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and any then Outstanding Second Tier Obligations and Subordinate Tier Obligations that are deemed to be First Tier Obligations upon the occurrence and during the continuance of any Bankruptcy Related Event of the Corporation (excluding any such First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered;

(ii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.30 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and Second Tier Obligations (excluding any First Tier Obligations or Second Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered; and

(iii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.10 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered; provided that for this clause (iii), the Corporation Representative may assume that Senior Net Revenues include the amounts forecasted to be on deposit in the Rate Stabilization Fund during any Construction and Ramp-up Period.

The Corporation is not required to certify as to the revenue coverage described above in connection with the issuance of any First Tier Obligations (i) issued to refund any Series 2013C Bonds and/or Taxable Series 2013D Bonds, (ii) issued to refund any obligations that refunded any of the Series 2013C Bonds and/or the Taxable Series 2013D Bonds or (iii) initially delivered to USDOT or other Governmental Lender for certain eligible costs and the proceeds of which are to be used to retire any of the Series 2013C Bonds and/or the Taxable Series 2013D Bonds or obligations described in clause (ii) above.

Additional Second Tier Obligations. The Corporation may issue Second Tier Obligations in accordance with the requirements of the Trust Agreement, including delivery of a certificate by a Corporation Representative (except in the case of the issuance of refunding Second Tier Obligations to refund Outstanding First Tier Obligations and/or Second Tier Obligations where the annual Debt Service Requirements of such refunding Second Tier Obligations in any Fiscal Year is less than the aggregated Debt Service Requirements in each such Fiscal Year of the First Tier Obligations and Second Tier Obligations being refunded) certifying that:

(i) for the issuance of Second Tier Obligations which are to be TIFIA Obligations that could be deemed to be First Tier Obligations upon the occurrence and during the continuance of any Bankruptcy Related Event of the Corporation, the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.50 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and any then Outstanding Second Tier Obligations and Subordinate Tier Obligations that are deemed to be First Tier Obligations upon the occurrence and during the continuance of any Bankruptcy Related Event of the Corporation (excluding any such First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the Second Tier Obligations which are to be TIFIA Obligations then proposed to be delivered; and

(ii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.30 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and Second Tier Obligations (excluding any First Tier Obligations or Second Tier Obligations being refunded) and the Second Tier Obligations then proposed to be delivered; and

(iii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.10 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations being refunded) and the Second Tier Obligations then proposed to be delivered; provided that for this clause (iii), the Corporation Representative may assume that Senior Net Revenues include the amounts forecasted to be on deposit in the Rate Stabilization Fund during any Construction and Ramp-up Period.

The Corporation is not required to certify as to the revenue coverage described above in connection with the issuance of any Second Tier Obligations (i) issued to refund any Series 2013C Bonds and/or Taxable Series 2013D Bonds, (ii) issued to refund any obligations that refunded any of the Series 2013C Bonds and/or the Taxable Series 2013D Bonds or

(iii) initially delivered to USDOT or other Governmental Lender for certain eligible costs and the proceeds of which are to be used to retire any of the Series 2013C Bonds and/or the Taxable Series 2013D Bonds or obligations described in clause (ii) above.

Additional Subordinate Tier Obligations. The Corporation may issue additional Subordinate Tier Obligations in accordance with the requirements of the Trust Agreement, including delivery of a certificate by a Corporation Representative (except in the case of the issuance of refunding Subordinate Tier Obligations to refund Outstanding First Tier Obligations, Second Tier Obligations and/or Subordinate Tier Obligations which the annual Debt Service Requirements of such refunding Subordinate Tier Obligations in any Fiscal Year is less than the aggregated Debt Service Requirements of the First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) certifying that:

(i) for the issuance of Subordinate Tier Obligations which are to be TIFIA Obligations that could be deemed to be First Tier Obligations upon the occurrence and during the continuance of any Bankruptcy Related Event of the Corporation, the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.50 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and any then Outstanding Second Tier Obligations and Subordinate Tier Obligations that are deemed to be First Tier Obligations upon the occurrence and during the continuance of any Bankruptcy Related Event of the Corporation (excluding any such First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the Subordinate Tier Obligations which are to be TIFIA Obligations then proposed to be delivered; and

(ii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.10 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations being refunded) and the Subordinate Tier Obligations then proposed to be delivered; provided that for this clause (ii), the Corporation Representative may assume that Senior Net Revenues include the amounts forecasted to be on deposit in the Rate Stabilization Fund during any Construction and Ramp-up Period.

The Corporation is not required to certify as to the revenue coverage described above in connection with the issuance of any Subordinate Tier Obligations (i) issued to refund any Series 2013C Bonds and/or Taxable Series 2013D Bonds, (ii) issued to refund any obligations that refunded any of the Series 2013C Bonds and/or the Taxable Series 2013D Bonds or (iii) initially delivered to USDOT or other Governmental Lender for certain eligible costs and the proceeds of which are to be used to retire any of the Series 2013C Bonds and/or the Taxable Series 2013D Bonds or obligations described in clause (ii) above.

Completion Obligations. The Corporation may issue additional First Tier Obligations and/or Subordinate Tier Obligations ("*Completion Obligations*") to finance the costs of completion of the initial System without complying with the provisions described above for the issuance of additional Obligations. The aggregate principal amount of such Completion Obligations may not exceed 10% of the principal amount of the Bonds. Prior to the issuance of such Completion Obligations, the Corporation must deliver to the Trustee a certificate of the General Engineering Consultant stating: (i) that at the time the Bonds were issued, the Corporation had reason to believe that the proceeds of the Bonds, together with any other moneys then expected to be available, would provide sufficient moneys for the completion of the initial System (ii) the amount estimated to be needed to so complete the initial System; and (iii) that the proceeds of all such Completion Obligations to be applied to the completion of the initial System, together with a reasonable estimate by a Corporation Representative of (1) investment income to be earned on the proceeds of all such Completion Obligations and available to pay such costs, (2) the amount of moneys, if any, committed to such completion from available cash or marketable securities and reasonably estimated earnings thereon, (3) enumerated bank loans (including letters or lines of credit), and (4) any other moneys reasonably expected to be available, will be in an amount not less than the estimated amount needed to complete the initial System set forth in such certificate of the General Engineering Consultant. The principal amount of the Completion Obligations may include the amount required to (I) provide completed and equipped facilities of substantially the same type and scope contemplated at the time the Bonds were originally issued, (II) provide for capitalized interest during the period of construction, (III) provide the required deposit, if any, in any reserve funds, and (IV) pay the costs and expenses of issuing such Completion Obligations.

TELA/Other Tier Debt Obligations. The Corporation, without the consent of any Owner, reserves the right to amend or supplement any Toll Equity Loan Agreement and execute and deliver additional Toll Equity Notes and the related Toll Equity Loan Agreements and incur the related additional TELA/Other Tier Debt Obligations to evidence any Toll Equity Loan in connection with any Toll Equity Loan Agreement. See "**TOLL EQUITY LOAN AGREEMENT – Amendments.**"

See "APPENDIX C — DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT" for further details on the issuance of additional First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations and the ability to amend or supplement the TELA or deliver additional Toll Equity Notes and related Toll Equity Loan Agreements.

Outstanding Obligations

Upon the issuance of the Bonds, (i) the Series 2013A Bonds will be the only First Tier Obligations, (ii) the Series 2013B Bonds, the Series 2013C Bonds, the Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds will be the only Subordinate Tier Obligations, and (iii) the Toll Equity Loan Note will be the only TELA/Other Tier Obligations under the Trust Agreement. Upon the issuance of the Bonds, there will be no outstanding Second Tier Obligations under the Trust Agreement.

TOLL EQUITY LOAN AGREEMENT

General

Capitalized terms used in this section "TOLL EQUITY LOAN AGREEMENT" not otherwise defined herein have the meaning set forth in "APPENDIX D — TOLL EQUITY LOAN AGREEMENT". The Corporation has entered into the TELA with TxDOT. Pursuant to the TELA, TxDOT will make a toll equity loan (the "*Toll Equity Loan*") available to the Corporation in the maximum aggregate principal amount of \$9.6 billion, limited as described herein (the "*Maximum Available Aggregate Amount*"). The TELA contains the representations, commitments and obligations of the Corporation and TxDOT related to TxDOT's agreement to make advances of funds in respect of Eligible Costs (as defined below) relating to the development, construction, operation, maintenance and financing of the System and possible extensions and expansions of the Grand Parkway Project paid by the Corporation, up to the Maximum Available Aggregate Amount (the "*Toll Equity Loan Commitment*"), subject to certain other limitations in the TELA, when toll revenues and Trust Agreement fund balances are insufficient for such purposes. The Toll Equity Loan Commitment will not exceed the Maximum Available Aggregate Amount and advances thereunder may not cause the aggregate principal amount of all advances (i) in any of the Draw Periods to exceed the Maximum Available Annual Amount applicable to any such Draw Periods as set forth below (see " — **Maximum Available Annual Amount and Annual TELA-Supported Debt Service and TELA Supported Junior Operating Expenses**" below), and (ii) taking into account such advance and all prior advances, to exceed the aggregate amount of Eligible Costs. In no event may any advance cause the aggregate amount of all advances under the TELA to exceed the amount of Eligible Costs. As used herein, "*Eligible Costs*" are amounts expended or incurred, or reasonably anticipated to be expended or incurred, by the Corporation for Project Costs, Major Maintenance Expenses and Operating Expenses (which includes TELA Supported Junior Operating Expenses for Segments D (Harris County), E, F-1, F-2 and G). The obligation of TxDOT to make advances under the TELA is also subject to legislative appropriation as described under " — **Appropriation and Other Matters Affecting TxDOT TELA Advances**" below. See "APPENDIX D — TOLL EQUITY LOAN AGREEMENT" for a copy of the TELA.

Toll Equity Loan

At any time that Revenues of the System and balances in certain Trust Agreement funds and accounts are insufficient to pay debt service on the TELA Bonds or certain operations and maintenance costs, advances under the TELA may be used to pay debt service on the TELA Bonds as well as Operating Expenses and Major Maintenance Expenses during the term of the Toll Equity Loan and, in all cases, up to the Maximum Available Aggregate Amount, to the extent amounts to be drawn or advanced are within the amount of Eligible Costs calculated from time to time in accordance with the TELA and subject to the Maximum Available Annual Amounts for each year and the Maximum Permitted Amount, each as set forth in the TELA. Disbursements of the Toll Equity Loan are available during each year the TELA Bonds are outstanding in Maximum Available Annual Amounts ranging from approximately \$3.1 million to \$579.9 million and may only be drawn upon if Revenues of the System and certain fund balances under the Trust Agreement are insufficient to pay debt service on the TELA Bonds, Operating Expenses or Major Maintenance Expenses when due. Each such draw shall be requested by the Trustee, pursuant to a certificate demonstrating, among other things, an insufficiency of the amounts available in any capitalized interest fund, the Revenue Fund, the applicable Debt Service Funds, the Junior Operation and Maintenance Fund, the Operation and Maintenance Reserve Fund, the Major Maintenance Fund, the Rate Stabilization Fund and the Grand Parkway Enhancement Fund for the purposes permitted therefor under the Trust Agreement, and that the requested draw does not exceed (i) the Maximum Permitted Amount, (ii) when added to the amounts advanced under the Toll Equity Loan Commitment during the current draw period, will not exceed the Maximum Available Annual Amount for such draw period and (iii) when added to all advances under the Toll Equity Loan Commitment will not exceed the aggregate amount of Eligible Costs. The Trustee may not draw upon the TELA to pay either (i) the redemption price of any TELA Bonds due as a result of an optional redemption of such Bonds by the Corporation or (ii) the purchase price of any TELA Bonds due as a

result of an optional or mandatory tender for such Bonds. See "**RISK FACTORS — Conditions Affecting TELA Advances by TxDOT – Other TELA Issues.**"

The "*Maximum Permitted Amount*" is the debt service payments associated with the TELA Project Debt (including the TELA Bonds) for the applicable period for which an advance is requested, plus Operating Expenses and Major Maintenance Expenses up to the amounts for the applicable period as set forth in the annual budget approved by the Corporation and TxDOT, but minus (i) balances available in the Trust Agreement funds for the payment of capitalized interest on such TELA Project Debt for the applicable period to the extent that a portion of a requested advance is to be used to pay interest on such TELA Project Debt, (ii) any deposit of Revenues into the applicable Debt Service Funds that are available to pay principal of or interest on such TELA Project Debt, and (iii) any amounts in the Junior Operation and Maintenance Fund, Operation and Maintenance Reserve Fund, Major Maintenance Fund, Rate Stabilization Fund and Grand Parkway Enhancement Fund that are available to pay principal and interest on TELA Project Debt, Operating Expenses and Major Maintenance Expenses, as applicable; provided, however, that for purposes of calculating the Maximum Permitted Amount, debt service associated with the applicable TELA Project Debt will not include (i) the redemption price of any TELA Project Debt due as a result of the Corporation's election to optionally redeem such TELA Project Debt or (ii) the purchase price of any TELA Project Debt due as a result of any optional or mandatory tender of such TELA Project Debt.

The initial project budget is attached to the TELA as Appendix D (see "**APPENDIX D – TOLL EQUITY LOAN AGREEMENT**"). The project budget may be amended by mutual agreement of the Corporation and TxDOT within 90 days of Substantial Completion of the last segment of Segments D (Harris County), E, F-1, F-2 or G to achieve Substantial Completion.

Advances under the TELA are subject to the Maximum Available Aggregate Amount, but shall not exceed with any advance (i) the Maximum Permitted Amount for the applicable period, (ii) when added to other amounts advanced under the Toll Equity Loan Commitment during the current Draw Period, the Maximum Available Annual Amount for such Draw Period and (iii) when taking into account such advance and all prior advances, the aggregate amount of Eligible Costs. In addition to the foregoing limitations, the obligations of TxDOT to make advances under the TELA are subject to legislative appropriation by the State Legislature in a manner that would allow use of the funds to be advanced for such purpose. The legislative appropriation requirements, together with the Maximum Available Aggregate Amount, the Maximum Available Annual Amount, the Maximum Permitted Amount and the Eligible Cost limitations are referred to herein as the "*TxDOT Exposure Limitations.*"

If the principal amount of advances under the Toll Equity Loan Commitment made in a given Draw Period is less than the Maximum Available Annual Amount for such Draw Period (or if no Toll Equity Loans have been made in such Draw Period), the difference will not be carried forward and may not be applied to increase the amount available to be advanced in any future Draw Period. Amounts drawn under the Toll Equity Loan must be repaid by the Corporation and such amount and interest thereon will constitute TELA/Other Tier Obligations under the Trust Agreement and will be subordinate to the Bonds and Junior Operating Expenses. The unpaid amount of each advance under the Toll Equity Loan Commitment will bear interest from the date of such advance to the date on which such advance and the interest thereon are repaid in full at a rate per annum equal to the ten-year "Aaa (pure)" rate provided by Municipal Market Data and published in The Bond Buyer under the caption "Municipal Market Data General Obligation Yields" on the day such advance is made, plus 100 basis points; provided, however, if the ten year "Aaa (pure)" rate is no longer provided by Municipal Market Data, the rate to be used in its place shall be that rate which most closely replicates such rate, as agreed to by the Corporation and TxDOT.

The Corporation has structured the debt service for the TELA Bonds so that in each year, through the maturity of such TELA Bonds, total debt service for the TELA Bonds plus currently estimated TELA Supported Junior Operating Expenses for that year do not exceed the Maximum Available Annual Amount for that year; provided, however, there are no assurances that the Maximum Available Annual Amount will be sufficient to cover actual TELA Supported Junior Operating Expenses in any particular year. While Major Maintenance Expenses are an Eligible Cost under the TELA, the Maximum Available Annual Amount is not expected to be sufficient to cover the combination of total debt service for the TELA Bonds plus currently estimated TELA Supported Junior Operating Expenses plus Major Maintenance Expenses in any given year. See "**RISK FACTORS - Conditions Affecting TELA Advances by TxDOT – Other TELA Issues.**" In the event that the Corporation refunds the Series 2013C Bonds and/or the Taxable Series 2013D Bonds, the Corporation may adjust the Maximum Available Annual Amounts as a result of the reduction in TELA-supported debt service; provided that any such adjustment shall be subject to the limitations described under "**- Amendments**" below. See "**APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND**" for additional information regarding TxDOT and the State Highway Fund.

Maximum Available Annual Amount and Annual TELA-Supported Debt Service and TELA Supported Junior Operating Expenses

The following table sets out the Maximum Available Annual Amount under the TELA and the estimated aggregate amount of debt service on the TELA Bonds and TELA Supported Junior Operating Expenses in each year through the final maturity of the TELA Bonds.

FYE 31-Aug	TELA Supported Net Debt Service ⁽¹⁾	Estimated TELA Supported Junior Operating Expenses ⁽²⁾	Annual TELA Supported Debt Service and Estimated TELA Supported Junior Operating Expenses	TELA Maximum Available Annual Amount ("MAAA")	TELA MAAA / Annual TELA Supported Debt Service and Estimated TELA Supported Junior Operating Expenses
A	B	C = A + B	D	E = D / C	
2014	\$ 0	\$3,109,364	\$3,109,364	\$3,109,364	100.0%
2015	318,784,222	5,546,501	324,330,723	324,730,396	100.1%
2016	289,422,355	14,475,113	303,897,468	304,271,960	100.1%
2017	289,513,101	22,242,952	311,756,053	312,140,230	100.1%
2018	273,322,580	25,972,967	299,295,547	299,664,369	100.1%
2019	77,090,480	29,717,317	106,807,797	106,939,416	100.1%
2020	77,090,480	32,700,746	109,791,226	109,926,522	100.1%
2021	77,090,480	35,720,910	112,811,391	112,950,408	100.1%
2022	77,090,480	38,635,026	115,725,507	115,868,115	100.1%
2023	77,090,480	41,919,838	119,010,319	119,156,975	100.1%
2024	90,969,257	45,352,833	136,322,090	136,490,080	100.1%
2025	104,848,033	48,972,632	153,820,665	154,010,218	100.1%
2026	104,848,033	52,399,969	157,248,002	157,441,779	100.1%
2027	104,848,033	54,973,631	159,821,664	160,018,612	100.1%
2028	104,848,033	58,028,326	162,876,359	163,077,072	100.1%
2029	104,848,033	61,353,830	166,201,863	166,406,673	100.1%
2030	106,886,305	64,521,623	171,407,928	171,619,154	100.1%
2031	111,640,934	67,908,444	179,549,378	179,770,636	100.1%
2032	116,123,990	71,600,207	187,724,198	187,955,530	100.1%
2033	120,865,085	75,372,096	196,237,182	196,479,005	100.1%
2034	125,646,330	79,538,010	205,184,340	205,437,189	100.1%
2035	130,682,452	84,023,176	214,705,628	214,970,210	100.1%
2036	135,860,735	88,747,114	224,607,849	224,884,633	100.1%
2037	140,952,019	92,866,925	233,818,944	234,107,079	100.1%
2038	145,060,868	97,531,392	242,592,260	242,891,206	100.1%
2039	148,210,062	102,254,451	250,464,513	250,773,161	100.1%
2040	150,325,636	107,153,029	257,478,665	257,795,956	100.1%
2041	151,499,787	111,273,567	262,773,354	263,097,169	100.1%
2042	151,490,670	116,028,782	267,519,452	267,849,116	100.1%
2043	118,998,065	121,142,466	240,140,531	240,436,456	100.1%
2044	77,545,768	126,585,603	204,131,370	204,382,921	100.1%
2045	151,108,243	131,695,151	282,803,393	283,151,892	100.1%
2046	147,142,078	136,840,701	283,982,778	284,332,730	100.1%
2047	142,316,978	141,929,896	284,246,874	284,597,151	100.1%
2048	136,609,171	147,353,328	283,962,499	284,312,426	100.1%
2049	130,201,906	153,105,230	283,307,136	283,656,256	100.1%
2050	122,938,269	158,943,444	281,881,713	282,229,075	100.1%
2051	309,486,731	164,551,313	474,038,044	474,622,201	100.1%
2052	409,014,831	170,210,023	579,224,855	579,938,633	100.1%
2053	396,257,625	175,481,992	571,739,617	572,444,172	100.1%
2054	-	181,839,772	181,839,772	182,063,854	100.1%
Total	\$6,048,568,620	\$3,539,619,690	\$9,588,188,309	\$9,600,000,000	

Note: Totals may not add due to rounding.

⁽¹⁾ Net of capitalized interest; assumes Series 2013C Bonds and Taxable Series 2013D Bonds convert to their Stepped Coupon Rates of 8% and 10%, respectively, at the Mandatory Tender Date and pay at such Stepped Coupon Rates until their maturity dates.

⁽²⁾ As estimated by the Grand Parkway Engineer's Report prepared by Jacobs Engineering Group Inc. If actual Revenues of the System and/or TELA Supported Junior Operating Expenses differ from their estimates, the Maximum Available Annual Amount may not be sufficient to cover TELA Supported Junior Operating Expenses. See "RISK FACTORS - Conditions Affecting TELA Advances by TxDOT – Other TELA Issues."

Pledge and Assignment

Under the TELA, TxDOT consents to the pledge and assignment and the grant to the Trustee of a lien on and a security interest in, all of the Corporation's right, title and interest in, to and under the TELA, pursuant to the terms and conditions of the Trust Agreement, as collateral security for all of the obligations secured or purported to be secured by the Trust Agreement.

Under the TELA, TxDOT agrees that, as a result of the pledge and assignment referred to above, the Trustee will have the full right and power, in the exercise of the Trustee's rights and remedies under the Trust Agreement, to enforce directly against TxDOT all obligations of TxDOT under the TELA, to exercise all other rights and remedies of the Corporation under the TELA and to make all demands and requests and give all notices required or permitted to be made by the Corporation or the Trustee under the TELA.

Appropriation and Other Matters Affecting TxDOT TELA Advances

Under the TELA, TxDOT covenants that it will submit a request in accordance with applicable law to obtain an appropriation from the State Legislature to fulfill its obligation to make advances under the Toll Equity Loan Commitment, but not to exceed the Maximum Available Annual Amount for the Draw Periods included in the legislative request. Failure to honor a request by the Trustee for an advance under the Toll Equity Loan Commitment due solely to the fact that funds have not been appropriated to TxDOT by the State Legislature in a manner that would allow its use for such purpose will not constitute an Event of Default by TxDOT under the TELA. **If TxDOT fails to honor a request by the Trustee for an advance under the Toll Equity Loan Commitment solely because funds have not been appropriated to TxDOT by the State Legislature in a manner that would allow its use for such purpose, TxDOT will have no obligation to fund such request on any date subsequent to such failure.**

Although the TELA does not specify a particular source of funds for making advances, TxDOT has stated its current intention is to make payments from the State Highway Fund (the "*State Highway Fund*"). The State Highway Fund is the general source for a substantial portion of funding for the State highway system, TxDOT, and the administration of State laws relating to traffic and safety on public roads. The revenues deposited into the State Highway Fund are comprised of federal transportation program funds (or reimbursements from federal funds), State motor fuel taxes, State motor vehicle registration fees and State motor lubricants sales taxes, which revenues may fluctuate based on certain factors. With respect to the priority of payments to be made from revenues in the State Highway Fund, TxDOT's payments of amounts due under the TELA (together with payments under all other toll equity agreements and pass-through toll agreements) have a lower priority of payment from the State Highway Fund than the payment of any outstanding TxDOT bond and credit obligations and commercial paper or tax and revenue anticipation notes, but have the same priority of payment as TxDOT's pass-through toll agreement obligations, other toll equity loan agreements, payments made for the delivery of Comprehensive Development Agreements ("*CDAs*") and similar obligations. Additionally, TxDOT has the ability to establish additional liens for obligations that may be senior to or on parity with its TELA obligations. See "**RISK FACTORS — Conditions Affecting TELA Advances by TxDOT — TxDOT Obligations Payable from the State Highway Fund**" and "**APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND**" for additional information regarding TxDOT and the State Highway Fund.

Term

The undisbursed amount of the Toll Equity Loan Commitment will be available for advances until the earlier of (i) the final maturity date of the TELA Project Debt, including the TELA Bonds and any bonds issued to redeem or defease, in whole or in part, the outstanding principal amount of such TELA Project Debt, the interest on and principal of which is eligible to be paid from advances under the Toll Equity Loan Commitment, and (ii) the date of the defeasance or refunding in whole of such debt, the effect of which is to terminate the Toll Equity Loan Commitment.

Fee

On the first day of the Fiscal Year following the 10th anniversary of the effective date of the TELA and on the first day of each Fiscal Year thereafter, the Corporation shall pay to TxDOT, from unencumbered amounts on deposit in the Grand Parkway Enhancement Fund, a non-refundable amount equal to three percent of that Fiscal Year's Maximum Available Annual Amount. The Corporation's failure to pay such amounts shall not constitute a default under the TELA, unless sufficient unencumbered funds are on deposit in the Grand Parkway Enhancement Fund to make such payment; provided that in any event any accrued unpaid amounts shall be due and payable in full on the termination date of the TELA.

Control Rights

Pursuant to the Trust Agreement, as long as TxDOT has not failed to honor a draw request under the TELA, whether due to Non-Appropriation Event or otherwise:

(a) TxDOT shall be deemed to be the Owner of all Toll Equity Loan Supported Obligations for purposes of (i) exercising all remedies and directing the Trustee to take actions or for any other purposes following an Event of Default under the Trust Agreement, and (ii) granting any consent (other than a consent described in the second paragraph of “**TOLL EQUITY LOAN AGREEMENT - Amendments**” and as otherwise described in “**APPENDIX C — DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT – SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Actions Relating to Certain Financing Documents**”), direction or approval or taking any action permitted by or required under the Trust Agreement to be granted or taken by the Owners of such Toll Equity Loan Supported Obligations.

(b) Anything in the Trust Agreement to the contrary notwithstanding, upon the occurrence and continuance of an Event of Default under the Trust Agreement, TxDOT shall be entitled to control and direct the enforcement of all rights and remedies granted to the Owners of Toll Equity Supported Obligations or the Trustee for the benefit of such Owners of Toll Equity Loan Supported Obligations under the Trust Agreement.

Payment of TELA

Interest on the Toll Equity Loan shall be paid on the first Business Day of each month from amounts available therefor in the TELA/Other Tier Payment Fund. The principal amount of the Toll Equity Loan is required to be paid prior to maturity on the first business day of each month from amounts available therefor in the TELA/Other Tier Payment Fund. The Toll Equity Note and all other payment obligations of the Corporation owed to TxDOT under the TELA will constitute TELA/Other Tier Obligations under the Trust Agreement.

Corporation Events of Default

The following events, among others, constitute "Events of Default" under the TELA:

- (a) The Corporation fails to operate and maintain the System in accordance with the Project Agreement and such failure could reasonably be expected to have a Material Adverse Effect; unless such failure is remedied within ninety (90) days after TxDOT gives notice thereof to the Corporation, *provided, however*, that if said default is such that it cannot by its nature with due diligence be cured within the said 90-day period but can be cured, it will not constitute an Event of Default if curative action is commenced by the Corporation within said 90-day period and diligently pursued until the default is cured.
- (b) With respect to any of Segments D (Harris County), E, F-1, F-2 and G for which Substantial Completion has not occurred as of the Effective Date, Substantial Completion for any of such segments has not occurred by the date that is twelve months after the Estimated Date of Completion (taking into account force majeure) for such segment.
- (c) After the start of construction and prior to Substantial Completion of any of Segments D (Harris County), E, F-1, F-2 and G, the construction of that segment is abandoned, which could reasonably be expected to have a Material Adverse Effect; *provided that* abandonment of the construction of a segment will be deemed to have occurred if no significant construction (taking into account the construction schedule and permitted delay as a result of force majeure) is carried out without reasonable cause, for a continuous period of ninety (90) days.
- (d) The operation or maintenance of the System or any material part thereof is suspended or abandoned; *provided that*, suspension or abandonment of the System will be deemed to have occurred, after the first Service Commencement Date for any of Segments D (Harris County), E, F-1, F-2 and G, if the Corporation fails, without reasonable cause, to operate the System (taking into account force majeure) for a continuous period of ninety (90) days.
- (e) The occurrence of an “Event of Default” under and as defined in the Trust Agreement.

A default or event of default under the TELA will not constitute a default or event of default under the Trust Agreement. See "**APPENDIX D – TOLL EQUITY LOAN AGREEMENT**" for a complete list of "Events of Default" under the TELA.

Remedies

TxDOT may exercise certain remedies under the TELA upon or after the occurrence of an Event of Default, including, among others, the following: (i) by suit, action or proceeding in equity, enjoin any acts or things that are unlawful or the violation of any rights of TxDOT and the Trustee; (ii) seek an action in mandamus against the Corporation and/or seek the appointment of a receiver; and (iii) exercise, or cause to be exercised, any and all such remedies as it may have under the TELA, the other Finance Documents or any other document or at law or in equity. See "**APPENDIX D – TOLL EQUITY LOAN AGREEMENT**" for a complete list of TxDOT's remedies under the TELA.

Amendments

Pursuant to the TELA, the TELA may be amended in a written instrument signed and delivered by the Corporation and TxDOT, it being understood that any such amendment may require Commission action. Additional restrictions and requirements related to amending the TELA are set forth in the Trust Agreement and described below.

Without the prior written direction or consent of the Owners of not less than a majority of the aggregate principal amount of the Toll Equity Loan Supported Obligations then Outstanding, (i) neither the Corporation nor the Trustee may sell, assign, delegate or otherwise transfer any of its rights or obligations under the Toll Equity Loan Agreement (including the TELA) or consent to or accept any such assignment, delegation or other transfer of rights and obligations under the Toll Equity Loan Agreement; (ii) the Trustee may not assume any obligation of the Corporation under the Toll Equity Loan Agreement, and (iii) neither the Corporation nor the Trustee may amend, modify or supplement the Toll Equity Loan Agreement (other than is contemplated in the next paragraph and the provisions of the Trust Agreement providing for the issuance of additional First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Debt Obligations) in a manner that is materially adverse to the Owners of Toll Equity Loan Supported Obligations. The Trustee may not amend, modify or supplement the Toll Equity Loan Agreement without the prior written consent of the Corporation.

Notwithstanding any other provision in the Trust Agreement to the contrary except and subject to the provisions of this subsection and the provisions of the following two paragraphs, neither the consent of any Owner of Obligations, of any Bond Insurer nor of the Trustee shall be required for (i) a new Toll Equity Loan Agreement, (ii) any amendment, modification or supplement to any existing Toll Equity Loan Agreement for any adjustment to the Maximum Available Aggregate Amount, the Maximum Available Annual Amount for any Fiscal Year or the Project Budget for any Fiscal Year, as may be required in connection with the issuance of Additional Obligations pursuant to the terms and conditions of the Trust Agreement, or (iii) for any other amendment, modification or supplement to a Toll Equity Loan Agreement in connection therewith so long as such other amendment, modification or supplement does not adversely modify the obligations of TxDOT to pay any Draw Request under any such existing Toll Equity Loan Agreement.

The Corporation, without the consent of any Owner, reserves the right to amend or supplement the Initial Toll Equity Note and TELA, execute and deliver additional Toll Equity Notes and the related Toll Equity Loan Agreements and incur the related additional TELA/Other Tier Debt Obligations to evidence any Toll Equity Loan in connection with any Toll Equity Loan Agreement in accordance with the provisions of the Trust Agreement providing for the issuance of additional First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations. The Toll Equity Note, as so amended, supplemented or subsequently delivered, and any such additional TELA/Other Tier Debt Obligations shall be secured by and payable from a lien on and pledge of the Trust Estate equally and ratably with, and in the same manner and to the same extent as the Outstanding TELA/Other Tier Obligations, and shall be payable from and secured by the TELA/Other Tier Payment Fund and shall be in all respects of equal dignity and on a parity with any then Outstanding TELA/Other Tier Obligations.

In addition, the Corporation, without the consent of any Owner, reserves the right to amend or supplement any Toll Equity Note and the related Toll Equity Loan Agreement (including the TELA), in any manner provided that, as certified by the Corporation Representative, (i) the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations and the estimated TELA Supported Junior Operating Expenses (as certified by the General Engineering Consultant) for the current Fiscal Year and in each Fiscal Year any Toll Equity Loan Supported Obligations are Outstanding is less than or equal to the applicable aggregate Maximum Available Annual Amount for each such Fiscal Year as set forth in any outstanding Toll Equity Loan Agreements, as amended or supplemented or (ii) if prior to any amendment or supplement, there is any Fiscal Year (including the then current Fiscal Year) in which the applicable aggregate Maximum Available Annual Amount for such Fiscal Year as set forth

in any outstanding Toll Equity Loan Agreements is less than the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations and the estimated TELA Supported Junior Operating Expenses (as certified by the General Engineering Consultant for the current Fiscal Year and in each Fiscal Year any Toll Equity Loan Supported Obligations are Outstanding) for any such Fiscal Year (in each such Fiscal Year, a "TELA Coverage Deficit"), then the amendment or supplement to any outstanding Toll Equity Loan Agreements must (A) reduce the TELA Coverage Deficit in each Fiscal Year such a deficit occurs and (B) for all other Fiscal Years that do not have a TELA Coverage Deficit, not create a TELA Coverage Deficit in any such Fiscal Year.

TRAFFIC AND REVENUE STUDY

General

CDM Smith Inc. ("CDM Smith") issued its Comprehensive Traffic and Revenue Study Update Final Report dated June 26, 2013 (the "*Traffic and Revenue Study*") for Segments D (Harris County), E, F-1, F-2 and G to estimate traffic and toll revenue for such segments. The Traffic and Revenue Study is a major update of the Comprehensive Traffic and Revenue Study conducted by CDM Smith in 2011 for TxDOT and HCTRA. The Traffic and Revenue Study evaluates the traffic and revenue potential of Segments D (Harris County), E, F-1, F-2 and G. Segments D (Harris County), E, F-1, F-2 and G were assumed to be opened to traffic in phases, with Segments D (Harris County) and E expected to be open to traffic December 2013 (except for two direct connectors of Segment E that are expected to be completed in May 2014) with tolling beginning in February 2014 and Segments F-1, F-2 and G expected to be open to traffic in January 2016 with tolling beginning in February 2016. The base case forecast assumes that each of Segments D (Harris County), E, F-1, F-2 and G would be constructed as a four-lane controlled access toll road with intermittent frontage roads. The portion of Segment D located in Fort Bend County ("*Segment D (Fort Bend County)*") includes a free highway section from the southern terminus of Segment D (Harris County) to Westpark Tollway and existing free lanes from Westpark Tollway to US Highway 59(S) where several tolled mainline overpasses are proposed to enable toll-paying customers to bypass the current at-grade signalized interchanges within this portion of Segment D (Fort Bend County). These tolled overpasses are currently under construction and are expected to be open to traffic by December 2013. The Traffic and Revenue Study only includes the connectivity impact of the Segment D (Fort Bend County) section on the forecasts for Segments D (Harris County), E, F-1, F-2 and G, and does not reflect any transactions or revenues directly resulting from the tolled section of Segment D (Fort Bend County). Other than Segment D (Fort Bend County), the forecast does not include the impact of any other segment of the Grand Parkway Project on Segments D (Harris County), E, F-1, F-2 and G. The study was conducted at an investment grade level and is considered suitable for use in project financing. See "**RISK FACTORS – Forward-Looking Statements**" and "**– Traffic and Revenue Study.**"

Data Collection

The Traffic and Revenue Study utilizes detailed data collected at numerous locations during late 2010 and 2011, including new traffic counts and travel time studies, travel pattern surveys, new market research on the willingness-to-pay tolls, and an update of the socioeconomic growth potential of the Houston region conducted in 2012 and prepared by Community Development Strategies ("CDS"), an independent local economist firm. Using this detailed information, CDM Smith refined the Houston-Galveston Area Council ("*H-GAC*") regional travel demand model for use in estimating the traffic and revenue potential of Segments D (Harris County), E, F-1, F-2 and G. The H-GAC regional travel demand model is cooperatively developed and maintained by the H-GAC, TxDOT and the Metropolitan Transit Authority of Harris County, Texas.

A series of data collection exercises was conducted in the region in February, May and June 2011 that included the collection of automatic traffic recording counts, speed and delay studies and origin and destination surveys. Automatic traffic counts were conducted for 48 hours in April, May and June 2011 on 28 different highway sections in the region. In February 2011, speed and delay studies were conducted on approximately 50 roadway segments in the region. Origin and destination surveys of drivers in the region were also conducted during the months of April and May 2011.

Socioeconomic Forecasts

The Traffic and Revenue Study utilizes H-GAC's 2040 regional growth forecasts that present estimates for population, households, and employment in a 13-county area, however, as part of the study, CDM Smith retained CDS to conduct an independent analysis of the validity of the socioeconomic data. Along with H-GAC's regional forecast, CDS considered seven independent forecasts of population from respected organizations and three independent forecasts of employment. CDS determined that the H-GAC 2040 regional growth forecasts were reasonable and appropriate to form the basis of the small area forecasts used in the Traffic and Revenue Study. For small area growth, CDS predicted a higher share of the growth in the Segments D (Harris County) to G corridor than the H-GAC forecasts.

The region, Montgomery and Fort Bend Counties in particular, has sustained very high growth rates in population, employment and other key demographic and economic variables over the past 40 years. Population growth is one of the

principal measures of the economic vitality of any area because increasing population is generally the result of more jobs, a high level of immigration and a stable or expanding economy. The total population in the region has increased by an average annual rate of 2.5 percent from 1970 to 2010. The population of the region is projected to reach 6.4 million by 2015 and 9.6 million by 2035. Harris County is the most populous county in the region with more than 4 million people out of 5.9 million in the region in 2010. The most rapidly growing counties, Fort Bend and Montgomery, averaged approximately 6 percent per year in population growth between 1970 and 2010. High concentration of population growth is forecasted to continue to occur in the areas near the Segments D (Harris County) to G corridor.

Toll Transaction and Revenue Forecasts

Base case traffic and toll revenue estimates in the Traffic and Revenue Study are based on the following basic assumptions:

1. The various segments of the Grand Parkway System would be opened as shown in the Traffic and Revenue Study and no other segments are opened except for Segment D (Fort Bend County).
2. Segments D (Harris County), E, F-1, F-2 and G will be ETC-only toll facilities. Video tolling will not be utilized.
3. Segment D (Fort Bend County) tolled sections will also be an ETC-only toll facility. Video tolling will not be used at any stage on the Segment D (Harris County) corridor.
4. Ramp-up factors of 0.61, 0.85 and 0.95 were applied to the first three years of operation of each segment.
5. The first month of operation of Segments D (Harris County) and E (January 2014) and Segments F-1, F-2 and G (January 2016) is assumed to be toll free. These initial free month(s) are included to reflect the Corporation's anticipated marketing campaign to allow users to become familiar with the System's access locations, travel time savings and route options.
6. Tolls on the existing Harris County and Fort Bend County toll systems, along with those on future expansion sections and new toll road facilities, are all assumed to be increased annually at 2.25 percent until 2014 and 2.5 percent annually thereafter.
7. For regional toll roads, prior to 2035 it is assumed transponder usage will continue to grow as toll agencies move toward all electronic tolling. The remaining cash collection will be phased out. Beginning in 2035, all vehicles in the region are assumed to be equipped for electronic toll collection.
8. Expansion will not take place on an as-needed basis and capacity constraints have been applied in the peak periods in outer years when capacity constraints of the future facility have been exceeded.
9. Future population and employment will be in line with those estimated by the independent economist both in scale and distribution.
10. The revenue leakage estimates are provided to reflect the HCTRA business rules and indicate the transaction and revenue leakage prior to the application of administration and violation fees. Optimization of these fees with the associated collection and processing costs is likely to lessen the net revenue leakage impact.
11. No other competing facilities, toll or toll-free, beyond those included in the H-GAC regional transportation plan, and/or the toll road expansion programs of TxDOT and the Harris County and Fort Bend County toll systems, shall be implemented within the forecast period.
12. The System will be properly maintained, efficiently operated and appropriately promoted and signed to encourage maximum usage.
13. No national, regional or local emergency will occur which would abnormally restrict the use of motor vehicles for the duration of the forecast period.
14. Motor fuel will remain in adequate supply for the forecast period, and overall long-term increases in price will not be substantially greater than the rate of inflation.

The Traffic and Revenue Study also assumes a toll rate of \$0.177 per mile in 2012 and a minimum base year toll rate per transaction of \$0.40. CDM Smith anticipates that any significant departure from these key assumptions could have a material impact on traffic and toll revenue forecasts.

Toll sensitivity analysis was conducted for the model year 2015. The sensitivity analyses indicated that the proposed toll rates for the System are well below the estimated theoretical revenue maximization point. This demonstrates

that, if needed, there is considerable potential for revenue enhancement through toll increases above current rates and the escalated rates assumed for forecasting purposes.

The following table presents estimated annual toll revenue on Segments D (Harris County), E, F-1, F-2 and G. Annual toll revenues have been adjusted to reflect "ramp-up" during the first several years of operation. Annual fiscal year end toll revenue (less non-collectible revenue) is expected to be approximately \$46.3 million in year 2016 and to reach \$415.1 million by 2035. Annual fiscal year end toll revenue (less non-collectible revenue) is anticipated to be \$922.1 million in 2054. Toll revenue numbers beyond 2035 were extrapolated from the 2035 data using nominal growth rates for transactions of 2.5% (2036 through 2040), 2.0% (2041 through 2045), 1.5% (2046 through 2050), and 1.0% (2051 through 2054). For a complete copy of the Traffic and Revenue Study, see "**APPENDIX G — TRAFFIC AND REVENUE STUDY.**"

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Estimated Annual Toll Revenue for Segments D (Harris County), E, F-1, F-2 and G

(in thousands)

FYE 31-Aug	Segment D (Harris County)	Segment E	Segment F-1	Segment F-2	Segment G	Total Toll Revenues	Less Non-Collectible Revenue ⁽¹⁾	Total Net Toll Revenues
2014	\$1,415	\$5,934	\$0	\$0	\$0	\$7,349	(\$325)	\$7,024
2015	3,481	15,028	0	0	0	18,509	(800)	17,709
2016	4,660	21,435	4,843	8,026	9,345	48,309	(2,007)	46,302
2017	5,460	26,288	11,282	19,386	22,884	85,300	(3,442)	81,858
2018	6,016	29,381	14,702	25,845	30,872	106,816	(4,158)	102,658
2019	6,592	33,245	17,881	31,442	37,238	126,398	(4,750)	121,648
2020	7,203	37,141	21,216	35,795	41,908	143,263	(5,209)	138,054
2021	7,817	40,782	26,429	40,007	45,884	160,919	(5,652)	155,267
2022	8,560	45,313	28,440	43,611	50,686	176,610	(5,990)	170,620
2023	9,375	50,414	30,999	47,775	56,128	194,691	(6,389)	188,302
2024	10,244	55,852	33,604	51,970	61,820	213,490	(6,770)	206,720
2025	11,125	61,436	37,235	56,494	67,416	233,706	(7,174)	226,532
2026	11,927	66,087	42,979	60,733	71,764	253,490	(7,532)	245,958
2027	12,596	69,810	45,169	63,472	76,094	267,141	(7,683)	259,458
2028	13,400	75,074	46,768	66,566	81,380	283,188	(7,888)	275,300
2029	14,308	82,611	46,571	69,660	87,803	300,953	(8,123)	292,830
2030	15,123	87,442	49,458	73,042	93,116	318,181	(8,323)	309,858
2031	16,001	92,854	52,370	76,599	98,888	336,712	(8,538)	328,174
2032	16,959	98,537	55,879	80,548	105,171	357,094	(8,784)	348,310
2033	17,940	104,316	59,538	84,528	111,613	377,935	(9,021)	368,914
2034	19,030	110,754	63,614	88,959	118,785	401,142	(9,296)	391,846
2035	19,954	115,984	69,150	92,531	127,002	424,621	(9,560)	415,061
2036	20,468	118,442	76,613	94,600	135,800	445,923	(9,940)	435,983
2037	21,457	124,121	80,406	99,261	142,537	467,782	(10,430)	457,352
2038	22,576	130,528	85,212	104,437	150,586	493,339	(11,000)	482,339
2039	23,742	137,267	89,680	109,838	158,436	518,963	(11,570)	507,393
2040	24,958	144,295	94,274	115,460	166,545	545,532	(12,162)	533,370
2041	25,953	150,056	98,037	120,070	173,197	567,313	(12,649)	554,664
2042	27,121	156,794	102,439	125,463	180,977	592,794	(13,219)	579,575
2043	28,381	164,086	107,206	131,299	189,389	620,361	(13,833)	606,528
2044	29,729	171,878	112,293	137,530	198,385	649,815	(14,487)	635,328
2045	30,979	179,112	117,020	143,321	206,733	677,165	(15,100)	662,065
2046	32,237	186,374	121,765	149,130	215,114	704,620	(15,713)	688,907
2047	33,471	193,520	126,434	154,850	223,365	731,640	(16,309)	715,331
2048	34,793	201,162	131,427	160,963	232,185	760,530	(16,956)	743,574
2049	36,201	209,292	136,738	167,470	241,568	791,269	(17,643)	773,626
2050	37,627	217,542	142,129	174,070	251,092	822,460	(18,341)	804,119
2051	38,984	225,389	147,254	180,350	260,147	852,124	(18,999)	833,125
2052	40,351	233,280	152,410	186,663	269,255	881,959	(19,663)	862,296
2053	41,599	240,522	157,141	192,458	277,613	909,333	(20,271)	889,062
2054	43,147	249,449	162,974	199,602	287,920	943,092	(21,028)	922,064
Total	\$832,960	\$4,758,827	\$2,999,579	\$3,863,824	\$5,356,641	\$17,811,831	(\$426,727)	\$17,385,104

Source: Traffic and Revenue Study

⁽¹⁾ As described in Section 6 of the Traffic and Revenue Study.

ENGINEER'S REPORT

Jacobs Engineering Group Inc. has prepared a Grand Parkway Engineer's Report dated June 26, 2013 (the "*Engineer's Report*") that documents and describes the location, construction schedules, cost estimates, and operation and maintenance expense estimates for Segments F-1, F-2 and G including estimates of toll collection and toll system maintenance costs for the System resulting from the use of TxDOT's toll collection and enforcement infrastructure, and law enforcement/patrol costs and fees relating to interoperability of the System's tolling infrastructure with that of other tolling systems within the State. The Engineer's Report also includes the operation and maintenance estimates and risk components for Segment D (Harris County) and Segment E. The operation and maintenance expense estimates for the initial System are shown in the table under "**ESTIMATED TOLL REVENUES AND EXPENSES AND ESTIMATED DEBT SERVICE COVERAGE.**"

A copy of the report is attached to this Official Statement as "**APPENDIX H – ENGINEER'S REPORT.**" The Corporation has engaged CH2M HILL to be the general engineering consultant for the System and, after issuance of the Bonds, will perform the progress reporting and other Trust Agreement required functions on the System.

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PRO FORMA DEBT SERVICE REQUIREMENTS

Set forth in the table below are the total debt service requirements for the outstanding obligations of the Corporation secured by the Revenues of the Grand Parkway System.

FYE 31-Aug	First Tier Series 2013A Debt Service			Subordinate Tier Series 2013B/C/D/E (TELA-Supported Bonds) Debt Service ⁽¹⁾			Total System Net Debt Service
	Principal	Interest	Total Series 2013A Net Debt Service	Principal	Interest/Compounded Interest	Total Series 2013B-E Net Debt Service	
2014	\$0	\$0	\$0	\$0	\$0	\$0	\$0
2015	0	0	0	285,000,000	0	285,000,000	285,000,000
2016	0	676,313	676,313	240,000,000	4,818,155	244,818,155	245,494,468
2017	0	4,801,824	4,801,824	230,000,000	34,208,901	264,208,901	269,010,725
2018	0	10,821,013	10,821,013	188,330,000	68,959,868	257,289,868	268,110,880
2019	0	10,821,013	10,821,013	0	77,090,480	77,090,480	87,911,493
2020	0	10,821,013	10,821,013	0	77,090,480	77,090,480	87,911,493
2021	0	10,821,013	10,821,013	0	77,090,480	77,090,480	87,911,493
2022	0	10,821,013	10,821,013	0	77,090,480	77,090,480	87,911,493
2023	0	10,821,013	10,821,013	0	77,090,480	77,090,480	87,911,493
2024	0	10,821,013	10,821,013	0	90,969,257	90,969,257	101,790,269
2025	0	10,821,013	10,821,013	0	104,848,033	104,848,033	115,669,045
2026	0	10,821,013	10,821,013	0	104,848,033	104,848,033	115,669,045
2027	0	10,821,013	10,821,013	0	104,848,033	104,848,033	115,669,045
2028	0	10,821,013	10,821,013	0	104,848,033	104,848,033	115,669,045
2029	0	10,821,013	10,821,013	0	104,848,033	104,848,033	115,669,045
2030	0	10,821,013	10,821,013	1,271,284	105,615,021	106,886,305	117,707,318
2031	0	10,821,013	10,821,013	4,261,060	107,379,874	111,640,934	122,461,947
2032	330,000	10,812,556	11,142,556	7,150,229	108,973,761	116,123,990	127,266,547
2033	740,000	10,785,138	11,525,138	10,322,902	110,542,183	120,865,085	132,390,223
2034	1,180,000	10,735,938	11,915,938	13,641,803	112,004,527	125,646,330	137,562,268
2035	1,660,000	10,663,163	12,323,163	17,328,473	113,353,978	130,682,452	143,005,614
2036	2,175,000	10,564,891	12,739,891	21,280,689	114,580,046	135,860,735	148,600,626
2037	2,735,000	10,439,072	13,174,072	31,928,091	109,023,928	140,952,019	154,126,090
2038	3,340,000	10,283,400	13,623,400	50,865,000	94,195,868	145,060,868	158,684,268
2039	3,990,000	10,095,569	14,085,569	56,805,000	91,405,062	148,210,062	162,295,631
2040	4,690,000	9,873,144	14,563,144	62,000,000	88,325,636	150,325,636	164,888,780
2041	5,445,000	9,613,434	15,058,434	66,505,000	84,994,787	151,499,787	166,558,221
2042	6,255,000	9,313,622	15,568,622	70,035,000	81,455,670	151,490,670	167,059,292
2043	7,125,000	8,970,759	16,095,759	40,405,000	78,593,065	118,998,065	135,093,824
2044	8,065,000	8,581,516	16,646,516	0	77,545,768	77,545,768	94,192,283
2045	9,065,000	8,125,563	17,190,563	42,562,093	108,546,150	151,108,243	168,298,805
2046	10,175,000	7,596,463	17,771,463	42,587,149	104,554,929	147,142,078	164,913,540
2047	11,365,000	7,004,113	18,369,113	42,352,293	99,964,684	142,316,978	160,686,090
2048	12,645,000	6,343,838	18,988,838	41,400,430	95,208,741	136,609,171	155,598,009
2049	14,015,000	5,610,688	19,625,688	59,313,359	70,888,547	130,201,906	149,827,594
2050	15,490,000	4,799,300	20,289,300	68,675,000	54,263,269	122,938,269	143,227,569
2051	17,065,000	3,904,038	20,969,038	263,955,000	45,531,731	309,486,731	330,455,769
2052	18,755,000	2,918,988	21,673,988	380,165,000	28,849,831	409,014,831	430,688,819
2053	43,695,000	1,837,825	45,532,825	381,935,000	14,322,625	396,257,625	441,790,450
Total	\$200,000,000	\$335,845,325	\$535,845,325	\$2,720,074,856	\$3,208,768,429	\$5,928,843,285	\$6,464,688,610

Note: All interest shown net of capitalized interest. Totals may not add due to rounding.

⁽¹⁾ Debt service associated with the Series 2013C Bonds and Taxable Series 2013D Bonds after the end of the Initial Multiannual Period assumes continual remarketing in Multiannual Mode at 1.50% and 2.0%, respectively, through December 28, 2016 and 5.0% thereafter until maturity, and that principal is redeemed per their respective mandatory sinking fund redemption schedules.

ESTIMATED TOLL REVENUES AND EXPENSES AND ESTIMATED DEBT SERVICE COVERAGE

FYE 31-Aug	Projected Senior Net Revenues ⁽¹⁾	First Tier Net Debt Service ⁽²⁾	First Tier Net Debt Service Coverage	Subordinate Net Debt Service ⁽³⁾	Consolidated Debt Service Coverage	TELA Supported Junior Operating Expenses ⁽⁴⁾	Cashflow after TELA Supported Junior Operating Expenses ⁽⁵⁾
	A	B	C = A / B	D	E = A / (B+D)	F	G = A - B - D - F
2014	\$7,024,000	\$0	n/a	\$0	n/a	\$3,109,364	\$3,914,636
2015	17,709,000	0	n/a	0	n/a	5,546,501	12,162,499
2016	46,302,000	676,313	68.46x	5,399,972	7.62x	14,475,113	25,750,602
2017	81,858,000	4,801,824	17.05x	39,591,308	1.84x	22,242,952	15,221,915
2018	102,658,000	10,821,013	9.49x	91,744,060	1.00x	25,972,967	0
2019	121,648,000	10,821,013	11.24x	99,294,060	1.10x	29,717,317	0
2020	138,054,000	10,821,013	12.76x	94,274,060	1.31x	32,700,746	258,182
2021	155,267,000	10,821,013	14.35x	108,174,060	1.30x	35,720,910	551,017
2022	170,620,000	10,821,013	15.77x	114,899,060	1.36x	38,635,026	6,264,901
2023	188,302,000	10,821,013	17.40x	122,624,060	1.41x	41,919,838	12,937,089
2024	206,720,000	10,821,013	19.10x	134,987,836	1.42x	45,352,833	15,558,318
2025	226,532,000	10,821,013	20.93x	147,781,612	1.43x	48,972,632	18,956,743
2026	245,958,000	10,821,013	22.73x	155,501,612	1.48x	52,399,969	27,235,406
2027	259,458,000	10,821,013	23.98x	159,941,612	1.52x	54,973,631	33,721,744
2028	275,300,000	10,821,013	25.44x	165,376,612	1.56x	58,028,326	41,074,049
2029	292,830,000	10,821,013	27.06x	171,436,612	1.61x	61,353,830	49,218,545
2030	309,858,000	10,821,013	28.63x	177,709,885	1.64x	64,521,623	56,805,480
2031	328,174,000	10,821,013	30.33x	185,279,514	1.67x	67,908,444	64,165,030
2032	348,310,000	11,142,556	31.26x	193,182,570	1.70x	71,600,207	72,384,667
2033	368,914,000	11,525,138	32.01x	201,118,665	1.73x	75,372,096	80,898,101
2034	391,846,000	11,915,938	32.88x	209,879,910	1.77x	79,538,010	90,512,143
2035	415,061,000	12,323,163	33.68x	218,591,031	1.80x	84,023,176	100,123,630
2036	435,983,000	12,739,891	34.22x	226,119,315	1.83x	88,747,114	108,376,681
2037	457,352,000	13,174,072	34.72x	233,605,598	1.85x	92,866,925	117,705,405
2038	482,339,000	13,623,400	35.41x	242,079,448	1.89x	97,531,392	129,104,761
2039	507,393,000	14,085,569	36.02x	250,033,641	1.92x	102,254,451	141,019,338
2040	533,370,000	14,563,144	36.62x	257,789,216	1.96x	107,153,029	153,864,612
2041	554,664,000	15,058,434	36.83x	263,133,366	1.99x	111,273,567	165,198,632
2042	579,575,000	15,568,622	37.23x	269,349,249	2.03x	116,028,782	178,628,347
2043	606,528,000	16,095,759	37.68x	275,847,895	2.08x	121,142,466	193,441,880
2044	635,328,000	16,646,516	38.17x	282,513,347	2.12x	126,585,603	209,582,535
2045	662,065,000	17,190,563	38.51x	287,887,322	2.17x	131,695,151	225,291,965
2046	688,907,000	17,771,463	38.76x	292,721,157	2.22x	136,840,701	241,573,680
2047	715,331,000	18,369,113	38.94x	296,931,057	2.27x	141,929,896	258,100,934
2048	743,574,000	18,988,838	39.16x	301,328,251	2.32x	147,353,328	275,903,584
2049	773,626,000	19,625,688	39.42x	305,955,986	2.38x	153,105,230	294,939,097
2050	804,119,000	20,289,300	39.63x	310,245,692	2.43x	158,943,444	314,640,564
2051	833,125,000	20,969,038	39.73x	377,469,615	2.09x	164,551,313	270,135,035
2052	862,296,000	21,673,988	39.78x	409,014,831	2.00x	170,210,023	261,397,158
2053	889,062,000	45,532,825	19.53x	396,257,625	2.01x	175,481,992	271,789,558
Total	\$17,385,104,000	\$535,845,325		\$8,075,070,723		\$3,539,619,690	\$5,278,632,690

Note: Totals may not add due to rounding.

⁽¹⁾ As estimated by the Traffic and Revenue Study.

⁽²⁾ Net of capitalized interest.

⁽³⁾ Net of capitalized interest; assumes refunding of Series 2013C Bonds with TELA-supported Subordinate Tier Bonds with all-in TIC of 5.53% on the Series 2013C Mandatory Tender Date; debt service associated with the Taxable Series 2013D Bonds after the end of the Initial Multiannual Period assumes refunding with TELA-supported Subordinate Tier Bonds and reamortization at a rate of 1.50% through December 28, 2016 and a rate of 5.0% thereafter.

⁽⁴⁾ As estimated by the Engineer's Report. There are no Senior Operating Expenses for the initial System; TELA Supported Junior Operating Expenses are projected to be covered by funds on deposit in certain reserve funds in fiscal years 2018 and 2019.

⁽⁵⁾ Defined as Junior Net Revenues in the Trust Agreement; net of projected draws on certain reserve funds in fiscal years 2018 and 2019.

CERTAIN PROJECT DOCUMENTS

Development Agreement

General. The Development Agreement contains the representations, commitments and obligations of the Developer and the Corporation related to the development, design, construction and maintenance of Segments F-1, F-2 and G. Construction is scheduled to be completed in January 2016. While the Development Agreement has been assigned by TxDOT to the Corporation; TxDOT will have certain obligations with respect to the construction of Segments F-1, F-2 and G (see “- **Project Agreement – Obligations of TxDOT with respect to Segments F-1, F-2 and G**”). Pursuant to the Development Agreement, the Corporation will pay to the Developer a base price of \$1,007,053,000.00 for the development, design and construction of Segments F-1, F-2 and G and \$36,500,000 for certain options exercised by TxDOT. The price may be increased or decreased by a change order or a value engineering adjustment or increased due to certain notice-to-proceed delays.

Developer Obligations. The Developer is required to furnish all design and other services, provide all materials, equipment and labor and undertake all efforts necessary or appropriate (excluding only those materials, services and efforts which the contract documents expressly specify will be undertaken by the Corporation or other persons) to design and construct Segments F-1, F-2 and G and maintain such segments during construction in accordance with the requirements of the contract documents. The Developer is responsible for performing and the costs (excluding the purchase price of certain right-of-way identified in the NEPA approvals) of all rights-of-way, engineering, surveying, appraisals, administration, acquisition, environmental and related services for parcels purchased by the Corporation, including all costs and expenses of negotiation and, if necessary, support services for condemnation proceedings. The Developer will perform all right-of-way acquisition services other than those related to condemnation and the payment of the purchase price for certain right-of-way identified in the NEPA approvals.

The Developer is responsible for performing, or causing to perform, at the Developer's expense (other than new and certain unidentified utilities), each and every adjustment of utilities including all coordination, design, design review, permitting, construction, inspection, payment, maintenance of records, and work necessary for relinquishment of existing utility property interests, preparation of utility joint use agreements, and acquisition of new property interests required for reinstallation of a utility in a new location. The Developer bears all risks for delays due to any failure of a utility owner to cooperate for up to 90 days; past 90 days of delay if the Developer demonstrates that it has made diligent efforts to obtain the utility owner's cooperation the Developer will be entitled to a time extension of one day for each two days of delay.

If at any time during the term of the Development Agreement the total combined tangible net worth of the Developer and its equity members and any guarantors is less than \$200 million, the Developer is required to provide one or more guarantees so that such combined tangible net worth is at least \$200 million.

The Developer is required to provide payment, performance, retainage and warranty bonds to the Corporation securing the Developer's obligations under the Development Agreement and maintain such bonds in full force and effect. The amount of payment and performance bonds required is \$50 million at the first notice-to-proceed and \$788.9 million at the second notice-to-proceed. The amount of the warranty bond at final acceptance is \$100 million. The amount of the retainage bond is 4% of the contract price.

Corporation/TxDOT Obligations. TxDOT is responsible for the acquisition of certain right-of-way identified in the NEPA approvals (except that the cost of right-of-way is reimbursable by the Corporation in accordance with the Project Agreement). The Corporation has received environmental clearance for Segments F-1, F-2 and G. TxDOT and the Developer are at risk for any hazardous substance costs as follows: the first \$3 million of costs are the Developer's responsibility; costs between \$3-4.5 million are shared equally between TxDOT and the Developer; and costs greater than \$4.5 million are TxDOT's responsibility. The Corporation is at risk for certain defined force majeure events. TxDOT will have certain other obligations with respect to the construction of Segments F-1, F-2 and G (see “- **Project Agreement – Obligations of TxDOT with respect to Segments F-1, F-2 and G**”).

Project Schedule. The Developer is liable for and will pay to the Corporation liquidated damages with respect to any failure to achieve substantial completion and final acceptance of any Segment by the applicable completion deadline. The amounts of such liquidated damages are as follows: for Segment F-1, \$39,000 for each day after the applicable substantial completion deadline; for Segment F-2, \$54,000 for each day after the applicable substantial completion deadline; and for Segment G, \$54,000 for each day after the applicable substantial completion deadline and through the date of substantial completion for the applicable segment, but not to exceed 365 days for any Segment; and for each Segment, \$1,400 per day for each day after the applicable final acceptance deadline and through the date of the applicable final acceptance. The Developer is also liable for liquidated damages with respect to any failure to complete the toll zones (areas around gantries) by the applicable deadline. The amounts of such liquidated damages are between \$5,528 and \$5,850 per day, depending on the segment for each day after the applicable completion deadline. Under the Trust Agreement, any liquidated

damages are to be used to pay System development and construction costs or, if there are no such costs, debt service on the Bonds.

Maintenance. Pursuant to the Capital Maintenance Agreement, the Developer is responsible for the maintenance of roadways (including pavement, crossovers, concrete joints and curbs), structures, earthworks, embankments and cuttings of Segments F-1, F-2 and G's for an initial five-year term with two additional five-year terms at the Corporation's option. The Developer's obligations under the Capital Maintenance Agreement for any segment commences at the end of the warranty period, which is one year after final acceptance of such segment. The Developer is required to maintain Segments F-1, F-2 and G in accordance with prescribed standards. The Developer is required to provide a maintenance performance bond, a maintenance payment bond and a retainage bond to the Corporation securing the Developer's obligations under the Capital Maintenance Agreement and maintain such bonds in full force and effect. If at any time during the term of the Capital Maintenance Agreement the total combined tangible net worth of the Developer and its equity members and any guarantors is less than \$200 million, the Developer is required to provide one or more guarantees so that such combined tangible net worth is at least \$200 million.

Developer Defaults. The Development Agreement provides for certain "Developer Defaults", including the failure to commence and complete work on time, the failure to comply with the Development Agreement and other contract documents, and the occurrence of certain bankruptcy-related events or of an event of default under the Capital Maintenance Agreement. Certain Developer Defaults entitle the Developer to receive notice and opportunity to cure within certain time periods.

Remedies. At the end of any notice and cure period, the Corporation may declare that an "Event of Default" has occurred and shall then have the right to terminate the Development Agreement or a portion thereof, deduct certain amounts from payments due to the Developer, perform the Developer's obligations under the Development Agreement and other contract documents and exercise any other rights and remedies available under the Development Agreement or available at law or in equity including making demand upon and enforcing the payment, performance, retainage and warranty bonds, as applicable. The Developer and any guarantor are jointly and severally liable to the Corporation for all costs reasonably incurred by the Corporation or any person acting on the Corporation's behalf in completing the work or having the work completed by another person. In addition to collecting liquidated damages, the Corporation may terminate the Development Agreement at no cost if there are delays to the substantial completion date and there is no approved recovery schedule showing completion within 180 days after the then current substantial completion date.

Termination. The Corporation may, at any time, terminate the Development Agreement and the performance of the work by the Developer, in whole or in part, if the Corporation determines, in its sole discretion, that a termination is in the Corporation's best interest. The Developer may terminate the Development Agreement if the Corporation fails to issue the first notice-to-proceed within 365 days after the effective date and may conditionally terminate the Development Agreement if the Corporation fails to issue the second notice-to-proceed within 270 days after the first notice-to-proceed. The Developer also may terminate the Development Agreement for non-payment of more than 180 days.

See "**APPENDIX E — THE DEVELOPMENT AGREEMENT**" for a copy of the executed Development Agreement (excluding all schedules and appendices thereto).

The Developer

The Developer, Zachry-Odebrecht Parkway Builders, is a joint venture comprised of Zachry Construction Corporation, a Delaware corporation ("Zachry"), and Odebrecht Construction, Inc., a Florida corporation ("Odebrecht"), each of whom owns fifty percent of the joint venture. Zachry and Odebrecht are jointly and severally liable for the obligations of the Developer under the Development Agreement.

Zachry, which is headquartered in San Antonio, Texas, is a leading highway contractor. With a fleet of more than 1,200 pieces of equipment, Zachry and its affiliates have performed over \$1 billion in surface transportation projects in the last five years. Odebrecht, which has major offices in Coral Gables, Florida and Houston, Texas, is a United States subsidiary of the Brazil-based Odebrecht Group of companies, a diversified family of businesses in the fields of engineering, construction, chemicals energy, water utilities and petrochemicals. The Odebrecht Group operates in more than 20 countries and employs more than 170,000 people worldwide, and has built infrastructure, including roads, bridges, subways, power plants, ports and airports, and railroads, around the world.

Zachry's prior design-build projects include the Americas Interchange Project (as a joint venture member of Americas Gateway Builders) and the Dallas-Fort Worth (DFW) Connector Project (as a joint venture member of NorthGate Constructors). The DFW Connector Project is an 8.4-mile project designed to improve mobility around the DFW Airport, which is scheduled for substantial completion in 2013, currently seven months ahead of the original contract completion date. Additionally, Zachry is a member of Central Texas Highway Constructors, LLC, the design-builder for the developer on the State Highway 130, Segments 5 and 6 Project. Prior design-build projects of Odebrecht include the Miami International

Airport Automated People Mover and the Initiative for the Integration of the Regional Infrastructure of South America (South Peru).

Project Agreement

General. The Corporation and TxDOT have entered into a Project Agreement (the “*Project Agreement*”) that provides the terms and conditions upon which the Corporation will undertake its responsibilities with respect to the System and upon which TxDOT will provide toll collection and enforcement services and personnel and advisory support for the System, assign agreements relating to the construction, maintenance and operation of the System to the Corporation and contribute to the Corporation the revenues generated from or related to the operation of the System and any additions to the System as a toll highway.

TxDOT owns and will own during the term of the Project Agreement the roadway and all access roads and appurtenant facilities comprising the System and the rights-of-way related thereto. Pursuant to the Project Agreement, TxDOT will grant a license to the Corporation to use the rights-of-way for the purposes of performing the Corporation’s responsibilities under the Project Agreement and related project documents.

TxDOT is entitled to reimbursement by the Corporation for its personnel costs and out-of-pocket expenses with respect to the development of the System, and for the provision of services and related expenses for the further costs of development, operations and maintenance. TxDOT has assigned or will assign, and the Corporation has assumed or will assume, all right, title and interest of TxDOT under the Development Agreement, the Capital Maintenance Agreement and the design-bid-build contracts for Segment D (Harris County) and Segment E. TxDOT and the Corporation have entered into an Assignment and Assumption Agreement dated as of March 22, 2013 pursuant to which TxDOT assigned to the Corporation its right, title and interest under the Development Agreement. After such assignments, the Corporation is responsible for the design and construction of the System, any expansion of the System as approved by the Commission during the term of the Project Agreement and the costs of System right-of-way acquisition. The Corporation is responsible for the maintenance and operation of the System during the term of the Project Agreement, including responsibility for the costs of toll operations and collection of toll revenues from the operation of the System as a toll highway, whether directly or under an assignment to the Corporation of a contract entered into by TxDOT with a third party. The Corporation and TxDOT agree that TxDOT shall provide toll collection and enforcement services for the System, either directly or using the contractors and subcontractors that it is using at any time in question to provide such services to other toll roads and tolled lanes operated by TxDOT. The Corporation, or upon the Corporation’s request, TxDOT acting on behalf of the Corporation, has the authority, without further approval, to enter into contracts with the Department of Public Safety, Harris County and Montgomery County for assistance with enforcement of toll operation and collection for the System, as long as the costs of such services have been included in the relevant annual budget of the Corporation for the System.

To the extent that TxDOT enters into agreements with third parties relating only to the System for the operation or maintenance of the System, installation of toll integration facilities and equipment, design and construction of buildings and improvements, access roadways, toll collection equipment and services, law enforcement, major maintenance and repair work or the procurement of any other facilities, improvements, equipment and services necessary for the operation and maintenance of the System, (i) TxDOT will assign its rights and responsibilities to the Corporation to the extent that the agreement relates to work to be performed by the third party counterparty with respect to the System; and (ii) the Corporation will direct the Trustee to pay all amounts payable to the counterparty when due for work performed with respect to the System, provided that any amounts payable prior to substantial completion may be advanced by TxDOT, subject to any required legislative appropriation, but the Corporation shall cause the Trustee to reimburse TxDOT for such amounts advanced.

Obligations of TxDOT. Notwithstanding anything in the Project Agreement to the contrary, but subject to the last sentence of this paragraph, the assignment by TxDOT to the Corporation of its liabilities and obligations with respect to the design, development, construction, operation or maintenance of the System shall not include, and TxDOT shall perform or cause to be performed and discharge or cause to be discharged as and when due, any debts, liabilities and obligations, whether such debts, liabilities or obligations are initially charged to the Corporation, (i) with respect to TxDOT’s obligations under the Project Agreement; (ii) arising with respect to the System prior to the date of the Project Agreement or the applicable assignment agreement, as applicable (except that such liabilities may be subject to reimbursement from the Corporation as set forth in the Project Agreement); (iii) with respect to any contracts or agreements related to the System that are not assigned or otherwise conveyed to the Corporation; (iv) under any environmental law arising out of or relating to the System not covered in the ordinary course; (v) with respect to any hazardous materials or waste or other contaminant present or released on or migrated or escaped from the System not covered in the ordinary course; (vi) obligations of TxDOT to acquire right-of-way (except that the cost of right-of-way is reimbursable by the Corporation in accordance with the Project Agreement); and (vii) with respect to any claims, losses, actions, suits, judgments, investigations, or other liabilities arising out of or relating to any materials testing performed for, or for the benefit of, the applicable contractor in relation to the System (clauses (i) through (vii) are collectively, the “*Excluded Obligations*”). With respect to the Excluded Obligations

described in clauses (iv) and (v), the Corporation shall notify TxDOT, the applicable contractor, and the Trustee in writing of obligations or liabilities encountered by the Corporation that are not covered in the ordinary course, and such obligations or liabilities will be deemed Excluded Obligations by virtue of such notification. Notwithstanding the foregoing, (i) this paragraph shall not apply to the assignment by TxDOT of the Development Agreement or the Capital Maintenance Agreement and (ii) pursuant to separate written agreement or amendment to the Project Agreement, TxDOT and the Corporation may agree to an assignment by TxDOT to the Corporation of any of the Excluded Obligations as specifically set forth in such agreement or amendment.

TxDOT will remain responsible for compliance with all environmental clearances, permits and other governmental approvals required to build and operate the System and will retain liability for any failure to comply with their respective terms, to the same extent as would have been the case absent any assignment of contracts under the Project Agreement or by separate assignment agreements, except to the extent the parties hereto have agreed that the Corporation will bear liability under any environmental law arising out of or relating to the System covered in the ordinary course, and such notification shall be conclusive evidence that such obligations are not covered in the ordinary course; provided that the Corporation agrees to reasonably assist and cooperate with the Department in its compliance with such governmental approvals.

Subject to any assignment agreement or contract entered into by TxDOT and the Corporation in relation to the System, in the event the Corporation incurs an Unexpected Obligation at any time during the term of the Project Agreement, TxDOT, in its discretion, may elect to pay the Unexpected Obligation directly. The Corporation must deliver a request for payment to TxDOT setting forth a description of the Unexpected Obligation, the full amount payable by the Corporation, the date such amount is due and the amount requested to be paid by TxDOT. The Department shall respond promptly to any such request stating whether and to what extent TxDOT will pay such Unexpected Obligation. Any Unexpected Obligation paid by TxDOT shall be reimbursed by the Corporation in accordance the Project Agreement. "Unexpected Obligation" means any debts, liabilities and obligations initially charged to the Corporation with respect to any force majeure, unknown or unidentified utilities, geotechnical differing site conditions or similar situations arising in connection with the design, construction, operation and maintenance of the System not covered in the ordinary course and solely to the extent the Corporation has insufficient funds to satisfy any such debt, liability or obligation when due.

Obligations of TxDOT with respect to Segments F-1, F-2 and G. This paragraph shall apply with respect to obligations or liabilities arising under the Development Agreement and the Capital Maintenance Agreement. Notwithstanding anything to the contrary in the Project Agreement or in any assignment agreement or contract entered into by TxDOT and the Corporation in relation to the Development Agreement or the Capital Maintenance Agreement, TxDOT shall perform or cause to be performed and discharge or cause to be discharged as and when due, any debts, liabilities and obligations, whether such debts, liabilities or obligations are initially charged to the Corporation, (i) with respect to TxDOT's obligations under the Project Agreement; (ii) arising with respect to the Development Agreement, all additional Contract Documents (as defined in the Development Agreement), the Capital Maintenance Agreement and all additional CMA Documents (as defined in the Capital Maintenance Agreement) prior to the date of the respective assignment agreement entered into by TxDOT and the Corporation relating to the Development Agreement and the Capital Maintenance Agreement or the date of the Project Agreement, as applicable, (except that such liabilities may be subject to reimbursement from the Corporation); (iii) with respect to any contracts or agreements related to the System that are not assigned or otherwise conveyed to the Corporation; (iv) under any Environmental Law (as defined in the Development Agreement) arising out of or relating to the System not covered in the ordinary course; (v) with respect to any Hazardous Materials (as defined in the Development Agreement) or other contaminant present or released on or migrated or escaped from the System not covered in the ordinary course; (vi) with respect to obligations to acquire right-of-way for Segments F-1, F-2 and G (except that the cost of right-of-way may be subject to reimbursement from the Corporation); (vii) with respect to any increase in the amount of costs to be borne by a governmental owner of a project for relocation of a utility facility where such increase is due to a change in law that occurs after the date of the Development Agreement; and (viii) with respect to any claims, losses, actions, suits, judgments, investigations, or other liabilities arising out of or relating to any materials testing performed for, or for the benefit of, Developer or the Maintenance Contractor in relation to the System. With respect to the obligations or liabilities described in clauses (iv) and (v), the Corporation shall notify TxDOT in writing of obligations or liabilities encountered by the Corporation that are not covered in the ordinary course. Notwithstanding the foregoing, pursuant to separate written agreement or amendment to the Project Agreement, TxDOT and the Corporation may agree that the Corporation shall be responsible for any of the obligations or liabilities set forth in this paragraph as set forth in such agreement or amendment.

Covenant Against Sale or Encumbrance; Exception. Except as provided in this section, TxDOT covenants that, until the Obligations (including the Bonds) and interest thereon have been paid or provision for such payment shall have been made, and except upon the written request of the Corporation and as otherwise permitted in the Trust Agreement, TxDOT will not sell, lease or otherwise dispose of or encumber the System or any part thereof and will not create or permit to be created any charge or lien on the Revenues of the System derived therefrom; provided that TxDOT, upon the written request of the Corporation, may lease or contract with respect to the operation of service stations or other facilities authorized by State law. TxDOT may, upon the written request of the Corporation, however, from time to time, sell, exchange or otherwise

dispose of any machinery, fixtures, apparatus, tools, instruments or other movable property acquired from the proceeds of Obligations issued on account of the System or from Revenues of the System or otherwise, if the Corporation shall determine that such articles are no longer needed or are no longer useful in connection with the construction or operation and maintenance of the System, and the proceeds thereof shall be applied to the replacement of the properties so sold or disposed of or shall be paid to the Trustee to be held for the credit of the Construction Fund, the Operation and Maintenance Reserve Fund, the Grand Parkway Enhancement Fund or the Debt Service Funds, as the Corporation may direct. TxDOT, at the written request of the Corporation, may, from time to time, sell, exchange or otherwise dispose of any real property or release, relinquish or extinguish any interest therein as the Corporation by resolution shall declare is not needed or serves no useful purpose in connection with the maintenance and operation of the System, and the proceeds thereof, if any, shall be applied as hereinabove provided for the proceeds of the sale or disposal of movable property. Notwithstanding the foregoing, it is acknowledged and agreed that nothing herein shall prevent TxDOT, at the written request of the Corporation, from re-conveying or allowing the reversion of property leased or otherwise acquired upon the termination of the lease or agreement pursuant to which such property was originally acquired.

Upon any disposition of property under the provisions of this section, TxDOT and the Corporation shall notify the Trustee thereof and the amount and disposition of the proceeds thereof.

In the event TxDOT or the Corporation receives any payment or other proceeds in respect of a total or partial condemnation of the System, TxDOT and the Corporation shall cause such proceeds to be deposited to the Construction Fund and utilized for any repairs or modifications of the System necessary or desirable as a result of such condemnation. If no such repairs or modifications are necessary or desirable, the proceeds of such condemnation shall be deposited to the Revenue Fund and applied as provided in the Trust Agreement.

Right to Transfer System. TxDOT reserves the right to transfer all or any part of the System upon the prior written request of the Corporation and the satisfaction of the following conditions: (1) each Rating Agency then maintaining a rating on the Outstanding Obligations issues a letter to the Corporation and TxDOT to the effect that the transfer would not have the effect of causing the Rating Agency to lower the existing rating on any of the Obligations then Outstanding; (2) TxDOT delivers to the Corporation and the Trustee an opinion of general counsel of TxDOT or a law firm acting as counsel to TxDOT to the effect that the transfer is authorized by law; (3) the Corporation delivers an opinion of Bond Counsel to the Trustee to the effect that the transfer will not adversely affect the treatment for federal income tax purposes of interest on any Outstanding Tax-Exempt Obligations; and (4) the Executive Director of TxDOT and the Corporation Representative deliver a certificate to the effect that (i) the Commission will be in compliance with the provisions of the Rate Covenant in the Toll Rate Agreement after giving effect to the proposed transfer, (ii) the Outstanding Obligations remaining outstanding, after giving effect to the proposed transfer, would comply with the requirements of the Trust Agreement regarding issuance of additional Obligations as if such obligations were being issued as Additional Obligations at the time of such transfer, and (iii) after giving effect to the proposed transfer, no default will have occurred and be continuing under the Trust Agreement. Such certificate shall be based upon the certifications of the General Engineering Consultant, the Traffic Consultant and the Corporation Representative required under the provisions of the Trust Agreement regarding issuance of additional Obligations.

Toll Collection and Operations

TxDOT and TransCore, LP, TxDOT's statewide toll integrator, have entered into a Statewide Toll System Integration and Maintenance Agreement effective as of June 18, 2012 (the "*Toll System Integrator Agreement*") that provides for the design, construction, installation, and maintenance of open-road toll collection systems on projects designated by TxDOT pursuant to the terms thereof. TxDOT has chosen to negotiate a "Project Segment Supplement" with TransCore under the Toll System Integrator Agreement with respect to the System that will provide toll infrastructure for the System and the transmission of toll transactions to the statewide customer service center located in Austin, Texas. TransCore will be required to provide toll maintenance services, including the costs associated with maintaining the toll collection, the electronic toll collection system, the traffic management system, the network control system and the provision of maintenance transportation, for a period of up to nine years. TransCore will be responsible for ensuring the toll collection systems meet the performance requirements set forth in its contract during the entire contract period.

TxDOT owns and operates a statewide customer service center that receives information from various toll road operators in the State regarding the use of toll roads in the State, and provides clearinghouse services and back office functions relating to the operation of certain toll roads including call center operations, account management and maintenance, transponder issuance and replacement, invoicing, toll collection, violation processing and enforcement, revenue handling, and accounting and customer service support. Pursuant to the Project Agreement the Corporation will agree with TxDOT regarding the use of TxDOT's toll collection and enforcement infrastructure for the System. Customer service will be managed and overseen by the TxDOT Toll Operations Division staff and their program management consultant. In

January 2013, TxDOT received proposals to procure a new program management consultant to support the operation of the customer service center and consolidate back office systems and services such as accounting and internal audit, customer service, violation processing and enforcement, toll equipment maintenance, quality assurance and program management. TxDOT has entered into a contract with Xerox State and Local Solutions, Inc. to be the new program management consultant and service provider. TxDOT expects Xerox to begin services by March 2014.

The System will use a closed, all-electronic, computerized toll collection system similar in composition and functionality to those used on other Texas toll roads, including electronic toll collection (ETC) using automatic vehicle identification (AVI). ETC lanes allow toll collection from vehicles without slowing from normal highway speeds. There will not be any toll islands, plazas or other physical barriers. Toll collection equipment will be mounted in the pavement, outside the shoulder area or overhead. Customers will not be able to use the facility without first having obtained a transponder and establishing an account with an interoperable tolling entity in Texas. The TxDOT transponder program is known as TxTag. The System's toll collection system will be interoperable with HCTRA's EZ Tags and with other Texas ETC systems so that customers in the Houston region with EZ Tags and customers from other cities such as Dallas and Austin (and vice versa) will not be required to have multiple transponders in their vehicles. The mainline toll gantries will be configured for the typical mainline section of two or three high-speed lanes in each direction, as dictated by traffic characteristics. These will be equipped with ETC/AVI for cashless open-road toll collection at normal highway speeds. Customers without a transponder that drive on the System will have an image of their license plate captured and will be mailed a violation notice and possible prosecution under State statutes for non-payment of tolls. TxDOT will process all such violations occurring on the System.

Senate Bill 1792, passed by the State Legislature during the 83rd regular Legislative session (which ended on May 27, 2013) and became effective on June 14, 2013, enhances the enforcement capabilities of tolling agencies within the State (but excluding HCTRA) against toll violators including publishing the names of toll violators, filing suit to collect tolls, blocking the vehicle registration of habitual violators (those with 100 or more toll violations within a year) and prohibiting the operation of vehicles on toll roads and impounding vehicles registered to habitual violators. These added enforcement measures closely mimic the enforcement authority already in place on HCTRA facilities. The Traffic and Revenue Study assumes enforcement-based toll transaction/revenue leakage similar to HCTRA's processes. The estimated TELA Supported Junior Operating Expenses set forth in the Engineer's Report include the estimated additional cost associated with this expansion of enforcement capability.

TxDOT and several other tolling entities within Texas, including Harris County through HCTRA, entered into an Interlocal Agreement in 2007 (the "*Interoperability Agreement*") relating to the interoperability of the various toll collection systems within Texas and fees relating thereto. The Interoperability Agreement provides for the use of any tolling entity's toll tag on any other tolling entity's toll road or system and the processing by each agency of tolls for the transactions of their own customers' transponders occurring on toll roads owned by other agencies. The interoperability of toll systems and flow of funds among the parties to the Interoperability Agreement has operated as expected since the implementation of the Interoperability Agreement in 2007.

In order to reimburse the costs to process these transactions and managing customer accounts, by agreement, the processing agency is paid by the owner of the toll road a fee of 8% of the revenue generated for each interoperable transaction. The 8% fee is factored into the estimate of TELA Supported Junior Operating Expenses in the Engineer's Report. It is expected that approximately 85% of System toll revenues will be derived from customers using an EZ Tag.

HCTRA will collect and process revenues generated by EZ Tag toll transactions on the System, together with revenues generated by EZ Tag toll transactions on other TxDOT toll roads, and, on a monthly basis, disburse revenues from such transactions (less processing fees) to the Custodian under the Master Custodial Agreement for disbursement of the appropriate revenues to the appropriate beneficiary, including the Trustee with respect to toll transaction on the System. See **"SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Funds and Accounts – Master Custodial Agreement; Agreement with Other Turnpikes"** and **"RISK FACTORS - No Security Interest in Toll Revenues from EZ Tag Transactions Until Received From HCTRA Under Interoperability Agreement"** and **"- Limitation and Enforceability of Remedies - Enforceability of Remedies Against HCTRA under the Interoperability Agreement."**

To mitigate the delay in the receipt by the Corporation of toll revenues from EZ Tag toll transactions on the System, the Corporation and HCTRA are currently negotiating a deposit account agreement whereby HCTRA will deposit with the Corporation an average month's EZ Tag toll revenues, based on the Corporation's annual budget, but no assurance can be given that such an agreement will be ultimately executed and delivered. Such agreement, as currently contemplated, would

allow the Corporation to transfer the amount in the deposit account to the Trustee upon the failure of HCTRA to transfer such revenues to the Custodian pursuant to the Interoperability Agreement and the Master Custodial Agreement.

RISK FACTORS

The following is a discussion of certain risk factors that should be considered in evaluating an investment in the Bonds. This discussion does not purport to be either comprehensive or definitive. The order in which risks are presented is not intended to reflect either the likelihood that a particular event will occur or the relative significance of such an event. Moreover, there are other risks associated with an investment in the Bonds in addition to those set forth herein.

General

The financial forecasts in this Official Statement are based generally upon certain assumptions and projections as to estimated revenues and operating expenses. See "**TRAFFIC AND REVENUE STUDY**" and "**ENGINEER'S REPORT**." Inevitably, some underlying assumptions and projections used to develop the forecasts will not be realized, and unanticipated events and circumstances may occur. Therefore, the actual results achieved during the forecast periods will vary from the forecasts, and such differences may be material.

Traffic and Revenue Study

The revenue forecasts in the Traffic and Revenue Study are based upon certain assumptions set forth or incorporated therein. See "**TRAFFIC AND REVENUE STUDY**." The Traffic and Revenue Study is not a guarantee of any future events or trends and the forecasts therein are subject to future economic and social conditions and demographic developments that cannot be predicted with certainty. Further, the estimates and assumptions in the Traffic and Revenue Study are inherently subject to significant economic and competitive uncertainties and contingencies, many of which are beyond the control of the Corporation. The revenue forecast in the Traffic and Revenue Study is based in part on socioeconomic forecasts that CDM Smith believes are achievable, even under economic conditions as discussed in Chapter 5 of the Traffic and Revenue Study. It is unclear at this time whether the length or breadth of the recent recession will affect the economy in the State of Texas in a manner contemplated by the Traffic and Revenue Study and, therefore, it is unknown if the socioeconomic forecasts will be achievable given the current state of the economy. Failure to achieve or realize any of the assumptions listed in the Traffic and Revenue Study may have a materially adverse effect upon the revenues actually realized from the System. CDM Smith anticipates that any significant departure from the key assumptions contained in the Traffic and Revenue Study could have a material impact on traffic and toll revenue forecasts.

The Traffic and Revenue Study contains various sensitivity tests related to future gasoline prices, future economic growth, values of time, construction of additional segments of the Grand Parkway Project, expansion of the base case 4-lane assumption to 6-lanes on the System, not constructing certain future highway projects in the System area, and alternative interchange configurations and tolling schemes. The sensitivity test related to a decrease in future economic growth assumed a 30% lower rate of economic growth throughout the region in 2015, a 35% lower rate of economic growth in 2020, and a 50% lower rate of economic growth in 2035. This scenario resulted in a 19% decrease in toll revenues in 2015, a 32.8% decrease in toll revenues in 2020 and a 45.3% decrease in toll revenues in 2035. The sensitivity tests also found that a decrease in motorists' value-of-time, an increase in gasoline prices, and certain alternative interchange configurations and tolling schemes resulted in an estimated reduction in toll revenues.

Forward-Looking Statements

The statements contained in this Official Statement, and in other information provided by the Corporation, that are not purely historical, are forward-looking statements, including statements regarding the Corporation's expectations, hopes, intentions or strategies regarding the future and the projections in the Traffic and Revenue Study and the Engineer's Report. All forward-looking statements included in this Official Statement are based on information available to the Corporation on the date hereof, and the Corporation assumes no obligation to update any such forward-looking statements.

The forward-looking statements herein are necessarily based on various assumptions and estimates that are inherently subject to numerous risks and uncertainties, including risks and uncertainties relating to the possible invalidity of the underlying assumptions and estimates and possible changes or developments in social, economic, business, industry, market, legal and regulatory circumstances and conditions and actions taken or omitted to be taken by third parties, including customers, suppliers, business partners and competitors, and legislative, judicial and other governmental authorities and officials. Assumptions related to the foregoing involve judgments with respect to, among other things, future economic, competitive and market conditions and future business decisions, all of which are difficult or impossible to predict accurately and, therefore, there can be no assurance that the forward-looking statements included in this Official Statement will prove to be accurate.

Conditions Affecting TELA Advances by TxDOT

TxDOT TELA Obligations Subject to Appropriation. Subject to certain conditions and limitations with respect to the amounts requested by the Trustee and the purpose of the request for an advance, if toll revenues on the System fall short of expectations and there are inadequate balances in the funds and accounts established under the Trust Agreement, TxDOT is required to make advances to the Trustee under the TELA. TxDOT currently intends to make advances pursuant to the terms of the TELA from the State Highway Fund, and such advances are subject to appropriation by the State Legislature of sufficient revenues from the State Highway Fund to make such advances under the TELA. The State Highway Fund is the general source for a substantial portion of funding for the State highway system, TxDOT operations, and the administration of State laws relating to traffic and safety on public roads. TxDOT may elect to make advances pursuant to the TELA from lawfully available funds other than the State Highway Fund. However, any such election by TxDOT would not affect the nature of TxDOT's obligations, which would continue to be subject to appropriation of such funds by the State Legislature.

Any failure of the State Legislature to timely appropriate sufficient funds for the State Highway Fund, or the imposition by the State Legislature of any significant restrictions on TxDOT's ability to transfer other appropriations to the State Highway Fund, could result in insufficient funds being available to TxDOT to satisfy its obligation to make advances under the TELA. For more information on the State Highway Fund, see "**APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND.**"

TxDOT TELA Obligations Funded Partially With Federal Funds Subject to Reauthorization and Congressional Appropriation. TxDOT's advances under the TELA are expected to be paid from the State Highway Fund, which is funded in part from federal funds. Therefore, TxDOT's ability to make payments pursuant to the terms of the TELA is subject in part to the availability of and appropriation by Congress of funds to the Federal Highway Administration to provide money to TxDOT that may be used in part to discharge TxDOT's obligations pursuant to the TELA. The Federal-Aid Highway Program is financed from the transportation user-related revenues deposited in the Highway Trust Fund ("*HTF*"). Federal government funding for infrastructure projects is usually accomplished through highway authorization bills, which establish funding over a multi-year period. On July 6, 2012, President Obama signed into law the Moving Ahead for Progress in the 21st Century Act ("*MAP-21*"), which funds surface transportation programs at over \$105 billion for fiscal years 2013 and 2014. If federal highway authorization legislation is enacted to extend MAP-21 federal funding beyond September 30, 2014, such funding legislation will be subject to possible federal rescission of funds, which would have the effect of reducing the amount of federal funds provided by prior law. Prior federal highway authorization legislation has been periodically subject to rescission, including reductions to funding under the previous authorization in each of the years 2005 through 2011.

There can be no assurances that federal funding will be extended beyond the expiration of MAP-21 on October 1, 2014 or that there will not be future federal rescission of funds or other changes in law, regulation, or policy, or the availability of revenues at the federal level which may materially adversely affect the future availability of federal transportation program funds. Additionally, in the event the Corporation enters into a loan agreement with TIFIA, a default under such agreement may also adversely impact TxDOT's receipt of Federal monies including funds from the HTF. In the event of a lapse or reduction in federal funding, the State Highway Fund will have to rely on state funding sources and borrowing in order to meet ongoing obligations of the State Highway Fund including any TELA advances. For more information on the State Highway Fund, see "**APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND.**"

Sequestration Effects on the State Highway Fund. Pursuant to the requirements of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, certain automatic reductions in federal spending (the "*Sequester Cuts*") took effect as of March 1, 2013 for federal fiscal year ending September 30, 2013 ("*FFY 2013*"). TxDOT experienced a reduction of \$2.7 million in apportionment and obligation authority from the National Highway Performance Program, which is administered by the Federal Highway Administration for highway projects that are located on the National Highway System.

The Sequester Cuts also affected the subsidy payments to be made by the federal government to issuers of "direct-pay" tax credit bonds, such as Build America Bonds ("*BABs*"). The Commission issued \$1,500,000,000 of its State Highway Fund First Tier Revenue Bonds, Taxable Series 2010 (Build America Bonds - Direct Payment) (the "*Series 2010 Bonds*") as taxable BABs and elected to receive a subsidy payment from the United States Treasury equal to 35% of the amount of each interest payment on the Series 2010 Bonds. As a result of the Sequester Cuts, the subsidy payment received in fiscal year 2013 for the Series 2010 Bonds was reduced by \$1.2 million.

At this time, the Commission and Department make no representations as to whether the Sequester Cuts will remain in effect and cause a reduction in receipt of federal funds for any future year.

Sufficiency of Funds Available to TxDOT to Fund TELA Obligations. The revenues deposited into the State Highway Fund are comprised for the most part of federal transportation program funds (or reimbursements from federal funds), State motor fuel taxes and State motor vehicle registration fees. The level of such taxes and fees, and, therefore, the level of funds available in the State Highway Fund, is subject to fluctuations based on a variety of factors, including general national and State economic conditions, specific economic, competitive, or regulatory conditions affecting commercial enterprises that rely on motor vehicle transportation, and potential redirection of such taxes and fees to other purposes pursuant to changes in State or federal law or regulation. Notably, certain automatic reductions in federal spending took effect as of March 1, 2013, could lead to a loss of some revenue to the State Highway Fund. Other factors that may impact the amount of revenues deposited into the State Highway Fund include population growth, income and employment levels, levels of tourism, weather conditions, environmental regulation (including adverse impacts resulting from designation of large population centers within the State as non-attainment areas that do not meet Federal Clean Air Act standards), fuel prices, road conditions, the availability of alternate modes of transportation and the development of alternative fuel vehicles and more fuel efficient vehicles. There can be no assurance that downturns in any of the numerous factors affecting these revenues will not significantly affect the future level of revenues available in the State Highway Fund. Certain amounts within the State Highway Fund are maintained in segregated accounts and subaccounts and may be used only for the restricted purposes of those accounts and subaccounts. For more information on the State Highway Fund, see **"APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND."**

TxDOT Obligations Payable from the State Highway Fund. TxDOT's payments of amounts due under the TELA are expected to be paid from the State Highway Fund. TxDOT's payments of such amounts (together with payments under all other toll equity agreements and pass-through toll agreements) are not secured by a pledge of amounts held in the State Highway Fund and such payments are subject to the pledge and payment of amounts from the State Highway Fund in respect of any TxDOT State Highway Fund revenue bond and credit obligations outstanding and any short-term obligations (including commercial paper notes, direct lending obligations or tax and revenue anticipation notes outstanding), however TxDOT's payments of amounts due under the TELA are *pari passu* with TxDOT's obligations in respect of pass-through toll agreements, other toll equity loan agreements, payments made for the delivery of CDA projects and other obligations of the State Highway Fund. For more information on the various TxDOT obligations payable from the State Highway Fund, see **"APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND – The State Highway Fund – State Highway Fund Obligations."**

TxDOT has the ability to issue and incur additional bonds, credit agreements, and short-term obligations (including commercial paper notes, direct lending obligations or tax and revenue anticipation notes) that are senior to its obligations under the TELA. Additionally, TxDOT has the ability to establish additional liens for obligations that may be senior to or on parity with its TELA obligations. TxDOT may also enter into other toll equity loan agreements, pass-through toll agreement obligations, CDAs and other obligations that are payable from the State Highway Fund.

At its May 30, 2013 meeting, the Commission proposed rules to amend the pass-through toll program that, if finally adopted, are anticipated to be utilized on projects where the project's toll revenue would be used to fund, or partially fund, periodic payments to a developer for a State highway project. If project toll revenues are not sufficient to fully fund a periodic payment, TxDOT would commit to fund the difference from the State Highway Fund or other available funds, subject to appropriation and eligible project costs of the developer. TxDOT is not currently undertaking any project procurement under the proposed rule amendments and will not undertake any projects unless rules are finally adopted by the Commission. See **"APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND – The State Highway Fund – Pass-Through Financing Agreements."**

Neither the Commission nor TxDOT have adopted any policy limiting the ability to enter into toll equity loan agreements or other agreements payable from the State Highway Fund.

Other TELA Issues. The Trustee may draw on the TELA to pay for TELA Supported Junior Operating Expenses and Major Maintenance Expenses if the balances in certain Trust Agreement funds and accounts are insufficient, and the Corporation has structured the debt service for the TELA Bonds so that in each year, through the maturity of such TELA Bonds, total debt service for the TELA Bonds plus currently estimated TELA Supported Junior Operating Expenses for each year do not exceed the Maximum Available Annual Amount of the TELA for that year. However, the Corporation has structured the plan of finance for the System so that no draws on the TELA are expected. Notwithstanding such expectation, there are no assurances that the Maximum Available Annual Amount will be sufficient to cover TELA Supported Junior Operating Expenses in any particular year if actual TELA Supported Junior Operating Expenses incurred differ from expectations. While Major Maintenance Expenses are an Eligible Cost under the TELA, the Maximum Available Annual Amount is not expected to be sufficient to cover the combination of total debt service for the TELA Bonds plus currently estimated TELA Supported Junior Operating Expenses plus Major Maintenance Expenses in any given year. See **"TOLL**

EQUITY LOAN AGREEMENT — Maximum Available Annual Amount and Annual TELA-Supported Debt Service and TELA Supported Junior Operating Expenses."

The Trustee may not draw upon the TELA to pay the redemption price of any TELA Bonds due as a result of an optional redemption of such Bonds by the Corporation or to pay the purchase price for any TELA Bonds due as a result of an optional or mandatory tender of such Bonds. In addition, the Corporation may, subject to certain limitations, amend the TELA without the consent of any Owner, including amendments to reduce the Maximum Available Aggregate Amount. See **"TOLL EQUITY LOAN AGREEMENT — Amendments."**

The Corporation has not provided any credit or liquidity facility for the payment of the purchase price of the Series 2013C Bonds or the Taxable Series 2013D Bonds payable upon the mandatory tender of such Bonds on their respective mandatory tender dates, nor is there any requirement or expectation that such credit or liquidity facility will be obtained. The principal portion of the purchase price of such Bonds is expected to be obtained from the remarketing thereof. The Corporation has no obligation to purchase Series 2013C Bonds or Taxable Series 2013D Bonds except from remarketing proceeds. Further, the Trustee may not draw upon the TELA to pay the purchase price of such Bonds on their respective optional or mandatory tender dates. While the Corporation reasonably expects to be able to refund or remarket the Series 2013C Bonds and Taxable Series 2013D Bonds on their respective optional or mandatory tender dates, in the event of a failed remarketing of any such Bonds, the interest rates on such Bonds would increase to their respective Stepped Coupon Rates (as defined and described in **"THE SERIES 2013C BONDS – Optional and Mandatory Tender – Effects of a Failed Remarketing"** and **"THE TAXABLE SERIES 2013D BONDS – Optional and Mandatory Tender – Effects of a Failed Remarketing"**) and accrue at the Stepped Coupon Rates until their respective maturity dates. During such Stepped Coupon Rates period, Senior Net Revenues are projected to be insufficient to cover all debt service on the Bonds and TELA Supported Junior Operating Expenses and, as a result thereof, draws on the TELA could be needed to cover such shortfall.

Costs of Construction; Risk of Delay

In projects of the magnitude of the toll facilities such as for the System, there is a possibility of time delays and cost increases resulting from (i) design and construction problems and resulting change orders, (ii) environmental litigation or environmental administrative matters, (iii) the unavailability or cost of acquiring right-of-way, (iv) archeological, historic and unidentified subsurface conditions, (v) utility relocation problems, (vi) hazardous materials, (vii) force majeure events, (viii) litigation, or (ix) inflation. As a result, there can be no assurance that the costs of completion for the System will not exceed current estimates, or that the completion of such projects will not be delayed beyond the scheduled completion date. Variations in cost estimates and delays in construction could be material.

Specifically, in connection with the construction of Segments F-1, F-2 and G, the Engineer's Report states that the critical path of construction is construction of the bridges along the project and the time necessary to manufacture and transport beams and construct bridge decks; the Developer's failure to achieve a certain beam fabrication and erection production and installation rate could have a great impact on the construction schedule; and the construction schedule is constrained by right-of-way acquisition activity of more than 450 parcels and more than 50 utility relocation providers, which, at any time, could disrupt commencement of subsequent construction activity.

While the Development Agreement shifts to the Developer a significant amount of the risk and responsibility for time delays and cost increases associated with design, engineering, right-of-way acquisition, utility relocation and construction, the Development Agreement ultimately allows for increases in price and extensions of time for performance in certain cases involving hazardous materials, right-of-way, new utilities and force majeure events. The Development Agreement allows for a price increase without any extension of time for differing site conditions and previously identified utilities that exceed threshold amounts. Moreover, the Corporation and TxDOT are relying on the Developer to design, engineer, manage and construct the roads in accordance with standards, specifications and an agreed-upon scope of work. There is no assurance that the Developer can design and engineer Segments F-1, F-2 and G in a manner such that it reasonably can be constructed for the guaranteed price and by the guaranteed completion date set forth in the Development Agreement. The Developer is a special purpose entity with no activities unrelated to the Development Agreement. A failure of either Zachry or Odebrecht to perform its obligations in support of the Developer may delay or limit the Developer's ability to complete construction of Segments F-1, F-2 and G or to perform under the Development Agreement.

Further, the responsibility of the Developer for all phases of design and engineering under the Development Agreement may increase the impact that any financial instability, insolvency or bankruptcy of the Developer could have on the cost of, or completion date of Segments F-1, F-2 and G. Any such delays and/or cost overruns could result in the delay or reduction in the collection of revenues and an increase in costs, thereby making it more difficult for the Corporation to generate sufficient revenues to pay debt service on the obligations issued under the Trust Agreement.

There is also a possibility of insolvency or bankruptcy of the Developer or any other contractor for the System during construction. While the Developer and the other contractors for the System will be required to provide performance bonds and payment bonds, there can be no assurance that such bonds will be sufficient to assure timely completion of the System. Moreover, if a default occurs, there is a possibility of litigation between the Corporation and the providers of the performance bonds and payment bonds and/or the Developer and contractors, which could further delay construction and the opening of the System. A potential purchaser of the Bonds can have no assurance that any contractor or subcontractor, guarantor, surety or property insurer will be willing or capable of meeting its responsibilities in connection with the construction of the System or that the issuer of any performance or payment bond, any guarantee or any property insurance policy will honor or will be able to honor a claim in a timely manner.

Notwithstanding the foregoing, it should be noted that the Trustee's ability to make draws under the TELA is not conditioned upon the completion of the System. However, TxDOT's obligation to advance funds is limited to Eligible Costs, and other conditions and limitations. If any section of the System is delayed or is not opened, the aggregate amount of the Eligible Costs may be in an amount less than the principal of and interest on the TELA Bonds. As a result, draws under the TELA will be limited to the aggregate amounts of Eligible Costs, which may be insufficient to enable draws on the TELA to pay the principal of and interest on the TELA Bonds, if and when requested because the amounts requested would exceed the TxDOT Exposure Limitations. See **"TOLL EQUITY LOAN AGREEMENT."**

Liquidated Damages

The amount of liquidated damages the Developer or any other contractor for the System could be required to pay in connection with the construction of the System may be limited by contract and may not be sufficient to cover all of the Corporation's losses in the event of a delay or a failure to complete the required work in accordance with the plans and specifications, TxDOT standards and other requirements of the contract documents. Liquidated damages, if paid, may not be sufficient to enable the Corporation to pay the debt service on the obligations issued under the Trust Agreement. See **"THE GRAND PARKWAY SYSTEM – Segments D and E"** and **"CERTAIN PROJECT DOCUMENTS – Development Agreement"** for a discussion of the liquidated damages for construction of the System. There are numerous events that could cause an extension of the schedule and that could result in increased costs for the construction of the System.

Operating Risks

When completed, the System will be a new toll facility having no independent operating history. Accordingly, the ability of the System to generate revenues in amounts sufficient to pay debt service on the obligations issued under the Trust Agreement when due, will be subject to the risks inherent in the establishment of any new toll facility. The ability to repay such obligations will be dependent on the volume of traffic that utilizes the System and the ability of the Corporation and the toll facilities to accurately process data. Revenues to be generated through such use will be influenced by numerous factors, including, among other things, the ability to manage toll evasion; the ability to control expenses; population, employment and income trends within the region; the congestion on alternative freeways, highways, and streets; time savings experienced by motorists utilizing the toll facilities; the toll rates; the availability and price of fuel; and the construction of new or improved competitive roadways or transit facilities. Notwithstanding the foregoing, TxDOT will remain obligated to advance funds under the TELA as described herein. However, TxDOT's obligation to advance funds is limited to Eligible Costs, and other conditions and limitations. See **"TOLL EQUITY LOAN AGREEMENT."**

Ability to Maintain or Raise Rates; Tolls

The Commission may need to raise toll rates in the future to support the debt service requirements on the obligations issued under the Trust Agreement. It is possible that any increase in rates could result in reduced usage of the toll facilities, resulting in decreased revenues. While the Market Valuation Waiver Agreement does not provide for a maximum rate for tolls, substantial political pressure could result in hesitance to raise rates further if needed. Such risk is mitigated as a result of automatic increases to toll rates under the toll rate escalation methodology established by the Commission. Legislation may be enacted that prohibits the charging of tolls or limits the toll rate during certain periods or with respect to certain groups of people. The Corporation cannot predict the impact that any such legislation could have on toll revenues. Notwithstanding the foregoing, TxDOT will remain obligated to advance funds under the TELA as described herein. However, TxDOT's obligation to advance funds is limited to Eligible Costs, and other conditions and limitations. See **"TOLL EQUITY LOAN AGREEMENT."**

Maintenance Costs

In certain years, annual Senior Net Revenues are expected to be insufficient to cover TELA Supported Junior Operating Expenses in such years. The Corporation expects to use funds in the Grand Parkway Enhancement Fund to pay TELA Supported Junior Operating Expenses to the extent Senior Net Revenues are insufficient. No assurance can be given

that sufficient funds will be available in the Grand Parkway Enhancement Fund to pay TELA Supported Junior Operating Expenses. Successful operation of the System will require timely and complete maintenance and replacement of components of such facilities. No assurance can be given that sufficient funds will be available to maintain the toll facilities adequately over the long term. Any significant deterioration in the toll facilities may result in increased operating costs and in reduced usage, as well as temporary lane closures, and may adversely affect the amount of funds available to pay debt service on the obligations issued under the Trust Agreement. Although in connection with Segments F-1, F-2 and G, the Corporation (as the assignee of TxDOT) and the Developer have entered into a fixed price Capital Maintenance Agreement for an initial five-year term with two additional five-year terms at the Corporation's option, and although the Trust Agreement requires the deposit of budgeted amounts to the Operation and Maintenance Reserve Fund, no assurance can be given that sufficient funds will be available to maintain the System adequately over the long term. Notwithstanding the foregoing, TxDOT will remain obligated to advance funds under the TELA as described herein. However, TxDOT's obligation to advance funds is limited to Eligible Costs, and other conditions and limitations. See **"TOLL EQUITY LOAN AGREEMENT."**

Motor Fuel Prices and Taxes

There is no assurance that motor fuel will remain in adequate supply or that motor fuel prices and federal and State motor fuel taxes will not increase. Increases in motor fuel prices could negatively impact the revenues of the System. The Traffic and Revenue Study's sensitivity test on motor fuel prices assumes an increase to \$5.00 per gallon and a corresponding decrease in regional travel of approximately 4%. This scenario results in an estimated reduction in toll revenues by 5.8% in 2015, 5.4% in 2020, and 3.3% in 2035. Additionally, if motor fuel prices increase, it could have a material adverse effect on the economy of the Houston region and the revenues of the System. Notwithstanding the foregoing, TxDOT will remain obligated to advance funds under the TELA as described herein. However, TxDOT's obligation to advance funds is limited to Eligible Costs, and other conditions and limitations. See **"TOLL EQUITY LOAN AGREEMENT."**

Possible Dilution of First Tier Security Upon Bankruptcy-Related Event

TxDOT has applied for a TIFIA loan the proceeds of which are expected to be used to reimburse the Corporation for eligible costs previously expended. The Corporation currently expects to use such reimbursement to redeem all or any part of the Series 2013C Bonds or the Taxable Series 2013D Bonds. Should TxDOT obtain such TIFIA loan, the Corporation currently expects to issue and secure the TIFIA loan as a Second Tier Obligation under the Trust Agreement. See **"PLAN OF FINANCE – Letter of Interest for TIFIA Loan and Refinancing of the Series 2013C Bonds and Taxable 2013D Bonds."** There are no assurances that the Corporation will be able to obtain such loan, but in such event and upon the occurrence and during the continuance of any Bankruptcy-Related Event of the Corporation and while the U.S. Department of Transportation, or another related Governmental Lender requiring the same treatment, owns the TIFIA obligation, such TIFIA obligation may be deemed to be a First Tier Obligation secured by and payable from the Trust Estate on a basis equal to that of other Outstanding First Tier Obligations. In such event, the TIFIA lender would be the holder of a majority in principal amount of First Tier Obligations and would be able to direct remedies and take other actions permitted under the Trust Agreement without the consent of the holders of the Series 2013A Bonds.

The term "Bankruptcy-Related Event" includes the Corporation becoming unable to pay its debts generally as they become due. Thus, it is not necessary for the Corporation to file as a debtor under Chapter 9 of the U.S. Bankruptcy Code in order for a Bankruptcy-Related Event to occur. Moreover the Corporation's ability to pay its debts generally as they become due is not always subject to precise determination. Any failure of the Corporation to pay its obligations under a TIFIA loan in a timely manner may provide the TIFIA lender with the opportunity to claim that a Bankruptcy-Related Event has occurred.

No Security Interest in Toll Revenues from EZ Tag Transactions Until Received From HCTRA Under Interoperability Agreement

As described in **"OTHER PROJECT DOCUMENTS – Toll Collection and Operations,"** approximately 85% of System toll revenues are expected to be derived from customers using HCTRA's EZ Tags. Pursuant to the Interoperability Agreement, HCTRA will disburse revenues, on a monthly basis from EZ Tag transactions on the System occurring in the prior months (less the 8% processing fees) to the Custodian under the Master Custodial Agreement for ultimate distribution to the Trustee. See **"SECURITY AND SOURCES OF PAYMENT FOR THE BONDS – Funds and Accounts – Master Custodial Agreement; Agreement with Other Turnpikes."** HCTRA can on a daily basis for each EZ Tag transaction, including transactions occurring on the System, withdraw the appropriate toll charge from HCTRA's EZ Tag prepaid customer accounts and deposit such toll charge into a general revenue fund of HCTRA comingled with HCTRA toll revenues earned for HCTRA toll road transactions. Neither the Corporation nor the Trustee has a security interest in such funds of HCTRA until the funds are disbursed by HCTRA to the Custodian. To mitigate the delay in the receipt by the Corporation of toll revenues from EZ Tag toll transactions on the System, the Corporation and HCTRA are currently negotiating a deposit account agreement whereby HCTRA will deposit with the Corporation an average month's EZ Tag toll revenues, based on

the Corporation's annual budget, but no assurance can be given that such an agreement will be ultimately executed and delivered. See "**CERTAIN PROJECT DOCUMENTS - Toll Collection and Operations.**" In the Project Agreement, TxDOT has agreed to enforce the Interoperability Agreement against HCTRA, to the extent permitted by law, including, if available, mandamus. See "**RISK FACTORS - Limitation and Enforceability of Remedies**" and "*- Enforceability of Remedies Against HCTRA under the Interoperability Agreement.*"

Limitation and Enforceability of Remedies

Limitation of Remedies under the Trust Agreement. The remedies available to Owners of the Bonds upon an event of default under the Trust Agreement are limited to the seeking of specific performance in a writ of mandamus or other suit, action or proceeding compelling and requiring the Corporation and its officers to observe and perform any covenant, condition or obligation prescribed in the Trust Agreement. In no event will Owners have the right to have the maturity of the Bonds accelerated as a remedy in the event of a default by the Corporation. The enforcement of the remedy of mandamus may be difficult and time consuming. No assurance can be given that a mandamus or other legal action to enforce a default under the Trust Agreement would be successful.

Enforceability of Remedies. The remedies available under the Trust Agreement are in many respects dependent upon regulatory and judicial actions that are often subject to discretion and delay. Under existing law, such remedies may not be readily available. In addition, enforcement of such remedies (i) may be subject to general principles of equity which may permit the exercise of judicial discretion, (ii) are subject to the exercise in the future by the State and its agencies and political subdivisions of the police power inherent in the sovereignty of the State, (iii) are subject, in part, to the provisions of the United States Bankruptcy Act and other applicable bankruptcy, insolvency, reorganization, moratorium or similar laws relating to or affecting the enforcement of creditors' rights generally, now or hereafter in effect, and (iv) are subject to the exercise by the United States of the powers delegated to it by the federal Constitution. The Corporation has not waived sovereign immunity. The various legal opinions to be delivered concurrently with the delivery of the Bonds will be qualified to the extent that the enforceability of certain legal rights related to the Bonds is subject to limitations imposed by sovereign immunity, bankruptcy, reorganization, insolvency or other similar laws affecting the rights of creditors generally and by equitable remedies and proceedings generally.

Enforceability of Remedies Against TxDOT under the TELA. Each party to the TELA may avail itself of any remedy existing at law or in equity, such remedies to be cumulative. TxDOT has not waived sovereign immunity from suit or liability with respect to the TELA and therefore, the Corporation or the Trustee may be prevented from bringing a suit against TxDOT to adjudicate a claim to enforce TxDOT's obligations under the TELA or for damages for breach of the TELA. However, State courts have held that mandamus proceedings against a governmental unit, such as TxDOT, are not prohibited by sovereign immunity.

In addition, State law may be interpreted to allow the State to impair the obligations of contracts such as the TELA in a valid exercise of the State's inherent police powers. Assuming the application of such law, there can be no assurances given as to the enforceability of TxDOT's obligations to make advances which might impair or impede any current or future appropriation from the State Highway Fund. See "**— Conditions Affecting TELA Advances by TxDOT - TxDOT Obligations Subject to Appropriation.**"

Enforceability of Remedies Against HCTRA under the Interoperability Agreement. The issuance of a writ of mandamus may be sought if there is no other available remedy at law to compel performance of HCTRA's obligations under the Interoperability Agreement and such obligations are not uncertain or disputed. The remedy of mandamus is controlled by equitable principles and so rests with the discretion of the court, but may not be arbitrarily refused; provided, however, Texas case law suggests that a mandamus action to enforce a non-legislatively mandated contract may be unavailable. The Interoperability Agreement is likely not a legislatively mandated contract, and no assurance can be given that a mandamus or other legal action to enforce a default by HCTRA under the Interoperability Agreement would be available or successful.

Legislative Issues

The State Legislature concluded its 83rd regular Legislative session on May 27, 2013 and concluded the first called session on June 25, 2013 resulting in the passage of no bill with a material impact on the Commission, TxDOT or the State Highway Fund. The Governor has called a second called session which began on July 1, 2013. While in session, the State Legislature may consider bills which could have a direct impact on the Commission, TxDOT and the State Highway Fund. The Corporation makes no representations or predictions concerning the substance or effect of any legislation that may be proposed and ultimately passed while the State Legislature is in special session.

During the 83rd regular Legislative session, the State Legislature passed House Bill 2202 which provides for the diversion of certain fees which historically have been deposited into the State Highway Fund. House Bill 2202 requires such

fees to be deposited into the newly created Texas Department of Motor Vehicles Fund which will be administered by the Texas Department of Motor Vehicles outside of the State Highway Fund. The estimated aggregate amount of such fees is an average of \$104 million annually over the next five fiscal years. To offset the diversion of revenues from the State Highway Fund to the Texas Department of Motor Vehicles Fund, appropriations to the Department of Motor Vehicles out of the State Highway Fund have been reduced by \$95,385,000 in fiscal year 2014 and by \$96,330,000 in fiscal year 2015 and such amounts are appropriated instead from the Texas Department of Motor Vehicles Fund. Further, any appropriations to the Department of Motor Vehicles from the Texas Department of Motor Vehicles Fund above such amounts shall reduce appropriations to the Department of Motor Vehicles from the State Highway Fund in an amount equal to the fee revenue received into the Texas Department of Motor Vehicles Fund.

The Texas Sunset Act (Chapter 325, Texas Government Code) (the "*Sunset Act*"), provides that virtually all agencies of the State, including TxDOT, are subject to periodic review by the State Legislature, and that each agency subject to sunset review will be abolished unless the State Legislature specifically determines to continue its existence. TxDOT will be subject to its next sunset review in 2015. Pursuant to the Sunset Act, the State Legislature specifically recognizes the State's continuing obligation to pay all obligations incurred by TxDOT. Accordingly, in the event that a sunset review results in TxDOT being abolished, the Governor would be required by law to designate an appropriate State agency to carry out covenants and perform the obligations of TxDOT. The designated agency would provide for payment and performance of all TxDOT obligations in accordance with their terms.

Future and Proposed Tax Legislation

Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the Federal or State level, may adversely affect the tax-exempt status of interest on the Tax-Exempt Bonds under Federal or State law and could affect the market price or marketability of the Tax-Exempt Bonds. Any such proposal could limit the value of certain deductions and exclusions, including the exclusion for tax-exempt interest. The likelihood of any such proposal being enacted cannot be predicted. Prospective purchasers of the Tax-Exempt Bonds should consult their own tax advisors regarding the foregoing matters.

THE SERIES 2013A BONDS

Description

The Series 2013A Bonds will be issued as fully registered bonds, without coupons, in denominations of \$5,000 or any integral multiple thereof and will be dated as of their date of delivery. Interest on the Series 2013A Bonds will accrue at the interest rates specified on page (ii) hereof, calculated on the basis of a 360-day year composed of twelve 30-day months, from their date of delivery and will be payable semiannually on April 1 and October 1 of each year, commencing October 1, 2013. Principal will come due on the dates and in the amounts set forth on page (ii) hereof or upon earlier redemption of the Series 2013A Bonds as described herein.

An amount from the proceeds of the Series 2013A Bonds will be used to initially fund the First Tier Reserve Requirement within the First Tier Reserve Account which will be held and used for the purpose of finally retiring the last of the Series 2013A Bonds and other applicable Outstanding First Tier Obligations (unless a series of future First Tier Obligations is excluded from the security of the First Tier Reserve Account pursuant to a future Supplemental Agreement) and/or for paying interest on, maturing Principal of, and mandatory sinking fund redemption price of the Series 2013A Bonds and applicable First Tier Obligations (unless a series of future First Tier Obligations is excluded from the security of the First Tier Reserve Account pursuant to a future Supplemental Agreement) to the extent that the moneys held for the credit of the First Tier Reserve Account and the First Tier Redemption Account shall be insufficient for such purpose. When and for so long as the cash, investments and Reserve Surety Agreement in the First Tier Reserve Account equal the First Tier Reserve Requirement, no deposits need be made to the credit of the First Tier Reserve Account; but, if and when the First Tier Reserve Account at any time contains less than the First Tier Reserve Requirement, the Corporation covenants and agrees that the Corporation shall cure the deficiency in the First Tier Reserve Account by resuming deposits into the First Tier Reserve Account in amounts equal to not less than 1/36th of the First Tier Reserve Requirement until the First Tier Reserve Requirement has been fully restored. See "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS" in "**APPENDIX C — DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT.**"

A Reserve Surety Agreement may be substituted for monies and investments in the First Tier Reserve Account if the substitution of the Reserve Surety Agreement will not, in and of itself, cause any ratings then assigned to the First Tier Obligations by Moody's, S&P and/or Fitch, respectively, to be lowered, the Reserve Surety Agreement is approved by the Texas Attorney General, if then required by State law, and the resolution authorizing the substitution of the Reserve Surety Agreement for all or part of the First Tier Reserve Requirement contains a finding that such substitution is cost effective. The

First Tier Reserve Account only secures the Series 2013A Bonds and other applicable First Tier Obligations (unless a series of future First Tier Obligations is excluded from the security of the First Tier Reserve Account pursuant to a future Supplemental Agreement). Any TIFIA loan entered into by the Corporation will not be secured by the First Tier Reserve Account and under no circumstances will amounts in the First Tier Reserve Account be used to pay any such TIFIA loan. The Corporation has not created reserve accounts securing any of the Second Tier Obligations, Subordinate Tier Obligations or the TELA/Other Tier Obligations; however, the Corporation has reserved the right to create such accounts in the future. See “**SECURITY AND SOURCES OF PAYMENT FOR THE BONDS - Funds and Accounts - First Tier Reserve Account**” and “**APPENDIX C – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT.**”

Redemption

Optional Redemption. The Series 2013A Bonds may be redeemed prior to their scheduled maturity at the option of the Corporation, with funds derived from any available source, on October 1, 2023, or on any date thereafter, in whole or in part, and if in part, the particular Series 2013A Bonds or portions of Series 2013A Bonds to be redeemed are to be selected and designated by the Corporation in its sole discretion, in authorized denominations, at the redemption price equal to par plus accrued interest to the date of redemption.

Mandatory Redemption. The Series 2013A Bonds maturing on October 1, 2043 and April 1, 2053 (the “*Term Series 2013A Bonds*”) are subject to mandatory sinking fund redemption prior to maturity in the aggregate principal amounts and on the dates set forth in the following table, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to, but not including, the redemption date, as follows:

Series 2013A Bonds Maturing October 1, 2043

<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2031	\$ 330,000
October 1, 2032	740,000
October 1, 2033	1,180,000
October 1, 2034	1,660,000
October 1, 2035	2,175,000
October 1, 2036	2,735,000
October 1, 2037	3,340,000
October 1, 2038	3,990,000
October 1, 2039	4,690,000
October 1, 2040	5,445,000
October 1, 2041	6,255,000
October 1, 2042	7,125,000
October 1, 2043*	8,065,000*

*Final Maturity

Series 2013A Bonds Maturing April 1, 2053

<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2044	\$ 9,065,000
October 1, 2045	10,175,000
October 1, 2046	11,365,000
October 1, 2047	12,645,000
October 1, 2048	14,015,000
October 1, 2049	15,490,000
October 1, 2050	17,065,000
October 1, 2051	18,755,000
October 1, 2052	20,560,000
April 1, 2053*	23,135,000*

*Final Maturity

If less than all of the Series 2013A Bonds of the same maturity or within a mandatory sinking fund redemption are to be redeemed pursuant to such mandatory sinking fund redemption, the particular Series 2013A Bonds of such maturity to be redeemed will be determined as set forth below under "*Notice of Redemption*."

The principal amount of the Term Series 2013A Bonds required to be redeemed on any redemption date pursuant to the operation of mandatory sinking fund redemption provisions will be reduced at the option of the Corporation, by the principal amount of any Term Series 2013A Bond scheduled for redemption on such redemption date or dates, which, at least 45 days prior to the mandatory sinking fund redemption date, (1) have been acquired by the Corporation and delivered to the Trustee for cancellation, (2) have been acquired and canceled by the Trustee, at the direction of the Corporation, at a price not exceeding the principal amount of such Term Series 2013A Bond plus accrued interest to the date of acquisition thereof, or (3) have been redeemed pursuant to the optional redemption provisions and not previously credited to a scheduled mandatory redemption.

Notice of Redemption. At least 30 days prior to the date fixed for redemption of any Series 2013A Bonds or portions thereof prior to maturity, a written notice of such redemption is required to be sent by the Trustee by United States mail, first-class postage prepaid, to the registered Owner of each Series 2013A Bond to be redeemed at its address as it appeared in the registration books maintained by the Trustee on the 45th day prior to such redemption date; *provided, however*, that the failure to send, mail, or receive such notice, or any defect therein or in the sending or mailing thereof, will not affect the validity or effectiveness of the proceedings for the optional redemption of any Series 2013A Bond and no such notice is required for the validity or effectiveness of any mandatory redemption of the Series 2013A Bonds. The mailing of such notice as required above in connection with the optional redemption of Series 2013A Bonds prior to maturity at the option of the Corporation will be the only notice actually required in connection with or as a prerequisite to such optional redemption of any Series 2013A Bonds or portions thereof. All redemption notices for the Series 2013A Bonds are required to contain a description of the Series 2013A Bonds to be redeemed, including such items specified in the Trust Agreement.

In addition to the foregoing, the Trustee is required to give notice of defeasance of any Series 2013A Bonds by mail, first-class, postage prepaid within 30 days after a defeasance date to each registered securities depository and to any national information service that disseminates such notices. The Trustee is also required to send a notice of prepayment or redemption to the registered Owner who has not sent its Series 2013A Bonds in for redemption 60 days after the redemption date.

If notice of redemption, if such notice is required, is given and if due provision for such payment is made, the Series 2013A Bonds or portions thereof which are to be redeemed thereby automatically will be treated as redeemed prior to their scheduled maturities, and they will not bear interest after the date fixed for redemption, and they will not be regarded as being outstanding except for the right of the registered Owners to receive the redemption price plus accrued interest from the Trustee out of the fund provided for such payment.

If the Series 2013A Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole registered owner of such Series 2013A Bonds, if less than all of the Series 2013A Bonds of a maturity or within a mandatory sinking fund redemption are called for prior redemption, the particular Series 2013A Bonds or portions thereof to be redeemed shall be allocated on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the Series 2013A Bonds are held in book-entry form, the selection for redemption of such Series 2013A Bonds shall be made in accordance with the operational arrangements of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, the Series 2013A Bonds will be selected for redemption, in accordance with DTC procedures, by lot or such other method then required by DTC; provided that any such redemption must be performed such that all Series 2013A Bonds remaining outstanding will be in authorized denominations.

Conditional Notice of Redemption. In the case of an optional redemption of the Series 2013A Bonds, the notice may state (1) that it is conditioned upon the deposit of money, in an amount equal to the amount necessary to effect the redemption, with the Trustee no later than the redemption date or (2) that the Corporation retains the right to rescind such notice at any time prior to the scheduled redemption date if the Corporation delivers a certificate of a Pricing Officer to the Trustee instructing the Trustee to rescind the redemption notice (in either case, a "*Conditional Redemption*"), and such notice and optional redemption will be of no effect if such money is not so deposited or if the notice is rescinded as described in the paragraph below.

Any Conditional Redemption may be rescinded in whole or in part at any time prior to the redemption date if the Corporation delivers a certificate of a Pricing Officer to the Trustee instructing the Trustee to rescind the redemption notice. The Trustee is required to give prompt notice of such rescission or failure to deposit funds to the affected Owners. Any Series 2013A Bonds subject to Conditional Redemption where redemption has been rescinded or funds to effect the

redemption have not been deposited will remain outstanding, and the rescission or failure to deposit funds will not constitute an Event of Default under the Trust Agreement.

Tax Status

In the opinion of Bond Counsel to the Corporation, interest on the Series 2013A Bonds will be excludable from gross income for federal income tax purposes under statutes, regulations, published rulings and court decisions existing on the date hereof, except as explained under "**TAX MATTERS — Tax-Exempt Bonds.**"

THE SERIES 2013B BONDS

Description

The Series 2013B Bonds are being issued in part as current interest bonds (the "*CIBs*") and in part as convertible premium capital appreciation bonds (the "*CABs*"). The Series 2013B Bonds will be issued as fully registered bonds, without coupons, in denominations of \$5,000 of principal amount, with respect to the CIBs, or \$5,000 of Maturity Amount (as defined below), with respect to the CABs (in each case an "*Authorized Denomination*"), or any integral multiple thereof and will be dated as of their date of delivery. Interest on the CIBs will accrue at the interest rates specified on page (iii) hereof, calculated on the basis of a 360-day year composed of twelve 30-day months, from their date of delivery and will be payable semiannually on April 1 and October 1 of each year, commencing October 1, 2013. Principal will come due on the dates and in the amounts set forth on page (iii) hereof or upon earlier redemption of the CIBs as described herein. Interest on the CABs will accrete, calculated on the basis of a 360-day year composed of twelve 30-day months, from their date of delivery and will compound semiannually on April 1 and October 1 of each year, commencing October 1, 2013 to October 1, 2023 (the "*Conversion Date*"). Principal and accreted/compounded interest accreted prior to the Conversion Date will come due on October 1 of the years set forth on page (iii) hereof, or upon earlier optional redemption of the CABs as described herein. After the Conversion Date, interest on each Stated Maturity of the CABs will accrue at the interest rate specified on page (iii) hereof, calculated on the basis of a 360 day year composed of twelve 30 day months, on the total amount of principal and accreted/compounded interest thereon to the Conversion Date (the "*Maturity Amount*"), payable semiannually on April 1 and October 1 of each year, commencing on April 1, 2024. The Maturity Amount will come due on October 1 of the years and in the amounts set forth on page (iii) hereof, or upon earlier optional redemption, as described below. **No interest payments are due to the registered Owners of the Series 2013B Bonds until after the Conversion Date.**

The approximate yields to Stated Maturity on the CABs set forth on page (iii) of this Official Statement are based upon the initial offering prices set forth on page (iii). The original principal amount of a CAB with interest thereon compounded semiannually to April 1 and October 1 ("*Accretion Dates*"), as the case may be, next preceding the date of such calculation (or the date of calculation, if such calculation is made on April 1 and October 1) to the Conversion Date, using the respective yields to maturity stated on page (iii) constitutes the "*Accreted Value*" for the CABs. Based on the initial offering prices for the CABs, schedules of Accreted Value per \$5,000 Maturity Amount on the respective Accretion Dates, using the estimated yields stated on page (iii) of this Official Statement, are set forth in "**APPENDIX J — SCHEDULE OF ACCRETED VALUES FOR THE SERIES 2013B CONVERTIBLE CAPITAL APPRECIATION BONDS.**" The yields on the CABs to a particular purchaser may differ depending upon the price paid by that purchaser. For various reasons, securities that do not pay interest periodically, such as the CABs, have experienced greater price fluctuations in the secondary market than securities that pay interest on a periodic basis.

Redemption

Optional Redemption. The CIBs may be redeemed prior to their scheduled maturity at the option of the Corporation, with funds derived from any available source, on October 1, 2023, or on any date thereafter, in whole or in part, and if in part, the particular CIBs or portions of CIBs to be redeemed are to be selected and designated by the Corporation in its sole discretion, in authorized denominations, at the redemption price equal to 100% of the principal amount thereof as of the date of redemption, plus accrued interest to the date of redemption.

The CABs may be redeemed prior to their scheduled maturity at the option of the Corporation, with funds derived from any available source, on October 1, 2028, or on any date thereafter, in whole or in part, and if in part, the particular CABs or portions of CABs to be redeemed are to be selected and designated by the Corporation in its sole discretion, in authorized denominations, at the redemption price equal to the Maturity Amount thereof as of the date of redemption, plus accrued interest to the date of redemption.

Mandatory Redemption. The Series 2013B Bonds maturing on October 1, 2051 and April 1, 2053 (the "*Term Series 2013B Bonds*") are subject to mandatory sinking fund redemption prior to maturity in the aggregate principal amounts and on

the dates set forth in the following table, at a redemption price equal to 100% of the principal amount thereof or the Accreted Value as of the date of redemption, plus accrued interest to, but not including, the redemption date, as follows:

Series 2013B Term Bonds
Maturing October 1, 2051

<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2048	\$ 43,205,000
October 1, 2049	68,675,000
October 1, 2050	263,955,000
October 1, 2051*	199,165,000*

*Final Maturity

Series 2013B Term Bonds
Maturing April 1, 2053

<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2051	\$181,000,000
October 1, 2052	190,965,000
April 1, 2053*	190,970,000*

*Final Maturity

If less than all of the Series 2013B Bonds of the same maturity or within a mandatory sinking fund redemption are to be redeemed pursuant to such mandatory sinking fund redemption, the particular Series 2013B Bonds of such maturity to be redeemed will be determined as set forth below under "*Notice of Redemption*."

The principal amount of the Term Series 2013B Bonds required to be redeemed on any redemption date pursuant to the operation of mandatory sinking fund redemption provisions will be reduced at the option of the Corporation, by the principal amount of any Term Series 2013B Bond scheduled for redemption on such redemption date or dates, which, at least 45 days prior to the mandatory sinking fund redemption date, (1) have been acquired by the Corporation and delivered to the Trustee for cancellation, (2) have been acquired and canceled by the Trustee, at the direction of the Corporation, at a price not exceeding the principal amount of such Term Series 2013B Bond plus accrued interest to the date of acquisition thereof, or (3) have been redeemed pursuant to the optional redemption provisions and not previously credited to a scheduled mandatory redemption.

Notice of Redemption. At least 30 days prior to the date fixed for redemption of any Series 2013B Bonds or portions thereof prior to maturity, a written notice of such redemption is required to be sent by the Trustee by United States mail, first-class postage prepaid, to the registered Owner of each Series 2013B Bond to be redeemed at its address as it appeared in the registration books maintained by the Trustee on the 45th day prior to such redemption date; *provided, however*, that the failure to send, mail, or receive such notice, or any defect therein or in the sending or mailing thereof, will not affect the validity or effectiveness of the proceedings for the optional redemption of any Series 2013B Bond and no such notice is required for the validity or effectiveness of any mandatory redemption of the Series 2013B Bonds. The mailing of such notice as required above in connection with the optional redemption of Series 2013B Bonds prior to maturity at the option of the Corporation will be the only notice actually required in connection with or as a prerequisite to such optional redemption of any Series 2013B Bonds or portions thereof. All redemption notices for the Series 2013B Bonds are required to contain a description of the Series 2013B Bonds to be redeemed, including such items specified in the Trust Agreement.

In addition to the foregoing, the Trustee is required to give notice of defeasance of any Series 2013B Bonds by mail, first-class, postage prepaid within 30 days after a defeasance date to each registered securities depository and to any national information service that disseminates such notices. The Trustee is also required to send a notice of prepayment or redemption to the registered Owner who has not sent its Series 2013B Bonds in for redemption 60 days after the redemption date.

If notice of redemption is given, if such notice is required, and if due provision for such payment is made, the Series 2013B Bonds or portions thereof which are to be redeemed thereby automatically will be treated as redeemed prior to their scheduled maturities, and they will not bear interest after the date fixed for redemption, and they will not be regarded as being outstanding except for the right of the registered Owners to receive the redemption price plus accrued interest from the Trustee out of the fund provided for such payment.

If the Series 2013B Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole registered owner of such Series 2013B Bonds, if less than all of the Series 2013B Bonds of a maturity or within a mandatory sinking fund redemption are called for prior redemption, the particular Series 2013B Bonds or portions thereof to be redeemed shall be allocated on a pro rata pass-through distribution of principal basis, with respect to the CIBs, and Maturity Amount, with respect to the CABs, in accordance with DTC procedures, provided that, so long as the Series 2013B Bonds are held in book-entry form, the selection for redemption of such Series 2013B Bonds shall be made in accordance with the operational arrangements of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, the Series 2013B Bonds will be selected for redemption, in accordance with DTC procedures, by lot or such other method then required by DTC; provided that any such redemption must be performed such that all Series 2013B Bonds remaining outstanding will be in Authorized Denominations.

Conditional Notice of Redemption. In the case of an optional redemption of the Series 2013B Bonds, the notice may state (1) that it is conditioned upon the deposit of money, in an amount equal to the amount necessary to effect the redemption, with the Trustee no later than the redemption date or (2) that the Corporation retains the right to rescind such notice at any time prior to the scheduled redemption date if the Corporation delivers a certificate of a Pricing Officer to the Trustee instructing the Trustee to rescind the redemption notice (in either case, a "*Conditional Redemption*"), and such notice and optional redemption will be of no effect if such money is not so deposited or if the notice is rescinded as described in the paragraph below.

Any Conditional Redemption may be rescinded in whole or in part at any time prior to the redemption date if the Corporation delivers a certificate of a Pricing Officer to the Trustee instructing the Trustee to rescind the redemption notice. The Trustee is required to give prompt notice of such rescission or failure to deposit funds to the affected Owners. Any Series 2013B Bonds subject to Conditional Redemption where redemption has been rescinded or funds to effect the redemption have not been deposited will remain outstanding, and the rescission or failure to deposit funds will not constitute an Event of Default under the Trust Agreement.

Tax Status

In the opinion of Bond Counsel to the Corporation, interest on the Series 2013B Bonds will be excludable from gross income for federal income tax purposes under statutes, regulations, published rulings and court decisions existing on the date hereof, except as explained under "**TAX MATTERS — Tax-Exempt Bonds.**"

THE SERIES 2013C BONDS

Description

The Series 2013C Bonds will be issued as fully registered bonds, without coupons, in denominations of \$5,000 or any integral multiple thereof and will be dated as of their date of delivery. Through the period which commences on the date of initial delivery of the Series 2013C Bonds and ends on the date specified as the last date of the Initial Multiannual Period on page (iv) hereof (the "*2013C Initial Multiannual Period*"), interest on the Series 2013C Bonds will accrue, calculated on the basis of a 360-day year composed of twelve 30-day months from their date of initial delivery and will be payable on April 1 and October 1 of each year, commencing October 1, 2013, at a rate of interest equal to the per annum Initial Interest Rate specified on page (iv) hereof (the "*2013C Initial Multiannual Rate*") until the Mandatory Tender Date for the Series 2013C Bonds as specified on page (iv) hereof (the "*2013C Mandatory Tender Date*"). Principal on the Series 2013C Bonds will come due on October 1, 2017.

The Series 2013C Bonds will be subject to mandatory tender for purchase on the 2013C Mandatory Tender Date subject to the successful remarketing of such Series 2013C Bonds (unless otherwise refunded) as described below under "-Optional and Mandatory Tender." At that time, the Corporation expects to either refund or remarket the Series 2013C Bonds in one of the several interest rate modes authorized by the First Supplemental Agreement, including a Daily, Weekly, Monthly, Flexible, Quarterly, Semiannual, Multiannual, Index Floating Rate or Fixed Rate Mode (as such terms are defined in the First Supplemental Agreement).

This Official Statement does not describe the terms and provisions of the First Supplemental Agreement and the Series 2013C Bonds as they relate to the Series 2013C Bonds following the 2013C Initial Multiannual Period except as described below in connection with the mandatory tender for purchase occurring at the end of the 2013C Initial Multiannual Period. Upon mandatory tender for purchase of the Series 2013C Bonds, such Series 2013C Bonds are expected to be remarketed. At the time of such remarketing, a new Official Statement or supplement to this Official Statement will be prepared for remarketing such Series 2013C Bonds.

As of the date of this Official Statement, the Corporation has not provided any credit or liquidity facility for the payment of the principal of or interest on the Series 2013C Bonds or the payment of the 2013C Purchase Price (as defined below) payable upon the mandatory tender of the Series 2013C Bonds on the 2013C Mandatory Tender Date, nor is there any requirement or expectation that such credit or liquidity facility will be obtained. The principal portion of the 2013C Purchase Price of the Series 2013C Bonds is expected to be obtained from the remarketing thereof unless otherwise refunded. The obligation of the Corporation to purchase Series 2013C Bonds on the 2013C Mandatory Tender Date is subject to the successful remarketing of such Series 2013C Bonds unless otherwise refunded. The Corporation has no obligation to purchase Series 2013C Bonds except from remarketing proceeds. If the Series 2013C Bonds are not remarketed, the interest rate on the Series 2013C Bonds will be increased to the 2013C Stepped Coupon Rate (as defined below under "– Optional and Mandatory Tender – *Effects of a Failed Remarketing*") of 8.0% per annum during the 2013C Stepped Rate Period (as defined below) through maturity, prior mandatory redemption or mandatory tender due to a successful remarketing (unless otherwise refunded). The TELA is not available to pay the purchase price of the Series 2013C Bonds as a result of the mandatory tender but is available for debt service on such bonds at the Stepped Coupon Rate.

Redemption

Optional Redemption. The Series 2013C Bonds are not subject to optional redemption prior to stated maturity.

Mandatory Redemption. The Series 2013C Bonds maturing on October 1, 2017 (the "*Term Series 2013C Bonds*") are subject to mandatory sinking fund redemption prior to maturity in the aggregate principal amounts and on the dates set forth in the following table, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to, but not including, the redemption date, as follows:

Series 2013C Term Bonds Maturing October 1, 2017	
<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2014	\$265,000,000
October 1, 2015	220,000,000
October 1, 2016	200,000,000
October 1, 2017*	151,440,000*

*Final Maturity

If less than all of the Series 2013C Bonds of the same maturity or within a mandatory sinking fund redemption are to be redeemed pursuant to such mandatory sinking fund redemption, the particular Series 2013C Bonds of such maturity to be redeemed will be determined as set forth below under "– *Notice of Redemption*."

The principal amount of the Term Series 2013C Bonds required to be redeemed on any redemption date pursuant to the operation of mandatory sinking fund redemption provisions will be reduced at the option of the Corporation, by the principal amount of any Term Series 2013C Bond scheduled for redemption on such redemption date or dates, which, at least 45 days prior to the mandatory sinking fund redemption date, (1) have been acquired by the Corporation and delivered to the Trustee for cancellation, (2) have been acquired and canceled by the Trustee, at the direction of the Corporation, at a price not exceeding the principal amount of such Term Series 2013C Bond plus accrued interest to the date of acquisition thereof, or (3) have been redeemed pursuant to the optional or special redemption provisions and not previously credited to a scheduled mandatory redemption.

Notice of Redemption. At least 30 days (or two days during a 2013C Stepped Rate Period) prior to the date fixed for redemption of any Series 2013C Bonds or portions thereof prior to maturity, at the option of the Corporation, a written notice of such redemption is required to be sent by the Trustee by United States mail, first-class postage prepaid, to the registered Owner of each Series 2013C Bond to be redeemed at its address as it appeared in the registration books maintained by the Trustee on the 45th day prior to such redemption date; *provided, however*, that the failure to send, mail, or receive such notice, or any defect therein or in the sending or mailing thereof, will not affect the validity or effectiveness of any mandatory redemption of any Series 2013C Bond. All redemption notices for the Series 2013C Bonds are required to contain a description of the Series 2013C Bonds to be redeemed, including such items specified in the Trust Agreement.

In addition to the foregoing, the Trustee is required to give notice of defeasance of any Series 2013C Bonds by mail, first-class, postage prepaid within 30 days after a defeasance date to each registered securities depository and to any national information service that disseminates such notices. The Trustee is also required to send a notice of prepayment or redemption to the registered Owner who has not sent its Series 2013C Bonds in for redemption 60 days after the redemption date.

If due provision for such payment is made, the Series 2013C Bonds or portions thereof which are to be redeemed thereby automatically will be treated as redeemed prior to their scheduled maturities, and they will not bear interest after the date fixed for redemption, and they will not be regarded as being outstanding except for the right of the registered Owners to receive the redemption price plus accrued interest from the Trustee out of the fund provided for such payment.

If the Series 2013C Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole registered owner of such Series 2013C Bonds, if less than all of the Series 2013C Bonds of a maturity or within a mandatory sinking fund redemption are called for prior redemption, the particular Series 2013C Bonds or portions thereof to be redeemed shall be allocated on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the Series 2013C Bonds are held in book-entry form, the selection for redemption of such Series 2013C Bonds shall be made in accordance with the operational arrangements of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, the Series 2013C Bonds will be selected for redemption, in accordance with DTC procedures, by lot or such other method then required by DTC; provided that any such redemption must be performed such that all Series 2013C Bonds remaining outstanding will be in authorized denominations.

Interest Rate Mode

The Series 2013C Bonds are not convertible into any other interest rate mode during the 2013C Initial Multiannual Period. As described above under "**General**," after the 2013C Initial Multiannual Period, the Corporation expects to either redeem or remarket the Series 2013C Bonds in one of the several interest rate modes authorized by the First Supplemental Trust Agreement.

Optional and Mandatory Tender

Optional Tender. The Series 2013C Bonds are not subject to optional tender during the 2013C Initial Multiannual Period.

Mandatory Tender. The Series 2013C Bonds are subject to mandatory tender for purchase on the 2013C Mandatory Tender Date and must be tendered for purchase to the Trustee by the owners thereof, with no right of retention by such owners. **The obligation of the Corporation to purchase Series 2013C Bonds on the 2013C Mandatory Tender Date is subject to the successful remarketing of such Series 2013C Bonds unless otherwise refunded. The Corporation has no obligation to purchase Series 2013C Bonds except from remarketing proceeds.** The purchase price (the "*2013C Purchase Price*") on the 2013C Mandatory Tender Date is equal to the principal amount of the Series 2013C Bonds, plus accrued interest, if any, to the 2013C Purchase Date (as defined below).

Additionally, during the 2013C Stepped Rate Period (as defined below), the Series 2013C Bonds are subject to mandatory tender, without right of retention, on any date, such date also being a "2013C Purchase Date" (as defined below), in the event the Corporation issues refunding bonds to pay the 2013C Purchase Price of the Series 2013C Bonds with not fewer than two days written notice to the Registered Owner of the Series 2013C Bonds.

The Corporation has agreed to appoint one or more remarketing agents (each a "*Remarketing Agent*"), prior to the 2013C Mandatory Tender Date and that it will use its best efforts to have Series 2013C Bonds remarketed on the 2013C Mandatory Tender Date, if the Series 2013C Bonds are not redeemed on such date. Each Remarketing Agent must have a capitalization of at least \$100,000,000 and be authorized by law to perform all the duties imposed upon it by the First Supplemental Trust Agreement. Such future Remarketing Agents may not remarket any Series 2013C Bonds if a default in the payment of principal or interest on the Series 2013C Bonds has occurred and is continuing. The Remarketing Agents will be required to use their best efforts to remarket the Series 2013C Bonds on the 2013C Mandatory Tender Date. If on the 2013C Mandatory Tender Date money sufficient to pay the 2013C Purchase Price is on deposit with the Trustee, acting as tender agent, the Series 2013C Bonds will be deemed to have been tendered on such date for purchase and interest on such tendered Series 2013C Bonds will cease to accrue. Series 2013C Bonds that have been deemed tendered, but have not been delivered to the Trustee, will not be considered outstanding under the Trust Agreement on the 2013C Purchase Date. See "*Undelivered Series 2013C Bonds*" below.

Prior to the 2013C Mandatory Tender Date, or a later 2013C Purchase Date in the event of a failed conversion and remarketing of the Series 2013C Bonds on the 2013C Mandatory Tender Date (in either case a "*2013C Purchase Date*"), the Corporation will determine the interest rate mode or modes that will be applicable to the Series 2013C Bonds from and after the 2013C Purchase Date unless such 2013C Purchase Date results from a refunding of the Series 2013C Bonds. The interest rate or rates to be borne by the Series 2013C Bonds immediately after the 2013C Purchase Date will be determined by the Remarketing Agent and will be equal to the rate or rates that, in the opinion of the Remarketing Agent, will permit the remarketing of the Series 2013C Bonds at par; provided, however, the interest rate may not exceed the Maximum Rate. The interest rate or rates to be determined by the Remarketing Agent may be in any Mode, and the Series 2013C Bonds may be

subject to subsequent remarketings. If the Corporation determines that the Mode to be in effect after the 2013C Purchase Date will be a Fixed Mode or another Multiannual Mode, the 2013C Purchase Price may exceed par for the purpose of obtaining the lowest reoffering yield to the Corporation and to pay remarketing costs, but the tendering Registered Owners will only receive par plus accrued interest to the 2013C Purchase Date. In conjunction with such Conversion and remarketing, the Corporation may establish amortization requirements for the Series 2013C Bonds that will result in the mandatory redemption of the Series 2013C Bonds prior to maturity.

Payment of the 2013C Purchase Price of the Series 2013C Bonds will be made by the Trustee on the 2013C Purchase Date provided that the Series 2013C Bonds subject to purchase are delivered to the Trustee prior to 11:00 a.m., New York City time, on the 2013C Purchase Date, in immediately available funds (or by wire transfer). The principal portion of the 2013C Purchase Price of Series 2013C Bonds tendered for purchase will be paid by the Trustee to the owners solely from the proceeds of the remarketing of the Series 2013C Bonds.

Effects of a Failed Remarketing. In the event that any Series 2013C Bonds cannot be remarketed to new purchasers on the 2013C Mandatory Tender Date, the Corporation has no obligation to purchase the Series 2013C Bonds tendered on the 2013C Mandatory Tender Date, the failed conversion and remarketing will not constitute an Event of Default under the Trust Agreement, the mandatory tender will be deemed to have been rescinded for that date, and such Series 2013C Bonds (i) will continue to be outstanding, (ii) will be purchased upon the availability of funds to be received from the subsequent remarketing or refunding of such Series 2013C Bonds, (iii) will bear interest at the rate of 8.0% per annum (the "*2013C Stepped Coupon Rate*") from the 2013C Mandatory Tender Date until purchased upon a subsequent remarketing or refunding (the "*2013C Stepped Rate Period*"), (iv) will be subject to redemption and mandatory tender for purchase on any date during the 2013C Stepped Rate Period upon which a conversion or refunding occurs and (v) will be deemed to continue in a Multiannual Mode and in the 2013C Initial Multiannual Period, though bearing interest at the 2013C Stepped Coupon Rate through the day prior to the Effective Date of next Interest Rate Period or redemption date of the Series 2013C Bonds. In the event of a failed conversion and remarketing on the 2013C Mandatory Tender Date, the Corporation has agreed that it will cause the Series 2013C Bonds to be remarketed on the earliest possible date on which they can be sold at par (or above par in the exception described above), in such rate mode or modes as the Corporation directs, at a rate not exceeding the Maximum Rate.

Undelivered Series 2013C Bonds. If a Book-Entry-Only System is not in effect at the time any Series 2013C Bond is subject to mandatory tender for purchase, and if the Trustee is in receipt of an amount sufficient to pay the 2013C Purchase Price, then such Series 2013C Bond (or portion) will be deemed purchased on the 2013C Purchase Date, and ownership of such Series 2013C Bond (or portion) shall be transferred to the purchaser thereof. Any registered owner who fails to deliver such Series 2013C Bond for purchase will not be entitled to any payment other than the 2013C Purchase Price for such Series 2013C Bond upon surrender of such Series 2013C Bond to the Trustee, and such Series 2013C Bond will no longer be outstanding and entitled to the benefits of the Trust Agreement, except for the payment of the 2013C Purchase Price of such Series 2013C Bond from money held by the Trustee for such payment upon presentation and surrender of the Series 2013C Bond. Money which remains unclaimed three years after the due date will, at the request of the Corporation, and if the Corporation is not, at the time, to the knowledge of the Trustee, in default with respect to any covenant in the Trust Agreement or the Series 2013C Bonds, be paid to the Corporation, and the owners of the Series 2013C Bonds for which the deposit was made will thereafter be limited to a claim against the Corporation.

Tax Status

In the opinion of Bond Counsel to the Corporation, interest on the Series 2013C Bonds will be excludable from gross income for federal income tax purposes under statutes, regulations, published rulings and court decisions existing on the date hereof, except as explained under "**TAX MATTERS — Tax-Exempt Bonds.**"

THE TAXABLE SERIES 2013D BONDS

Description

The Taxable Series 2013D Bonds will be issued as fully registered bonds, without coupons, in denominations of \$5,000 or any integral multiple thereof and will be dated as of their date of delivery. Through the period which commences on the date of initial delivery of the Taxable Series 2013D Bonds and ends on the date specified as the last date of the Initial Multiannual Period on page (v) hereof (the "*2013D Initial Multiannual Period*"), interest on the Taxable Series 2013D Bonds will accrue, calculated on the basis of a 360-day year composed of twelve 30-day months from their date of initial delivery and will be payable on April 1 and October 1 of each year, commencing October 1, 2013, at a rate of interest equal to the per annum Initial Interest Rate specified on page (v) hereof (the "*2013D Initial Multiannual Rate*") until the Mandatory Tender Date for the Taxable Series 2013D Bonds as specified on page (v) hereof (the "*2013D Mandatory Tender Date*"). Principal on the Taxable Series 2013D Bonds will come due on October 1, 2017.

The Taxable Series 2013D Bonds will be subject to mandatory tender for purchase on the 2013D Mandatory Tender Date subject to the successful remarketing of such Taxable Series 2013D Bonds (unless otherwise refunded) as described below under "- Optional and Mandatory Tender." At that time, the Corporation expects to either refund or remarket the Taxable Series 2013D Bonds in one of the several interest rate modes authorized by the First Supplemental Agreement, including a Daily, Weekly, Monthly, Flexible, Quarterly, Semiannual, Multiannual, Index Floating Rate or Fixed Rate Mode (as such terms are defined in the First Supplemental Agreement).

This Official Statement does not describe the terms and provisions of the First Supplemental Agreement and the Taxable Series 2013D Bonds as they relate to the Taxable Series 2013D Bonds following the 2013D Initial Multiannual Period except as described below in connection with the mandatory tender for purchase occurring at the end of the 2013D Initial Multiannual Period. Upon mandatory tender for purchase of the Taxable Series 2013D Bonds, such Taxable Series 2013D Bonds are expected to be remarketed. At the time of such remarketing, a new Official Statement or supplement to this Official Statement will be prepared for remarketing such Taxable Series 2013D Bonds.

As of the date of this Official Statement, the Corporation has not provided any credit or liquidity facility for the payment of the principal of or interest on the Taxable Series 2013D Bonds or the payment of the 2013D Purchase Price (as defined below) payable upon the mandatory tender of the Taxable Series 2013D Bonds on the 2013D Mandatory Tender Date, nor is there any requirement or expectation that such credit or liquidity facility will be obtained. The principal portion of the 2013D Purchase Price of the Series 2013D Bonds is expected to be obtained from the remarketing thereof unless otherwise refunded. The obligation of the Corporation to purchase Series 2013D Bonds on the 2013D Mandatory Tender Date is subject to the successful remarketing of such Series 2013D Bonds unless otherwise refunded. The Corporation has no obligation to purchase Series 2013D Bonds except from remarketing proceeds. If the Series 2013D Bonds are not remarketed, the interest rate on the Series 2013D Bonds will be increased to the 2013D Stepped Coupon Rate (as defined below under "- Optional and Mandatory Tender – Effects of a Failed Remarketing") of 10.0% per annum during the 2013D Stepped Rate Period (as defined below) through maturity, prior mandatory redemption or mandatory tender due to a successful remarketing (unless otherwise refunded). The TELA is not available to pay the purchase price of the Taxable Series 2013D Bonds as a result of the mandatory tender but is available for debt service on such bonds at the Stepped Coupon Rate.

Redemption

Optional Redemption. The Series 2013D Bonds are not subject to optional redemption prior to stated maturity.

Mandatory Redemption. The Taxable Series 2013D Bonds maturing on October 1, 2017 (the "*Term Taxable Series 2013D Bonds*") are subject to mandatory sinking fund redemption prior to maturity in the aggregate principal amounts and on the dates set forth in the following table, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to, but not including, the redemption date, as follows:

Series 2013D Term Bonds Maturing October 1, 2017

<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2014	\$20,000,000
October 1, 2015	20,000,000
October 1, 2016	30,000,000
October 1, 2017*	36,890,000*

*Final Maturity

If less than all of the Taxable Series 2013D Bonds of the same maturity or within a mandatory sinking fund redemption are to be redeemed pursuant to such mandatory sinking fund redemption, the particular Taxable Series 2013D Bonds of such maturity to be redeemed will be determined as set forth below under "- *Notice of Redemption.*"

The principal amount of the Term Taxable Series 2013D Bonds required to be redeemed on any redemption date pursuant to the operation of mandatory sinking fund redemption provisions will be reduced at the option of the Corporation, by the principal amount of any Term Taxable Series 2013D Bond scheduled for redemption on such redemption date or dates, which, at least 45 days prior to the mandatory sinking fund redemption date, (1) have been acquired by the Corporation and delivered to the Trustee for cancellation, (2) have been acquired and canceled by the Trustee, at the direction of the Corporation, at a price not exceeding the principal amount of such Term Taxable Series 2013D Bond plus accrued interest to the date of acquisition thereof, or (3) have been redeemed pursuant to the optional or special redemption provisions and not previously credited to a scheduled mandatory redemption.

Notice of Redemption. At least 30 days prior to the date fixed for redemption of any Taxable Series 2013D Bonds or portions thereof prior to maturity, at the option of the Corporation, a written notice of such redemption is required to be sent by the Trustee by United States mail, first-class postage prepaid, to the registered Owner of each Taxable Series 2013D Bond to be redeemed at its address as it appeared in the registration books maintained by the Trustee on the 45th day prior to such redemption date; *provided, however*, that the failure to send, mail, or receive such notice, or any defect therein or in the sending or mailing thereof, will not affect the validity or effectiveness of any mandatory redemption of any Taxable Series 2013D Bond. All redemption notices for the Taxable Series 2013D Bonds are required to contain a description of the Taxable Series 2013D Bonds to be redeemed, including such items specified in the Trust Agreement.

In addition to the foregoing, the Trustee is required to give notice of defeasance of any Taxable Series 2013D Bonds by mail, first-class, postage prepaid within 30 days after a defeasance date to each registered securities depository and to any national information service that disseminates such notices. The Trustee is also required to send a notice of prepayment or redemption to the registered Owner who has not sent its Taxable Series 2013D Bonds in for redemption 60 days after the redemption date.

If due provision for such payment is made, the Taxable Series 2013D Bonds or portions thereof which are to be redeemed thereby automatically will be treated as redeemed prior to their scheduled maturities, and they will not bear interest after the date fixed for redemption, and they will not be regarded as being outstanding except for the right of the registered Owners to receive the redemption price plus accrued interest from the Trustee out of the fund provided for such payment.

If the Taxable Series 2013D Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole registered owner of such Taxable Series 2013D Bonds, if less than all of the Taxable Series 2013D Bonds of a maturity or within a mandatory sinking fund redemption are called for prior redemption, the particular Taxable Series 2013D Bonds or portions thereof to be redeemed shall be allocated on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the Taxable Series 2013D Bonds are held in book-entry form, the selection for redemption of such Taxable Series 2013D Bonds shall be made in accordance with the operational arrangements of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, the Taxable Series 2013D Bonds will be selected for redemption, in accordance with DTC procedures, by lot or such other method then required by DTC; provided that any such redemption must be performed such that all Taxable Series 2013D Bonds remaining outstanding will be in authorized denominations.

Interest Rate Mode

The Taxable Series 2013D Bonds are not convertible into any other interest rate mode during the 2013D Initial Multiannual Period. As described above under "– **General**," after the 2013D Initial Multiannual Period, the Corporation expects to either redeem or remarket the Taxable Series 2013D Bonds in one of the several interest rate modes authorized by the First Supplemental Trust Agreement.

Optional and Mandatory Tender

Optional Tender. The Taxable Series 2013D Bonds are not subject to optional tender during the 2013D Initial Multiannual Period.

Mandatory Tender. The Taxable Series 2013D Bonds are subject to mandatory tender for purchase on the 2013D Mandatory Tender Date and must be tendered for purchase to the Trustee by the owners thereof, with no right of retention by such owners. **The obligation of the Corporation to purchase Taxable Series 2013D Bonds on the 2013D Mandatory Tender Date is subject to the successful remarketing of such Taxable Series 2013D Bonds unless otherwise refunded. The Corporation has no obligation to purchase Taxable Series 2013D Bonds except from remarketing proceeds.** The purchase price (the "2013D Purchase Price") on the 2013D Mandatory Tender Date is equal to the principal amount of the Taxable Series 2013D Bonds, plus accrued interest, if any, to the Purchase Date (as defined below).

Additionally, during the 2013D Stepped Rate Period (as defined below), the Taxable Series 2013D Bonds are subject to mandatory tender, without right of retention, on any date, such date also being a "2013D Purchase Date" (as defined below) in the event the Corporation issues refunding bonds to pay the 2013D Purchase Price of the Taxable Series 2013D Bonds with not fewer than two days written notice to the Registered Owner of the Taxable Series 2013D Bonds.

The Corporation has agreed to appoint one or more remarketing agents (each a "*Remarketing Agent*"), prior to the Mandatory Tender Date and that it will use its best efforts to have Taxable Series 2013D Bonds remarketed on the 2013D Mandatory Tender Date, if the Taxable Series 2013D Bonds are not redeemed on such date. Each Remarketing Agent must have a capitalization of at least \$100,000,000 and be authorized by law to perform all the duties imposed upon it by the First Supplemental Trust Agreement. Such future Remarketing Agents may not remarket any Taxable Series 2013D Bonds if a default in the payment of principal of or interest on the Taxable Series 2013D Bonds has occurred and is continuing. The

Remarketing Agents will be required to use their best efforts to remarket the Taxable Series 2013D Bonds on the 2013D Mandatory Tender Date. If on the 2013D Mandatory Tender Date money sufficient to pay the 2013D Purchase Price is on deposit with the Trustee, acting as tender agent, the Taxable Series 2013D Bonds will be deemed to have been tendered on such date for purchase and interest on such tendered Taxable Series 2013D Bonds will cease to accrue. Taxable Series 2013D Bonds that have been deemed tendered, but have not been delivered to the Trustee, will not be considered outstanding under the Trust Agreement on the 2013D Purchase Date. See "- *Undelivered Taxable Series 2013D Bonds*" below.

Prior to the 2013D Mandatory Tender Date, or a later 2013D Purchase Date in the event of a failed conversion and remarketing of the Taxable Series 2013D Bonds on the 2013D Mandatory Tender Date (in either case a "*2013D Purchase Date*"), the Corporation will determine the interest rate mode or modes that will be applicable to the Taxable Series 2013D Bonds from and after the 2013D Purchase Date unless such 2013D Purchase Date results from a refunding of the Taxable Series 2013D Bonds. The interest rate or rates to be borne by the Taxable Series 2013D Bonds immediately after the 2013D Purchase Date will be determined by the Remarketing Agent and will be equal to the rate or rates that, in the opinion of the Remarketing Agent, will permit the remarketing of the Taxable Series 2013D Bonds at par; provided, however, the interest rate may not exceed the Maximum Rate. The interest rate or rates to be determined by the Remarketing Agent may be in any Mode, and the Taxable Series 2013D Bonds may be subject to subsequent remarketings. If the Corporation determines that the Mode to be in effect after the 2013D Purchase Date will be a Fixed Mode or another Multiannual Mode, the 2013D Purchase Price may exceed par for the purpose of obtaining the lowest reoffering yield to the Corporation and to pay remarketing costs, but the tendering Registered Owners will only receive par plus accrued interest to the 2013D Purchase Date. In conjunction with such Conversion and remarketing, the Corporation may establish amortization requirements for the Taxable Series 2013D Bonds that will result in the mandatory redemption of the Taxable Series 2013D Bonds prior to maturity.

Payment of the 2013D Purchase Price of the Taxable Series 2013D Bonds will be made by the Trustee on the 2013D Purchase Date provided that the Taxable Series 2013D Bonds subject to purchase are delivered to the Trustee prior to 11:00 a.m., New York City time, on the 2013D Purchase Date, in immediately available funds (or by wire transfer). The principal portion of the 2013D Purchase Price of Taxable Series 2013D Bonds tendered for purchase will be paid by the Trustee to the owners solely from the proceeds of the remarketing of the Taxable Series 2013D Bonds.

Effects of a Failed Remarketing. In the event that any Taxable Series 2013D Bonds cannot be remarketed to new purchasers on the 2013D Mandatory Tender Date, the Corporation has no obligation to purchase the Taxable Series 2013D Bonds tendered on the 2013D Mandatory Tender Date, the failed conversion and remarketing will not constitute an Event of Default under the Trust Agreement, the mandatory tender will be deemed to have been rescinded for that date, and such Taxable Series 2013D Bonds (i) will continue to be outstanding, (ii) will be purchased upon the availability of funds to be received from the subsequent remarketing or refunding of such Taxable Series 2013D Bonds, (iii) will bear interest at the rate of 10.0% per annum (the "*2013D Stepped Coupon Rate*") from the 2013D Mandatory Tender Date until purchased upon a subsequent remarketing or refunding (the "*2013D Stepped Rate Period*"), (iv) will be subject to redemption and mandatory tender for purchase on any date during the 2013D Stepped Rate Period upon which a conversion or refunding occurs and (v) will be deemed to continue in a Multiannual Mode and in the 2013D Initial Multiannual Period, though bearing interest at the 2013D Stepped Coupon Rate through the day prior to the Effective Date of next Interest Rate Period or redemption date of the Taxable Series 2013D Bonds. In the event of a failed conversion and remarketing on the 2013D Mandatory Tender Date, the Corporation has agreed that it will cause the Taxable Series 2013D Bonds to be remarketed on the earliest possible date on which they can be sold at par (or above par in the exception described above), in such rate mode or modes as the Corporation directs, at a rate not exceeding the Maximum Rate.

Undelivered Taxable Series 2013D Bonds. If a Book-Entry-Only System is not in effect at the time any Taxable Series 2013D Bond is subject to mandatory tender for purchase, and if the Trustee is in receipt of an amount sufficient to pay the 2013D Purchase Price, then such Taxable Series 2013D Bond (or portion) will be deemed purchased on the 2013D Purchase Date, and ownership of such Taxable Series 2013D Bond (or portion) shall be transferred to the purchaser thereof. Any registered owner who fails to deliver such Taxable Series 2013D Bond for purchase will not be entitled to any payment other than the 2013D Purchase Price for such Taxable Series 2013D Bond upon surrender of such Taxable Series 2013D Bond to the Trustee, and such Taxable Series 2013D Bond will no longer be outstanding and entitled to the benefits of the Trust Agreement, except for the payment of the 2013D Purchase Price of such Taxable Series 2013D Bond from money held by the Trustee for such payment upon presentation and surrender of the Taxable Series 2013D Bond. Money which remains unclaimed three years after the due date will, at the request of the Corporation, and if the Corporation is not, at the time, to the knowledge of the Trustee, in default with respect to any covenant in the Trust Agreement or the Taxable Series 2013D Bonds, be paid to the Corporation, and the owners of the Taxable Series 2013D Bonds for which the deposit was made will thereafter be limited to a claim against the Corporation.

Tax Status

The Taxable Series 2013D Bonds are not obligations described in Section 103(a) of the Code and thus interest on the Taxable Series 2013D Bonds is not excludable from gross income for federal income tax purposes. See "**TAX MATTERS — Taxable Series 2013D Bonds and Taxable Series 2013E Bonds.**"

THE TAXABLE SERIES 2013E BONDS

Description

The Taxable Series 2013E Bonds will be issued as fully registered bonds, without coupons, in denominations of \$5,000 or any integral multiple thereof and will be dated as of their date of delivery. Interest on the Taxable Series 2013E Bonds will accrue at the interest rates specified on page (vi) hereof, calculated on the basis of a 360-day year composed of twelve 30-day months, from their date of delivery and will be payable semiannually on April 1 and October 1 of each year, commencing October 1, 2013. Principal will come due on October 1, 2042 or upon earlier redemption of the Taxable Series 2013E Bonds as described herein.

Redemption

Optional Redemption. The Taxable Series 2013E Bonds may be redeemed prior to their scheduled maturity at the option of the Corporation, with funds derived from any available source, on any date, in whole or in part, and if in part, the particular Taxable Series 2013E Bonds or portions of Taxable Series 2013E Bonds to be redeemed are to be selected and designated by the Corporation in its sole discretion, in authorized denominations, at the Taxable Make-Whole Redemption Price. The "Taxable Make-Whole Redemption Price" shall be the greater of (i) the issue price of the Taxable Series 2013E Bonds to be redeemed as set forth in this Official Statement (but not less than 100% of the principal amount of such Taxable Series 2013E Bonds) or (ii) the Discounted Value of such Taxable Series 2013E Bonds to be redeemed, plus, in each case, accrued and unpaid interest on the Taxable Series 2013E Bonds to be redeemed on the redemption date. If Taxable Series 2013E Bonds are to be called for redemption at the option of the Corporation, but not all of the Taxable Series 2013E Bonds, as applicable, then outstanding are to be called for redemption, the Taxable Series 2013E Bonds so to be called shall be determined in accordance with the procedures set forth at "*Mandatory Redemption*" below.

The following definitions shall apply for purposes of the computation of the "Make-Whole Redemption Price":

"Discounted Value" shall mean, with respect to Taxable Series 2013E Bonds to be redeemed pursuant to the provisions of the Trust Agreement, the amount obtained by discounting all Remaining Scheduled Payments with respect to such Taxable Series 2013E Bonds from the mandatory sinking fund redemption dates applicable to the Taxable Series 2013E Bonds being redeemed and maturity date to the applicable redemption date, in accordance with accepted financial practice and at a discount factor equal to the Reinvestment Yield with respect to such Taxable Series 2013E Bonds.

"Remaining Average Life" shall mean, with respect to the Taxable Series 2013E Bonds to be redeemed, the number of years (calculated to the nearest one-twelfth year) that will elapse between the applicable redemption date and the scheduled mandatory sinking fund redemption dates applicable to such Series 2013E Bonds being redeemed and maturity date.

"Remaining Scheduled Payments" shall mean, with respect to Taxable Series 2013E Bonds to be redeemed pursuant to the provisions of the Trust Agreement, all payments of principal and interest thereon that would be due after the applicable redemption date with respect to such Taxable Series 2013E Bonds if no payment of principal were made prior to the applicable scheduled mandatory sinking fund redemption dates and maturity date.

"Reinvestment Yield" shall mean, with respect to Taxable Series 2013E Bonds to be redeemed pursuant to the provisions of the Trust Agreement, 25 basis points over the yield to maturity implied by (i) the yields reported as of 10:00 A.M. (New York City time) on the second business day preceding the applicable redemption date on the display designated as "Page PX1" (or such other display as may replace Page PX1) on Bloomberg Financial Markets for the most recently issued actively traded on the run U.S. Treasury Securities having a maturity equal to the Remaining Average Life of such Taxable Series 2013E Bonds as of such redemption date, or (ii) if such yields are not reported as of such time or the yields reported as of such time are not ascertainable (including by way of interpolation), the Treasury Constant Maturity Series Yields reported, for the last day for which such yields have been so reported as of the second business day preceding the applicable redemption date in Federal Reserve Statistical Release H.15 (or any comparable successor publication) for U.S. Treasury securities having a constant maturity equal to the Remaining Average Life of such Taxable Series 2013E Bonds as of such redemption date. In the case of each determination under clause (i) or clause (ii), as the case may be, of the preceding sentence, such

implied yield will be determined if necessary, by (a) converting U.S. Treasury bill quotations to bond equivalent yields in accordance with accepted financial practice and (b) interpolating linearly between (1) the applicable U.S. Treasury security with the maturity closest to and greater than such Remaining Average Life and (2) the applicable U.S. Treasury security with the maturity closest to and less than such Remaining Average Life. The Reinvestment Yield shall be rounded to the number of decimal places as appears in the interest rate of the applicable bond.

Mandatory Redemption. The Taxable Series 2013E Bonds maturing on October 1, 2042 (the "*Term Taxable Series 2013E Bonds*") are subject to mandatory sinking fund redemption prior to maturity in the aggregate principal amounts and on the dates set forth in the following table, at a redemption price equal to 100% of the principal amount thereof, plus accrued interest to, but not including, the redemption date, as follows:

Taxable Series 2013E Term Bonds
Maturing October 1, 2042

<u>Redemption Date</u>	<u>Principal Amount</u>
October 1, 2036	\$15,195,000
October 1, 2037	50,865,000
October 1, 2038	56,805,000
October 1, 2039	62,000,000
October 1, 2040	66,505,000
October 1, 2041	70,035,000
October 1, 2042*	40,405,000*

*Final Maturity

If less than all of the Taxable Series 2013E Bonds of the same maturity or within a mandatory sinking fund redemption are to be redeemed pursuant to such mandatory sinking fund redemption, the particular Taxable Series 2013E Bonds of such maturity to be redeemed will be determined as set forth below under "*Notice of Redemption*."

The principal amount of the Term Taxable Series 2013E Bonds required to be redeemed on any redemption date pursuant to the operation of mandatory sinking fund redemption provisions will be reduced at the option of the Corporation, by the principal amount of any Term Taxable Series 2013E Bond scheduled for redemption on such redemption date or dates, which, at least 45 days prior to the mandatory sinking fund redemption date, (1) have been acquired by the Corporation and delivered to the Trustee for cancellation, (2) have been acquired and canceled by the Trustee, at the direction of the Corporation, at a price not exceeding the principal amount of such Term Taxable Series 2013E Bond plus accrued interest to the date of acquisition thereof, or (3) have been redeemed pursuant to the optional redemption provisions and not previously credited to a scheduled mandatory redemption.

Notice of Redemption. At least 30 days prior to the date fixed for redemption of any Taxable Series 2013E Bonds or portions thereof prior to maturity, a written notice of such redemption is required to be sent by the Trustee by United States mail, first-class postage prepaid, to the registered Owner of each Taxable Series 2013E Bond to be redeemed at its address as it appeared in the registration books maintained by the Trustee on the 45th day prior to such redemption date; *provided, however*, that the failure to send, mail, or receive such notice, or any defect therein or in the sending or mailing thereof, will not affect the validity or effectiveness of the proceedings for the optional redemption of any Taxable Series 2013E Bond and no such notice is required for the validity or effectiveness of any mandatory redemption of the Taxable Series 2013E Bonds. The mailing of such notice as required above in connection with the optional redemption of Taxable Series 2013E Bonds prior to maturity at the option of the Corporation will be the only notice actually required in connection with or as a prerequisite to such optional redemption of any Taxable Series 2013E Bonds or portions thereof. All redemption notices for the Taxable Series 2013E Bonds are required to contain a description of the Taxable Series 2013E Bonds to be redeemed, including such items specified in the Trust Agreement.

In addition to the foregoing, the Trustee is required to give notice of defeasance of any Taxable Series 2013E Bonds by mail, first-class, postage prepaid within 30 days after a defeasance date to each registered securities depository and to any national information service that disseminates such notices. The Trustee is also required to send a notice of prepayment or redemption to the registered Owner who has not sent its Taxable Series 2013E Bonds in for redemption 60 days after the redemption date.

If notice of redemption is given, if such notice is required, and if due provision for such payment is made, the Taxable Series 2013E Bonds or portions thereof which are to be redeemed thereby automatically will be treated as redeemed prior to their scheduled maturities, and they will not bear interest after the date fixed for redemption, and they will not be

regarded as being outstanding except for the right of the registered Owners to receive the redemption price plus accrued interest from the Trustee out of the fund provided for such payment.

If the Taxable Series 2013E Bonds are registered in book-entry-only form and so long as DTC or a successor securities depository is the sole registered owner of such Taxable Series 2013E Bonds, if less than all of the Taxable Series 2013E Bonds of a maturity or within a mandatory sinking fund redemption are called for prior redemption, the particular Taxable Series 2013E Bonds or portions thereof to be redeemed shall be allocated on a pro rata pass-through distribution of principal basis in accordance with DTC procedures, provided that, so long as the Taxable Series 2013E Bonds are held in book-entry form, the selection for redemption of such Taxable Series 2013E Bonds shall be made in accordance with the operational arrangements of DTC then in effect, and, if the DTC operational arrangements do not allow for redemption on a pro rata pass-through distribution of principal basis, the Taxable Series 2013E Bonds will be selected for redemption, in accordance with DTC procedures, by lot or such other method then required by DTC; provided that any such redemption must be performed such that all Taxable Series 2013E Bonds remaining outstanding will be in authorized denominations.

Conditional Notice of Redemption. In the case of an optional redemption of the Taxable Series 2013E Bonds, the notice may state (1) that it is conditioned upon the deposit of money, in an amount equal to the amount necessary to effect the redemption, with the Trustee no later than the redemption date or (2) that the Corporation retains the right to rescind such notice at any time prior to the scheduled redemption date if the Corporation delivers a certificate of a Pricing Officer to the Trustee instructing the Trustee to rescind the redemption notice (in either case, a "*Conditional Redemption*"), and such notice and optional redemption will be of no effect if such money is not so deposited or if the notice is rescinded as described in the paragraph below.

Any Conditional Redemption may be rescinded in whole or in part at any time prior to the redemption date if the Corporation delivers a certificate of a Pricing Officer to the Trustee instructing the Trustee to rescind the redemption notice. The Trustee is required to give prompt notice of such rescission or failure to deposit funds to the affected Owners. Any Taxable Series 2013E Bonds subject to Conditional Redemption where redemption has been rescinded or funds to effect the redemption have not been deposited will remain outstanding, and the rescission or failure to deposit funds will not constitute an Event of Default under the Trust Agreement.

Tax Status

The Taxable Series 2013E Bonds are not obligations described in Section 103(a) of the Code and thus interest on the Taxable Series 2013E Bonds is not excludable from gross income for federal income tax purposes. See "**TAX MATTERS — Taxable Series 2013D Bonds and Taxable Series 2013E Bonds.**"

GENERAL INFORMATION REGARDING THE BONDS

Trustee

The Corporation has appointed U.S. Bank National Association to serve as Trustee under the Trust Agreement, the First Supplemental Trust Agreement and the Second Supplemental Trust Agreement. Any trustee must be a bank or trust company duly organized and doing business under the laws of the United States of America and located in the State of Texas, authorized under such laws to exercise corporate trust powers and subject to examination by federal or state authority, of good standing, and having, at the time of its appointment, a combined capital and surplus aggregating not less than \$100,000,000.

The Trustee may resign by notice in writing to the Corporation mailed to each Owner of record not less than 60 days before such resignation takes effect, but such resignation will take effect immediately upon the appointment of a new trustee, if the new trustee is appointed before the time limited by such notice and accepts such appointment; *provided that* such resignation will not become effective until a successor trustee is appointed and accepts appointment. The Trustee may be removed at any time by an instrument or instruments signed by the Owners of not less than a majority in principal amount of the Bonds secured under the Trust Agreement and then Outstanding. No removal of a trustee will be effective until a qualified successor trustee has been appointed and has accepted appointment. The Trustee may be removed at any time by the Corporation if the Corporation names a successor trustee and directs the successor trustee to mail written notice of change in trustee to each Owner on or before the next interest payment date or redemption date, whichever is first to occur.

If at any time a trustee resigns, is removed, is dissolved or otherwise becomes incapable of acting, or the bank or trust company acting as trustee is taken over by any governmental official, agency, department or board, the position of trustee will become vacant. If the position of trustee becomes vacant for any reason, the Corporation is required to appoint a trustee to fill such vacancy. At any time within one year after any such vacancy, the owners of a majority in principal amount of the Bonds then Outstanding under the Trust Agreement may appoint a successor trustee, which will supersede any trustee

previously appointed by the Corporation. If no appointment of a successor trustee is made pursuant to the foregoing provisions, the Owner of any Bond Outstanding under the Trust Agreement or any retiring trustee may apply to any court of competent jurisdiction to appoint a successor trustee.

Record Date

The Record Date for the payment of interest is (i) with respect to the Series 2013A Bonds, the Series 2013B Bonds that are CIBs, the Series 2013B Bonds that are CABs beginning October 1, 2023 and the Taxable Series 2013E Bonds, the close of business on the fifteenth day of March and September of each year, and (ii) with respect to the Series 2013C Bonds and the Taxable Series 2013D Bonds, the close of business on the 15th day of the calendar month immediately preceding any Interest Payment Date, regardless of whether such day is a Business Day.

Payments in the Event of Holidays

If the date for payment of the principal of or interest on the Bonds is a Saturday, Sunday, legal holiday, or day on which banking institutions are required or authorized by law or executive order to remain closed in the city where the Trustee or the Corporation is located, then the date for such payment will be the next succeeding day which is not a Saturday, Sunday, legal holiday, or day on which such banking institutions are required or authorized by law to close. Payment on such later date will not increase the amount of interest due and will have the same force and effect as if made on the original date payment was due.

Transfers and Exchanges

Beneficial ownership of the Bonds registered in the name of Cede & Co. will initially be transferred as described under " — **Book-Entry-Only System**" below.

The Corporation is required to keep or cause to be kept at a corporate trust office of the Trustee in the State of Texas books or records for the registration and transfer of the Bonds in accordance with the terms of the Trust Agreement.

Upon surrender of any Bonds at the corporate trust office of the Trustee, together with a written request therefor duly executed by the registered Owner or the assignee or assignees of such Bonds, or its or their duly authorized attorneys or representatives, with guarantee of signatures satisfactory to the Trustee, such Bonds may, at the option of the registered Owner or such assignee or assignees, as appropriate, be exchanged for fully registered Bonds, without interest coupons, in authorized denominations, in an aggregate principal amount equal to the unpaid or unredeemed principal amount of any Bonds so surrendered, and payable to the appropriate registered Owner, assignee, or assignees, as the case may be; *provided that* the Trustee is not required to make the transfers of registration of Bonds or any portion thereof (i) during the period commencing with the close of business on any Record Date and ending with the opening of business on the next following principal or interest payment date, or (ii) with respect to any Bond or any portion thereof called for redemption prior to maturity, within 45 days prior to its redemption date.

The Corporation has covenanted to pay the Trustee's standard or customary fees and charges for transferring or exchanging any Bond or any portion thereof, but the person requesting any such transfer or exchange is required to pay any taxes or governmental charges required to be paid with respect thereto.

The designated office of the Trustee is U.S. Bank National Association, 5555 San Felipe, Suite 1150, Houston, Texas 77056.

Defeasance

Any Bond will be deemed to be paid and no longer Outstanding within the meaning of the Trust Agreement (a "*Defeased Debt*") and any applicable Supplemental Agreement, when payment of the principal of, redemption premium, if any, plus interest thereon to the due date thereof (whether such due date be by reason of maturity, upon redemption, mandatory or optional tender, or otherwise), either (i) has been made in accordance with the terms thereof, or (ii) has been provided by irrevocably depositing with the Trustee, in trust, and irrevocably set aside exclusively for such payment, (1) money sufficient to make such payment or (2) Government Obligations (as defined below), certified by an independent public accounting firm of national reputation to mature as to principal and interest in such amount and at such times as will ensure the availability, without reinvestment, of sufficient money to make such payment, and all necessary and proper fees, compensation, and expenses of the Trustee and the Paying Agent pertaining to such Defeased Debt or the payment thereof provided for to the satisfaction of the Trustee. At such time as a Defeased Debt is deemed to be paid, it will no longer be secured by or entitled to the benefits of the Trust Agreement, as applicable, except for the purposes of any such payment from such money or Government Obligations.

Any money so deposited with the Trustee, may at the direction of the Corporation also be invested in Government Obligations, maturing in the amounts and times as set forth above, and all income from all Government Obligations in the hands of the Trustee as described herein which is not required for the payment of the Bonds, the redemption premium, if any, and interest thereon, with respect to which such money has been so deposited, is required to be turned over to the Corporation.

In addition to the foregoing, no Series 2013C Bond or Taxable Series 2013D Bond will be deemed to be Defeased Debt unless the funds and Government Obligations required to be deposited under the Trust Agreement will produce amounts sufficient and at the times necessary to pay the purchase price of such Series 2013C Bond or Taxable Series 2013D Bond on any mandatory tender date applicable to such Series 2013C Bond or Taxable Series 2013D Bond plus accrued interest at the Maximum Rate if the Series 2013C Bond or Taxable Series 2013D Bond to be defeased has a variable interest rate.

As used herein, the term "*Government Obligations*" means (i) direct, noncallable obligations of the United States of America, including obligations that are unconditionally guaranteed by the United States of America, (ii) noncallable obligations of an agency or instrumentality of the United States of America, including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that, on the date of the purchase thereof are rated as to investment quality by a nationally recognized investment rating firm not less than "AAA" or its equivalent, (iii) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date the Board adopts or approves the proceedings authorizing the financial arrangements are rated as to investment quality by a nationally recognized investment rating firm not less than "AAA" or its equivalent, and (iv) any other then authorized securities or obligations under applicable State law that may be used to defease obligations such as the Bonds.

Any determination not to redeem Defeased Debt that is made in conjunction with the payment arrangements specified above will not be irrevocable if the Corporation takes certain actions specified in the Trust Agreement.

Because the Trust Agreement provides that securities or obligation that may be authorized under future State law may also be used to defease Bonds, registered owners are deemed to have consented to defeasance with such other investments, notwithstanding the fact that such investments may not be of the same investment quality as those currently permitted under State law.

The Corporation has reserved the right to amend the Trust Agreement to provide for additional or different defeasance provisions applicable to obligations authorized by future Supplemental Agreements. See "**APPENDIX C – DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT.**"

Book–Entry–Only System

The information in this section concerning DTC and DTC's book-entry-only system has been obtained from DTC. The Corporation, the Trustee and Underwriters take no responsibility for the accuracy thereof.

DTC will act as securities depository for the Bonds. The Bonds will be issued as fully-registered bonds registered in the name of Cede & Co. (DTC's partnership nominee) or such other name as may be requested by an authorized representative of DTC. One fully-registered bond certificate will be issued for each maturity of the Bonds, each in the aggregate principal amount of such maturity, and will be deposited with DTC. If, however, the aggregate principal amount of the issue exceeds \$500 million, one certificate may be issued with respect to each \$500 million of principal amount, and an additional certificate may be issued with respect to any remaining principal amount of such issue.

DTC, the world's largest securities depository, is a limited-purpose trust company organized under the New York Banking Law, a "banking organization" within the meaning of the New York Banking Law, a member of the Federal Reserve System, a "clearing corporation" within the meaning of the New York Uniform Commercial Code, and a "clearing agency" registered pursuant to the provisions of Section 17A of the Securities Exchange Act of 1934. DTC holds and provides asset servicing for over 3.5 million issues of U.S. and non-U.S. equity issues, corporate and municipal debt issues, and money market instruments (from over 100 countries) that DTC's participants ("*Direct Participants*") deposit with DTC. DTC also facilitates the post-trade settlement among Direct Participants of sales and other securities transactions in deposited securities, through electronic computerized book-entry transfers and pledges between Direct Participants' accounts. This eliminates the need for physical movement of securities certificates. Direct Participants include both U.S. and non-U.S. securities brokers and dealers, banks, trust companies, clearing corporations, and certain other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation ("*DTCC*"). DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others such as both

U.S. and non-U.S. securities brokers and dealers, banks, trust companies, and clearing corporations that clear through or maintain a custodial relationship with a Direct Participant, either directly or indirectly ("*Indirect Participants*"). DTC has a Standard & Poor's rating of AA+. The DTC Rules applicable to its Participants are on file with the United States Securities and Exchange Commission. More information about DTC can be found at www.dtcc.com.

Purchases of Bonds under the DTC system must be made by or through Direct Participants, which will receive a credit for the Bonds on DTC's records. The ownership interest of each actual purchaser of each Bond ("*Beneficial Owner*") is in turn to be recorded on the Direct and Indirect Participants' records. Beneficial Owners will not receive written confirmation from DTC of their purchase. Beneficial Owners are, however, expected to receive written confirmations providing details of the transaction, as well as periodic statements of their holdings, from the Direct or Indirect Participant through which the Beneficial Owner entered into the transaction. Transfers of ownership interests in the Bonds are to be accomplished by entries made on the books of Direct and Indirect Participants acting on behalf of Beneficial Owners. Beneficial Owners will not receive certificates representing their ownership interests in Bonds, except in the event that use of the book-entry system for the Bonds is discontinued.

To facilitate subsequent transfers, all Bonds deposited by Direct Participants with DTC are registered in the name of DTC's partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of Bonds with DTC and their registration in the name of Cede & Co. or such other DTC nominee do not effect any change in beneficial ownership. DTC has no knowledge of the actual Beneficial Owners of the Bonds; DTC's records reflect only the identity of the Direct Participants to whose accounts such Bonds are credited, which may or may not be the Beneficial Owners. The Direct and Indirect Participants will remain responsible for keeping account of their holdings on behalf of their customers. Conveyance of notices and other communications by DTC to Direct Participants, by Direct Participants to Indirect Participants, and by Direct Participants and Indirect Participants to Beneficial Owners will be governed by arrangements among them, subject to any statutory or regulatory requirements as may be in effect from time to time. Beneficial Owners of Bonds may wish to take certain steps to augment the transmission to them of notices of significant events with respect to the Bonds, such as redemptions, tenders, defaults, and proposed amendments to the bond documents. For example, Beneficial Owners of Bonds may wish to ascertain that the nominee holding the Bonds for their benefit has agreed to obtain and transmit notices to Beneficial Owners. In the alternative, Beneficial Owners may wish to provide their names and addresses to the registrar and request that copies of notices be provided directly to them.

Redemption notices shall be sent to DTC. If less than all of the Bonds within a maturity are being redeemed, DTC's practice is to determine by lot the amount of the interest of each Direct Participant in such maturity to be redeemed.

Neither DTC nor Cede & Co. (nor any other DTC nominee) will consent or vote with respect to Bonds unless authorized by a Direct Participant in accordance with DTC's MMI Procedures. Under its usual procedures, DTC mails an Omnibus Proxy to the Trustee as soon as possible after the record date. The Omnibus Proxy assigns Cede & Co.'s consenting or voting rights to those Direct Participants to whose accounts Bonds are credited on the record date (identified in a listing attached to the Omnibus Proxy).

All payments on the Bonds will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit Direct Participants' accounts upon DTC's receipt of funds and corresponding detail information from the Corporation or the Trustee, on payable date in accordance with their respective holdings shown on DTC's records. Payments by Participants to Beneficial Owners will be governed by standing instructions and customary practices, as is the case with Bonds held for the accounts of customers in bearer form or registered in "street name," and will be the responsibility of such Participant and not of DTC, the Trustee, or the Corporation, subject to any statutory or regulatory requirements as may be in effect from time to time. Payment of principal and interest and redemption proceeds to Cede & Co. (or such other nominee as may be requested by an authorized representative of DTC) is the responsibility of the Corporation or the Trustee, disbursement of such payments to Direct Participants will be the responsibility of DTC, and disbursement of such payments to the Beneficial Owners will be the responsibility of Direct and Indirect Participants.

A Beneficial Owner shall give notice to elect to have its Series 2013C Bond or Taxable Series 2013D Bond purchased or tendered, through its Participant, to the Trustee, as tender agent, and shall effect delivery of such Series 2013C Bond or Taxable Series 2013D Bond by causing the Direct Participant to transfer the Direct Participant's interest in such Series 2013C Bond or Taxable Series 2013D Bond, on DTC's records, to the Trustee. The requirement for physical delivery of any Series 2013C Bond or Taxable Series 2013D Bond in connection with an optional or mandatory tender will be deemed satisfied when the ownership rights in such Series 2013C Bond or Taxable Series 2013D Bond are transferred by Direct Participants on DTC's records followed by a book-entry credit of such tendered Series 2013C Bond or Taxable Series 2013D Bond to the Trustee's DTC account.

DTC may discontinue providing its services as depository with respect to the Bonds at any time by giving reasonable notice to the Corporation or the Trustee. Under such circumstances, in the event that a successor depository is not obtained, bond certificates are required to be printed and delivered.

The Corporation may decide to discontinue use of the system of book-entry-only transfers through DTC (or a successor securities depository). In that event, bond certificates will be printed and delivered to DTC.

THE INFORMATION IN THIS SECTION CONCERNING DTC AND THE DTC BOOK-ENTRY ONLY SYSTEM HAS BEEN PROVIDED BY DTC. THE CORPORATION, THE TRUSTEE AND THE UNDERWRITERS BELIEVE SUCH INFORMATION TO BE RELIABLE, BUT TAKE NO RESPONSIBILITY FOR THE ACCURACY THEREOF. NO REPRESENTATION IS MADE BY ANY SUCH PARTY AS TO THE ACCURACY OR ADEQUACY OF SUCH INFORMATION OR AS TO THE ABSENCE OF MATERIAL ADVERSE CHANGES IN SUCH INFORMATION SUBSEQUENT TO THE DATE HEREOF.

While the Bonds are in the book-entry-only system, reference in other sections of this Official Statement to Owners of such Bonds should be read to include any person for whom a Participant acquires an interest in the Bonds, but (i) all rights of ownership, as described herein, must be exercised through DTC and the book-entry-only system and (ii) notices that are to be given to registered Owners by the Trustee, will be given only to DTC. DTC is required to forward (or cause to be forwarded) the notices to the Participants by its usual procedures so that such Participants may forward (or cause to be forwarded) such notices to the Beneficial Owners.

LITIGATION

The Corporation

On the date of delivery of the Bonds to the Underwriters, the General Counsel to the Corporation will execute and deliver an opinion addressed to the Underwriters to the effect that, except as described herein, no litigation or proceeding is pending against the Corporation of which the Corporation has notice and, to the best of his knowledge, no such litigation or proceeding is threatened seeking to restrain or enjoin the issuance or delivery of the Bonds or which would affect the provisions made for their payment or security, or in any manner questions the validity of the Bonds.

As of the date of this Official Statement, the Corporation is not a party to any litigation or other proceeding pending or, to its knowledge, threatened, in any court, agency, or other administrative body (either state or federal) which, if decided adversely to the Corporation, could have a material adverse effect on the financial condition of the Corporation.

The Texas Department of Transportation

On the date of delivery of the TELA Bonds to the Underwriters, the General Counsel to the Commission will execute and deliver an opinion addressed to the Underwriters to the effect that, except as described herein, no litigation or proceeding is pending against TxDOT of which TxDOT has notice and, to the best of his knowledge, no such litigation or proceeding is threatened in any court or administrative body, which would contest the due authorization, execution, delivery or enforceability of (a) the TELA, or (b) TxDOT's continuing disclosure obligations or attempt to limit, enjoin, or otherwise restrict or prevent TxDOT from performing its obligations thereunder, including its obligation to advance funds to the Corporation under the TELA. As of the date of this Official Statement, there is no action, suit or proceeding or investigation at law or in equity before or by any court, public board, or public body pending, or, to its knowledge, threatened against or affecting TxDOT relating to the execution, delivery, and performance by TxDOT of the TELA or the continuing disclosure agreement, or that could have a material adverse effect on the financial condition of TxDOT or TxDOT's ability to advance funds under the TELA.

TAX MATTERS

THE FOLLOWING DISCUSSION, WHICH WAS WRITTEN TO SUPPORT THE PROMOTION OR MARKETING OF THE SALE OF THE BONDS, IS NOT INTENDED OR WRITTEN TO BE USED, AND CANNOT BE USED BY ANY TAXPAYER, TO AVOID PENALTIES THAT MIGHT BE IMPOSED ON THE TAXPAYER IN CONNECTION WITH THE MATTERS DISCUSSED THEREIN. INVESTORS SHOULD CONSULT THEIR OWN TAX ADVISORS CONCERNING THE TAX IMPLICATIONS OF THE PURCHASE, OWNERSHIP OR DISPOSITION OF THE OBLIGATIONS UNDER APPLICABLE STATE OR LOCAL LAWS, OR ANY OTHER TAX CONSEQUENCE.

Certain Federal Income Tax Considerations

General. The following discussion is a summary of certain expected material federal income tax consequences of the purchase, ownership and disposition of the Bonds and is based on the Internal Revenue Code of 1986, as amended (the "Code"), the regulations promulgated thereunder, published rulings and pronouncements of the Internal Revenue Service

("IRS") and court decisions currently in effect. There can be no assurance that the IRS will not take a contrary view, and no ruling from the IRS, has been, or is expected to be, sought on the issues discussed herein. Any subsequent changes or interpretations may apply retroactively and could affect the opinion and summary of federal income tax consequences discussed herein.

The following discussion is not a complete analysis or description of all potential U.S. federal tax considerations that may be relevant to, or of the actual tax effect that any of the matters described herein will have on, particular holders of the Bonds and does not address U.S. federal gift or estate tax or (as otherwise stated herein) the alternative minimum tax, state, local or other tax consequences. This summary does not address special classes of taxpayers (such as partnerships, or other pass-thru entities treated as a partnerships for U.S. federal income tax purposes, S corporations, mutual funds, insurance companies, financial institutions, small business investment companies, regulated investment companies, real estate investment trusts, grantor trusts, former citizens of the U.S., broker-dealers, traders in securities and tax-exempt organizations, individual recipients of Social Security or Railroad Retirement benefits, taxpayers who may be subject to or personal holding company provisions of the Code or taxpayers qualifying for the health insurance premium assistance credit) that are subject to special treatment under U.S. federal income tax laws, or persons that hold Bonds as a hedge against, or that are hedged against, currency risk or that are part of hedge, straddle, conversion or other integrated transaction, or persons whose functional currency is not the "U.S. dollar". This summary is further limited to investors who will hold the Bonds as "capital assets" (generally, property held for investment) within the meaning of Section 1221 of the Code. This discussion is based on existing statutes, regulations, published rulings and court decisions, all of which are subject to change or modification, retroactively.

As used herein, the term "U.S. Holder" means a beneficial owner of a Bond who or which is: (i) an individual citizen or resident of the United States, (ii) a corporation or partnership created or organized under the laws of the United States or any political subdivision thereof or therein, (iii) an estate, the income of which is subject to U.S. federal income tax regardless of the source; or (iv) a trust, if (a) a court within the U.S. is able to exercise primary supervision over the administration of the trust and one or more U.S. persons have the authority to control all substantial decisions of the trust, or (b) the trust validly elects to be treated as a U.S. person for U.S. federal income tax purposes. As used herein, the term "Non-U.S. Holder" means a beneficial owner of a Bond that is not a U.S. Holder.

THIS SUMMARY IS INCLUDED HEREIN FOR GENERAL INFORMATION ONLY AND DOES NOT DISCUSS ALL ASPECTS OF THE U.S. FEDERAL INCOME TAXATION THAT MAY BE RELEVANT TO A PARTICULAR HOLDER OF BONDS IN LIGHT OF THE HOLDER'S PARTICULAR CIRCUMSTANCES AND INCOME TAX SITUATION. PROSPECTIVE HOLDERS OF THE BONDS SHOULD CONSULT THEIR OWN TAX ADVISORS AS TO THE TAX TREATMENT WHICH MAY BE ANTICIPATED TO RESULT FROM THE PURCHASE, OWNERSHIP AND DISPOSITION OF THE BONDS BEFORE DETERMINING WHETHER TO PURCHASE BONDS.

FOREIGN INVESTORS SHOULD ALSO CONSULT THEIR OWN TAX ADVISORS REGARDING THE TAX CONSEQUENCES UNIQUE TO NON-U.S. HOLDERS.

Information Reporting and Backup Withholding. Subject to certain exceptions, information reports describing interest income, including original issue discount, with respect to the Bonds will be sent to each registered holder and to the IRS. Payments of interest and principal may be subject to backup withholding under Section 3406 of the Code if a recipient of the payments fails to furnish to the payor such owner's social security number or other taxpayer identification number ("TIN"), furnishes an incorrect TIN, or otherwise fails to establish an exemption from the backup withholding tax. Any amounts so withheld would be allowed as a credit against the recipient's federal income tax. Special rules apply to partnerships, estates and trusts, and in certain circumstances, and in respect of Non-U.S. Holders, certifications as to foreign status and other matters may be required to be provided by partners and beneficiaries thereof.

Tax-Exempt Bonds

Opinion. On the date of initial delivery of the Tax-Exempt Bonds, McCall, Parkhurst & Horton L.L.P., Bond Counsel to the Corporation, will render its opinions that, in accordance with statutes, regulations, published rulings and court decisions existing on the date thereof ("*Existing Law*") (1) for federal income tax purposes, interest on the Tax-Exempt Bonds will be excludable from the "gross income" of the holders thereof and (2) the Tax-Exempt Bonds will not be treated as "specified private activity bonds" the interest on which would be included as an alternative minimum tax preference item under section 57(a)(5) of the Code. Except as stated above, Bond Counsel to the Corporation will express no opinion as to any other federal, state or local tax consequences of the purchase, ownership or disposition of the Tax-Exempt Bonds. See "**APPENDIX I – FORMS OF BOND COUNSEL OPINIONS.**"

In rendering their opinion, Bond Counsel to the Corporation will rely upon (a) certain information and representations of the Corporation, including information and representations contained in the Corporation's federal tax certificate related to the Tax-Exempt Bonds, and (b) covenants of the Corporation contained in the Tax-Exempt Bonds' documents relating to certain matters, including arbitrage and the use of the proceeds of the Tax-Exempt Bonds and the

property financed or refinanced therewith. Failure by the Corporation to observe the aforementioned representations or covenants could cause the interest on the Tax-Exempt Bonds to become taxable retroactively to the date of issuance.

The Code and the regulations promulgated thereunder contain a number of requirements that must be satisfied subsequent to the issuance of the Tax-Exempt Bonds in order for interest on the Tax-Exempt Bonds to be, and to remain, excludable from gross income for federal income tax purposes. Failure to comply with such requirements may cause interest on the Tax-Exempt Bonds to be included in gross income retroactively to the date of issuance of the Tax-Exempt Bonds. The opinion of Bond Counsel to the Corporation is conditioned on compliance by the Corporation with such requirements, and Bond Counsel to the Corporation has not been retained to monitor compliance with these requirements subsequent to the issuance of the Tax-Exempt Bonds.

Bond Counsel's opinion regarding the Tax-Exempt Bonds represents its legal judgment based upon its review of Existing Law and the reliance on the aforementioned information, representations and covenants. Bond Counsel's opinion related to the Tax-Exempt Bonds is not a guarantee of a result. Existing Law is subject to change by the Congress and to subsequent judicial and administrative interpretation by the courts and the Department of the Treasury. There can be no assurance that Existing Law or the interpretation thereof will not be changed in a manner which would adversely affect the tax treatment of the purchase, ownership or disposition of the Tax-Exempt Bonds.

A ruling was not sought from the IRS by the Corporation with respect to the Tax-Exempt Bonds or property financed with the proceeds of the Tax-Exempt Bonds. No assurances can be given as to whether or not the IRS will commence an audit of the Tax-Exempt Bonds, or as to whether the IRS would agree with the opinion of Bond Counsel. If an audit is commenced, under current procedures the IRS is likely to treat the Corporation as the taxpayer and the holders may have no right to participate in such procedure. No additional interest will be paid upon any determination of taxability.

Federal Income Tax Accounting Treatment of Original Issue Discount. The Underwriters have represented that the initial public offering price to be paid for one or more maturities of the Tax-Exempt Bonds is less than the principal amount thereof or one or more periods for the payment of interest on the bonds may not be equal to the accrual period or be in excess of one year (the "Original Issue Discount Bonds"). In such event, the difference between (i) the "stated redemption price at maturity" of each Original Issue Discount Bond, and (ii) the initial offering price to the public of such Original Issue Discount Bond would constitute original issue discount. The "stated redemption price at maturity" means the sum of all payments to be made on the bonds less the amount of all periodic interest payments. Periodic interest payments are payments which are made during equal accrual periods (or during any unequal period if it is the initial or final period) and which are made during accrual periods which do not exceed one year.

Under Existing Law, any U.S. Holder who has purchased a Tax-Exempt Bond as an Original Issue Discount Bond in the initial public offering is entitled to exclude from gross income (as defined in section 61 of the Code) an amount of income with respect to such Original Issue Discount Bond equal to that portion of the amount of such original issue discount allocable to the accrual period. For a discussion of certain collateral federal tax consequences, see discussion set forth below. In the event of the redemption, sale or other taxable disposition of such Original Issue Discount Bond prior to stated maturity, however, the amount realized by such U.S. Holder in excess of the basis of such Original Issue Discount Bond in the hands of such U.S. Holder (adjusted upward by the portion of the original issue discount allocable to the period for which such Original Issue Discount Bond was held by such initial owner) is includable in gross income.

Under Existing Law, the original issue discount on each Original Issue Discount Bond is accrued daily to the stated maturity thereof (in amounts calculated as described below for each accrual period and ratably within each such accrual period) and the accrued amount is added to an initial owner's basis for such Original Issue Discount Bond for purposes of determining the amount of gain or loss recognized by such owner upon the redemption, sale or other disposition thereof. The amount to be added to basis for each accrual period is equal to (a) the sum of the issue price and the amount of original issue discount accrued in prior periods multiplied by the yield to stated maturity (determined on the basis of compounding at the close of each accrual period and properly adjusted for the length of the accrual period) less (b) the amounts payable as current interest during such accrual period on such Original Issue Discount Bond.

All U.S. Holders of Original Issue Discount Bonds should consult their own tax advisors with respect to the determination for federal, state and local income tax purposes of the treatment of interest accrued upon redemption, sale or other disposition of such Original Issue Discount Bonds and with respect to the federal, state, local and foreign tax consequences of the purchase, ownership, redemption, sale or other disposition of such Original Issue Discount Bonds.

Collateral Federal Income Tax Consequences. Interest on the Tax-Exempt Bonds will be includable as an adjustment for "adjusted current earnings" to calculate the alternative maximum tax imposed on corporations by Section 55 of the Code.

Under section 6012 of the Code, U.S. Holders of tax-exempt obligations, such as the Tax-Exempt Bonds, may be required to disclose interest received or accrued during each taxable year on their returns of federal income taxation.

Section 1276 of the Code provides for ordinary income tax treatment of gain recognized upon the disposition of a tax-exempt obligation, such as the Tax-Exempt Bonds, if such obligation was acquired at a “market discount” and if the fixed maturity of such obligation is equal to, or exceeds, one year from the date of issue. Such treatment applies to “market discount bonds” to the extent such gain does not exceed the accrued market discount of such bonds; although for this purpose, a de minimis amount of market discount is ignored. A “market discount bond” is one which is acquired by the holder at a purchase price which is less than the stated redemption price at maturity or, in the case of a bond issued at an original issue discount, the “revised issue price” (i.e., the issue price plus accrued original issue discount). The “accrued market discount” is the amount which bears the same ratio to the market discount as the number of days during which the holder holds the obligation bears to the number of days between the acquisition date and the final maturity date.

Future and Proposed Legislation. Tax legislation, administrative actions taken by tax authorities, or court decisions, whether at the Federal or state level, may adversely affect the tax-exempt status of interest on the Tax-Exempt Bonds under Federal or state law and could affect the market price or marketability of the Tax-Exempt Bonds. Any such proposal could limit the value of certain deductions and exclusions, including the exclusion for tax-exempt interest. The likelihood of any such proposal being enacted cannot be predicted. Prospective purchasers of the Bonds should consult their own tax advisors regarding the foregoing matters.

Taxable Series 2013D Bonds and Taxable Series 2013E Bonds

Certain U.S. Federal Income Tax Consequences to U.S. Holders

Periodic Interest Payments and Original Issue Discount. The Taxable Series 2013D Bonds and the Taxable Series 2013E Bonds are not obligations described in Section 103(a) of the Code. Accordingly, the stated interest paid on the Taxable Series 2013D Bonds or the Taxable Series 2013E Bonds or original issue discount, if any, accruing on the Taxable Series 2013D Bonds or the Taxable Series 2013E Bonds will be includable in “gross income” within the meaning of Section 61 of the Code of each owner thereof and be subject to federal income taxation when received or accrued, depending upon the tax accounting method applicable to such owner.

Disposition of Taxable Series 2013D Bonds and Taxable Series 2013E Bonds. An owner will recognize gain or loss on the redemption, sale, exchange or other disposition of a Taxable Series 2013D Bond or a Taxable Series 2013E Bond equal to the difference between the redemption or sale price (exclusive of any amount paid for accrued interest) and the owner's tax basis in the Taxable Series 2013D Bonds or the Taxable Series 2013E Bonds. Generally, a U.S. Holder's tax basis in the Taxable Series 2013D Bonds or the Taxable Series 2013E Bonds will be the owner's initial cost, increased by income reported by such U.S. Holder, including original issue discount and market discount income, and reduced, but not below zero, by any amortized premium. Any gain or loss generally will be a capital gain or loss and either will be long-term or short-term depending on whether the Taxable Series 2013D Bonds or the Taxable Series 2013E Bonds has been held for more than one year.

Defeasance of Taxable Series 2013D Bonds and Taxable Series 2013E Bonds. Defeasance of any Taxable Series 2013D Bond or Taxable Series 2013E Bond may result in a reissuance thereof, for U.S. federal income tax purposes, in which event a U.S. Holder will recognize taxable gain or loss as described above.

State, Local and Other Tax Consequences. Investors should consult their own tax advisors concerning the tax implications of holding and disposing of the Taxable Series 2013D Bonds or the Taxable Series 2013E Bonds under applicable state or local laws, or any other tax consequence, including the application of gift and estate taxes. Effective for tax years beginning after December 31, 2012, pursuant to the Health Care and Education Reconciliation Act of 2010, which was intended to help finance the cost of healthcare reform, certain individuals, estates or trusts may be subject to a 3.8% surtax on all or a portion of the taxable interest that is paid on the Bonds. PROSPECTIVE PURCHASERS OF SUCH BONDS SHOULD CONSULT THEIR OWN TAX ADVISORS REGARDING THE FOREGOING MATTERS.

Certain U.S. Federal Income Tax Consequences to Non-U.S. Holders

A Non-U.S. Holder that is not subject to U.S. federal income tax as a result of any direct or indirect connection to the U.S. in addition to its ownership of a Taxable Series 2013D Bond or the Taxable Series 2013E Bond, will not be subject to U.S. federal income or withholding tax in respect of such Taxable Series 2013D Bond or Taxable Series 2013E Bond, provided that such Non-U.S. Holder complies, to the extent necessary, with identification requirements including delivery of a signed statement under penalties of perjury, certifying that such Non-U.S. Holder is not a U.S. person and providing the name and address of such Non-U.S. Holder. Absent such exemption, payments of interest, including any amounts paid or accrued in respect of accrued original issue discount, may be subject to withholding taxes, subject to reduction under any applicable tax treaty. Non-U.S. Holders are urged to consult their own tax advisors regarding the ownership, sale or other disposition of a Taxable Series 2013D Bond or the Taxable Series 2013E Bond.

The foregoing rules will not apply to exempt a U.S. shareholder of a controlled foreign corporation from taxation on the U.S. shareholder's allocable portion of the interest income received by the controlled foreign corporation.

UNDERWRITING

Goldman, Sachs & Co, as representative of the Underwriters, has agreed, on behalf of the Underwriters, subject to certain customary conditions, to purchase the Bonds from the Corporation. The purchase price of the Bonds is \$2,901,841,816.04 (which represents the par amount of the Bonds, less a net original issue discount of \$6,643,885.10 and less an underwriting discount of \$11,589,155.01).

The Underwriters will be obligated to purchase all of the Bonds if any Bonds are purchased. The Bonds to be offered to the public may be offered and sold to certain dealers (including the Underwriters and other dealers depositing Bonds into investment trusts) at prices lower than the public offering prices of the Bonds and such public offering prices may be changed, from time to time, by the Underwriters.

The Underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include sales and trading, commercial and investment banking, advisory, investment management, investment research, principal investment, hedging, market making, brokerage and other financial and non-financial activities and services. Certain of the Underwriters and their respective affiliates have provided, and may in the future provide, a variety of these services to the Corporation and to persons and entities with relationships with the Corporation, including TxDOT, for which they received or will receive customary fees and expenses.

In the ordinary course of their various business activities, the Underwriters and their respective affiliates, officers, directors and employees may purchase, sell or hold a broad array of investments and actively trade securities, derivatives, loans, commodities, currencies, credit default swaps and other financial instruments for their own account and for the accounts of their customers, and such investment and trading activities may involve or relate to assets, securities and/or instruments of the Corporation (directly, as collateral securing other obligations or otherwise) and/or persons and entities with relationships with the Corporation. The Corporation and its respective affiliates may also communicate independent investment recommendations, market color or trading ideas and/or publish or express independent research views in respect of such assets, securities or instruments and may at any time hold, or recommend to clients that they should acquire, long and/or short positions in such assets, securities and instruments.

J.P. Morgan Securities LLC ("*JPMS*"), one of the Underwriters of the Bonds, has entered into a negotiated dealer agreement (a "*Dealer Agreement*") with UBS Financial Services Inc. ("*UBSFS*") for the retail distribution of certain securities offerings, including the Bonds, at the original issue prices. Pursuant to the Dealer Agreement, UBSFS will purchase Bonds from JPMS at the original issue price less a negotiated portion of the selling concession applicable to any Bonds that UBSFS sells.

Citigroup Inc. and Morgan Stanley, the respective parent companies of Citigroup Global Markets Inc. and Morgan Stanley & Co. LLC, each an underwriter of the Bonds, have entered into a retail distribution arrangement with Morgan Stanley Smith Barney LLC. As part of the distribution arrangement, each of Citigroup Global Markets Inc. and Morgan Stanley & Co. LLC may distribute municipal securities to retail investors through the financial advisor network of Morgan Stanley Smith Barney LLC, in addition to other retail distribution channels. As part of this arrangement, each of Citigroup Global Markets Inc. and Morgan Stanley & Co. LLC may compensate Morgan Stanley Smith Barney LLC. for its selling efforts in connection with their respective allocations of Bonds.

Loop Capital Markets LLC ("*LCM*"), one of the Underwriters of the Bonds, has entered into a distribution agreement ("*Distribution Agreement*") with Deutsche Bank Securities Inc. ("*DBS*") for the retail distribution of certain securities offerings at the original issue prices. Pursuant to the Distribution Agreement, DBS will purchase Bonds from LCM at the original issue prices less a negotiated portion of the selling concession applicable to any Bonds sold.

M.R. Beal & Company, one of the Underwriters of the Bonds, has entered into an agreement (the "*Distribution Agreement*") with TD Ameritrade, Inc. for the retail distribution of certain municipal securities offerings at the original issue prices. Pursuant to the Distribution Agreement (as applicable for the Bonds), M.R. Beal & Company will share a portion of its underlying compensation with respect to the transaction with TD Ameritrade, Inc.

Piper Jaffray & Co. and Pershing LLC, a subsidiary of The Bank of New York Mellon Corporation, entered into an agreement (the "*Agreement*") which enables Pershing LLC to distribute certain new issue municipal securities underwritten by or allocated to Piper Jaffray & Co., including the Bonds. Under the Agreement, Piper Jaffray & Co. will share with Pershing LLC a portion of the fee or commission paid to Piper.

Wells Fargo Securities is the trade name for certain securities-related capital markets and investment banking services of Wells Fargo & Company and its subsidiaries, including Wells Fargo Bank, National Association ("*WFBNA*").

WFBNA, one of the Underwriters of the Bonds, has entered into an agreement (the "*Distribution Agreement*") with its affiliate, Wells Fargo Advisors, LLC ("*WFA*"), for the distribution of certain municipal securities offerings, including the Bonds. Pursuant to the Distribution Agreement, WFBNA will share a portion of its underwriting or remarketing agent compensation, as applicable, with respect to the Bonds with WFA. WFBNA also utilizes the distribution capabilities of its affiliates, Wells Fargo Securities, LLC ("*WFSLLC*") and Wells Fargo Institutional Securities, LLC ("*WFIS*"), for the distribution of municipal securities offerings, including the Bonds. In connection with utilizing the distribution capabilities of WFSLLC, WFBNA pays a portion of WFSLLC's expenses based on its municipal securities transactions. WFBNA, WFSLLC, WFIS, and WFA are each wholly-owned subsidiaries of Wells Fargo & Company.

RATINGS

Series 2013A Bonds: The Series 2013A Bonds have received a rating of "BBB" from Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business ("*S&P*") and "BBB+" from Fitch, Inc. ("*Fitch*"). It is anticipated that the rating from Fitch will become final contingent upon receipt by Fitch of final documents and legal opinions conforming to information already received and reviewed as well as final pricing of the Series 2013A Bonds.

TELA Bonds. The Series 2013B Bonds have received a rating of "AA" from S&P and "AA-" from Fitch. The Series 2013C Bonds have received a rating of "AA" from S&P and "AA-" from Fitch. The Taxable Series 2013D Bonds have received a rating of "AA" from S&P and "AA-" from Fitch. The Taxable Series 2013E Bonds have received a rating of "AA" from S&P and "AA-" from Fitch. The ratings on the TELA Bonds are based in part on TxDOT's obligation to advance funds pursuant to the TELA.

An explanation of the significance of the ratings may be obtained from S&P and Fitch. The ratings reflect only the views of S&P and Fitch at the time the ratings were given, and the Corporation makes no representation as to the appropriateness of the ratings. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by S&P or Fitch, if in the judgment of S&P or Fitch, circumstances so warrant. Any such downward revision or withdrawal of the ratings may have an adverse effect on the market price of the Bonds.

LEGAL MATTERS

Legal matters incident to the authorization, issuance and sale of the Bonds are subject to approval of legality by the Attorney General of the State, and of certain legal matters by McCall, Parkhurst & Horton L.L.P., Austin, Texas, Bond Counsel to the Corporation. In connection with the transactions described in this Official Statement, McCall, Parkhurst & Horton L.L.P. only represents the Corporation; however, such firm represents TxDOT as Bond Counsel and Disclosure Counsel in other TxDOT financing programs. Attached hereto, as **APPENDIX I**, are the forms of opinions that Bond Counsel will render in connection with the issuance of the Bonds. The legal opinions will accompany the Bonds deposited with DTC or will be printed on the Bonds in the event of the discontinuance of the book-entry-only system. The payment of certain legal fees to Bond Counsel in connection with the issuance of the Bonds is contingent on the sale and delivery of the Bonds. Certain legal matters will be passed upon for the Corporation by Andrews Kurth LLP, Austin, Texas, Special Disclosure Counsel to the Corporation, and for the Underwriters by Haynes and Boone, LLP, Houston, Texas, and Bates & Coleman P.C., Houston, Texas, Co-Counsel for the Underwriters. The payment of legal fees to Counsel for the Underwriters in connection with the issuance of the Bonds is contingent on the sale and delivery of the Bonds.

The various legal opinions to be delivered concurrently with the delivery of the Bonds express the professional judgment of the attorneys rendering the opinions as to the legal issues explicitly addressed therein. In rendering a legal opinion, the attorney does not become an insurer or guarantor of the expression of professional judgment, of the transaction opined upon, or of the future performance of the parties to the transaction, nor does the rendering of an opinion guarantee the outcome of any legal dispute that may arise out of the transaction.

PROFESSIONAL ENGINEERS

The reports of CDM Smith, Inc. and Jacobs Engineering Group Inc. have been included in this Official Statement in reliance on their expertise as professional engineers. Such firms have consented to the inclusion of their reports in this Official Statement.

CO-FINANCIAL ADVISORS

Estrada Hinojosa & Company, Inc. and Public Financial Management, Inc. are acting as Co-Financial Advisors to the Corporation. The Co-Financial Advisors, in such capacity, have not verified and do not assume any responsibility for the information, covenants, and representations contained in any of the legal documents with respect to the federal income tax status of the Tax-Exempt Bonds, or the possible impact of any present, pending, or future actions taken by any legislative or

judicial bodies. The Co-Financial Advisors may also receive a fee for conducting a competitive bidding process regarding the investment of certain proceeds of the Bonds.

LEGAL INVESTMENTS IN TEXAS

Section 1201.041 of the Public Security Procedures Act (Chapter 1201, Texas Government Code) provides that the Bonds are negotiable instruments governed by Chapter 8, Texas Business and Commerce Code, and are legal and authorized investments for insurance companies, fiduciaries, and trustees, and for the sinking funds of municipalities or other political subdivisions or public agencies of the State. With respect to investment in the Bonds by municipalities or other political subdivisions or public agencies of the State, the Public Funds Investment Act, Chapter 2256, Texas Government Code, requires that the Bonds be assigned a rating of at least "A" or its equivalent as to investment quality by a national rating agency. In addition, various provisions of the Texas Finance Code provide that, subject to a prudent investor standard, the Bonds are legal investments for state banks, savings banks, trust companies with at least \$1 million of capital, and savings and loan associations. The Bonds are eligible to secure deposits of any public funds of the State or a political subdivision of the State to the extent of the lesser of the face value of the Bonds or the market value of the Bonds. No review by the Corporation has been made of the laws in other states to determine whether the Bonds are legal investments for various institutions in those states.

The Corporation makes no representation that the Bonds will be acceptable to banks, savings and loan associations or public entities for investment purposes or to secure deposits of public funds. The Corporation has made no investigation of other laws, regulations or investment criteria that might apply to or otherwise limit the availability of the Bonds for investment or collateral purposes. Prospective purchasers are urged to carefully evaluate the investment quality of the Bonds and as to the acceptability of the Bonds for investment or collateral purposes.

CONTINUING DISCLOSURE OF INFORMATION

The Corporation

In the First Supplemental Trust Agreement, the Corporation has made the following agreements for the benefit of the holders and beneficial owners of the Bonds. The Corporation is required to observe the agreements for so long as it remains obligated to advance funds to pay the Bonds. Under the agreements, the Corporation will be obligated to provide certain updated financial information and operating data annually, and timely notice of specified material events, to the MSRB. This information will be available from the MSRB.

Annual Reports

The Corporation will provide certain updated financial information and operating data to the MSRB. The information to be updated includes (i) all quantitative financial information and operating data with respect to the Corporation and the Grand Parkway System of the general type included in this Official Statement under the headings **"TOLL EQUITY LOAN AGREEMENT — Maximum Available Annual Amount and Annual TELA-Supported Debt Service and TELA Supported Junior Operating Expenses," "PRO FORMA DEBT SERVICE REQUIREMENTS,"** and **"ESTIMATED TOLL REVENUES AND EXPENSES AND ESTIMATED DEBT SERVICE COVERAGE,"** (ii) a copy of the progress reports required under the Trust Agreement and (iii) starting with the Fiscal Year after Substantial Completion of the System, any annual financial statements of the Corporation. The Corporation will update and provide this information within six months after the end of each Fiscal Year for the System or in the case of the progress reports required under the Trust Agreement within sixty days of the end of each quarter. The Corporation will provide the updated information to the MSRB.

The Corporation may provide updated information in full text or may incorporate by reference certain other publicly available documents, as permitted by Rule 15c2-12 (the "Rule") of the United States Securities and Exchange Commission (the "SEC"). Starting with the Fiscal Year after Substantial Completion of the System, the updated information will include audited financial statements, if the Corporation commissions an audit and it is complete by the required time. If audited financial statements are not available by the required time, the Corporation will provide unaudited statements by the required time and will provide audited financial statements when and if the audit report becomes available. Any such financial statements will be prepared in accordance with generally accepted accounting principles or such other accounting principles as the Corporation may be required to employ from time to time pursuant to state law or regulation.

The current Fiscal Year end for the Corporation is August 31. Accordingly, it must provide updated information by the last day of February in each year, unless the Corporation changes its Fiscal Year. If the Corporation changes its Fiscal Year, it will notify the MSRB.

Event Notices

The Corporation will also provide timely notices of certain events to the MSRB. The Corporation will provide notice of any of the following events with respect to the Bonds in a timely manner (but not in excess of ten business days after the occurrence of the event): (1) principal and interest payment delinquencies; (2) non-payment related defaults, if material; (3) unscheduled draws on debt service reserves reflecting financial difficulties; (4) unscheduled draws on credit enhancements reflecting financial difficulties; (5) substitution of credit or liquidity providers, or their failure to perform; (6) adverse tax opinions or the issuance by the IRS of proposed or final determinations of taxability, Notices of Proposed Issue (IRS Form 5701-TEB) or other material notices or determinations with respect to the tax-exempt status of the Tax-Exempt Bonds, or other events affecting the tax-exempt status of the Tax-Exempt Bonds; (7) modifications to rights of holders of the Bonds, if material; (8) calls, if material, and tender offers; (9) defeasances; (10) release, substitution, or sale of property securing repayment of the Bonds, if material; (11) ratings changes; (12) bankruptcy, insolvency, receivership or similar event of the Corporation; (13) the consummation of a merger, consolidation, or acquisition involving the Corporation or the sale of all or substantially all of the assets of the Corporation, other than in the ordinary course of business, the entry into a definitive agreement relating to any such actions, other than pursuant to its terms, if material; and (14) the appointment of a successor or additional trustee or the change of the name of a trustee, if material. In addition, the Corporation will provide timely notice of any failure by the Corporation to provide information, data, or financial statements in accordance with its agreement described above under " — *Annual Reports*." The Corporation will provide each notice described in this paragraph to the MSRB.

Availability of Information from the MSRB

The Corporation has agreed to provide the foregoing information only to the MSRB. The information will be available to holders through the MSRB's internet website at www.emma.msrb.org.

Limitations and Amendments

The Corporation has agreed to update information and to provide notices of material events only as described above. The Corporation has not agreed to provide other information that may be relevant or material to a complete presentation of its financial results of operations, condition, or prospects or agreed to update any information that is provided, except as described above. The Corporation makes no representation or warranty concerning such information or concerning its usefulness to a decision to invest in or sell the Bonds at any future date. The Corporation disclaims any contractual or tort liability for damages resulting in whole or in part from any breach of its continuing disclosure agreement or from any statement made pursuant to its agreement, although holders of Bonds may seek a writ of mandamus to compel the Corporation to comply with its agreement.

The Corporation may amend, supplement, or repeal its continuing disclosure agreements to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of operations of the Corporation, but only if (i) the agreement, as amended, would have permitted an underwriter to purchase or sell Bonds in the primary offering described herein in compliance with the Rule, taking into account any amendments or interpretations of the Rule to the date of such amendment, as well as such changed circumstances and (ii) either (a) the holders of a majority in aggregate principal amount of the outstanding Bonds consent to the agreement or (b) any person unaffiliated with the Corporation (such as nationally recognized bond counsel) determines that the amendment will not materially impair the interest of the holders and beneficial owners of the Bonds. The Corporation may also amend or repeal its continuing disclosure agreements if the SEC amends or repeals the application provisions of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, but only if and to the extent that the provisions of this sentence would not prevent an underwriter from lawfully purchasing or selling the Bonds in the primary offering of the Bonds.

Compliance with Prior Undertakings

The Corporation has not previously entered into a continuing disclosure agreement pursuant to the Rule.

The Texas Department of Transportation

In the Continuing Disclosure Undertaking (the "*Undertaking*"), TxDOT has made the following agreement for the benefit of the holders and beneficial owners of the TELA Bonds. TxDOT is required to observe the Undertaking for so long as it remains obligated to make advances under the TELA. Pursuant to the Undertaking, TxDOT will be obligated to provide certain updated financial information and operating data annually to the MSRB.

Annual Reports

TxDOT will provide certain updated financial information and operating data to the MSRB annually. The information to be updated includes all quantitative financial information and operating data with respect to TxDOT of the general type described in (i) Tables 1 through 10 in “**APPENDIX A — THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND**” and (ii) “**APPENDIX B — ANNUAL FINANCIAL REPORT OF THE TEXAS DEPARTMENT OF TRANSPORTATION FOR FISCAL YEAR ENDED AUGUST 31, 2012.**” TxDOT will update and provide this information within six months after the end of each fiscal year. TxDOT will provide the updated information to the MSRB.

TxDOT reserves the right to commission an audit of its financial statements referenced in **APPENDIX A** and/or in **APPENDIX B** and, if so, TxDOT will provide such audited financial statements if such audit is completed within the period during which they must be provided. However, TxDOT does not intend (and its continuing disclosure undertaking should not be construed as a commitment by the Commission) to commission any audit of its financial statements. In the event that TxDOT does elect to commission an audit of its financial statements, TxDOT will provide such audited financial statements for the applicable fiscal years to the MSRB when and if such audit report on such statements becomes available. Any such financial statements will be prepared in accordance with generally accepted accounting principles or such other accounting principles as TxDOT may be required to employ from time to time pursuant to state law or regulation.

TxDOT may provide updated information in full text or may incorporate by reference certain other publicly available documents, as permitted by the Rule.

TxDOT will notify the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner, of any failure by TxDOT to provide financial information or operating data as described above by the times required.

TxDOT has also agreed to notify the MSRB, in an electronic format as prescribed by the MSRB, in a timely manner, after the sale by TxDOT of bonds or other obligations that are secured in whole or in part by the State Highway Fund, of any final official statement issued in connection with the offering and sale of such bonds or other obligations.

TxDOT's current fiscal year end is August 31. Accordingly, it must provide updated information by the last day of February in each year, unless TxDOT changes its fiscal year. If TxDOT changes its fiscal year, it will notify the MSRB of the change.

Availability of Information

TxDOT has agreed to provide the foregoing information only to the MSRB. This information will be available free of charge from the MSRB via the EMMA system at www.emma.msrb.org.

Limitations and Amendments

The provisions of the Undertaking are for the sole benefit of the holders and beneficial owners of the TELA Bonds, and nothing in the Undertaking, express or implied, will give any benefit or any legal or equitable right, remedy, or claim hereunder to any other person. TxDOT undertakes to provide only the financial information, operating data, financial statements, and notices which it has expressly agreed to provide pursuant to the Undertaking and does not undertake to provide any other information that may be relevant or material to a complete presentation of TxDOT's financial results, condition, or prospects or undertake to update any information provided in accordance with the Undertaking or otherwise, except as expressly provided in the Undertaking. TxDOT does not make any representation or warranty concerning such information or its usefulness to a decision to invest in or sell TELA Bonds at any future date.

Under no circumstances will TxDOT be liable to the holder or beneficial owner of any TELA Bonds or any other person, in contract or tort, for damages resulting in whole or in part from any breach by TxDOT, whether negligent or without fault on its part, of any covenant specified in the Undertaking, but every right and remedy of any holder or beneficial owner of any such TELA Bonds, in contract or tort, for or on account of any such breach will be limited to an action for mandamus or specific performance.

Should the Rule be amended to obligate TxDOT to make filings with or provide notices to entities other than the MSRB, TxDOT has agreed to undertake such obligation with respect to the TELA Bonds in accordance with the Rule as amended.

The provisions of the Undertaking may be amended by TxDOT from time to time to adapt to changed circumstances that arise from a change in legal requirements, a change in law, or a change in the identity, nature, status, or type of

operations of TxDOT, but only if (1) the Undertaking, as so amended, would have permitted an Underwriter to purchase or sell TELA Bonds in a primary offering of such TELA Bonds in compliance with the Rule, taking into account any amendments or interpretations of the Rule since such offering as well as such changed circumstances and (2) either (a) the holders of a majority in aggregate principal amount of the outstanding TELA Bonds consent to such amendment or (b) a person that is unaffiliated with TxDOT (such as nationally recognized bond counsel) determines that such amendment will not materially impair the interest of the holders and beneficial owners of such TELA Bonds. If TxDOT so amends the provisions of the Undertaking, it is required to include with any amended financial information or operating data next provided in accordance with the Undertaking, an explanation, in narrative form, of the reason for the amendment and of the impact of any change in the type of financial information or operating data so provided. TxDOT may also amend or repeal the Undertaking if the SEC amends or repeals the applicable provision of the Rule or a court of final jurisdiction enters judgment that such provisions of the Rule are invalid, and TxDOT also may amend the provisions of the Undertaking in its discretion in any other manner or circumstance, but in either case only if and to the extent that the provisions of this sentence would not prevent an Underwriter from lawfully purchasing or selling the TELA Bonds in a primary offering of the TELA Bonds.

Compliance with Prior Undertakings

Except as described in the following paragraph, during the last five years, TxDOT has complied in all material respects with its continuing disclosure agreements entered into pursuant to the Rule; however, the updated annual financial information and operating data with respect to TxDOT's State Highway Fund and Central Texas Turnpike System financings for the fiscal year ending August 31, 2008 were dated February 27, 2009 but were not shown as filed until March 9, 2009, nine days later.

Due to an administrative oversight, no ratings downgrade notice was filed for the Commission's Central Texas Turnpike System First Tier Revenue Refunding Bonds, Series 2002-A Bonds resulting from S&P's downgrade of Ambac on November 19, 2008. Ten timely filings were made with respect to the rating on such bonds resulting from various downgrades of Ambac between January 2008 and April 2010 including the subsequent downgrade of Ambac on June 25, 2009.

OTHER MATTERS

The financial data and other information contained herein have been obtained from the Corporation's records, financial statements, and other sources that are believed to be reliable. There is no guarantee that any of the assumptions or estimates contained herein will be realized. All of the summaries do not purport to be complete statements of such provisions and reference is made to such documents for further information. Reference is made to original documents in all respects. Copies may be obtained from the Corporation.

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APPENDIX A

**THE TEXAS DEPARTMENT OF TRANSPORTATION
AND THE STATE HIGHWAY FUND**

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THE TEXAS DEPARTMENT OF TRANSPORTATION AND THE STATE HIGHWAY FUND

TxDOT

The Texas Department of Transportation ("*TxDOT*" or the "*Department*") is a public authority and body politic and corporate created in 1917 as the "Texas Highway Department" by an act of the Texas Legislature (the "*Legislature*") to administer federal funds for highway construction and maintenance. In 1975, the Legislature merged the Texas Highway Department with the "Texas Mass Transportation Commission" to form the "State Department of Highways and Public Transportation," and in 1991, the Legislature combined the State Department of Highways and Public Transportation, the Department of Aviation, and the Texas Motor Vehicle Commission to create TxDOT.

The Commission

The Texas Transportation Commission (the "*Commission*") is TxDOT's policy-making body and is composed of five commissioners appointed by the Governor of the State (the "*Governor*") with the advice and consent of the Texas Senate. Commissioners serve overlapping six year terms. One member is designated by the Governor as the Chair and serves as the chief presiding officer of the Commission. A person is not eligible to be a member of the Commission if the person or the person's spouse is employed by or manages a business that is regulated by or regularly receives funds from TxDOT; directly or indirectly owns or controls more than a 10% interest in a business that is regulated by or receives funds from TxDOT; uses or receives a substantial amount of goods, services, or funds from TxDOT; or is registered, certified, or licensed by TxDOT.

The Legislature created the "State Highway Commission" on April 4, 1917, for the purpose of adopting and implementing a comprehensive system of state highways and promoting the construction of a state highway system by cooperation with counties or independently by the State Highway Commission. In 1975, the Legislature changed the name of the State Highway Commission to the "State Highway and Public Transportation Commission." In 1991, the Legislature changed the name again to the "Texas Transportation Commission," as it remains today.

The current members of the Commission are listed below.

Ted Houghton, Chairman

Mr. Houghton was appointed to the Commission by Governor Perry in December of 2003, and appointed as Chairman of the Commission in October of 2011. A native of El Paso, Mr. Houghton is self-employed in the fields of financial services, executive benefits, and estate planning. He is the first resident of El Paso to serve on the Commission. Mr. Houghton has served on the State of Texas School Land Board. He also served for eight years on the El Paso Water Utilities Public Service Board and on the board of directors of the El Paso Electric Company and the El Paso Rapid Transit Board, as president of the Sun Bowl Association, and as a member of the 1984 Los Angeles Olympic Committee. Mr. Houghton received his bachelor's degree in finance from The University of Texas at El Paso.

Fred Underwood, Commissioner

Mr. Underwood was appointed to the Commission by Governor Perry in January of 2007. Mr. Underwood is president of the Trinity Company, a cotton bale storage facility. He is both past vice president and past director of the National Cotton Council. He also serves as chairman of the Ways and Means Committee of the Cotton Warehouse Association, where he previously served as president. Mr. Underwood also previously served as chairman of Lubbock International Airport Board and as a board member of the Lubbock Chamber of Commerce. Mr. Underwood received a bachelor's degree in management from Texas Tech University.

Jeff Austin III, Commissioner

Mr. Austin was appointed to the Commission by Governor Perry in October of 2011, and is Vice Chairman of Austin Bank. He is a board member of First State Bank in Athens, Texas, and of Capital Bank in Houston, Texas, and a past president of First State Bank, Frankston, Texas. He is a board member and past chair of the Texas Bankers Association, a board member of the Bob Bullock Texas History Museum, a member of the American Bankers Association Government Relations Committee and the Bank CEO Network, an executive committee member and past director of the Texas Lyceum, and a Board member and a Past President and Scoutmaster of the East Texas Area Council of Boy Scouts. He was the presiding officer of the North East Texas Regional Mobility Authority, and board chair of the Tyler Area Chamber of Commerce. He is also a past board member of the Tyler Economic Development Corporation, the Better Business Bureau of East Texas, The University of Texas at Tyler

Business School Advisory Board, the UT Tyler Health Center Development Board, and the Trinity Mother Frances Hospital Foundation. Mr. Austin received a bachelor's degree and a master's degree in Business Administration from The University of Texas at Tyler, and is a graduate of the Southern Methodist University Southwestern Graduate and Intermediate Schools of Banking, and the Harvard Business School Advanced Management Program.

Jeff Moseley, Commissioner

Mr. Moseley was appointed to the Commission by Governor Perry in June of 2012. Prior to his appointment, Mr. Moseley was chief executive officer of the Greater Houston Partnership. During seven years in this role, he worked on numerous regional transportation policy efforts and partnered with transportation stakeholders such as the Gulf Coast Regional Mobility Partners and the I-69 Corridor Coalition. He previously served as director of the Governor's Office of Economic Development and Tourism. Between 1991 and 1999, Mr. Moseley served as Denton County Judge. During that time, he was a member of the metropolitan planning organization for the North Central Texas Council of Governments, supported the passage of two mobility bond campaigns, organized the I-35 Corridor Coalition, and was involved in the creation of the North Texas Tollway Authority. Mr. Moseley is currently self-employed and serves as a consultant to Opportunity Houston. Mr. Moseley received the Outstanding Alumnus Award from Southern Nazarene University in Oklahoma.

Victor Vandergriff, Commissioner

Mr. Vandergriff was appointed to the Commission by Governor Perry in March of 2013. Mr. Vandergriff is an attorney and private businessman specializing in business development and legislative issues. From 2009 to 2013, Mr. Vandergriff served as the chairman of the Texas Department of Motor Vehicles Board. He was also a board member for the North Texas Tollway Authority from 2007 to 2013 and served as chairman from 2010 to 2011. He formerly served as Vice President of V.T., Inc. and Automotive Investment Group, the largest private retail automotive group in the United States. He was involved as an owner, dealer and executive manager in the automobile industry for more than 25 years. Mr. Vandergriff and his family have owned and operated automobile dealerships for more than 80 years in the Dallas-Fort Worth region. Mr. Vandergriff attended The University of Southern California, where he received a degree from the School of Public Administration in Public Affairs. He received his law degree from Southern Methodist University in Dallas.

The Department

The Department is a public authority and body politic and corporate created in 1917 as the "Texas Highway Department" by an act of the State Legislature to administer federal funds for highway construction and maintenance. In 1975, the State Legislature merged the Texas Highway Department with the "Texas Mass Transportation Commission" to form the "State Department of Highways and Public Transportation," and in 1991, the Legislature combined the State Department of Highways and Public Transportation, the Department of Aviation, and the Texas Motor Vehicle Commission to create the Department. In 2009, the Legislature created the Department of Motor Vehicles as a separate State agency, and moved vehicle title and registration; motor carrier registration and enforcement; licensing of motor vehicle dealers, manufacturers, distributors, and other similar entities; and auto theft reduction efforts from the Department to the Department of Motor Vehicles.

The mission of TxDOT is to provide safe and efficient movement of people and goods, enhance economic viability and improve the quality of life for the people that travel in the state of Texas by maintaining existing roadways and collaborating with private and local entities to plan, design, build and maintain expanded transportation infrastructure. TxDOT's vision is to be a trusted, performance-driven organization committed to collaborating with internal and external partners to deliver a modern, interconnected and multimodal transportation system that enhances the quality of life for Texas citizens and increases the competitive position for Texas industry.

The Department is headquartered in Austin, Texas, with 33 divisions/offices, four regional offices, and 25 district offices located throughout the State. Each district is responsible for the planning, design, construction, maintenance, and operation of its area's transportation systems. The Department is managed by an Executive Director, subject to and under the direction of the Commission. The Executive Director and other key Department personnel are listed below.

Phil Wilson, Executive Director

Phil Wilson is executive director of the Department. Under the direction of the Commission, he manages, directs and implements Department policies, programs and operating strategies. He also represents the Department before the Legislature and other entities. He is the Department's first executive director since legislation was passed in 2009 removing the requirement that the position be occupied by a professional engineer. The Commission selected Mr. Wilson as the

Department's Executive Director, effective October 17, 2011. Mr. Wilson most recently served as Senior Vice President of public affairs for Luminant, an electric generation company headquartered in Dallas, and previously served as Texas Secretary of State. As Texas Secretary of State, Mr. Wilson was responsible for elections and acted as the Governor's chief liaison on the Texas-Mexico border and issues with Mexico. He has also served as Chairman of the Governor's Competitiveness Council, where he helped identify ways the State could improve its economic position for continued long-term success. Mr. Wilson's public service also includes time as an aide to U.S. Senator Phil Gramm and on the senior staff of Governor Perry. During his time as Texas Secretary of State, Mr. Wilson led a number of transportation-related programs, including the Border Colonia Access Program and the Texas Interagency Work Group on the Texas and Mexico Border Affairs initiative. The Texas Secretary of State also serves as the State's chief economic development officer, and in that role, Wilson worked with Department professionals in bringing new opportunities to the State. As a chair of the Governor's Competitiveness Council, Mr. Wilson and his colleagues on the Council made several transportation recommendations to improve the State's competitiveness, including proposals to reexamine public-private partnerships, expand inland ports, repair and maintain the State's existing infrastructure and advancement of rail relocation efforts.

John Barton, Deputy Executive Director and Chief Engineer

As Deputy Executive Director, Mr. Barton is responsible for assisting in all phases of directing, managing, and implementing the Department's policies, programs, and operating strategies. He oversees the management of all transportation systems for which the agency is responsible to ensure that systems are adequate, safe, and constructed and maintained for the traveling public in the most cost-effective manner. Mr. Barton also serves as the Department's Chief Engineer. In this capacity he is responsible for management and control of the Bridge, Construction, Design, Maintenance, Traffic Operations and Right of Way Divisions as well as the Local Government Project Office, and he provides executive oversight of all District Operations. He also assists in directing long- and short-range planning for the agency including the establishment of overall operating objectives and the technical merits of programs and policies. Mr. Barton grew up in Archer City, a small rural town in north central Texas, before attending college at Texas A&M University where he graduated with honors in 1986 with a Bachelor of Science degree in Civil Engineering. He then began working full-time for the Department and now has more than 26 years of service with the Department. Mr. Barton began working for the Department as a summer employee in the Archer City Maintenance Section of the Wichita Falls District while in high school, and then began full-time employment with the Department after graduating from Texas A&M. Like most Department employees, he has worn many hats during his time with the Department, ranging from Construction Project Inspector and Manager to Area Engineer, to District Engineer, Assistant Executive Director for Engineering Operations, and now Deputy Executive Director.

James M. Bass, Chief Financial Officer

As the Department's Chief Financial Officer ("CFO"), Mr. Bass has financial oversight responsibility for the Department. Mr. Bass also oversees management of the Department's financial planning operations division (the "Finance Division"), which now includes programming and scheduling of all transportation projects and letting management activities associated with project delivery, following the Department's reorganization in November 2007. In addition, recently announced changes in organizational responsibilities and executive administration of the Department gave the CFO oversight of toll operations, innovative finance and debt management (including the State Infrastructure Bank and investment functions), and grant management. Under his direction, the Finance Division develops and implements systems and policies related to accounting, forecasting, budgeting, payment for goods and services, and the processing of receipts and revenues. Mr. Bass began his career with the Department in 1985 in the Fort Worth District where he maintained records and audited field measurements. He also worked part-time as an engineering aide for the Austin District while earning his bachelor's degree in accounting from The University of Texas at Austin. After graduation in 1991, Mr. Bass served as an accounting clerk in the Finance Division. In 1997, Mr. Bass became a manager in the Budget and Forecasting Branch, and in that position was responsible for preparation of the Department's Legislative Appropriations Request and Operating Budget, and working with the Texas Legislative Budget Board, State Auditor's Office, and the Comptroller of Public Accounts. He also worked on the Department's Cash Forecasting System for the State Highway Fund. Mr. Bass was named Finance Division Director in 1999 and his title was changed to Chief Financial Officer in 2005.

Brian Ragland, Finance Director

As the Department's Finance Director, Mr. Ragland is responsible for the management and control of budget, revenue, disbursements, and accounting, and debt management for the Department as well as programming and scheduling and letting management of all transportation projects. Mr. Ragland is also currently an elected trustee of the Employees Retirement System, with a term expiring August 31, 2017. Mr. Ragland began his career with the Department as the Director of the Department's Claims Management Section of the Finance Division in 2003. He left the Department in 2005 to pursue an opportunity as Senior Vice President and Chief Financial Officer of Walden Affordable Group, LLC, an affordable housing

management firm. He began his career with The University of Texas System Administration as an accountant/auditor in their Oil and Gas department and then became the Financial Manager of their Employee Group Insurance section where he served until 1996. He then became Chief Financial Officer for the State Preservation Board where he oversaw all financial, human resources, enterprise, and information resource functions of that agency until 2003, when he joined the Department. Mr. Ragland received a bachelor's degree in Accounting from The University of Texas at Austin in 1990 and a Masters of Business Administration degree from Southwest Texas State University in 1999. He is a licensed Certified Public Accountant.

Benjamin Asher, Innovative Financing/Debt Management Officer

Mr. Asher assumed the position as the Department's Innovative Financing/Debt Management Officer in June 2012. In this role he oversees the day-to-day activities of the Innovative Financing/Debt Management Office which include managing the Department's various debt programs, the State Infrastructure Bank, toll equity, pass-through financings, and the financial aspects of the Department's public-private partnerships. For the past twenty years Mr. Asher worked for the Public Resources Advisory Group, an independent financial advisory firm, most recently as a Senior Managing Director in New York. Mr. Asher received his Bachelor of Arts in History from Columbia College and an M.B.A. in Finance from Columbia University Graduate School of Business.

John Muñoz, Deputy Director, Innovative Financing/Debt Management Office

As Deputy Director of the Innovative Financing/Debt Management Office, Mr. Muñoz assists Mr. Asher in planning, organizing and directing all of the debt related and innovative financing activities of the office. Mr. Muñoz' main focus is developing and negotiating the commercial aspects of the Department's comprehensive development agreements for the delivery of transportation infrastructure. During his 25-year tenure with the Department, Mr. Muñoz also served as Deputy Director of the Finance Division, and has also worked in the audit, budgeting, payment processing, and administrative operations of the Department. Prior to his employment with the Department, Mr. Muñoz worked for the predecessor firm to KPMG performing audit and tax work. Mr. Muñoz earned a bachelor's degree in accounting from The University of Texas at Austin in 1986 and is also a Certified Public Accountant and Certified Internal Auditor.

Jeff Graham, General Counsel

Mr. Graham assumed the position of General Counsel on July 16, 2012. Under his direction, the Office of General Counsel renders legal advice to the Commission and the Department. He also drafts Department rules, reviews legislation, and serves as counsel at Commission meetings. Previously, Mr. Graham served as Division Chief for the Financial and Taxation Litigation Division, under Texas Attorney General Greg Abbott. Prior to that, he served as the Division Chief for the Financial Litigation Division of the Office of Attorney General. In 2011, the Taxation Division and the Texas Workforce Commission Section were added to the Financial Litigation Division, resulting in the combined Financial and Taxation Litigation Division. In 2012, the Charitable Trust Section was also added to his portfolio. Jeff began his career at the Office of the Attorney General in 1997, and has lived in Austin since 1986. He is a graduate of Washington University School of Law in St. Louis, Missouri and The University of Texas at Austin.

The State Highway Fund

General

The State Highway Fund is the general source for a substantial portion of funding for the State Highway System, TxDOT, and the administration of State laws relating to traffic and safety on public roads. The State Highway Fund receives revenue from a variety of sources, including, without limitation, certain federal transportation program funds received from the United States Department of Transportation ("*USDOT*"), State motor fuels tax funds, State motor vehicle registration funds, and State motor lubricants tax funds.

Pursuant to Article VIII, Section 7-a of the Texas Constitution, (i) 75% of the net revenues generated from the State motor fuels tax (net of enforcement, administrative and refund charges), (ii) the State tax on motor lubricants, and (iii) the net revenues generated from the State motor vehicle registration fees (net of collection charges and the portion of such fees that is reserved for counties within the State) are dedicated for acquiring rights-of-way; constructing, maintaining, and policing public roadways; and for the administration of laws pertaining to the supervision of traffic and safety on such roads. Also, pursuant to Article VIII, Section 7-b of the Texas Constitution, all revenues received from the federal government as reimbursement for State expenditures of funds that are themselves dedicated for acquiring rights-of-way and constructing, maintaining and policing public roadways are constitutionally dedicated and may be used only for those purposes.

The State Highway Fund is the general operating fund of TxDOT through which, generally, all revenues dedicated or appropriated to the purposes of TxDOT are deposited and all of TxDOT's administration, maintenance and operating expenses are paid. Certain expenses of the Texas Mobility Fund are also processed through the State Highway Fund, whereby the Texas Mobility Fund transfers amounts for such expenses to the State Highway Fund prior to such expenses being paid (except in situations where the Texas Mobility Fund is reimbursing the State Highway Fund for expenses incurred by the State Highway Fund). TxDOT's ongoing "pay as you go" construction program is also paid from the State Highway Fund. Such expenses include payroll, repairs and maintenance, costs of materials and supplies, professional fees or commitments, utilities, rent and lease payments and intergovernmental payments. To accomplish all of these purposes, money in the State Highway Fund is appropriated by the Legislature to TxDOT, the Texas Department of Public Safety (the "DPS") and certain other agencies of the State.

With the exception of certain dedicated and restricted funds held in special accounts or subaccounts in the State Highway Fund (collectively "*Restricted Revenues*"), amounts deposited into the State Highway Fund are pledged to secure payment of Senior Obligations (as defined under the caption "*State Highway Fund Obligations*") and such amounts may also be used to pay debt service on and other costs associated with certain subordinate obligations issued or incurred by the Commission or TxDOT. See " - *Uses of the State Highway Fund*" and " - *State Highway Fund Obligations*."

Restricted Revenues include amounts held in the State Infrastructure Bank account established as an account in the State Highway Fund pursuant to Subchapter D of Chapter 222, Transportation Code, which had a balance of \$292 million as of April 30, 2013, and amounts held in special accounts or subaccounts established pursuant to Section 228.012, Transportation Code, for payments received by TxDOT under comprehensive development agreements ("*CDA's*"), surplus revenues of toll projects or systems, and payments received under former Section 228.0111(g)(2) and (i)(2) of the Transportation Code (which was repealed by legislation enacted in 2011) for the right to develop, finance, construct and operate toll projects. TxDOT has created subaccounts in the State Highway Fund in accordance with Section 228.012, Transportation Code, holding balances as of April 30, 2013 (i) under the State Highway 130 CDA for segments 5 and 6 totaling approximately \$128 million and (ii) from the North Texas Tollway Authority for the right to develop, finance, design, construct, operate, and maintain the State Highway 121 toll project totaling \$1.82 billion and the State Highway 161 toll project totaling \$153 million, pending distribution of such funds from time to time for their designated purposes.

Restricted Revenues must be used for certain limited purposes and are not available to make advances under any toll equity loan agreement with TxDOT including the toll equity loan agreement (the "*TELA*") with the Grand Parkway Transportation Corporation (the "*Corporation*").

The audited TxDOT Financial Statements (the "*TxDOT Financial Statements*") for fiscal year ended August 31, 2012, which are on file with the Municipal Securities Rulemaking Board ("*MSRB*") and can be examined using the Electronic Municipal Market Access system ("*EMMA*") of the MSRB, are attached to this Official Statement as Appendix B.

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Sources of Pledged Revenue in the State Highway Fund

The following table sets out the amount of total State Highway Fund Revenues, which are derived from each of the following sources for the fiscal years 2008 through 2012: State motor fuels tax, State motor vehicle registration fees, other State revenue sources, and reimbursements from federal funds.

Table 1
State Highway Fund Revenues By Source⁽¹⁾
(In Millions)

Fiscal Year	State Motor Fuels Tax	State Motor Vehicle Registration Fees	Other State Revenue Sources	Reimbursements from Federal Funds	Total Revenues
	(Table 2)	(Table 4)	(Table 6)	(Table 7)	
2008	\$ 2,276.4	\$ 1,045.1	\$ 572.2	\$ 2,759.2	\$ 6,652.9
2009	2,226.4	1,167.6	498.4	2,668.9	6,561.3
2010	2,230.1	1,037.9	383.5	1,791.1	5,442.6
2011	2,272.0	1,073.5	493.0	2,182.1	6,020.6
2012	2,318.2	1,344.6	328.9	2,560.6	6,552.3

⁽¹⁾ Presented on the modified accrual basis of accounting.

State Motor Fuels Tax. The State currently levies a motor fuels tax of \$0.20 per gallon on gasoline and diesel fuel, and \$0.15 per gallon on liquefied natural gas. Sales of motor fuels for the exclusive use of the federal government or a public school district in the State are exempt, and sales of liquefied gas for the exclusive use of the federal government, local county government or a public school district in the State are exempt. The Comptroller of Public Accounts (the “*Comptroller*”) retains 1% of the gross receipts for administration and enforcement, and after providing for refunds or non-highway use collections, distributes the remainder as hereinafter described. Pursuant to Article VIII, Section 7-a of the Texas Constitution, 75% of the net revenues generated from the State motor fuels tax (net of enforcement, administrative and refund charges) are deposited to the credit of the State Highway Fund and the remaining 25% of such revenues are deposited to the credit of the "Available School Fund" in support of the State's primary and secondary schools. The Comptroller also administers a maximum of \$7.3 million annually to fund the county and road district highway fund. The county and road district highway fund is funded from the 75% of the State motor fuels tax net revenues that are deposited in the State Highway Fund. The following table sets out the amount of the State motor fuels tax deposited into the State Highway Fund for the fiscal years 2008 through 2012 and the approximate percentage of total State Highway Fund revenues for such years that constituted State motor fuels taxes.

Table 2
State Motor Fuels Tax Revenues Credited to the State Highway Fund⁽¹⁾
(In Millions)

Fiscal Year	Amount of Motor Fuels Tax Revenues Deposited	Percentage of Total Fund Revenues
2008	\$ 2,276.4	34%
2009	2,226.4	34%
2010	2,230.1	41%
2011	2,272.0	38%
2012	2,318.2	35%

⁽¹⁾ Presented on the modified accrual basis of accounting.

The following table sets out the amount of the taxable gasoline and diesel fuel consumption in the State for the fiscal years 2008 through 2012.

Table 3
Taxable Gasoline and Diesel Fuel Consumption in Texas
(In Millions of Gallons)

Fiscal Year	Gasoline	Diesel
2008	11,589.1	3,922.2
2009	11,587.9	3,583.4
2010	11,700.0	3,494.3
2011	11,822.6	3,726.1
2012	11,994.7	4,270.9

State Motor Vehicle Registration Fees. The State currently charges motor vehicle registration fees under a number of statutory provisions. The Texas Department of Motor Vehicles ("TxDMV") shares motor vehicle registration responsibilities with county governments that assist with this function. Revenues from vehicle registrations are shared between the State Highway Fund and the counties. Table 4 below sets out the amount of such revenues deposited to the State Highway Fund for the fiscal years 2008 through 2012, the approximate percentage of total motor vehicle registration fee revenues represented by such amount, and the approximate percentage of total State Highway Fund revenues for such years that constituted motor vehicle registration fees.

Table 4
State Motor Vehicle Registration Fees Credited to the State Highway Fund⁽¹⁾
(In Millions)

Fiscal Year	Amount of Motor Vehicle Registration Fees Deposited	Percentage of Total State Motor Vehicle Registration Fees Assessed	Percentage of Total Fund Revenues
2008	\$1,045.1	69%	16%
2009	1,167.6	71%	18%
2010	1,037.9	73%	19%
2011	1,073.5	73%	18%
2012	1,344.6	76%	21%

⁽¹⁾ Presented on the modified accrual basis of accounting.

Table 4 shows revenues received by the State Highway Fund under fee schedules in operation prior to September 1, 2011. Effective September 1, 2011, the base vehicle registration fee for cars and light trucks was changed to \$50.75 per vehicle, regardless of the age or weight of the vehicle. Prior to September 1, 2011, the base registration fee for cars and light trucks has ranged from approximately \$29 to \$59, depending on the age (for cars) or weight (for light trucks) of the vehicle.

The following table sets out the number of vehicles registered in the State for the fiscal years 2008 through 2012.

Table 5
Vehicles Registered in Texas
(In Millions)

Fiscal Year	Number of Vehicles
2008	21.2
2009	21.4
2010	21.6
2011	21.9
2012	22.6

Other State Revenue Sources. The State also generates or receives funds from a variety of sources that are deposited to the credit of the State Highway Fund. Such sources of funds include, without limitation, sales taxes on motor lubricants, funds from local governments that are participating in State highway projects, interest earnings on the dedicated funds deposited to the credit of the State Highway Fund, oversize and overweight trailer permit fees, vehicle title certificate fees, revenues from Texas Highways magazine, and other reimbursements received by TxDOT. With the exception of the sales tax on motor lubricants and interest earnings on dedicated funds, these other revenue sources are not dedicated or committed by constitutional provision to the State Highway Fund. The following table sets out the aggregate amount of funds generated from these sources and deposited to the State Highway Fund for the fiscal years 2008 through 2012 and the approximate percentage of the total State Highway Fund revenues for such years generated from such sources.

Table 6
Other State Revenues Credited to the State Highway Fund⁽¹⁾
(In Millions)

Fiscal Year	Amount Deposited ⁽²⁾	Percentage of Total Fund Receipts
2008	\$572.2	9%
2009	498.4	7%
2010	383.5	7%
2011	493.0	8%
2012	328.9	5%

⁽¹⁾ Presented on the modified accrual basis of accounting.

⁽²⁾ Excludes loan repayments received by the State Infrastructure Bank and amounts credited to the State Highway Fund from the Texas Mobility Fund for payment to contractors. For administrative purposes, expenses of the Texas Mobility Fund are processed through the State Highway Fund and reimbursed from the Texas Mobility Fund.

During the 83rd regular Legislative session that ended on May 27, 2013, the State Legislature passed House Bill 2202 which provides for the diversion of certain fees which historically have been deposited into the State Highway Fund. House Bill 2202 requires such fees to be deposited into the newly created Texas Department of Motor Vehicles Fund which will be administered by the Texas Department of Motor Vehicles outside the State Highway Fund, however, such fees shall continue to be available to as security or payment of any State Highway Fund obligations. The estimated aggregate amount of such fees is an average of \$104 million annually over the next five fiscal years. To help offset the diversion of revenues from the State Highway Fund to the Texas Department of Motor Vehicles Fund, appropriations made to the Department of Motor Vehicles out of the State Highway Fund have been reduced by \$95,385,000 in fiscal year 2014 and by \$96,330,000 in fiscal year 2015 and such amounts are appropriated instead from the Texas Department of Motor Vehicles Fund. Further, any appropriations to the Department of Motor Vehicles from the Texas Department of Motor Vehicles Fund above such amounts shall reduce appropriations to the Department of Motor Vehicles from the State Highway Fund in an amount equal to the fee revenue received into the Texas Department of Motor Vehicles Fund.

Federal Funds. Federal transportation funds are made available to the State by the federal government. Briefly, the Federal-Aid Highway Program ("*FAHP*") is an "umbrella" term that encompasses most of the federal programs providing highway funds to the states. The Federal Highway Administration ("*FHWA*") is the federal agency within the USDOT responsible for administering the FAHP. The FAHP is financed from the transportation user-related revenues deposited in the Federal Highway Trust Fund ("*HTF*"). Federal government funding for infrastructure projects is usually accomplished through federal highway authorization legislation, which establishes funding over a multi-year period.

The FAHP is a reimbursement program. Funding under the FAHP is provided to states through a multi-step funding cycle that includes: (i) multi-year authorization by Congress of the funding for various highway programs; (ii) apportionment and allocation of funds to the states each federal fiscal year according to statutory formulas or, for some funding categories, through administrative action; (iii) appropriations by Congress specifying the amount of funds available for the year to liquidate obligations; (iv) obligation of funds, which is the federal government's legal commitment (or promise) to pay or reimburse states for the federal share of a project's eligible costs; (v) program implementation which covers the programming and authorization phases; and (vi) reimbursement by the federal government of the eligible project costs. The FAHP, including the current federal highway authorization legislation, "Moving Ahead for Progress in the 21st Century" ("*MAP-21*"), is subject to federal rescission of funds enacted by federal law which reduces the amount of funds available under an existing appropriation or authorization act.

The primary source of revenues in the HTF is derived from federal excise taxes on motor fuels, including certain alternative fuels. The HTF is a dedicated federal fund with revenues dedicated for reimbursement of expenditures by the

states, including Texas, for costs of eligible transportation projects, including highway projects, and was created as a user-supported fund intended to finance highways with taxes paid by users of highways. Deposits of such taxes into the HTF must periodically be reauthorized by Congress. Historically, the HTF and its constituent taxes have been authorized to operate for limited periods of time.

Failure to replenish the HTF expeditiously and maintain the flow of federal revenues to states may have an adverse impact on TxDOT and the Commission. In addition, funding appropriations may be revised and federal funding for infrastructure projects may be reduced which may impact the funding available to TxDOT for payment of its obligations, including obligations to developers pursuant to pass-through toll agreements and obligations under toll equity agreements, including the TELA with the Corporation, and obligations to support the operations of the Central Texas Turnpike System ("CTTS"). See *"– State Highway Fund Obligations."*

The most recent highway authorization legislation, MAP-21, is authorized from June 30, 2012 to September 30, 2014. If federal highway authorization legislation is enacted to extend MAP-21 federal funding beyond September 30, 2014, such funding legislation will be subject to possible federal rescission of funds, which would have the effect of reducing the amount of federal funds provided by prior law. Prior federal highway authorization legislation has been periodically subject to rescission, including reductions to funding under the previous authorization in each of the years 2005 through 2011.

State law currently provides that federal funds appropriated for public road construction in the State may only be spent by and under the supervision of TxDOT. Such funds are deposited to the credit of the State Highway Fund as reimbursements. Federal transportation program funds received and deposited to the State Highway Fund in fiscal year 2012 totaled approximately \$2.56 billion, representing 39% of total State Highway Fund revenues. Federal transportation program funds received and deposited to the State Highway Fund for fiscal years 2008 through 2012, and the portion of the total State Highway Fund represented by receipt of federal funds, are shown in the following table.

Table 7
Reimbursements from Federal Funds⁽¹⁾
(In Millions)

Fiscal Year	Amount Deposited	Percentage of Total Fund Receipts
2008	\$ 2,759.2	41%
2009	2,668.9	41%
2010	1,791.1	33%
2011	2,182.1	36%
2012	2,560.6	39%

(1) Presented on a modified accrual basis of accounting.

(2) Includes certain federal aviation and transit reimbursement funds that are not constitutionally dedicated but are deposited to the State Highway Fund. Excludes funds received for projects financed through the American Reinvestment and Recovery Act (ARRA) beginning in Fiscal Year 2009.

The Equity Bonus Program in the previous multi-year authorization bill, the "Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users" ("SAFETEA-LU") has been removed from MAP-21. The Equity Bonus Program had previously guaranteed a minimum return of certain apportioned federal highway program funds. In its place, MAP-21 makes an adjustment part of the apportionment formula such that no state receives less than a 95% share of the state's attributed share of highway user tax revenue contributed to the Highway Account of the HTF. Despite this adjustment, when all federal highway funding programs are included (other than American Reinvestment and Recovery Act funding), the State is receiving less than its share of contributions to the Highway Account of the HTF, making it a donor state. Funds from the HTF support a variety of federal transportation programs that, for the purposes of this discussion, are grouped into three broad categories: (i) Highway Programs; (ii) Highway Safety Programs; and (iii) Transit Programs.

The allocation of funds using a formula provided in law is called apportionment. Most federal-aid funds are formula-allocated to states through apportionments. Each federal fiscal year, the FHWA has responsibility for apportioning authorized funding for the various highway programs among the states according to formulas established in the authorizing statute, currently MAP-21. When there are no formulas in law, the non-formula allocations of funds may be made at any time during the federal fiscal year. In most cases, non-formula allocated funds are divided among states with qualifying projects applying general administrative criteria provided in the law. The annual apportionments to TxDOT under SAFETEA-LU and MAP-21 were \$2.95 billion, \$3.15 billion, \$3.13 billion, \$3.12 billion and \$2.91 billion in federal fiscal years 2008 through 2012, respectively. However, in federal fiscal years 2008 through 2011, there were federal rescissions of certain amounts

appropriated under SAFETEA-LU in the approximate aggregate amounts of \$3.2 billion, \$11.9 billion, \$2.2 billion and \$2.5 billion, respectively. Texas' share of such rescissions was \$257,989,173, \$1,014,643,500, \$190,367,982 and \$200,895,021 for federal fiscal years 2008 through 2011, respectively. In February 2010, Congress passed HR2847, which restored \$8.7 billion of the authorization rescinded in 2009, including \$742,240,415 of Texas's share of such rescinded authorization; while contract authority was restored, no obligation authority was given.

The following table provides a history of the apportionments and allocations, as applicable, to the State for certain federal highway funding programs in the State from the federal fiscal years 2008 through 2012.

Table 8
Federal Transportation Funds Apportioned and Allocated for Texas⁽¹⁾
(In Millions)

Fiscal Year	Guaranteed Highway Programs	Discretionary Highway Programs	Highway Safety Programs	Transit Programs	Total
2008	\$ 2,953.0	\$ 3.3	\$146.9	\$ 68.6	\$ 3,171.8
2009	3,150.9	1.3	157.9	111.9	3,422.0
2010	3,134.5	6.1	161.7	61.0	3,363.3
2011	3,121.5	6.7	166.6	60.9	3,355.7
2012	2,912.9	5.6	152.2	65.8	3,136.5

⁽¹⁾ Based upon data from the United States Department of Transportation. Years shown are federal fiscal years. Excludes federal funds apportioned and allocated for the State's Aviation Programs.

Obligation authority is the commitment (or promise) of the federal government to pay, through reimbursement to a state, the federal share of an approved project's eligible costs, which may include debt service on obligations issued to finance a project. This process is important to the states because it allows states to award contracts with assurance that the federal government will reimburse its share of incurred costs. Once an obligation is made, the federal government is to reimburse the states when bills or payments become due. However, Congress places a restriction or "ceiling" on the amount of federal assistance that may be obligated (promised) in an individual year. This is a statutory budgetary control that does not affect the apportionment or allocation of funds. Rather, it controls the rate at which these funds can be used.

FHWA distributes obligation authority to states proportionately based on each state's share of apportioned and allocated revenues. During the federal fiscal year, states submit requests to FHWA to obligate funds, representing the federal share of specific projects. As a state obligates funds, its balance of obligation authority is reduced. A state's obligation authority (unlike its apportionments and allocations of authorized funding) must be used before the end of the federal fiscal year for which it is made available; if not, it will be distributed to other states to ensure that the total limitation nationwide will be used. Although a ceiling on obligations restricts how much funding may be used in a federal fiscal year, the state has flexibility within the overall limitation to mix and match the type of program funds it obligates, based on its individual needs, as long as it does not exceed the ceiling in total.

The following table provides a history of the obligation authority to the State for certain federal highway funding programs in the State from the federal fiscal years 2008 through 2012.

Table 9
Federal Transportation Obligation Authority for Texas
(In Millions)⁽¹⁾

Fiscal Year	Amount
2008	\$ 2,897.0
2009	3,073.6
2010	3,116.3
2011	3,084.8
2012	2,913.4

⁽¹⁾ Excludes obligation authority for the State's Aviation and Transit Programs.

The amounts shown in Table 8 - "Federal Transportation Funds Apportioned and Allocated for Texas" represent federal funds that have been "apportioned" or "allocated" to the State pursuant to federal legislation and the amounts shown in

Table 9 - "Federal Transportation Obligation Authority for Texas" represent federal funds that have been "obligated" to the State by the FHWA pursuant to federal legislation, but do not represent funds actually received by the State for any given period. For amounts of federal funds actually received by the State during fiscal years 2008 through 2012, see Table 7 – "Reimbursements from Federal Funds."

Uses of the State Highway Fund

General. Funds that are required to be used for public roadways by State or federal law and that are deposited to the credit of the State Highway Fund, may be used only (i) to improve the State Highway System, (ii) to mitigate adverse environmental effects that result directly from the construction or maintenance of a state highway by TxDOT or (iii) by DPS to police the State Highway System and administer State laws relating to traffic safety. Money in the State Highway Fund that is not so restricted may be used for any functions performed by TxDOT, including expenses relating to TxDOT's "pay as you go" construction program, payroll, repairs and maintenance expenses, costs of materials and supplies, professional fees or commitments, utilities, rents and lease payments and intergovernmental payments. Debt service on State Highway Fund revenue bonds and other obligations and financial commitments are also paid from the State Highway Fund. To accomplish these purposes, money in the State Highway Fund is appropriated by the Legislature to TxDOT, DPS, TxDMV and certain other State agencies. See "- General" and "- State Highway Fund Obligations."

The following table sets out the appropriation of funds by the Legislature to TxDOT for the five most recent State biennia, including the current State biennium, and the approximate percentage of total appropriations from the State Highway Fund represented by such appropriations.

Table 10
Appropriations to TxDOT from the
State Highway Fund
(In Millions)

State Biennium	Amount Appropriated ⁽¹⁾	Percentage of Total State Highway Fund Appropriations
2004-05	\$ 10,960.3	91.85 %
2006-07	13,579.7	91.83
2008-09	12,598.5	89.54
2010-11	11,730.2	90.98
2012-13	12,076.3	88.07

⁽¹⁾ Includes appropriations made to other State agencies (e.g., the Employees Retirement System of Texas) for the benefit of TxDOT.

Budget Process. TxDOT operates under a two-year budget cycle. In preparing its Legislative Appropriations Request ("LAR"), TxDOT relies upon its cash flow forecast for the State Highway Fund, which delineates current and future obligations of TxDOT and forecasts the monthly revenue, expenditure, lowest daily balance, and ending balance for the State Highway Fund. From the forecast, the amount of expenditures (appropriations) that can be handled by the State Highway Fund can be determined. After accounting for existing obligations, the Commission then allocates the projected available resources among the competing needs identified by the various TxDOT offices, including obligations under pass-through toll agreements and toll equity agreements. Once these funding priorities have been determined, the data is entered into TxDOT's LAR and submitted to the Legislature for consideration in enacting the State appropriations bill. Once the appropriations bill takes effect, it is implemented as the State budget for the next two-year biennium, taking effect on the next September 1. The budget is law, though it is not codified and does not otherwise appear in Vernon's Texas Statutes, and State agencies are bound by it. The Legislative Budget Board and the State Auditor's Office are responsible for monitoring compliance.

Capital Projects and Proposed Debt Financings. As required by various State and federal laws, the funding priorities of the Commission are outlined in various transportation plans approved by the Commission and various metropolitan and rural planning organizations within the State. The Statewide Transportation Plan is a long-range plan outlining the transportation goals of the Commission over a 20-year period. From such plan, the Commission develops the Unified Transportation Program ("UTP") that covers transportation projects over a period of 10 years. The UTP contains "Construct" transportation projects to be constructed over the next four years and for which funding is firm and "Develop" transportation projects to be developed over the following six years and for which funding is yet to be authorized. At the same time, the 25 metropolitan planning organizations and 25 rural planning organizations composed of representatives of various local governmental entities

in such regions each approve a three-year Transportation Improvement Program (the "*TIP*"). The *TIPs* approved by such local planning organizations are used to create the Statewide Transportation Improvement Plan (the "*STIP*") for projects to be constructed by the Commission over the next three year period as part of the "Construct" UTP projects. All projects funded by TxDOT and reimbursed by the FHWA must be included in the *STIP*.

The Commission has funded a greater number of highway projects, through its Strategic Priority Funds, by funding projects over a 15 to 20 year time frame (and committing the use of the Strategic Priority Funds over such longer period), thereby decreasing the annual cost by extending the period in which a project will be paid. The Commission has used a number of different financing mechanisms to implement this strategy, including pass-through toll agreements and toll equity agreements. The Commission is also accelerating development and construction of highways through the issuance of debt secured by and payable from the State Highway Fund, the Texas Mobility Fund and general revenues of the State.

The Commission intends to finance its continuing construction program through a number of methods. The Commission currently plans to issue up to a total aggregate principal amount of \$1.4 billion of bonds or other public securities by October 1, 2014, as additional Senior Obligations (hereinafter defined). See "- *State Highway Fund Obligations – Senior Obligations*" below. The amount of such debt, when added to the previously issued Senior Obligations, would consume the current \$6 billion aggregate limit imposed by Section 222.003, Texas Transportation Code (the "*State Highway Fund Revenue Bond Act*"). However, the Texas Legislature may amend the State Highway Fund Revenue Bond Act in the future to increase such limit imposed on the aggregate principal amount of Senior Obligations. The Commission also plans to issue State general obligation debt to finance a portion of the Commission's capital program. In addition, the Commission is considering entering into certain agreements and commitments, including pass-through financing agreements, toll equity agreements and multi-year construction contracts and agreements, to finance, assist in the financing, or outright develop and construct, highway projects. See "- *State Highway Fund Obligations – Subordinate Obligations*" and "- *State Highway Fund Obligations – Other State Highway Fund Obligations and Commitments*."

State Highway Fund Obligations

Senior Obligations. Section 49-n of Article III, Texas Constitution, as approved by voters in the State in 2003 ("*Section 49-n*"), permits the Legislature to authorize the Commission to issue bonds and other public securities to fund State highway improvement projects payable from certain revenues deposited to the credit of the State Highway Fund. The State Highway Fund Revenue Bond Act was amended by the Legislature in 2007 to increase the maximum principal amount of bonds and other public securities, if any (collectively, "*Senior Obligations*"), that may be issued by the Commission pursuant to Section 49-n. The Commission is currently authorized to issue Senior Obligations in an aggregate principal amount not to exceed \$6 billion; provided that the Commission may not issue more than \$1.5 billion aggregate principal amount of Senior Obligations in any year. Further, the State Highway Fund Revenue Bond Act currently provides that Senior Obligations may not have a principal amount or terms that, at the time Senior Obligations are issued, are expected by the Commission to cause annual debt service expenditures with respect to Senior Obligations to exceed 10% of the amount deposited to the credit of the State Highway Fund in the immediately preceding year.

Section 49-n does not restrict the authority of the Legislature to modify or remove the limitations on the issuance of Senior Obligations contained in the State Highway Fund Revenue Bond Act.

As of the date of this Official Statement, the Commission had issued \$4.6 billion of Senior Obligations in the form of State Highway Fund Revenue Bonds, of which an aggregate principal amount of \$3,843,780,000 is outstanding. Approximately, \$1.4 billion of Senior Obligations remain authorized but unissued under current law. Senior Obligations are currently rated "Aaa" by Moody's Investors Service, Inc. and "AAA" by Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business.

Subordinate Obligations. The Texas Constitution (Article III, Section 49-m) and the Texas Transportation Code (Section 201.115) authorize the Commission to borrow money from any source to carry out the functions of TxDOT. A loan incurred pursuant to Section 201.115 may be in the form of an agreement, a note, a contract, or another form, as determined by the Commission. The term of a loan may not exceed two years, and the amount of a loan, combined with any other loans issued and outstanding pursuant to Section 201.115, may not exceed an amount that is two times the average monthly revenue deposited to the State Highway Fund for the 12 months preceding the month in which the loan is made. A loan incurred pursuant to Section 201.115 is payable from legislative appropriation of amounts on deposit in the State Highway Fund for that purpose.

In 2005, the Commission established a commercial paper program pursuant to Section 201.115 in the maximum authorized amount of \$500 million. TxDOT intends to continue to utilize its short-term borrowing authority (through the

issuance of commercial paper or other short-term obligations) from time to time to facilitate efficient cash management operations in the State Highway Fund in response to fluctuations in the cash balance of the State Highway Fund as a result of the cyclical nature and uncertain timing of deposits into and payments out of the State Highway Fund. As of the date of this Official Statement, no commercial paper notes (the "Notes") or other short-term obligations were outstanding.

The Commission is currently in the process of implementing a direct lending program to replace the commercial paper program. The direct lending program will be subject to the requirements and limitations laid out in Section 201.115, and utilized from time to time for cash management purposes.

Additionally, the Texas Transportation Code (Sections 201.961, et seq.) authorizes the Commission to issue highway tax and revenue anticipation notes ("HTRANs") if the Commission anticipates a temporary cash flow shortfall in the State Highway Fund during any fiscal year. The HTRANs are subject to the approval of the Cash Management Committee (consisting of the Governor, the Lieutenant Governor, the Speaker of the House and the Comptroller), which also approves cash flow borrowings for the State. HTRANs must mature during the fiscal biennium in which they are issued, and HTRAN proceeds must be placed in a special fund in the State Treasury and transferred as necessary to the State Highway Fund to pay authorized expenditures. HTRANs and related credit agreements are payable from amounts on deposit in the State Highway Fund. To date, the Commission has not issued any such anticipation notes, and the Commission does not expect to issue HTRANs.

The obligation of TxDOT to pay debt service on the Notes and any other obligations incurred pursuant to Section 201.115 (or Section 201.961, et seq., relating to HTRANs) is (i) subordinate to the pledge of State Highway Fund revenues securing Senior Obligations and (ii) prior to the pecuniary obligations of the Commission and TxDOT in respect of other State Highway Fund obligations described below under "Other State Highway Fund Obligations and Commitments."

Other State Highway Fund Obligations and Commitments. In addition to Senior Obligations, the Notes and other subordinate obligations (described above), TxDOT has the ability to issue and incur additional bonds, credit agreements, short-term obligations (including commercial paper notes, direct lending obligations or tax and revenue anticipation notes) that are senior to its obligations under the TELA. Additionally, TxDOT has the ability to establish additional liens for obligations that may be senior to or on parity with its TELA obligations. TxDOT may also enter into other toll equity loan agreements, pass-through toll agreement obligations, CDAs and other obligations that are payable from the State Highway Fund. Some of these long-term obligations and commitments are described below.

Neither the Commission nor TxDOT have adopted any policy limiting the ability to enter into toll equity or other agreements payable from the State Highway Fund.

Central Texas Turnpike System

The Commission has a toll equity commitment, subject to the appropriation of available funds, to pay operation and maintenance expenses, and current capital expenditures as well as certain unusual or extraordinary maintenance costs as determined by the Commission ("*CTTS Reserve Maintenance*"), to the extent the CTTS toll revenues are not sufficient to pay such expenses. Certain of the CTTS Obligations were refinanced in November 2012 to achieve a debt service savings. The Commission raised the CTTS toll rates effective January 1, 2013 and established an annual toll escalation policy. The recent debt service savings and toll rate increases are expected to reduce the amount of operation and maintenance, and CTTS Reserve Maintenance expenses projected to be paid by the Commission. Based upon current projections the Commission anticipates \$96 million will be needed for payment of CTTS operation and maintenance and CTTS Reserve Maintenance expenses through fiscal year 2042, from the State Highway Fund or other eligible sources that are available therefor. These other funding sources include: (1) surplus CTTS toll revenues; (2) interest and investment earnings on accounts in the CTTS Trust Estate to the extent eligible for such purposes; and (3) previously contributed federal funds in the CTTS Capital Contribution Account to the extent eligible for such purposes.

Toll Equity Obligations

TxDOT is authorized to spend money from any available source, including the State Highway Fund, for the construction, maintenance, and operation of toll facilities. TxDOT may also participate in the acquisition, construction, maintenance, or operation of a toll facility with a public or private entity authorized by state law to construct or maintain a toll facility. Money provided by TxDOT for these purposes may be in the form of loans (to either public or private entities) or grants (to public entities only). As of April 30, 2013, the Commission had outstanding toll equity grant commitments and toll equity loan commitments payable from the State Highway Fund totaling \$328 million and \$6.02 billion, respectively.

Of the outstanding toll equity loan commitments, \$6.02 billion is related to a toll equity loan agreement with the North Texas Tollway Authority (“NTTA”). These funds are to be used to enhance project feasibility and expedite delivery of the State Highway 161 (also known as the President George Bush Western Extension) and Chisholm Trail Parkway projects in the Dallas/Fort Worth area. These roads comprise NTTA’s Special Projects System and are separate from the NTTA System as a whole. Under NTTA’s toll equity loan agreement, TxDOT has agreed to lend a negotiated maximum amount each year should revenues of the projects be insufficient to cover operations and maintenance, including debt service. As of January 31, 2013, no drawdowns of funding have been requested by NTTA under its toll equity loan agreement.

The Commission anticipates entering into additional toll equity agreements in the future, and it is currently anticipated that all toll equity obligations will be funded from dedicated funds. All toll equity obligations are subject to the appropriation of lawfully available funds to make such payments; and, therefore, such payments are subordinate to Senior Obligations, which have a prior lien pledge of the revenues deposited into the State Highway Fund, and subordinate obligations issued or incurred pursuant to Section 201.115, Texas Transportation Code, including any Notes or HTRANS described above.

Grand Parkway System Toll Equity Loan Commitment

The TELA with the Corporation, which was approved by the Commission on September 27, 2012, authorizes a maximum aggregate principal loan amount of \$9.6 billion (the “Maximum Available Aggregate Amount”), payable as advances made from time to time on the terms and conditions set out in the TELA. The Maximum Available Aggregate Amount represents the aggregate amount of project costs that TxDOT may pay or reimburse under applicable law, and represents the aggregate amount of funds that TxDOT may be required to advance to the Trustee. Pursuant to the TELA, under certain circumstances, TxDOT has committed to provide funds to the Corporation to pay for certain costs relating to the development, construction, operation, maintenance and financing of Segments D (but only the portion located in Harris County, Texas), E, F-1, F-2 and G and the predevelopment of possible extensions or expansions of the Grand Parkway Project.

Once established, the Maximum Available Aggregate Amount may not be increased. Therefore, the maximum amount of money that can be paid by TxDOT to the Corporation under the TELA is equal to the aggregate amount of costs that are authorized under Article 3, Section 52-b of the Texas Constitution and Section 222.103 of the Texas Transportation Code, *i.e.*, the “Eligible Costs.” Periodic advances under the TELA when combined with all previous advances are limited to an amount not to exceed (i) the Maximum Available Aggregate Amount and (ii) the aggregate amount of Eligible Costs, taking into account all prior advances, as described in the TELA. In addition, draws in any year cannot exceed the Maximum Available Annual Amount for that period and if the total amount of periodic draws in any year is less than the Maximum Available Annual Amount, the difference will not be carried forward, and will not be available for future periodic draws. See “**TOLL EQUITY LOAN AGREEMENT**” in the forepart to this Official Statement for additional information concerning the TELA and the defined terms used in this paragraph.

The Corporation has structured the plan of finance for the Grand Parkway System so that no draws on the TELA are expected, the Corporation has structured the debt service for the TELA Bonds so that in each year through the maturity of such TELA Bonds total debt service for the TELA Bonds plus reasonably expected Junior Operating Expenses for that year does not exceed the Maximum Available Annual Amount of the TELA for that year. However, if a loan advance is needed under the terms of the TELA, TxDOT expects to have sufficient advance notice to ensure funds are available to make such advances. TxDOT has considerable budgetary flexibility to plan for expected draws well in advance of such draw requests including deferring, reducing or eliminating construction lettings for projects throughout the State and deferring or reducing the amount of planned Pass-Through Financing (hereinafter defined) commitments. Because TxDOT’s budget does not provide appropriations for specific expenditures, TxDOT also has the flexibility to reprogram funds during each fiscal year in the biennium. As described above, TxDOT’s annual obligations under the TELA are limited, which provides greater certainty with respect to its ability to plan for future draws. Finally, if reductions in project lettings or reprogramming of funds are insufficient to make advances requested by the Trustee, TxDOT has up to \$500 million of commercial paper capacity that may be used to make such advances (see “- *State Highway Fund Obligations – Subordinate Obligations*”).

The payments by TxDOT pursuant to any toll equity loan agreement (including the TELA) will be subject to appropriation and such payments are subordinate to (i) Senior Obligations, which have a prior lien on State Highway Fund revenues, (ii) obligations issued or incurred pursuant to Section 201.115, Texas Transportation Code, including any Notes or other short-term obligations, (iii) or HTRANS.

The following table shows the expected deposits to and uses of revenues in the State Highway Fund during the term of the TELA.

Table 11

Texas Department of Transportation
Analysis of Impact of Grand Parkway System Toll Equity Obligations on the State Highway Fund

FY 8/31	Total Forecasted SHF Revenues ^{1,2}	1st Tier Debt Service ³	Other Existing Obligations ^{1,4}	Other Agencies ¹	Current Letting Cashflow Commitments ¹	Revenue After All Obligations ⁵	161 and CTP TELA MAAA	Grand Parkway TELA MAAA ⁶	Total TELA MAAA ^{6,7} (161, CTP, GP)	% TELA MAAA ^{6,7} / Total Forecasted SHF Revenues	% TELA MAAA ^{6,7} / Revenue After All Obligations
	A	B	C	D	E	F=A-B-C-D-E	G	H	I=G+H	J=I/A	K=I/F
2013	\$7,150,993,965	\$316,835,194	\$659,638,333	\$1,101,002,742	\$2,089,537,432	\$2,983,980,263	\$31,104,836		\$31,104,836	0.43%	1.04%
2014	\$8,094,785,710	\$399,024,593	\$692,357,207	\$1,103,156,233	\$1,651,648,840	\$4,248,598,837	\$51,087,582	\$3,109,364	\$54,196,946	0.67%	1.28%
2015	\$8,702,349,932	\$416,531,418	\$1,008,566,187	\$1,104,890,233	\$908,932,222	\$5,263,429,871	\$82,605,216	\$324,730,396	\$407,335,611	4.68%	7.74%
2016	\$7,876,197,347	\$434,027,906	\$521,659,703	\$1,130,489,002	\$573,005,291	\$5,217,015,444	\$99,149,601	\$304,271,960	\$403,421,562	5.12%	7.73%
2017	\$7,585,656,124	\$434,030,406	\$246,212,111	\$1,132,769,002	\$238,639,567	\$5,534,005,038	\$112,172,417	\$312,140,230	\$424,312,647	5.59%	7.67%
2018	\$7,560,034,100	\$434,025,230	\$265,719,591	\$1,135,095,002	\$181,530,108	\$5,543,664,168	\$130,284,173	\$299,664,369	\$429,948,542	5.69%	7.76%
2019	\$7,525,538,500	\$434,034,230	\$201,293,050	\$1,137,467,002	\$155,704,937	\$5,597,039,280	\$145,256,478	\$106,939,416	\$252,195,894	3.35%	4.51%
2020	\$7,549,872,247	\$434,028,706	\$185,527,075	\$1,016,472,002	\$98,282,045	\$5,815,562,418	\$164,113,035	\$109,926,522	\$274,039,557	3.63%	4.71%
2021	\$7,690,015,604	\$434,027,806	\$163,048,471	\$1,016,472,002	\$66,215,544	\$6,010,251,780	\$173,815,799	\$112,950,408	\$286,766,207	3.73%	4.77%
2022	\$7,745,333,694	\$434,027,980	\$137,747,331	\$1,016,472,002	\$18,119,052	\$6,138,967,329	\$186,693,119	\$115,868,115	\$302,561,234	3.91%	4.93%
2023	\$7,738,963,770	\$434,031,230	\$91,496,608	\$1,016,472,000		\$6,196,963,932	\$193,539,846	\$119,156,975	\$312,696,822	4.04%	5.05%
2024	\$7,853,402,218	\$432,786,967	\$68,224,346	\$1,016,472,000		\$6,335,918,905	\$207,672,742	\$136,490,080	\$344,162,821	4.38%	5.43%
2025	\$7,969,534,321	\$431,506,986	\$44,164,387	\$1,016,472,000		\$6,477,390,948	\$214,782,767	\$154,010,218	\$368,792,986	4.63%	5.69%
2026	\$8,087,385,226	\$430,180,475	\$28,760,732	\$1,016,472,000		\$6,611,972,019	\$220,673,312	\$157,441,779	\$378,115,091	4.68%	5.72%
2027	\$8,206,987,246	\$428,821,813	\$23,377,183	\$1,016,472,000		\$6,738,316,250	\$227,782,984	\$160,018,612	\$387,801,596	4.73%	5.76%
2028	\$8,326,071,364	\$425,129,433	\$45,450,000	\$1,016,472,000		\$6,839,019,931	\$244,718,287	\$163,077,072	\$407,795,359	4.90%	5.96%
2029	\$8,445,011,589	\$419,449,173	\$5,000,000	\$1,016,472,000		\$7,004,090,416	\$240,170,038	\$166,406,673	\$406,576,711	4.81%	5.80%
2030	\$8,565,380,531	\$413,324,629	\$5,000,000	\$1,016,472,000		\$7,130,583,902	\$240,345,726	\$171,619,154	\$411,964,880	4.81%	5.78%
2031	\$8,687,437,207	\$230,229,250	\$5,000,000	\$1,016,472,000		\$7,435,735,957	\$234,796,473	\$179,770,636	\$414,567,110	4.77%	5.58%
2032	\$8,817,748,765	\$230,228,750	\$5,000,000	\$1,016,472,000		\$7,566,048,015	\$236,869,609	\$187,955,530	\$424,825,139	4.82%	5.61%
2033	\$8,950,014,997	\$230,229,750	\$5,000,000	\$1,016,472,000		\$7,698,313,247	\$227,353,760	\$196,479,005	\$423,832,765	4.74%	5.51%
2034	\$9,084,265,222	\$230,233,500	\$5,000,000	\$1,016,472,000		\$7,832,559,722	\$138,448,454	\$205,437,189	\$343,885,643	3.79%	4.39%
2035	\$9,220,529,200		\$5,000,000	\$1,016,472,000		\$8,199,057,200	\$153,289,552	\$214,970,210	\$368,259,762	3.99%	4.49%
2036	\$9,358,837,138		\$5,000,000	\$1,016,472,000		\$8,337,365,138	\$163,426,760	\$224,884,633	\$388,311,393	4.15%	4.66%
2037	\$9,499,219,695		\$5,000,000	\$1,016,472,000		\$8,477,747,695	\$163,426,760	\$234,107,079	\$397,533,838	4.18%	4.69%
2038	\$9,641,707,990		\$5,000,000	\$1,016,472,000		\$8,620,235,990	\$163,426,760	\$242,891,206	\$406,317,966	4.21%	4.71%
2039	\$9,786,333,610		\$5,000,000	\$1,016,472,000		\$8,764,861,610	\$163,426,760	\$250,773,161	\$414,199,920	4.23%	4.73%
2040	\$9,933,128,614		\$5,000,000	\$1,016,472,000		\$8,911,656,614	\$163,426,760	\$257,795,956	\$421,222,716	4.24%	4.73%
2041	\$10,082,125,544		\$5,000,000	\$1,016,472,000		\$9,060,653,544	\$129,018,014	\$263,097,169	\$392,115,183	3.89%	4.33%
2042	\$10,233,357,427		\$5,000,000	\$1,016,472,000		\$9,211,885,427	\$146,911,358	\$267,849,116	\$414,760,473	4.05%	4.50%
2043	\$10,386,857,788		\$5,000,000	\$1,016,472,000		\$9,365,385,788	\$169,628,386	\$240,436,456	\$410,064,842	3.95%	4.38%
2044	\$10,542,660,655		\$5,000,000	\$1,016,472,000		\$9,521,188,655	\$178,498,077	\$204,382,921	\$382,880,999	3.63%	4.02%
2045	\$10,700,800,565		\$5,000,000	\$1,016,472,000		\$9,679,328,565	\$181,444,618	\$283,151,892	\$464,596,510	4.34%	4.80%
2046	\$10,861,312,573		\$5,000,000	\$1,016,472,000		\$9,839,840,573	\$201,445,337	\$284,332,730	\$485,778,067	4.47%	4.94%
2047	\$11,024,232,262		\$5,000,000	\$1,016,472,000		\$10,002,760,262	\$239,528,255	\$284,597,151	\$524,125,406	4.75%	5.24%
2048	\$11,189,595,746		\$5,000,000	\$1,016,472,000		\$10,168,123,746		\$284,312,426	\$284,312,426	2.54%	2.80%
2049	\$11,357,439,682		\$5,000,000	\$1,016,472,000		\$10,335,967,682		\$283,656,256	\$283,656,256	2.50%	2.74%
2050	\$11,527,801,277		\$5,000,000	\$1,016,472,000		\$10,506,329,277		\$282,229,075	\$282,229,075	2.45%	2.69%
2051	\$11,700,718,296		\$5,000,000	\$1,016,472,000		\$10,679,246,296		\$474,622,201	\$474,622,201	4.06%	4.44%
2052	\$11,876,229,071		\$5,000,000	\$1,016,472,000		\$10,854,757,071		\$579,938,633	\$579,938,633	4.88%	5.34%
2053	\$12,054,372,507		\$5,000,000	\$1,016,472,000		\$11,032,900,507		\$572,444,172	\$572,444,172	4.75%	5.19%
2054	\$12,235,188,094		\$5,000,000	\$1,016,472,000		\$11,213,716,094		\$182,063,854	\$182,063,854	1.49%	1.62%
Total / Avg	\$391,425,427,408	\$8,506,745,425	\$4,513,242,316	\$43,421,389,222	\$5,981,615,038	\$329,002,435,407	\$6,020,333,651	\$9,600,000,000	\$15,620,333,651	3.99%	4.75%

(1) Source: Texas Department of Transportation, as of April 30, 2013

(2) Includes federal subsidy associated with TxDOT's Build America Bonds (BABs)

(3) Calculated based on issuance of entire \$6 bn Authorization; assumes future bonds wrap around existing obligations and bear interest at 5%; gross debt service shown

(4) Other Existing Obligations comprised of commitment fee on assumed \$750 mm short-term liquidity facility, Toll Equity Grants and Loans, Pass-Through Obligations, payments for the delivery of CDA project, and similar obligations

(5) Money Available for TxDOT Operations and Future Lending

(6) Preliminary and subject to change; assumes \$200 mm First Tier issuance and Series 2013C and 2013D debt service at Stepped Coupon Rate until maturity

(7) Comprised of the Maximum Available TELA amount in a given year

Pass-Through Financing Agreements

Section 222.104 of the Texas Transportation Code, as amended ("*Section 222.104*"), provides for the payment of a "Pass-Through Toll," a per vehicle fee or per vehicle mile fee determined by the number of vehicles using a highway, for specific purposes. First, pursuant to Section 222.104 and subject to Commission rules, TxDOT may enter into an agreement with a public or private entity that provides for the payment of Pass-Through Tolls ("*Pass-Through Financing*") to reimburse a public or private entity for expenditures made by the public or private entity for the design, development, financing, construction, maintenance or operation of a toll or non-toll facility on the State Highway System. Second, TxDOT may enter into an agreement with a private entity that provides for the payment of Pass-Through Tolls by the private entity to TxDOT as reimbursement for TxDOT expenditures for the design, development, financing, construction, maintenance or operation of a toll or non-toll facility on the State Highway System. TxDOT may use any available funds, including money on deposit within the State Highway Fund, for the purpose of making a Pass-Through Toll payment. It is currently anticipated that all Pass-Through Toll commitments will be paid from the State Highway Fund.

As of April 30, 2013, TxDOT had executed 39 Pass-Through Financings with terms ranging from four to 20 years and total pass-through reimbursements of approximately \$1.8 billion with maximum aggregate annual reimbursement of approximately \$198 million. At its May 30, 2013 meeting, the Commission proposed rules to amend the pass-through toll program that, if finally adopted, are anticipated to be utilized on projects where the project's toll revenue would be used to fund, or partially fund, periodic payments to a developer for a state highway project. If project toll revenues are not sufficient to fully fund a periodic payment, TxDOT would commit to fund the difference from the State Highway Fund or other available funds, subject to appropriation and eligible project costs of the developer. TxDOT is not currently undertaking any project procurement under the proposed rule amendments and will not undertake any projects unless rules are finally adopted by the Commission.

TxDOT's pecuniary obligations under Pass-Through Financings do not provide for the payment of, or obligate TxDOT to pay, amounts sufficient to pay debt service on bonds or other public securities secured by such payments and, such payments are subordinate to (i) Senior Obligations, which will have a prior lien on State Highway Fund revenues, and (ii) obligations issued or incurred pursuant to Section 201.115, Texas Transportation Code, including any Notes, or HTRANs. The amount of payments owed by TxDOT under Pass-Through Financings will be determined by the terms and conditions of the relevant agreement, without regard to the actual debt service payable in respect of any bonds issued by the governmental entity receiving the payments. TxDOT's obligation to pay amounts owed under the terms of Pass-Through Financings are currently payable from the State Highway Fund and are subject to appropriation by the Legislature of sufficient funds to discharge the obligations of TxDOT.

Sequestration Effects on the State Highway Fund.

Pursuant to the requirements of the Balanced Budget and Emergency Deficit Control Act of 1985, as amended, certain automatic reductions in federal spending (the "*Sequester Cuts*") took effect as of March 1, 2013 for federal fiscal year ending September 30, 2013 ("*FFY 2013*"). TxDOT experienced a reduction of \$2.7 million in apportionment and obligation authority from the National Highway Performance Program, which is administered by the FHWA for highway projects that are located on the National Highway System.

The Sequester Cuts also affected the subsidy payments to be made by the federal government to issuers of "direct-pay" tax credit bonds, such as Build America Bonds ("*BABs*"). The Commission issued \$1,500,000,000 of its State Highway Fund First Tier Revenue Bonds, Taxable Series 2010 (Build America Bonds - Direct Payment) (the "*Series 2010 Bonds*") as taxable BABs and elected to receive a subsidy payment from the United States Treasury equal to 35% of the amount of each interest payment on the Series 2010 Bonds. As a result of the Sequester Cuts, the subsidy payment received in fiscal year 2013 for the Series 2010 Bonds was reduced by \$1.2 million.

At this time, the Commission and Department make no representations as to whether the Sequester Cuts will remain in effect and cause a reduction in receipt of federal funds for any future year.

APPENDIX B

**ANNUAL FINANCIAL REPORT OF THE TEXAS DEPARTMENT OF TRANSPORTATION
FOR FISCAL YEAR ENDED AUGUST 31, 2012**

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TEXAS DEPARTMENT OF TRANSPORTATION

Annual Financial Report

(With Independent Auditors' Report)



For the Fiscal Year Ended August 31, 2012

Texas Department of Transportation
Annual Financial Report
(With Independent Auditor's Report)
For the Fiscal Year Ended August 31, 2012

Texas Department of Transportation
Annual Financial Report
For the Fiscal Year Ended August 31, 2012

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Introductory Section

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December 12, 2012

TO: The Citizens of the State of Texas
The Honorable Rick Perry, Governor
The Honorable Susan Combs, Texas Comptroller
Ms. Ursula Parks, Director, Legislative Budget Board
Mr. John Keel, CPA, State Auditor
Mr. Ken Levine, Sunset Advisory Commission Director

I am pleased to submit the audited annual financial report of the Texas Department of Transportation (TxDOT) for the year ended August 31, 2012. Texas Transportation Code, Chapter 201, Section 2041, requires the preparation and submission of audited financial statements to the Texas Sunset Commission as part of the TxDOT sunset review process. The Texas State Auditor's Office performed an independent audit, in accordance with generally accepted auditing standards, of TxDOT's basic financial statements for the year ended August 31, 2012. The audit opinion is presented in this report preceding the financial statements. This report was prepared by the accounting staff in the Finance Division of TxDOT.

TxDOT's internal accounting controls provide reasonable assurance regarding the safeguarding of assets against loss from unauthorized use or disposal and the reliability of financial records for preparing financial statements. The concept of reasonable assurance recognizes that the cost of a control should not exceed the resulting benefit.

Management is responsible for the accuracy of the data in this report as well as for the completeness and fairness of presentation. Consequently, management assumes full responsibility for the completeness and fairness of all the information presented in the financial statements. To the best of my knowledge and belief, the financial statements are accurate in all material respects, are reported in a manner that fairly presents the financial position and results of TxDOT's operations and provides disclosures that enable the reader to understand TxDOT's financial condition.

Profile of the Government

TxDOT is an agency of the state of Texas. The functions of TxDOT have evolved over time due to statutory changes, with the most recent being the creation of the Texas Department of Motor Vehicles in 2009. Headquartered in Austin, TxDOT is organized by administration, districts, divisions and offices. Four regional support centers provide operational and project delivery support for the agency's 25 geographical districts.

TxDOT also maintains a comprehensive public interest website that outlines the agency's policies, plans, projects status and major initiatives at www.txdot.gov.

OUR GOALS

MAINTAIN A SAFE SYSTEM • ADDRESS CONGESTION • CONNECT TEXAS COMMUNITIES • BEST IN CLASS STATE AGENCY

An Equal Opportunity Employer

Audited Annual Financial Report

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December 12, 2012

TxDOT is managed by an executive director and is governed by the five-member Texas Transportation Commission. All members of the Commission are appointed by the governor. The Commission is authorized to issue general obligation and revenue bonds per statutory and constitutional provisions. Detail regarding the outstanding long-term liabilities of TxDOT is disclosed in Notes 4 and 5.

The financial reporting entity includes three blended component units, the Texas Private Activity Bond Surface Transportation Corporation, Grand Parkway Association and Grand Parkway Transportation Corporation. Because of the closeness of their relationships with TxDOT these legally separate entities are blended as though they are part of the primary government of TxDOT.

TxDOT has the statutory responsibility to coordinate planning, development, and operation of the state's highway system and other transit services. The mission of TxDOT is to work with others to provide safe and reliable transportation solutions for Texas. TxDOT's goals are to maintain a safe system, address congestion, connect Texas communities and become a best-in-class state agency. TxDOT values trust, integrity, responsibility, excellence and service. This report reflects the operation of TxDOT and its blended component units.

The Management's Discussion and Analysis (MD&A) provides a narrative introduction, overview and analysis of the financial activities of TxDOT. We encourage readers to consider the information in this letter of transmittal in conjunction with the MD&A.

Budgetary Controls

Budgetary control is exercised through expenditure budgets. These budgets are entered on the statewide accounting system after the General Appropriations Act becomes law. The General Appropriations Act becomes law after passage by the Legislature and certification by the Texas Comptroller of Public Accounts that the amounts appropriated are within the estimated collections and the signing of the bill by the governor. Controls are maintained at the agency level, with additional control at the fund and appropriation level to ensure expenditures do not exceed authorized limits. State budgets are established on a biennial cycle. Further detail on budgetary accounting for the state is found in the required supplementary information in addition to the MD&A section of this report.

State Economy

The services provided by TxDOT directly impact the state's economy. Investments in highway maintenance and construction serve as an immediate boost to the economy through the employment of workers and the production of construction materials. Over the long-term, the Texas economy benefits in many more ways from TxDOT's transportation network enhancements, including the positive impacts on business costs and productivity, labor market access, attractiveness to new business, residents and tourists, and property values.

Long-Term Financial Planning

Texas' population is expected to grow from 25 million people now to 40 million people by 2035. Population growth brings more congestion to urban areas, increases the stress on roads and bridges and places greater demand on rural highways to support freight movement and travel connections between farms, ranches, homes, jobs and markets. Highway infrastructure continues to age and income from traditional transportation funding sources (taxes and fees) is no longer sufficient to keep pace with the demand for current and projected highway construction and maintenance needs.

Motor fuel taxes, TxDOT's primary state funding source, shows a slight increase in fiscal year 2012 over 2011. The motor fuel user fee on gasoline and diesel is 20 cents per gallon and 15 cents per gallon for liquefied gas.

TxDOT received federal funds through the Safe, Accountable, Flexible, and Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) that was enacted by Congress on August 10, 2005 and expired on September 30, 2009. On July 6, 2012, the Moving Ahead for Progress in the 21st Century Act (MAP-21) was signed into law and will fund surface transportation projects for federal fiscal years 2013 and 2014. In the interim, TxDOT operated under continuing resolutions based on federal fiscal 2010 appropriations.

On February 17, 2009 the U.S. Congress passed the American Recovery and Reinvestment Act (ARRA) to stimulate the U.S. economy and create jobs. TxDOT received an allocation of \$1.7 billion in ARRA highway funds and \$50 million in ARRA transit funds. Additional funding for Texas was provided directly to the state's metropolitan planning organizations and Texas urban transit providers. Unless a specific project receives a waiver, the deadline for the expenditure of ARRA funds is September 30, 2013. If granted a waiver, the deadline for expenditure is extended to September 30, 2015. The Commission and staff worked in conjunction with local partners to quickly identify projects eligible for this funding.

Constitutionally authorized bond issuances provide additional funding for transportation projects across the state. See the MD&A and Notes 4 and 5 of this report for more detail on TxDOT's bond programs and related debt service requirements.

Major Initiatives

TxDOT manages \$3 – 4 billion in annual construction and maintenance contract lettings. TxDOT operates on a two year letting schedule with longer range planning provided by the Statewide Transportation Improvement Program (4 years), the Unified Transportation Program (10 years) as well as the Metropolitan Transportation and Rural Transportation Plans (20 years) and the Statewide Long-Range Transportation Plan (24 years).

Audited Annual Financial Report

-4-

December 12, 2012

Innovative Financing Efforts

TxDOT serves as a national leader in efforts to utilize innovative financing to deliver much needed transportation improvements faster than would be possible using only traditional financing options. TxDOT utilizes public/private partnerships, federal loan programs, concession agreements and other techniques to maximize our ability to provide important new routes, enhancements to existing routes or other services to the traveling public. TxDOT also works closely with and provides financial assistance via grants and loans to Regional Mobility Authorities and major tolling authorities. TxDOT works together with these and other local government partners to prioritize projects and deliver transportation solutions to the public.

Modernization Project

The TxDOT Modernization Project wrapped up its work and successfully reached its goal to establish a foundation for change at TxDOT in June 2012. After receiving input from the independent audit firm of Grant Thornton and the Texas Transportation Commission-created Restructure Council, TxDOT focused on what was needed for effective and lasting changes. TxDOT hired Kaepfel Consulting from San Antonio as the change management firm to assist with the planning and implementation of the recommendations from the Restructure Council.

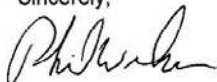
An internal leadership team made up of diverse leaders from across TxDOT was committed to leading the Modernization effort. They and TxDOT employees worked diligently to ensure positive improvements were made and that our industry stakeholders and partners were involved along the way.

TxDOT is now more focused than ever on its mission. Modernization has created a disciplined approach to prioritizing improvements to ensure future initiatives are aligned with TxDOT's goals. TxDOT is becoming more accountable in the delivery of our services, more innovative in developing transportation solutions and more responsive to improving customer satisfaction.

Acknowledgements

The preparation of the report requires the efforts of individuals throughout TxDOT, including the dedicated efforts of the management and staff of the TxDOT Financial Reports Section and Finance Division and the management and staff of the State Auditor's Office. I sincerely appreciate the efforts of all these individuals who continue to strive for improvements that will make TxDOT a national leader in quality financial reporting.

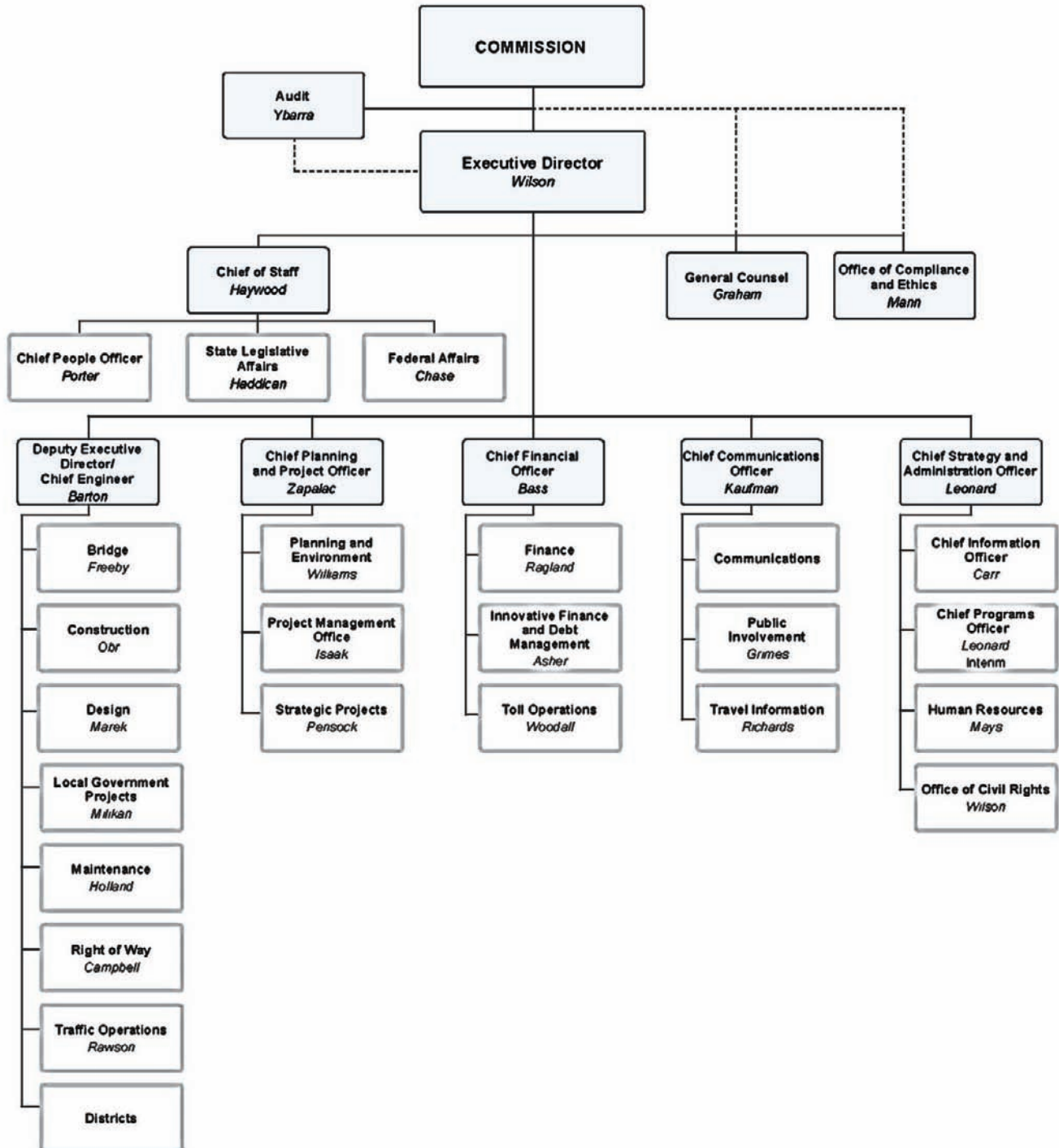
Sincerely,



Phil Wilson
Executive Director

Texas Department of Transportation

Organization Chart as of August 31, 2012



Commission and Key Personnel

As of August 31, 2012

TEXAS TRANSPORTATION COMMISSION

TED HOUGHTON.....Chair
El Paso

JEFF AUSTIN IIICommissioner
Tyler

WILLIAM MEADOWSCommissioner
Fort Worth

JEFF MOSELEYCommissioner
Houston

FRED UNDERWOODCommissioner
Lubbock

TEXAS DEPARTMENT OF TRANSPORTATION

PHIL WILSON Executive Director

JOHN A. BARTON, P.E.....Deputy Executive Director and Chief Engineer

SCOTT HAYWOODChief of Staff

BOB KAUFMAN Chief Communications Officer

JAMES M. BASS..... Chief Financial Officer

LOUIS CARR Chief Information Officer

DEE PORTER..... Chief People Officer

RUSSELL ZAPALAC Chief Planning and Project Officer

SCOTT LEONARD Chief Strategy and Administration Officer

SCOTT LEONARD (Interim)..... Chief Programs Officer

FINANCIAL SECTION



INDEPENDENT AUDITOR'S REPORT

Members of the Texas Transportation Commission

Mr. Ted Houghton, Chair
 Mr. Jeff Austin III
 Mr. William Meadows
 Mr. Jeff Moseley
 Mr. Fred Underwood

We have audited the accompanying financial statements of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Department of Transportation (Department), as of and for the year ended August 31, 2012, which collectively comprise the Department's basic financial statements as listed in the table of contents. These financial statements are the responsibility of the Department's management. Our responsibility is to express opinions on these financial statements based on our audit.

We conducted our audit in accordance with auditing standards generally accepted in the United States of America and the standards applicable to financial audits contained in *Government Auditing Standards* issued by the Comptroller General of the United States. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and the significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audit provides a reasonable basis for our opinions.

In our opinion, the financial statements referred to previously present fairly, in all material respects, the respective financial position of the governmental activities, the business-type activities, each major fund, and the aggregate remaining fund information of the Department, as of August 31, 2012, and the respective changes in financial position and, where applicable, cash flows thereof for the year then ended in conformity with accounting principles generally accepted in the United States of America.

In accordance with *Government Auditing Standards*, we will issue a separate report on our consideration of the Department's internal control over financial reporting and on our tests of its compliance with certain provisions of laws, regulations, contracts, and grant agreements and other matters. The purpose of that report is to describe the scope of our testing of internal control over financial reporting and compliance and the results of that testing, and not to provide an opinion on internal control over financial reporting or on compliance. That report is an integral part of an audit performed in accordance with *Government Auditing Standards* and should be considered in assessing the results of our audit.

Robert E. Johnson Building
 1501 N. Congress Avenue
 Austin, Texas 78701

P.O. Box 12067
 Austin, Texas 78711-2067

Phone:
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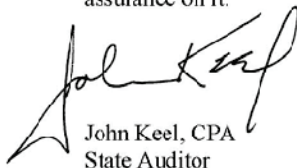
Internet:
www.sao.state.tx.us

SAO Report No. 13-307

Accounting principles generally accepted in the United States of America require that the management's discussion and analysis, budgetary comparison schedule, and the modified approach to reporting infrastructure assets be presented to supplement the basic financial statements. Such information, although not a part of the basic financial statements, is required by the Governmental Accounting Standards Board who considers it to be an essential part of financial reporting for placing the basic financial statements in an appropriate operational, economic, or historical context. We have applied certain limited procedures to the required supplementary information in accordance with auditing standards generally accepted in the United States of America, which consisted of inquiries of management about the methods of preparing the information and comparing the information for consistency with management's responses to our inquiries, the basic financial statements, and other knowledge we obtained during our audit of the basic financial statements. We do not express an opinion or provide any assurance on the information because the limited procedures do not provide us with sufficient evidence to express an opinion or provide any assurance.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Department's financial statements. The combining financial statements and the supplementary bond schedules are presented for purposes of additional analysis and are not a required part of the basic financial statements. Such information is the responsibility of management and was derived from and relates directly to the underlying accounting and other records used to prepare the financial statements. The information has been subjected to the auditing procedures applied in the audit of the financial statements and certain additional procedures, including comparing and reconciling such information directly to the underlying accounting and other records used to prepare the financial statements or to the financial statements themselves, and other additional procedures in accordance with auditing standards generally accepted in the United States of America. In our opinion, the combining financial statements and the supplementary bond schedules are fairly stated in all material respects in relation to the financial statements as a whole.

Our audit was conducted for the purpose of forming opinions on the financial statements that collectively comprise the Department's basic financial statements. The introductory section and Schedules 1A and 1B on pages 98 through 105 are presented in the other information section for the purposes of additional analysis and are not a required part of the basic financial statements. Such information has not been subjected to the auditing procedures applied in the audit of the basic financial statements, and accordingly, we do not express an opinion or provide any assurance on it.



John Keel, CPA
State Auditor

December 12, 2012

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Management's Discussion and Analysis

MANAGEMENT'S DISCUSSION AND ANALYSIS

This section of the Texas Department of Transportation (TxDOT) annual financial statements presents our discussion and analysis of TxDOT's financial performance during the fiscal year ended Aug. 31, 2012. Use this section in conjunction with the TxDOT's basic financial statements.

GASB Statement No. 34, *Basic Financial Statements- and Management's Discussion and Analysis - for State and Local Governments*, establishes reporting requirements for state and local governments to report in full compliance with accounting principles generally accepted in the United States of America (GAAP). TxDOT implemented the GASB 34 reporting requirements beginning with this fiscal 2012 annual financial report. Consequently, for this 2012 implementation year, the presentation of complete comparative data is not available or required. Comparative data will be available and presented for the 2013 TxDOT annual financial report, if a fiscal 2013 GASB 34 based report is produced.

Overview of Financial Statements

TxDOT's financial reporting for fiscal 2012 uses a substantially revised format as compared to previous years. The GASB 34 reporting focus is on TxDOT as a whole, and on the major individual funds. This focus presents a more comprehensive view of TxDOT's financial activities and makes it easier to compare the performance of TxDOT to that of other state departments of transportation.

The financial section of this annual financial report consists of four parts: (1) management's discussion and analysis (this section), (2) the basic financial statements and related notes, (3) required supplementary information and (4) other supplementary information presenting combining statements. The report also includes TxDOT's schedule of expenditures of federal awards, schedule of state pass-through grants from/to state agencies and bond schedules.

TxDOT's financial statements are prepared in conformity with accounting principles generally accepted in the United States of America (GAAP) applied to governmental units. The basic financial statements include entity-wide financial statements, fund financial statements and notes to financial statements that provide more detailed information to supplement the basic financial statements.

Reporting on TxDOT as a Whole

The entity-wide financial statements are designed to present an overall picture of the financial position of TxDOT. These statements consist of the statement of net assets and the statement of activities, which are prepared using the economic resources measurement focus and the accrual basis of accounting. This means that all the current year's revenues and expenses are included regardless of when cash is received or paid, producing a view of financial position similar to that presented by most private sector companies.

The statement of net assets combines and consolidates TxDOT's current financial resources with capital assets and long-term obligations. This statement includes all of TxDOT's assets and liabilities. Net assets are the difference between TxDOT's assets and liabilities and represent one measure of TxDOT's financial health.

The statement of activities focuses on both the gross and net cost of various activities (governmental and business-type); these costs are paid by general tax and other revenues. This statement summarizes the cost of providing (or the subsidy provided by) specific government services, and includes all current year revenues and expenses.

The statement of net assets and the statement of activities divide TxDOT's activities into two types.

- *Governmental Activities:* TxDOT's basic services are reported here including the activity of all the governmental funds.
- *Business-Type Activities:* The financial activity associated with the Central Texas Turnpike System (CTTS) is reported here.

Reporting on TxDOT's Most Significant Funds

Fund financial statements present financial information with a focus on the most significant funds. Use these statements to find more detailed information about TxDOT's most significant activities. A fund is a separate accounting entity with a self-balancing set of accounts. TxDOT uses funds to keep track of sources of funding and spending related to specific activities.

Governmental Funds

A majority of TxDOT's activities is reported in governmental funds. Reporting of these funds focuses on how money flows into and out of the funds, and amounts remaining at year-end for future spending. Governmental funds are accounted for using the modified accrual basis of accounting, which measures cash and other assets that can be readily converted to cash. The governmental fund statements provide a detailed short-term view of TxDOT's general governmental operations and the basic services it provides. This information should be helpful to determine whether there are more or less resources available for TxDOT's programs. The reconciliation following the fund financial statements explains the differences between the government's activities, reported in the entity-wide statement of net assets and entity-wide statement of activities, and the governmental funds. The state highway fund and Texas mobility fund are reported as major funds.

Proprietary Funds

When TxDOT charges customers for services it provides, these activities are generally reported in proprietary funds. Services provided to outside (non-governmental) customers are reported in enterprise funds, a component of proprietary funds, and are accounted for using the economic resources measurement focus and the accrual basis of accounting. These are the same business-type activities reported in the entity-wide financial statements but are reported here to provide information at the fund level. The CTTS fund is the only proprietary fund reported.

Reporting on TxDOT's Fiduciary Responsibilities

All fiduciary activities are reported in separate statements of fiduciary net assets and schedule of changes in agency fund assets and liabilities. The activities are reported separately from other financial activities because TxDOT cannot use these assets to finance operations and is holding these funds in a purely custodial capacity.

Financial Analysis of TxDOT as a Whole

Net Assets

Net Assets - The assets of TxDOT exceeded its liabilities as of Aug. 31, 2012, by \$64.2 billion (presented as net assets). The largest component (98.1 percent) of TxDOT's net assets reflects its investment in capital assets less any related debt outstanding (excluding debt proceeds that have yet to be expended for infrastructure construction) that was needed to acquire or construct the assets. TxDOT uses these capital assets to provide services to the citizens and businesses in the state; consequently, these assets are not available for future spending. Although reported net of related debt, capital assets themselves cannot be used to liquidate liabilities.

Capital Assets - Capital assets, net of depreciation and amortization, were approximately \$77.3 billion as of Aug. 31, 2012. Additions to capital assets totaled \$3.2 billion for the fiscal year ended Aug. 31, 2012. Construction in progress on state infrastructure accounted for the majority of these additions. See the capital assets section of this management's discussion and analysis for more information on the accounting treatment of capital assets.

Long-term Liabilities - TxDOT's total long-term obligations decreased by \$75.2 million during the current fiscal year to \$14.6 billion. This change is attributable to the repayment of principal on existing long-term debt. For more information on long-term liabilities see Notes 4 and 5 of this report.

Statement of Net Assets

August 31, 2012 (Amounts in Thousands)

	Governmental Activities	Business -Type Activities	Total Primary Government
ASSETS			
Assets Other Than Capital Assets	\$ 6,907,743	\$ 491,703	\$ 7,399,446
Capital Assets	74,732,279	2,614,813	77,347,092
Total Assets	81,640,022	3,106,516	84,746,538
LIABILITIES			
Current Liabilities	5,930,042	12,008	5,942,050
Non-current Liabilities	11,949,103	2,667,339	14,616,442
Total Liabilities	17,879,145	2,679,347	20,558,492
NET ASSETS			
Invested in Capital Assets,			
Net of Related Debt	62,447,552	512,058	62,959,610
Restricted	975,625	7,247	982,872
Unrestricted	337,700	(92,136)	245,564
Total Net Assets	\$ 63,760,877	\$ 427,169	\$ 64,188,046

Changes in Net Assets

TxDOT earned program revenues of \$3.7 billion and general revenues of \$2.5 billion, for total revenues of \$6.2 billion. The expenses of TxDOT were \$5.1 billion. As a result of revenues exceeding expenses, the total net assets were \$64.2 billion. Revenues and expenses of TxDOT's governmental and business-type activities are detailed on the following page.

Annual Financial Report

Changes in Net Assets

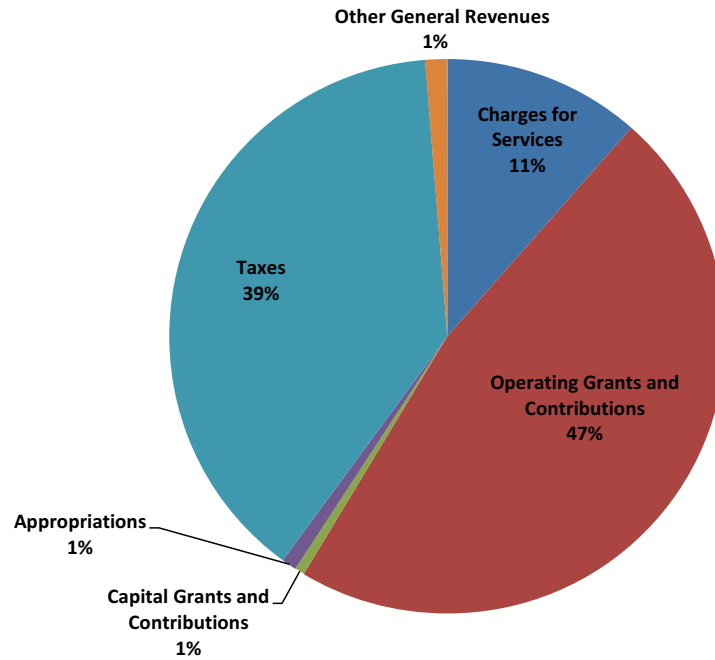
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	Governmental Activities	Business-Type Activities	Total Primary Government
REVENUES			
Program Revenues:			
Charges for Services	\$ 706,887	\$ 85,819	\$ 792,706
Operating Grants and Contributions	2,897,896		2,897,896
Capital Grants and Contributions	34,705	14	34,719
Total Program Revenues	<u>3,639,488</u>	<u>85,833</u>	<u>3,725,321</u>
General Revenues:			
Appropriations	52,901		52,901
Taxes	2,378,221		2,378,221
Unrestricted Investment Earnings	47,823	6,855	54,678
Settlement of Claims	22,715	377	23,092
Gain on Sale of Capital Assets	5,303		5,303
Other General Revenues	2,447		2,447
Total General Revenues	<u>2,509,410</u>	<u>7,232</u>	<u>2,516,642</u>
EXPENSES			
Transportation:			
Planning and Construction	1,036,448	147,555	1,184,003
Maintenance and Preservation	2,901,155	68,221	2,969,376
Public Transportation and Safety	251,680	67	251,747
Administration	193,113		193,113
Indirect Interest on Long-Term Debt	524,963		524,963
Total Expenses	<u>4,907,359</u>	<u>215,843</u>	<u>5,123,202</u>
Excess (Deficiency) Before Special Items and Transfers	1,241,539	(122,778)	1,118,761
Transfers - Internal Activities (Note 11)	(55,242)	55,242	
Transfers in from other state agencies (Note 11)	592,303		592,303
Change in Net Assets	<u>1,778,600</u>	<u>(67,536)</u>	<u>1,711,064</u>
Net Assets, September 1, 2011	61,982,277	495,095	62,477,372
Restatements		(390)	(390)
Net Assets, September 1, 2011, as Restated	<u>61,982,277</u>	<u>494,705</u>	<u>62,476,982</u>
Net Assets, August 31, 2012	<u>\$ 63,760,877</u>	<u>\$ 427,169</u>	<u>\$ 64,188,046</u>

Over time, increases and decreases in net assets measures whether TxDOT's financial position is improving or deteriorating. Overall, the net assets of governmental activities increased by \$710.7 million or 1.1 percent from fiscal 2011, primarily due to TxDOT's continued efforts to maintain, improve and expand the state's infrastructure network.

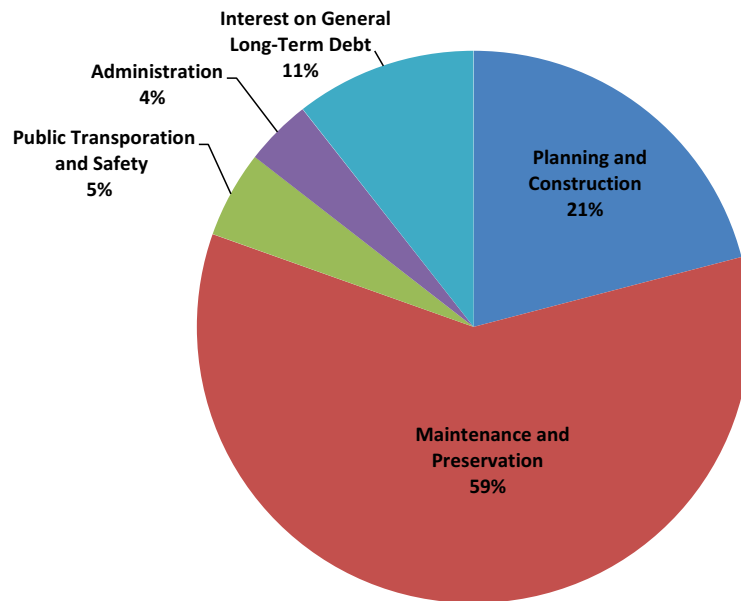
Revenues by Source: Governmental Activities

For the Fiscal Year Ended August 31, 2012



Expenses by Function: Governmental Activities

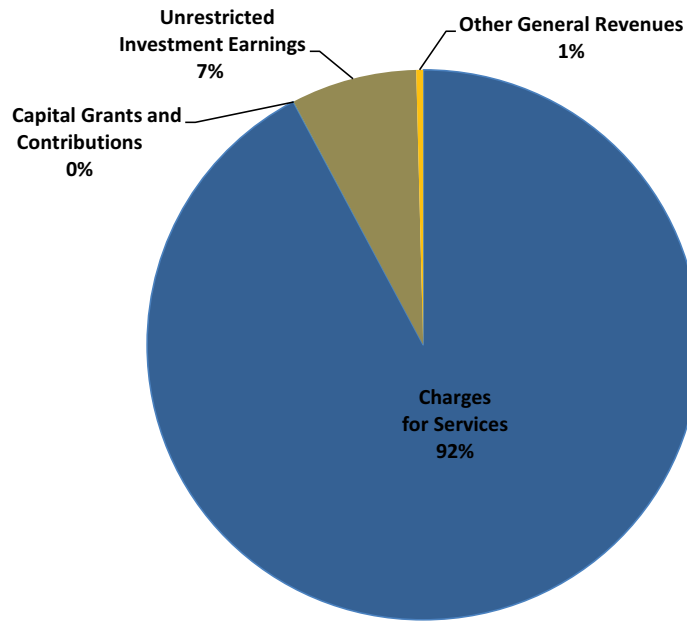
For the Fiscal Year Ended August 31, 2012



Note: Totals may not add due to rounding.

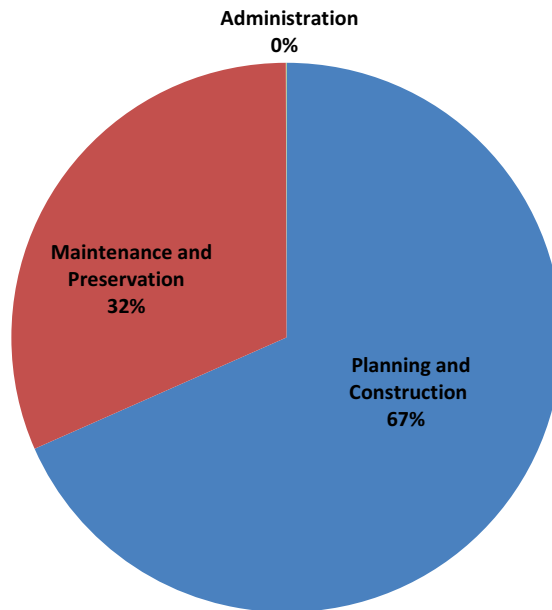
Revenues by Source: Business-Type Activities

For the Fiscal Year Ended August 31, 2012



Expenses by Function: Business-Type Activities

For the Fiscal Year Ended August 31, 2012



Note: Totals may not add due to rounding.

Financial Analysis of TxDOT's Funds

TxDOT's governmental funds reported a combined ending fund balance, as of Aug. 31, 2012, of \$2.2 billion. Expenditures exceeded revenues by \$1.5 billion. Not all expenditure activity is supported by revenues. Some project expenditures are funded by bond proceeds and up-front concession payments. The revenue recognition on up-front concession payments is generally much slower than the timing of project expenditures.

Budgetary Highlights

Variances for the State Highway Fund

The differences from original and final revenue budgets are due to both economic and legislative reasons. Budget mechanisms allow budget revisions for certain revenues when collections exceed the original budget. Accordingly, revisions were made to both revenues and expenditures for a net decrease of deficiency of revenues under expenditures of \$352.7 million.

There was a negative \$712.5 million variance between the actual to final budget revenues. The variance is primarily due to changes in actual federal revenue below final budget. Actual results for expenditures were \$1 billion less than the final budget revision. This variance is primarily due to the large unexpended balance in the state highway fund during the first year of a biennium.

Capital Assets and Debt Administration

Capital Assets

As of Aug. 31, 2012, TxDOT had \$77.3 billion in net capital assets, including roads, bridges, buildings, land, equipment and intangible capital assets.

Capital Assets - Net of Depreciation and Amortization			
August 31, 2012 (in Thousands)			
	Governmental Activities	Business-Type Activities	Total Primary Government
Land and Land Improvements	\$ 9,108,873	\$ 631,109	\$ 9,739,982
Infrastructure - Nondepreciable	50,661,186	1,629,379	52,290,565
Infrastructure – Depreciable	8,567,495	331,751	8,899,246
Construction in Progress	5,684,374		5,684,374
Buildings and Building Improvements	274,244	6,047	280,291
Furniture and Equipment	51,583		51,583
Vehicles, Boats and Aircraft	290,360		290,360
Other Capital Assets	5,793		5,793
Land Use Rights - Permanent	67,495	16,526	84,021
Land Use Rights – Term	14,671		14,671
Computer Software	6,205		6,205
Total Capital Assets	\$ 74,732,279	\$ 2,614,812	\$ 77,347,091

TxDOT adopted the modified approach for reporting its system of roads and highways. As required by the modified approach, TxDOT conducts condition assessments on its roadways through the Texas Maintenance Assessment Program (TxMAP). TxMAP is conducted on a yearly basis and results in overall condition level ratings.

TxDOT's policy is to maintain its interstate highways at a condition level of 80 percent, its non-interstate highways (farm-to-market and other road systems) at a condition level of 75 percent and 80 percent for the CTTS. The condition assessment results for fiscal 2012 reflect condition levels of 82 percent for the interstate system, 77.7 percent for the non-interstate system and 86.2 percent for CTTS. Additional information is presented in the financial section's required supplementary information other than MD&A.

To ensure future availability of essential services and to finance capital improvements, TxDOT made commitments for construction contracts, comprehensive development agreements and pass-through toll agreements totaling an estimated \$14.4 billion. These commitments extend beyond the end of the fiscal year and represent future costs to TxDOT. Note 2 provides detail about TxDOT's capital assets activity and Note 15 details TxDOT's significant commitments related to future capital expenditures.

Debt Administration

The Commission, on behalf of TxDOT, has issued both general obligation bonds and revenue bonds. Each series of revenue bonds are backed by pledged revenues and restricted assets specified in the bond resolutions. Note 4 discloses details on TxDOT's long-term liabilities and Note 5 provides detail information on TxDOT's bonded indebtedness.

Outstanding Bonded Debt			
As of August 31, 2012			
	Governmental Activities		Business-Type Activities
General Obligation Bonds Payable	\$	7,113,145	\$
Revenue Bonds Payable		4,054,445	1,616,750
Total Bond Payable	\$	<u>11,167,590</u>	<u>\$ 1,616,750</u>

Bond Credit Ratings

Long-Term Credit Ratings as of August 31, 2012			
	<u>Fitch</u>	<u>Moody's</u>	<u>Standard & Poor's</u>
Governmental Activities			
General Obligation Bonds	AAA	Aaa	AA+
Revenue Bonds	n/a	Aaa	AAA
Business-Type Activities			
Revenue Bonds	BBB+	Baa1	BBB+

Short term ratings are usually reliant upon the supporting liquidity facility and its strength. The following variable rate demand bonds carried short term credit ratings as of Aug. 31, 2012.

Short-Term Credit Ratings as of August 31, 2012			
	<u>Fitch</u>	<u>Moody's</u>	<u>Standard & Poor's</u>
Governmental Activities			
General Obligation Bonds			
TMF Series 2005-B Variable Rate Interest Bonds	F1+	VMIG 1	A-1+
TMF Series 2006-B Variable Rate Interest Bonds	F1+	VMIG 1	n/a
Revenue Bonds			
SHF Series 2006B Variable Rate Interest Bonds	n/a	VMIG 1	A-1+

An explanation of the significance of such ratings may be obtained from the company furnishing the rating. The ratings reflect only the respective views of such organizations and the Commission makes no representation as to the appropriateness of the ratings. There is no assurance that such ratings will continue for any given period of time or that they will not be revised downward or withdrawn entirely by any or all of such rating companies, if in the judgment of any or all companies, circumstances so warrant. Any such downward revision or withdrawal of such ratings may have an adverse effect on the market price of the bonds.

Contacting TxDOT's Financial Management

This financial report is designed to provide a general overview of the TxDOT's finances. Questions concerning any of the information provided in this report or requests for additional financial information should be addressed to the TxDOT Finance Division at the following address:

Texas Department of Transportation
Finance Division - Accounting
125 East 11th Street
Austin, Texas 78701-2483

Basic Financial Statements

Texas Department of Transportation
STATEMENT OF NET ASSETS

August 31, 2012 (Amounts in Thousands)

	Primary Government	
	Governmental	Business Type
	Activities	Activities
		Total
ASSETS		
Current Assets:		
Cash and Cash Equivalents	\$ 5,384,035	8,027 \$ 5,392,062
Restricted:		
Cash and Cash Equivalents		19,303 19,303
Legislative Appropriations	72,866	72,866
Short-Term Investments (Note 3)		300,254 300,254
Restricted:		
Short-Term Investments (Note 3)		6,326 6,326
Due from Other Agencies (Note 11)	198,062	198,062
Receivable:		
Taxes	218,717	218,717
Federal	323,593	323,593
Interest and Dividends	8,189	283 8,472
Accounts Receivable	34,043	3,997 38,040
Other Intergovernmental	60,538	200 60,738
Prepaid Items	2,097	8 2,105
Loans and Contracts	8,888	8,888
Consumable Inventory	123,305	223 123,528
Total Current Assets	6,434,333	338,621 6,772,954
Noncurrent Assets:		
Internal Balances (Note 11)	14	(14) 0
Loans and Contracts	383,683	383,683
Investments (Note 3)	25,121	25,121
Restricted:		
Investments (Note 3)		114,999 114,999
Deferred Charges	34,433	37,647 72,080
Receivable:		
Federal	30,156	30,156
Other Intergovernmental		451 451
Other Noncurrent Assets	3	3
Capital Assets:		
Non-Depreciable Capital Assets (Note 2)	65,521,928	2,277,014 67,798,942
Depreciable Capital Assets, Net (Note 2)	9,210,351	337,798 9,548,149
Total Noncurrent Assets	75,205,689	2,767,895 77,973,584
Total Assets	81,640,022	3,106,516 84,746,538

Concluded on the following page

The accompanying notes to the financial statements are an integral part of this financial statement.

Texas Department of Transportation
STATEMENT OF NET ASSETS (concluded)
August 31, 2012 (Amounts in Thousands)

	Primary Government	
	Governmental	Business Type
	Activities	Activities
		Total
LIABILITIES		
Current Liabilities:		
Payables		
Accounts	933,481	933,481
Payroll	59,876	59,876
Interest	218,693	3,664
Contract Retainage	8,135	8,135
Due to Other Agencies (Note 11)	52,017	52,017
Unearned Revenue	4,231,822	1,056
Employees' Compensable Leave (Note 4)	55,277	55,277
Notes and Loans Payable (Note 4)	151,689	151,689
General Obligation Bonds Payable (Note 4, 5)	86,434	86,434
Revenue Bonds Payable (Note 4, 5)	126,518	7,288
Pollution Remediation Obligation (Note 4)	6,100	6,100
Total Current Liabilities	5,930,042	12,008
Noncurrent Liabilities:		
Employees' Compensable Leave (Note 4)	17,301	17,301
Notes and Loans Payable (Note 4)	976,538	1,057,877
General Obligation Bonds Payable (Note 4, 5)	7,026,711	7,026,711
Revenue Bonds Payable (Note 4, 5)	3,927,927	1,609,462
Pollution Remediation Obligation (Note 4)	626	626
Total Noncurrent Liabilities	11,949,103	2,667,339
Total Liabilities	17,879,145	2,679,347
NET ASSETS		
Invested in Capital Assets, Net of Related Debt	62,447,552	512,058
Restricted for:		
Capital Projects	539,823	539,823
Debt Service	435,802	7,247
Unrestricted	337,700	(92,136)
Total Net Assets	63,760,877	427,169
TOTAL LIABILITIES AND NET ASSETS	\$ 81,640,022	\$ 3,106,516
		\$ 84,746,538

The accompanying notes to the financial statements are an integral part of this financial statement.

Texas Department of Transportation
STATEMENT OF ACTIVITIES

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

Functions	Expenses	PROGRAM REVENUES		
		Charges for Services	Operating Grants and Contributions	Capital Grants and Contributions
Primary Government				
Governmental Activities:				
Transportation:				
Planning and Construction	\$ 1,036,448	\$ 580,788	\$ 1,444,502	\$ 34,705
Maintenance and Preservation	2,901,155	115,464	1,341,498	
Public Transportation and Safety	251,680	9,265	109,619	
Administration	193,113	1,370	2,277	
Interest on General Long-Term Debt	524,963			
Total Governmental Activities	4,907,359	706,887	2,897,896	34,705
Business-Type Activities:				
Transportation:				
Planning and Construction	147,555			14
Maintenance and Preservation	68,221	85,819		
Administration	67			
Total Business-Type Activities	215,843	85,819		14
Total Primary Government	\$ 5,123,202	\$ 792,706	\$ 2,897,896	\$ 34,719

GENERAL REVENUES:

Original Appropriation
 Additional Appropriation
 Lapsed Appropriation
 Motor Fuel Tax
 Lubricant Sales Tax
 Unrestricted Investment Earnings
 Settlement of Claims
 Gain on Sale of Capital Assets
 Other Revenues
 Transfers - Internal Activities (Note 11)
 Transfers In (Out) to other State Agencies (Note 11)
 Total General Revenues and Transfers
 Changes in Net Assets
 Net Assets, September 1, 2011
 Restatements (Note 14)
 Net Assets, September 1, 2011, As Restated
 Net Assets, August 31, 2012

The accompanying notes to the financial statements are an integral part of this financial statement.

**NET (EXPENSE) REVENUE AND
CHANGES IN NET ASSETS**

Governmental Activities	Business- Type Activities	Total
\$ 1,023,547	\$	\$ 1,023,547
(1,444,193)		(1,444,193)
(132,796)		(132,796)
(189,466)		(189,466)
(524,963)		(524,963)
(1,267,871)		(1,267,871)
	(147,541)	(147,541)
	17,598	17,598
	(67)	(67)
	(130,010)	(130,010)
(1,267,871)	(130,010)	(1,397,881)
116,562		116,562
237		237
(63,898)		(63,898)
2,336,421		2,336,421
41,800		41,800
47,823	6,855	54,678
22,715	377	23,092
5,303		5,303
2,447		2,447
(55,242)	55,242	0
592,303		592,303
3,046,471	62,474	3,108,945
1,778,600	(67,536)	1,711,064
61,982,277	495,095	62,477,372
	(390)	(390)
61,982,277	494,705	62,476,982
\$ 63,760,877	\$ 427,169	\$ 64,188,046

**Texas Department of Transportation
Balance Sheet – Governmental Funds**

August 31, 2012 (Amounts in Thousands)

	State Highway Fund	Texas Mobility Fund	Nonmajor Funds	Total
ASSETS				
Cash and Cash Equivalents				
Cash on Hand	\$ 398	\$	\$	398
Cash in Bank	597		101	698
Cash in State Treasury	3,569,607	1,118,551	694,781	5,382,939
Legislative Appropriations			72,866	72,866
Receivables:				
Taxes	218,717			218,717
Federal	327,551	9,710	16,488	353,749
Other Intergovernmental	60,539			60,539
Interest and Dividends	8,189			8,189
Accounts Receivable	33,510	532		34,042
Due from Other Funds (Note 11)	51,383		533	51,916
Due from Other Agencies (Note 11)	197,597		465	198,062
Prepaid Items	2,097			2,097
Consumable Inventories	123,306			123,306
Loans and Contracts	392,326		245	392,571
Other Assets			3	3
Total Assets	<u>4,985,817</u>	<u>1,128,793</u>	<u>785,482</u>	<u>6,900,092</u>
LIABILITIES AND FUND BALANCES				
Liabilities:				
Payables:				
Accounts Payable	873,535	11	59,935	933,481
Contracts Payable	8,135			8,135
Payroll Payable	59,777		99	59,876
Due to Other Funds (Note 11)	533	19,555	31,814	51,902
Due to Other Agencies (Note 11)	52,017			52,017
Deferred Revenues	3,261,296	400	359,733	3,621,429
Total Liabilities	<u>4,255,293</u>	<u>19,966</u>	<u>451,581</u>	<u>4,726,840</u>
Fund Balances (Deficits):				
Nonspendable (Note 13)	125,403		200	125,603
Restricted (Note 13)	914,265	1,108,827	257,651	2,280,743
Committed (Note 13)	201,935		330	202,265
Assigned (Note 13)			170	170
Unassigned (Note 13)	(511,079)		75,550	(435,529)
Total Fund Balances	<u>730,524</u>	<u>1,108,827</u>	<u>333,901</u>	<u>2,173,252</u>
Total Liabilities and Fund Balances	<u>\$ 4,985,817</u>	<u>\$ 1,128,793</u>	<u>\$ 785,482</u>	<u>\$ 6,900,092</u>

The accompanying notes to the financial statements are an integral part of this financial statement.

Reconciliation of the Governmental Funds Balance Sheet to the Statement of Net Assets

August 31, 2012 (Amounts in Thousands)

Total Fund Balance - Governmental Funds \$ 2,173,252

Amounts reported for governmental activities in the statement of net assets are different because:

Capital assets less accumulated depreciation and amortization are included in the statement of net assets (Note 2).

Capital Assets - Non-Depreciable or Non-Amortizable	\$ 65,521,928	
Capital Assets - Depreciable or Amortizable, Net	<u>9,210,351</u>	74,732,279

Some of TxDOT's resources are not currently available and are not reported in the funds

Deferred charges for unamortized bond issuance cost	34,433	
Investment Derivative Instruments (Note 3)	<u>25,121</u>	59,554

Some of TxDOT's revenues will be collected after year-end but are not available soon enough to pay current year's expenditures and therefore are deferred in the funds.

43,166

Long-term liabilities applicable to TxDOT's governmental activities are not due and payable in the current period and accordingly are not reported in the funds. These liabilities, however, are included in the statement of net assets (Note 4 and Note 5). *

Employees' Compensable Leave	(72,578)	
Notes and Loans Payable	(1,128,227)	
General Obligation Bonds Payable	(7,113,145)	
Revenue Bonds Payable	(4,054,445)	
Pollution Remediation Obligations	<u>(6,726)</u>	(12,375,121)

* current portion = \$426,018 and non-current portion = \$11,949,103

Deferred revenue recognized related to service concession arrangements that are not reported in the funds.

(653,560)

Interest payable applicable to TxDOT's governmental activities are not due and payable in the current period and accordingly are not reported in the funds. These liabilities, however, are included in the statement of net assets.

(218,693)

Net Assets of Governmental Activities

\$ 63,760,877

Statement of Revenues, Expenditures and Changes in Fund Balances – Governmental Funds

For the Fiscal Year Ended, August 31, 2012 (Amounts in Thousands)

	State Highway Fund	Texas Mobility Fund	Nonmajor Funds	Total
REVENUES:				
Legislative Appropriations:				
Original Appropriations	\$	\$	\$ 116,562	\$ 116,562
Additional Appropriations			237	237
Taxes	2,366,486			2,366,486
Federal Revenues	2,823,780	23,304	39,572	2,886,656
Federal Grant Pass-Through Revenues (Note 11)	5,811			5,811
Licenses, Fees and Permits	120,952	372,942	7	493,901
Interest and Investment Income	37,727	7,131	4,097	48,955
Land Income	9,650			9,650
Settlement of Claims	22,715			22,715
Sales of Goods and Services	7,871		181,873	189,744
Other Revenues	866		1,590	2,456
Total Revenues	<u>5,395,858</u>	<u>403,377</u>	<u>343,938</u>	<u>6,143,173</u>
EXPENDITURES:				
Transportation:				
Planning and Construction (Note 18)	991,824	2,748	18,776	1,013,348
Maintenance and Preservation (Note 18)	2,224,602			2,224,602
Public Transportation and Safety (Note 18)	249,538		2,143	251,681
Administration (Note 18)	193,113			193,113
Capital Outlay	2,649,105		566,162	3,215,267
Principal on State Bonds		46,770	134,670	181,440
Principal on Pass-Through Tolls	57,846			57,846
Interest on State Bonds		284,760	243,783	528,543
Other Financing Fees	5,132	514	456	6,102
Total Expenditures	<u>6,371,160</u>	<u>334,792</u>	<u>965,990</u>	<u>7,671,942</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	<u>(975,302)</u>	<u>68,585</u>	<u>(622,052)</u>	<u>(1,528,769)</u>
OTHER FINANCING SOURCES (USES):				
Operating Transfers In (Note 11)	1,721,623		302,696	2,024,319
Operating Transfers Out (Note 11)	(1,063,308)	(239,981)	(183,551)	(1,486,840)
Sale of Capital Assets	11,064		2,176	13,240
Appropriations Lapsed			(63,897)	(63,897)
Total Other Financing Sources (Uses)	<u>669,379</u>	<u>(239,981)</u>	<u>57,424</u>	<u>486,822</u>
Net Change in Fund Balances	<u>(305,923)</u>	<u>(171,396)</u>	<u>(564,628)</u>	<u>(1,041,947)</u>
Fund Balances, September 1, 2011	1,036,447	1,280,223	898,529	3,215,199
Fund Balances, August 31, 2012	<u>\$ 730,524</u>	<u>\$ 1,108,827</u>	<u>\$ 333,901</u>	<u>\$ 2,173,252</u>

The accompanying notes to the financial statements are an integral part of this financial statement.

Reconciliation of the Governmental Funds Statement of Revenues, Expenditures and Changes in Fund Balances to the Statement of Activities

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

Net Change in Fund Balances \$ (1,041,947)

Governmental funds report capital outlays as expenditures. In the statement of activities, however, the cost of those assets is allocated over their estimated useful lives and reported as depreciation expense. The amount by which capital outlay exceeds depreciation in the current period is:

Capital Outlay	\$ 3,215,267	
Depreciation and Amortization Expense (Note 2)	<u>(682,258)</u>	
		2,533,009

The effect of various miscellaneous transactions involving capital assets (i.e. sales and donations) is to increase net assets. 26,349

Revenues and changes in the fair value of investment derivatives that do not provide current financial resources are not reported in the governmental funds, but are reported in the statement of activities.

Decrease in Fair Value of Investment Derivatives	(1,131)	
Federal Revenue	5,419	
Motor Fuel Tax Revenue	<u>11,734</u>	
		16,022

Bond proceeds provide current financial resources to governmental funds, but increase long-term liabilities in the statement of net assets.

Repayment of long-term debt consumes current financial resources and is an expenditure in the governmental funds, but reduces long-term liabilities in the statement of net assets.

Repayment of Bond and Note Principal	<u>239,286</u>	
		239,286

Some expenses reported in the statement of activities do not require the use of current financial resources and therefore are not reported as expenditures in governmental funds. 5,881

Change in Net Assets of Governmental Activities \$ 1,778,600

Statement of Net Assets – Proprietary Fund

August 31, 2012 (Amounts in Thousands)

	ENTERPRISE FUND*
ASSETS	
Current Assets:	
Cash and Cash Equivalents	
Money Market and Similar Funds (Note 3)	\$ 8,007
Restricted Cash and Cash Equivalents in State Treasury	20
Restricted Cash and Cash Equivalents	
Money Market and Similar Funds (Note 3)	19,303
Short-Term Investments (Note 3)	300,254
Restricted Short-Term Investments (Note 3)	6,326
Interest and Dividends Receivable	284
Accounts Receivable	3,997
Due from Other Funds (Note 11)	502
Receivables from Local Governments	200
Prepaid Items	8
Consumable Inventory	223
Total Current Assets	<u>339,124</u>
Noncurrent Assets:	
Restricted Cash and Cash Equivalents	
Restricted Investments	114,999
Deferred Charges	37,647
Receivables from Local Governments	451
Capital Assets:	
Non-Depreciable Capital Assets (Note 2)	2,277,014
Depreciable Capital Assets, Net (Note 2)	<u>337,798</u>
Total Noncurrent Assets	<u>2,767,909</u>
Total Assets	<u>3,107,033</u>
LIABILITIES	
Current Liabilities:	
Due to Other Funds (Note 11)	516
Revenue Bonds Payable (Notes 4, 5)	7,288
Interest Payable	3,664
Unearned Revenues	1,057
Total Current Liabilities	<u>12,525</u>
Noncurrent Liabilities:	
Revenue Bonds Payable (Notes 4, 5)	1,609,462
Notes and Loans Payable (Note 4)	<u>1,057,877</u>
Total Noncurrent Liabilities	<u>2,667,339</u>
Total Liabilities	<u>2,679,864</u>
NET ASSETS	
Invested in Capital Assets, Net of Related Debt	512,057
Restricted for Debt Service	7,247
Unrestricted	<u>(92,135)</u>
Total Net Assets	<u>\$ 427,169</u>

* Central Texas Turnpike System (Appropriated Fund 0865) is the only enterprise fund. Combining statements are not presented.

The accompanying notes to the financial statements are an integral part of this financial statement

Statement of Revenues, Expenses and Changes in Net Assets – Proprietary Fund
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	ENTERPRISE FUND*
OPERATING REVENUES	
Toll Revenue	\$ 75,695
Fee Revenue	10,111
Total Operating Revenues	<u>85,806</u>
OPERATING EXPENSES	
Professional Fees and Services	9,313
Salaries	1,198
Materials and Supplies	4,324
Communication and Utilities	1,060
Repairs and Maintenance	15,155
Printing and Reproduction	20
Contracted Services	20,889
Advertising	628
Depreciation Expense	17,266
Other Operating Expenses	3,286
Total Operating Expenses	<u>73,139</u>
Operating Income	<u>12,667</u>
NON-OPERATING REVENUES (EXPENSES)	
Lease Revenue	13
Interest and Investment Income	6,855
Interest and Amortization	(74,944)
Accretion on Capital Appreciation Bonds and TIFIA Note	(67,730)
Other Financing Fees	(32)
Other Non-Operating Revenues	378
Total Non-Operating Revenues (Expenses)	<u>(135,460)</u>
Loss before Capital Contributions and Transfers	<u>(122,793)</u>
CAPITAL CONTRIBUTIONS AND TRANSFERS	
Capital Contributions	15
Operating Transfers In (Note 11)	55,242
Total Capital Contributions and Transfers	<u>55,257</u>
Change in Net Assets	<u>(67,536)</u>
Net Assets, September 1, 2011	495,095
Restatements (Note 14)	(390)
Net Assets, September 1, 2011, as Restated	<u>494,705</u>
Net Assets, August 31, 2012	<u>\$ 427,169</u>

* Central Texas Turnpike System (Appropriated Fund 0865) is the only enterprise fund. Combining statements are not presented.

The accompanying notes to the financial statements are an integral part of this financial statement

Statement of Cash Flows – Proprietary Fund

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	ENTERPRISE FUND*
CASH FLOWS FROM OPERATING ACTIVITIES	
Receipts from Customers	\$ 84,685
Payments to Suppliers for Goods and Services	(54,396)
Payments to Employees	(1,199)
NET CASH PROVIDED BY OPERATING ACTIVITIES	29,090
CASH FLOWS FROM NONCAPITAL FINANCING ACTIVITIES	
Proceeds from Transfers from Other Funds	55,758
NET CASH PROVIDED BY NONCAPITAL FINANCING ACTIVITIES	55,758
CASH FLOWS FROM CAPITAL AND RELATED FINANCING ACTIVITIES	
Proceeds from Lease Revenue	13
Proceeds from Capital Contributions	3,117
Payments for Interest on Debt	(71,278)
Payments for Additions to Land and Roadways	(180)
Payments for Principal on Debt	(4,505)
Payments of Remarketing Fees and Other Costs	(32)
NET CASH USED IN CAPITAL AND RELATED FINANCING ACTIVITIES	(72,865)
CASH FLOWS FROM INVESTING ACTIVITIES	
Proceeds from Sales of Investments	75,926
Proceeds from Interest and Investment Income, Net of Fees	7,004
Proceeds from Judgements & Settlements	378
Payments to Acquire Investments	(367,578)
NET CASH USED IN INVESTING ACTIVITIES	(284,270)
NET DECREASE IN CASH AND CASH EQUIVALENTS	(272,287)
CASH AND CASH EQUIVALENTS - BEGINNING	299,617
CASH AND CASH EQUIVALENTS – ENDING	\$ 27,330
Reconciliation of Operating Income to Net Cash Provided by Operating Activities:	
Operating Income	\$ 12,667
Adjustments to Reconcile Operating Income to Net Cash Provided by Operating Activities:	
Depreciation Expense	17,266
Changes in Assets and Liabilities:	
(Increase)Decrease in Accounts Receivable	(989)
(Increase)Decrease in Prepaid Expenses	146
Total Adjustments	16,423
Net Cash Provided by Operating Activities	\$ 29,090
Reconciliation of Cash and Cash Equivalents	
Money Market and Similar Funds	\$ 27,310
Cash and Cash Equivalents in State Treasury	20
Cash and Cash Equivalents	\$ 27,330

* Central Texas Turnpike System (Appropriated Fund 0865) is the only enterprise fund. Combining statements are not presented.

The accompanying notes to the financial statements are an integral part of this financial statement

Statement of Fiduciary Net Assets
 August 31, 2012 (Amounts in Thousands)

	AGENCY FUNDS
ASSETS	
Cash on Hand	33
Cash in Bank	19,704
Cash in State Treasury	599
Total Assets	<u>20,336</u>
LIABILITIES	
Funds Held for Others	<u>20,336</u>
Total Liabilities	<u>20,336</u>

The accompanying notes to the financial statements are an integral part of this financial statement

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Texas Department of Transportation
Notes to Financial Statements

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NOTE 1 – SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES***Reporting Entity***

The accompanying financial statements reflect the financial position of the Texas Department of Transportation (TxDOT). TxDOT is an agency of the state of Texas and is charged with developing and maintaining a statewide multimodal transportation network and other transportation related duties. The Texas Transportation Commission (the Commission), the governing body of TxDOT, has the authority to commit TxDOT to various legal agreements.

The financial activities of TxDOT, which consist of both governmental and proprietary activities, are reported under the transportation function in the state of Texas' Comprehensive Annual Financial Report (CAFR).

Three Texas Transportation Corporations, authorized by Transportation Code Chapter 431 to perform certain functions normally undertaken by TxDOT, are reported as blended component units because TxDOT exercises sufficient authority over the assets, operations and management of such entities to warrant their inclusion. Even though Texas Transportation Corporations are a part of the TxDOT reporting entity, the state is not liable for debts of these corporations, nor entitled to the assets of these corporations. See Note 19 for more information.

No component units have been identified which require discrete presentation in the accompanying financial statements.

Basis of Presentation

The accompanying financial statements were prepared in conformance with generally accepted accounting principles (GAAP) as prescribed by the Governmental Accounting Standards Board (GASB). Financial reporting for TxDOT is based on all GASB pronouncements, as well as Financial Accounting Standards Board (FASB) statements and interpretations, Accounting Principles Board opinions and Accounting Research Bulletins issued on or before Nov. 30, 1989, that does not conflict with or contradict GASB pronouncements. The data in this report is combined and consolidated by the Texas Comptroller's office with similar data from other state agencies and universities to prepare the state of Texas CAFR.

Financial statements published in previous fiscal years in accordance with the Texas Comptroller's office reporting requirements for Annual Financial Reports were not in full compliance with GAAP. Opening balances in the accompanying financial statements include adjustments identified after the publication of the fiscal 2011 unaudited financial report.

Financial Reporting Structure

The basic financial statements include entity-wide financial statements and fund financial statements. The reporting model based on GASB Statement No. 34, *Basic Financial Statements – and Management's Discussion and Analysis – for State and Local Governments*, focuses on TxDOT as a whole in the entity-wide financial statements and major individual funds in the fund financial statements.

Entity-wide Financial Statements

The entity-wide financial statements (statement of net assets and statement of activities) display information about TxDOT as a whole and the change in aggregate financial position resulting from the activities of the fiscal period on all non-fiduciary activities. These statements include separate columns for the governmental and business-type activities of TxDOT (including its blended component units). In the statement of net assets, both the governmental and business-type activities columns are presented on a consolidated basis by column and are reflected on an accrual basis, economic resources measurement focus, which incorporates noncurrent investments, capital assets and long-term debt and obligations.

The statement of activities demonstrates the degree to which the direct expenses of a given function are offset by program revenues. Program revenues include 1) charges to customers or applicants who purchase, use or directly benefit from goods, services or privileges provided by a given function and 2) grants and contributions that are restricted to meeting the operational or capital requirements of a particular function. Internally dedicated resources are reported as general revenues rather than program revenues. Taxes and other items not properly included among program revenues are reported instead as general revenues. Certain general government administrative overhead expenses are charged to the various functions of TxDOT. These charges are paid from applicable funding sources and are reflected as direct expenses.

Fiduciary funds are presented in the fund financial statements. The assets of fiduciary funds are held for the benefit of others and cannot be used to address activities or obligations of TxDOT. Therefore, they are not incorporated into the entity-wide financial statements.

Fund Financial Statements

The fund financial statements are presented after the entity-wide financial statements. They display information about major funds individually and in the aggregate for governmental and proprietary funds. In governmental and fiduciary funds, assets are presented in order of relative liquidity. In proprietary funds, assets and liabilities are presented in a classified format that distinguishes between all current and noncurrent assets and liabilities. Current liabilities are obligations to be paid within the next fiscal year.

The major governmental funds in the fund financial statements are presented on a current financial resources measurement focus and modified accrual basis of accounting. This presentation is deemed most appropriate to demonstrate compliance with legal and covenant requirements, the source and use of financial resources and how TxDOT's actual experience conforms to the budget. Since the governmental fund financial statements are presented using a different measurement focus and basis of accounting than the entity-wide financial statements, governmental activities column, a reconciliation is presented. The reconciliation explains the adjustments required to restate the fund based financial statements for the entity-wide financial statements' governmental funds column.

TxDOT uses funds to report its financial position and the results of its operations. A fund is a separate accounting entity with a self-balancing set of accounts. TxDOT is granted appropriations based on appropriated funds. For operational and statutory reasons TxDOT has created several lower level funds that are presented as part of the indicated appropriated fund.

Governmental Fund Types

Governmental funds focus on the sources and uses of funds. Included in the governmental fund financial statements are general, special revenue, debt service and capital projects funds. The general fund is used to account for the departmental operations funded by legislative appropriations. Special revenue funds account for specific revenue sources that are restricted or committed for specific purposes other than debt service or capital projects. Debt service funds are used to account for financial resources that are restricted, committed or assigned to expenditure for principal and interest. Capital projects funds are used to account for financial resources that are restricted, committed or assigned to expenditure for capital outlays.

TxDOT reports the following major governmental funds.

State Highway Fund (Appropriated Fund 0006)

The state highway fund is TxDOT's main operating fund. TxDOT reports the following accounts/sub-funds, which are consolidated into the state highway fund for GAAP reporting purposes.

- State Highway Fund Accounts – These funds contain the activity related to public road construction, maintenance and monitoring of the state's highway system. The significant ongoing revenue sources are federal revenues and motor fuels taxes, which are constitutionally restricted and dedicated to the highway fund.

- State Infrastructure Bank– This fund operates as a revolving loan program that makes loans to public and private entities to encourage the development of transportation projects and facilities.
- Federal American Recovery and Reinvestment Fund – This fund was created to record, track and report the receipt and disbursement of American Recovery and Reinvestment Act (ARRA) funding.

Texas Mobility Fund (Appropriated Fund 0365)

This fund operates as a revolving fund to provide a method of financing construction, reconstruction, acquisition and expansion of state highways and other transportation projects. The principal ongoing revenue source of the fund is fees committed by the Legislature under the authority of the Texas Constitution, Article III, Section 49-k. Other inflows to the fund include bond proceeds.

Additionally, TxDOT reports the following non-major governmental funds.

General Revenue Fund:

TxDOT reports the following accounts, which are consolidated into the general revenue fund for GAAP reporting purposes.

- General Fund Account (Appropriated Fund 0001) – This account is used to account for all financial resources of the state except those required to be accounted for in another fund.
- Traffic Safety-Crash Records Information Systems Account (Appropriated Fund 0036) – This account is used to account for expenditures pertaining to the crash records information system.
- Texas Highway Beautification Fund Account (Appropriated Fund 0071) – This account was established to implement the Texas highway beautification program. Revenues are obtained from outdoor advertising license and permit fees. Such revenues were redirected to the state highway fund, effective Sept. 1, 2011.
- Colonias Project Fund Account (Appropriated Fund 7604) – This account provides financial assistance to counties for roadway projects serving border colonias. Funding is provided from the sale of bonds or commercial paper, which are issued and reported by the Texas Public Finance Authority.
- Suspense Fund (Appropriated Fund 0900) – This fund is used to temporarily hold and account for receipts until the correct disposition of items is determined.

Special Revenue Fund:

- Texas Transportation Corporations (Appropriated Fund 9999) – This fund presents the activity of the Grand Parkway Association, which is a blended component unit of TxDOT.

Debt Service Fund:

- Proposition 14/State Highway Fund Debt Service (Appropriated Fund 0008) – This fund receives transfers in from the state highway fund for debt service on state highway fund revenue bonds.

Capital Projects Funds:

- Proposition 12/Highway Improvement Project Fund (Appropriated Fund 0307) – This fund receives the proceeds of general obligation bonds issued for highway improvement projects under the provisions of the Texas Constitution, Article III, Section 49-p. The fund reports the construction activity supported by such funding.

- County/Political Subdivision/Local Government Road/Airport Trust Account (Appropriated Fund 0927) – This fund holds contributions by counties/political subdivisions for expenditure by the Commission in development/construction of public roads and airports within such counties or political subdivisions.

Proprietary Fund Type

Proprietary funds focus on determining operating income, changes in financial position and cash flows. Generally accepted accounting principles similar to those used by private sector businesses are applied in accounting for these funds. Enterprise funds are used to report any activity for which a fee is charged to external users for goods or services. TxDOT reports the following major proprietary fund.

Central Texas Turnpike System Fund (Appropriated Fund 0865)

This fund reports the activity and debt associated with the Central Texas Turnpike System toll roads.

Fiduciary Fund Types

Fiduciary funds account for assets held in either a trustee capacity or as an agent for other outside individuals or entities. Agency funds report assets that TxDOT holds on behalf of others in a purely custodial capacity.

Agency Funds have no equity, assets equal liabilities and do not include revenues or expenditures. The agency funds used by TxDOT during fiscal 2012 included the general revenue fund, child support deductions suspense account, toll revenue custodial account and the direct deposit correction accounts.

Component Units

All component units of TxDOT are reported as nonmajor component units. The Grand Parkway Association, Texas Private Activity Bond Surface Transportation Corporation and Grand Parkway Transportation Corporation are presented in TxDOT's financial statements as blended component units. See Note 19 for more details.

Basis of Accounting

Entity-wide financial statements are prepared using the economic resources measurement focus and the accrual basis of accounting. Under the economic resources measurement focus, all economic resources and obligations of the reporting entity, both current and noncurrent are reported in the entity-wide financial statements. Under the accrual basis of accounting, revenues, expenses, gains, losses, assets and liabilities resulting from exchange and exchange-like transactions are recognized when the exchange takes place. Non-exchange transactions, in which TxDOT gives (or receives) value without directly receiving (or giving) equal value in exchange, include intergovernmental grants. Revenue for grants and similar items are recognized in the fiscal year in which all eligibility requirements imposed by the provider have been met.

The accounting and financial reporting treatment applied to a fund is determined by its measurement focus. Governmental funds use the flow of current financial resources focus and the modified accrual basis of accounting. Under the modified accrual basis, revenues are recognized when they become both measureable and available. For this purpose, revenues are considered to be available if they are collected within 60 days of the end of the current fiscal year. Expenditures are generally recognized when the related fund liability is incurred. However, principal and interest on bonds is recorded only when due and compensated absences and claims and judgments are recorded when they are expected to be liquidated with expendable available financial resources. Capital asset acquisitions are reported as expenditures in governmental funds. Proceeds of long-term debt are reported as other financing sources.

Proprietary funds are accounted for on the accrual basis of accounting. Under the accrual basis, revenues are recognized when earned and expenses are recognized at the time liabilities are incurred. A proprietary fund distinguishes operating from non-operating items. Operating revenues and expenses result from providing services or producing and delivering goods in connection with the proprietary fund's principal ongoing operations. Operating

expenses for an enterprise fund include cost of sales and services, administrative expenses and depreciation on capital assets.

Although agency funds use the accrual basis of accounting, they do not have a measurement focus because they do not recognize revenues and expenses.

Shared Fund Presentation

The financial statement presentation for the state highway fund and general fund represent only the portion of shared funds that can be directly attributed to the operations of TxDOT. Financial statements for total fund operations of shared state funds are presented in the state of Texas CAFR.

In presenting these financial statements, certain unique accounts are used for the presentation of shared funds. The following accounts are used in these financial statements to present TxDOT's portion of shared funds.

Legislative Appropriations

This "asset" account represents TxDOT's remaining legislative appropriation authority at fiscal year-end.

Original/Additional Appropriations

Amount reported as revenue that is the total appropriation authority given to TxDOT for the current fiscal year.

Appropriations Lapsed

Unencumbered appropriations balances that have been lapsed during the fiscal year.

Budgetary Information

TxDOT's budget is prepared on a performance-based concept and is represented by biennial appropriations authorized by the Legislature and approved by the governor. The budgetary comparison schedule and the notes to the budgetary comparison schedule are in the required supplementary information other than management discussion and analysis (MD&A) section. The budgetary comparison schedule presents the original budget, the final budget and the actual activity of the major governmental funds. Reconciliations between the budgetary basis of accounting and the GAAP basis are presented as supplementary information with explanations of the reconciling items. The governmental funds with legally adopted budgets are the general fund, the state highway fund and nonmajor special revenue funds.

Change in Accounting Estimate

The method for determining when an ongoing infrastructure project should be reclassified out of construction in progress and into nondepreciable infrastructure was modified in fiscal 2012. The revised method considers completion date information and resulted in approximately \$1.6 billion remaining in construction in progress that would have been capitalized under the previous methodology. The method used before fiscal 2012 was based on the estimated substantial completion, that is when the total costs of the project equaled or exceeded 85 percent of the obligation amount.

Assets, Liabilities and Fund Balances/Net Assets

Cash and Cash Equivalents

Short-term highly liquid investments with an original maturity of three months or less are considered cash equivalents. On the statement of cash flows, cash and cash equivalents are considered to be cash on hand, cash in bank, cash in state treasury and money market funds with original maturities of three months or less from the date of acquisition.

Investments

Investments are reported at fair value. Fair value is the amount at which an investment could be exchanged in a current transaction between willing parties. Amounts invested associated with the Central Texas Turnpike System and ineffective hedging derivatives, as defined by GASB Statement No. 53, *Accounting and Financial Reporting for Derivative Instruments*, associated with outstanding bond obligations are reported as investments. See Note 3 for more details.

Inventories and Prepaid Items

Inventory items are reported at a weighted average cost. The inventory consists of supplies and roadway materials on hand for future use. The consumption method of accounting is used to account for inventories and prepaid items. The costs of these items are expensed when the items are consumed. TxDOT reported prepaid postage of approximately \$179 thousand as of Aug. 31, 2012.

Receivables and Payables

The major receivables for TxDOT are taxes, federal and other intergovernmental. Receivables represent amounts due to TxDOT at Aug. 31, 2012, for revenues earned in the current fiscal year that will be collected in the future. Amounts expected to be collected in the next fiscal year are classified as current and amounts expected to be collected beyond the next fiscal year are classified as noncurrent. All receivables are recorded net of allowances for uncollectable accounts.

Accounts payable represents the liability for the value of assets or services received at year-end for which payment is pending prior to fiscal year end and payable in future years as estimated by the departments where measurable.

Notes and Loans Receivable

TxDOT makes loans to various local governments and regional mobility authorities. The state infrastructure bank (SIB) operates as a revolving loan fund, where the account balance grows through the monthly interest earned and repaid principal and interest payments. SIB financial assistance can be provided to any public or private entity authorized to construct, maintain or finance an eligible transportation project.

Notes and Loans Receivable

August 31, 2012 (Amounts in Thousands)

	Loans Receivable	Due Within One Year*
General Fund	\$ 245	\$ 45
Highway Fund – Toll Equity Loans	84,880	
Highway Fund – State Infrastructure Bank	307,446	8,843
Governmental Funds Total	<u>\$ 392,571</u>	<u>\$ 8,888</u>

* See Note 16 for information on state infrastructure bank transactions pending as of Aug. 31, 2012.

Restricted Assets

Restricted assets include monies or other resources restricted by legal or contractual requirements. These assets include proceeds from Central Texas Turnpike System revenue bonds, as well as certain revenues, set aside for statutory or contractual requirements.

Capital Assets

Capital assets, which include land, infrastructure, furniture, equipment and intangible assets are capitalized and reported in the financial statements using the accrual basis of accounting. Capital assets are recorded as expenditures at the time of purchase in the governmental funds.

Capital assets are assets with a cost above a set minimum capitalization threshold that, when acquired, have an estimated useful life of more than one year. Land, permanent land-use rights, non-depreciable infrastructure and construction in progress do not have a capitalization threshold and are not depreciated. The capitalization thresholds and useful lives of TxDOT's depreciable capital assets are as follows.

All capital assets acquired or constructed by TxDOT are capitalized at cost or estimated historical cost if actual historical cost is not available. Donated capital assets are recorded at estimated fair value at the date of donation. A facility constructed or improved under a qualifying service concession arrangement is reported as a capital asset at fair value when it is placed in operation. Costs of normal maintenance and repairs that do not add value to the asset or materially extend the asset's useful life are not capitalized.

TxDOT reports the state's highway infrastructure assets using the modified approach. This approach reflects a reasonable value of the asset and cost required to maintain the service potential at established minimum standards in lieu of depreciation. TxDOT developed and implemented an asset management system that establishes minimum standards and makes a yearly determination whether the minimum standards are being met. Disclosures of the minimum standards and the current status of the system are included in the required supplementary information section of this report.

All other capital assets, including bridges, with determinable useful lives are depreciated on the straight line basis over their estimated lives. See Note 2 for details of TxDOT's capital asset activity for fiscal 2012.

Deferred Revenues

TxDOT has received upfront payments related to the development and future toll-road operations of State Highway 121, State Highway 130 Sections 5 & 6 and the Katy Managed Lanes project on Interstate 10. These agreements exchange an upfront payment for the right to operate these toll roads for a period determined in the agreement. Under each of these agreements the toll road reverts back to the state at the end of the 50 year term or upon certain reimbursement conditions. TxDOT is recognizing revenue on a straight-line basis over the term of the agreement beginning when the roadway is placed into operation. See Note 15 for more information.

Long-Term Liabilities

Long-term liabilities include employees' compensable leave, general obligation bonds payable, revenue bonds payable, notes payable and pollution remediation obligations. Bonds payable are reported net of the applicable bond premium or discount. Deferred issuance costs are reported as deferred charges and amortized over the term of the debt.

In the governmental fund financial statements, bond premiums, discounts and bond issuance costs are recognized during the current period. The face amount of the debt is reported as an other financing source while discounts on debt issuances are reported as other financing uses. Issuance costs, whether or not withheld from the actual debt proceeds received are reported as debt service expenditures.

A state employee is entitled to be paid for all unused vacation time accrued, in the event of the employee's resignation, dismissal or separation from state employment, provided the employee has had continuous employment with the state for six months. Expenditures for accumulated annual leave balances are recognized in the period paid or taken in the governmental fund financial statements. See Note 4 for more information.

Net Assets and Fund Balances

In the entity-wide and proprietary statements, net assets are displayed in three components. The potential categories of net assets include:

Capitalization Thresholds by Class of Asset

Classification	Capitalization Threshold	Estimated Useful Life
Buildings and Building Improvements	\$ 100,000	5-30 years
Infrastructure, Depreciable	500,000	10-50 years
Facilities and Other Improvements	100,000	10-69 years
Furniture and Equipment	5,000	3-15 years
Vehicles, Boats and Aircraft	5,000	5-40 years
Internally Generated Computer Software	1,000,000	3-10 years
Other Computer Software	100,000	3-10 years
Land Use Rights – Term/Temporary	100,000	10-60 years

- *Invested in Capital Assets, Net of Related Debt* – capital assets, net of accumulated depreciation and reduced by the outstanding balances of bonds, notes or other borrowings that are attributed to the acquisition, construction, or improvement of those assets.
- *Restricted* – restricted assets reduced by liabilities related to those assets. When both restricted and unrestricted resources are available for use, generally it is TxDOT's policy to use restricted resources first, then unrestricted resources when they are needed.
- *Unrestricted* – amounts not required to be reported in the other components of net assets and deficit amounts.

Fund balances for governmental funds are displayed in five components. The potential categories of fund balance include:

- *Nonspendable fund balance* – amounts not available to be spent because they are either (1) not in spendable form or (2) legally or contractually required to be maintained intact. The primary component of nonspendable fund balance is the balance in consumable inventories.
- *Restricted fund balance* – resources that have constraints placed on their use through external parties or by law through constitutional provisions.
- *Committed fund balance* – can be used only for specific purposes pursuant to constraints imposed by a formal action of the Legislature, the state's highest level of decision making authority.
- *Assigned fund balance* – amounts constrained by the Commission's intent to be used for specific purposes, but are neither restricted nor committed.
- *Unassigned fund balance* – residual classification for the general fund. The classification represents fund balance that was not assigned to other funds and was not restricted, committed or assigned to specific purposes within the general fund.

Positive unassigned fund balance can only exist within the general fund. Deficit fund balances in a fund are reported as unassigned fund balance.

As described previously, TxDOT has received substantial up-front concession payments. The deferral of revenue recognition on these payments has a significant impact on the state highway fund's fund balance composition. Deficit unassigned fund balances are reported because annual expenditures utilizing the up-front money received under these arrangements exceed the amount of revenue recognized.

Revenue Sources

TxDOT's principal revenue sources are federal and tax revenue. As the state's transportation agency, TxDOT receives reimbursements from the Federal Highway Administration (FHWA) for certain costs incurred for engineering, construction, right-of-way acquisition, research activities and general administrative costs. Federal reimbursement is based on a percentage of the costs expended from state funds on approved projects. The percentage of reimbursement for allowable costs varies from 50 to 100 percent. TxDOT receives these reimbursements based on the state's apportionment from the Federal Highway Trust Fund on a federal fiscal year basis.

TxDOT receives federal funding from other federal agencies for specific transportation related projects. See Schedule 1A for more information on federal receipts and expenditures.

TxDOT reports its constitutionally dedicated share of taxes on motor fuels sold in Texas as tax revenues. Generally this constitutionally dedicated share is 75 percent of net collections, after reductions for collection

Annual Financial Report

expenses and refunds. In general, 20 cents per gallon is collected on gasoline and diesel sold for highway use. Liquefied gas sold for highway use is generally taxed at 15 cents per gallon and is required to be prepaid. TxDOT also receives and reports the state sales tax from the sale of lubricants, which is deposited to the state highway fund. Total tax revenue reported for fiscal 2012 is approximately \$2.4 billion.

Major sources of pledged revenue for the Texas mobility fund include driver license fees, motor vehicle inspection fees, certificate of title fees and driver record information fees.

Interfund Activity and Transactions

Interfund activity refers to financial interaction between funds (including blended component units) and is related to internal events. Interfund transactions refer to interactions with other state agencies.

Interfund receivables and payables are eliminated from the statement of net position except for amounts due between governmental and business-type activities. These amounts are reported as internal balances on the statement of net position. See Note 11 for more details.

NOTE 2 – CAPITAL ASSETS

Capital Asset Activity

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	Balance 9/1/11	Adjustments	Reclass- ifications	Additions	Deletions	Balance 8/31/12
GOVERNMENTAL ACTIVITIES						
Non-Depreciable & Non-Amortizable Assets						
Land and Land Improvements	\$ 8,563,787	\$	\$	\$ 545,608	\$ (522)	\$ 9,108,873
Infrastructure	49,567,203		579,047	514,936		50,661,186
Construction in Progress	4,289,465		(1,348,841)	2,743,750		5,684,374
Land Use Rights - Permanent	66,258			1,355	(118)	67,495
Total Non-Depreciable & Non-Amortizable Assets	62,486,713	0	(769,794)	3,805,649	(640)	65,521,928
Depreciable Assets						
Buildings and Building Improvements	353,729		108,070		(195)	461,604
Infrastructure	19,630,738		633,760	67,643	(19,341)	20,312,800
Furniture and Equipment	161,807		(730)	15,149	(6,618)	169,608
Vehicles and Aircraft	656,371		27,644	32,528	(17,642)	698,901
Other Capital Assets	10,804					10,804
Total Depreciable Assets	20,813,449	0	768,744	115,320	(43,796)	21,653,717
Less Accumulated Depreciation for:						
Buildings and Building Improvements	(171,342)			(16,043)	25	(187,360)
Infrastructure	(11,139,931)			(620,992)	15,618	(11,745,305)
Furniture and Equipment	(115,291)		630	(9,396)	6,032	(118,025)
Vehicles and Aircraft	(393,196)			(30,211)	14,866	(408,541)
Other Capital Assets	(4,228)			(783)		(5,011)
Total Accumulated Depreciation	(11,823,988)	0	630	(677,425)	36,541	(12,464,242)
Depreciable Assets, Net	8,989,461	0	769,374	(562,105)	(7,255)	9,189,475
Intangible Capital Assets - Amortizable						
Land Use Rights - Term	21,968			2,189	(670)	23,487
Computer Software	23,160			1,836	(804)	24,192
Total Amortizable Assets	45,128	0	0	4,025	(1,474)	47,679
Less Accumulated Amortization for:						
Land Use Rights - Term	(6,303)			(3,183)	670	(8,816)
Computer Software	(17,101)			(1,650)	764	(17,987)
Total Accumulated Amortization	(23,404)	0	0	(4,833)	1,434	(26,803)
Amortizable Assets, Net	21,724	0	0	(808)	(40)	20,876
Governmental Activities Capital Assets, Net	\$ 71,497,898	\$ 0	\$ (420)	\$ 3,242,736	\$ (7,935)	\$ 74,732,279

Concluded on Following Page

Capital Asset Activity (Concluded)

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	Balance 9/1/11	Adjustments	Reclass- ifications	Additions	Deletions	Balance 8/31/12
BUSINESS TYPE ACTIVITIES						
Non-Depreciable & Non-Amortizable Assets						
Land and Land Improvements	\$ 631,490	\$ (412)	\$	\$ 31	\$	\$ 631,109
Infrastructure	1,629,344	22		13		1,629,379
Land Use Rights - Permanent	16,526					16,526
Total Non-Depreciable & Non-Amortizable Assets	2,277,360	(390)	0	44	0	2,277,014
Depreciable Assets						
Buildings and Building Improvements	8,360					8,360
Infrastructure	422,810					422,810
Total Depreciable Assets	431,170	0	0	0	0	431,170
Less Accumulated Depreciation for:						
Buildings and Building Improvements	(1,952)			(361)		(2,313)
Infrastructure	(74,154)			(16,905)		(91,059)
Total Accumulated Depreciation	(76,106)	0	0	(17,266)	0	(93,372)
Depreciable Assets, Net	355,064	0	0	(17,266)	0	337,798
Business-Type Activities Capital Assets, Net	\$ 2,632,424	\$ (390)	\$ 0	\$ (17,222)	\$ 0	\$ 2,614,812

The tables above and on the preceding page present the composition of TxDOT's capital assets, adjustments, reclassifications, additions and deletions during fiscal 2012. The adjustment column includes assets not previously reported, accounting errors and other changes. The reclassifications column presents completed construction projects and transfers of capital assets between agencies. The additions column includes current year purchases, depreciation and amortization. The deletions column represents assets removed during the current fiscal year.

Depreciation and amortization expense was charged to the maintenance and preservation function in the accompanying statement of activities.

NOTE 3 – DEPOSITS, INVESTMENTS & REPURCHASE AGREEMENTS**Authority for Investments**

It is the policy of the Commission to invest eligible funds in a manner that will preserve the principal of funds invested while meeting the daily cash flow demands of the Commission and conforming to the applicable Trust Indenture, Supplemental Indentures, Resolutions, Minute Orders or other pertinent financing documents.

The Commission endeavors to earn a return on funds invested at the optimum investment return after taking into account the primary goals of preservation of principal and liquidity of funds invested. Investments are made with judgment and care under circumstances then prevailing that persons of prudence, discretion, and intelligence exercise in the management of their own affairs, not for speculation, but for investment, considering the probable safety of their capital as well as the probable income to be derived. The standard of prudence to be used is the "prudent person" standard and is applied in the context of managing an overall portfolio.

Deposits

The following amounts consist of all cash and cash equivalents in local banks. These amounts are included on the combined statement of net assets as part of the “cash and cash equivalents” accounts. At Aug. 31, 2012, the total bank balance for governmental and business-type activities and fiduciary funds was \$698 thousand and \$19.7 million, respectively.

Cash in Bank – Carrying Amount	
August 31, 2012 (Amounts in Thousands)	
Governmental and Business-Type Activities	
Governmental Funds Current Assets Cash in Bank – Depository Accounts	\$ 698
Cash in Bank – Carrying Amount	\$ 698
Fiduciary Funds	
Fiduciary Fund Current Assets Cash in Bank – Depository Accounts	\$ 278
Fiduciary Fund Current Assets Cash in Bank – Sweep Account	19,426
Cash in Bank – Carrying Amount	\$ 19,704

Custodial Credit Risk – Deposits

Custodial credit risk for deposits is the risk that, in the event of the failure of a depository financial institution, deposits or collateral securities in the possession of an outside party will not be recovered. All of TxDOT’s deposits are protected by insurance provided by the Federal Deposit Insurance Corporation (FDIC).

Regular depository accounts are insured by the FDIC up to \$250 thousand per depositor, per insured bank. Retainage deposits are also insured or collateralized with securities held by the Texas Comptroller of Public Accounts. As of Aug. 31, 2012, the fiduciary funds sweep account was protected by temporary unlimited insurance coverage by the FDIC. The unlimited coverage provisions became effective Dec. 31, 2010, and terminate Dec. 31, 2012. After termination the sweep account will be subject to the same \$250 thousand coverage provided to a regular depository account.

Treasury Pool

TxDOT’s governmental funds are established in the state Treasury, thus all monies are pooled with other state funds and invested under the direction of the Comptroller of Public Accounts Treasury Operations Division (Treasury). Governmental and business-type activities deposits in the state treasury totaled \$5.4 billion at Aug. 31, 2012.

The Treasury obtains direct access to the services of the Federal Reserve System through the Texas Treasury Safekeeping Trust Company (Trust Company). The Federal Reserve Bank requires that the Trust Company maintain a positive cash balance in the account during and at the end of the day. The Trust Company met those requirements throughout fiscal 2012. The Comptroller has delegated investment authority to the Trust Company and utilizes the Trust Company to manage and invest funds in the Treasury Pool.

State statutes authorize the Treasury to invest state funds in fully collateralized time deposits; direct security repurchase agreements; reverse repurchase agreements; obligations of the United States and its agencies and instrumentalities; banker’s acceptances; commercial paper; and contracts written by the Comptroller, which are commonly known as covered call options. Funds held in the treasury pool have not been categorized as to credit risk because TxDOT does not own individual securities. Detail on the nature of these deposits and investments are available within the state of Texas Comprehensive Annual Financial Report.

Investments

As of Aug. 31, 2012, the fair value of TxDOT's investments and maturities are as presented below:

Investment Fair Values			
August 31, 2012 (Amounts in Thousands)			
Governmental and Business Type Activities			
Investment Type	Maturities (in Years)		Fair Value
	Less than 1	More than 5	Total
Money Market Mutual Funds	\$ 27,310	\$	\$ 27,310
Government Investment Pools	306,580		306,580
Repurchase Agreements		114,999	114,999
Investment Derivatives		25,121	25,121
Total	\$333,890	\$ 140,120	\$ 474,010

Custodial Credit Risk – Investments

Custodial credit risk for investments is the risk that, in the event of the failure of the counterparty, the Commission will not be able to recover the value of its investments or collateral securities that are in the possession of an outside party. The Commission's investment policy states that all securities purchased by the Commission shall be designated as assets of the Commission and shall be protected through the use of a third-party custody/safekeeping agent, which may be a Trustee.

As of Aug. 31, 2012, the Commission's repurchase agreement is collateralized with U.S. Government and agency securities. Collateral for the repurchase agreement is held by the Bank of New York Mellon Trust Company with the underlying securities being the property of the Citigroup Global Markets Inc., (the direct counterparty), held in trust for the Commission. Bank of New York Mellon Trust Company is rated Aa1, AA- and AA- by Moody's Investor Services, Standard and Poor's and Fitch Ratings respectively.

Credit Risk

Direct credit risk for investments is the risk that an issuer or other counterparty to an investment will not fulfill its obligations. The investment policy prohibits the Commission from entering into long-term investment agreements or other ongoing investment transactions with a final maturity or termination date of longer than six months with any financial institution that initially has a long-term rating category of less than "A" and that does not have at least one long-term rating of at least "AA" by a nationally recognized statistical rating organizations (NRSRO). All investments made by the Commission have been through the list of qualified financial institutions approved by the Commission.

The Commission's policy does not limit the amount of investment in obligations of the United States or its agencies. The repurchase agreement is a guaranteed investment contract (GIC) with Citigroup Global Markets Inc. as the counterparty. Citigroup Global Markets Inc. has collateralized the GIC with U.S. Government and agency securities. As of Aug. 31, 2012, TxDOT's investments had the following ratings.

Investment Credit Ratings				
August 31, 2012 (Amounts in Thousands)				
Investment Type	Fair Value	Moody's	Standard & Poor's	Fitch
Money Market Mutual Funds				
JPMorgan US Government MMKT Cap 3164	\$ 27,310	Aaa-mf	AAAm	NR
Government Investment Pools				
Lone Star	87,053	NR	AAAm	NR
TexPool	112,449	NR	AAAm	NR
TexPool Prime	107,078	NR	AAAm	NR
Repurchase Agreement	114,999	Baa2	A	A
Investment Derivative	25,121	NR	NR	NR
Total	<u>\$474,010</u>			
*NR= Not Rated				

Concentration of Credit Risk

Concentration of credit risk is the risk of loss attributed to the magnitude of a government's investment in a single issuer. The repurchase agreement and the investment derivative each exceed 5 percent of total investments. The repurchase agreement is held primarily for the Central Texas Turnpike System debt service reserve fund, which has a long-term duration and a specific purpose. The nature of the investment derivative is discussed fully in the investment derivatives section of this note.

The Commission addresses diversification in the Commission's investment policy. Assets held in particular funds shall be diversified to eliminate the risk of loss resulting from over concentration of assets in a specific maturity, a specific issuer or a specific class of securities. Diversification strategies shall be determined and revised periodically by the investment officer for all funds.

Interest Rate Risk

Interest rate risk is the risk that changes in interest rates will adversely affect the fair value of an investment. The Commission has addressed interest rate risk in its various accounts by matching as closely as possible anticipated cash flows with income and return of principal on investments. In general, all securities held by the Commission are anticipated to be held to maturity, thereby avoiding interest rate risk due to an early redemption. Investment maturities are noted in the investment fair value table.

Investment Derivative Instruments

Texas Government Code, Chapter 1371, as amended, authorizes the Commission to enter into credit agreements that include interest rate swaps and other similar agreements. The purpose of these agreements is not for speculation or investment purposes. Such agreements are instead used to manage the Commission's asset/liability portfolio by balancing risk exposures related to fluctuating interest rates and other economic variables; minimizing debt service cost; balancing or rebalancing the ratio of fixed and variable rate debt; responding to market conditions or interest rate cycles that offer value to the Commission; and hedging future interest rate conditions.

Per this policy, the Commission is a party to three pay-variable, receive-variable constant maturity swaps (CMS basis swaps) associated with the Texas General Obligation Mobility Fund Series 2006-A bonds. These CMS basis swaps are reported as investment derivatives in this financial report because they do not meet the definition of an effective hedge for accounting purposes.

In late calendar year 2009, the slope of the 10-year London Interbank Offered Rate (LIBOR) swap yield curve steepened, which allowed the Commission to negotiate a fixed monthly cash flow annuity benefit on the three CMS basis swaps. The suspension period began on Dec. 3, 2009. During the three year suspension period, the exchange of payments will cease and the Mobility Fund will receive a fixed monthly annuity as consideration for the suspension.

Derivatives Credit Risk

The Commission mitigates credit risk associated with swap transactions by only entering into transactions with highly rated counterparties. Upon entering a derivative transaction, the Commission requires that counterparties have a minimum credit rating of AA-/Aa3 by at least one of the three NRSROs and not be on rating/credit watch where a rating downgrade below AA-/Aa3 may be imminent. Additionally, the Commission diversifies exposure to counterparty credit risk through multiple awards. Although the original notional award amount for the CMS basis swap was \$400 million, the actual award was split among three counterparties.

CMS basis swap agreements contain provisions for collateral posting by counterparties in the event of a credit rating downgrade. Collateral postings will be required if a credit rating downgrade causes a counterparty's derivative fair value to exceed contractual thresholds.

CMS Basis Swaps Counterparty Credit Ratings as of August 31, 2012

<u>Counterparty</u>	<u>Fitch/Moody's/ Standard & Poor's</u>
JPMorgan Chase Bank, N.A.	A+/Aa3/A+
Morgan Stanley Capital Services Inc.	A/Baa1/A-
Goldman Sachs Mitsui Marine Derivative Products, L.P.	NR*/Aa2/AAA
*Not Rated	

Acceptable forms of collateral include cash in the form of U.S. dollars, negotiable debt obligations issued by the U.S. Treasury Department and agency securities. Agency securities include negotiable debt obligations which are fully guaranteed as to both principal and interest by the Federal National Mortgage Association, the Government National Mortgage Association or the Federal Home Loan Mortgage Corporation, excluding interest only and principal only securities and collateralized mortgage obligations, real estate mortgage investment conduits and similar derivative securities.

On Sept. 2, 2011, Morgan Stanley Capital Services Inc. posted \$3 million in cash collateral. The amount of collateral held by the Commission is based upon the fair market value of the trade which is subject to daily market movements. Thus, the amount of collateral required to be held fluctuates daily. The amount held at Aug. 31, 2012 was \$400 thousand.

The aggregate positive fair value of investment derivatives represents the maximum amount of loss that would be recognized at Aug. 31, 2012 if all counterparties failed to perform as contracted.

Derivatives Interest Rate Risk

The fair values and the cash flows of the CMS basis swaps are sensitive to interest rate risk. The interest rate risk on the cash flows was eliminated during the suspension period by establishing the fixed annuity for that period. The Commission mitigates interest rate risk by maintaining the unilateral option to terminate any or all of the swaps at any time should interest rates cause sustained negative cash flows or fair values that warrant termination of the swaps.

NOTE 4 – SUMMARY OF LONG-TERM LIABILITIES

A summary of long-term liability activity for fiscal 2012 is presented in the table below:

Long-Term Liabilities Activity						
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)						
	Beginning Balance 09/01/2011	Additions	Reductions	Ending Balance 08/31/2012	Amounts Due Within One Year	Amounts Due Thereafter
Governmental Activities						
Primary Government						
Compensable Leave	\$ 72,801	\$ 103,337	\$ 103,560	\$ 72,578	\$ 55,277	\$ 17,301
General Obligation Bonds	7,192,942	(12,867)	66,930	7,113,145	86,434	7,026,711
Revenue Bonds	4,175,318	(6,363)	114,510	4,054,445	126,518	3,927,927
Pollution Remediation Obligations	12,209	13,057	18,540	6,726	6,100	626
Pass Through Tolls Payable	1,060,693	125,380	57,846	1,128,227	151,689	976,538
Governmental Activities Long-Term Liabilities	\$ 12,513,963	\$ 222,544	\$ 361,386	\$12,375,121	\$426,018	\$11,949,103
Business-Type Activities						
	Beginning Balance 09/01/2011	Additions	Reductions	Ending Balance 08/31/2012	Amounts Due Within One Year	Amounts Due Thereafter
Revenue Bonds Payable	\$ 1,578,430	\$ 42,825	\$ 4,505	\$ 1,616,750	\$ 7,288	\$ 1,609,462
Notes and Loans Payable	1,032,549	25,328		1,057,877		1,057,877
Business-Type Activities Long-Term Liabilities	\$ 2,610,979	\$ 68,153	\$ 4,505	\$ 2,674,627	\$ 7,288	\$ 2,667,339

Employees' Compensable Leave

Annual leave, commonly referred to as vacation leave, and other compensated absences with similar characteristics are accrued as a liability as the benefits are earned by TxDOT employees. Employees accrue vacation time at a rate of eight to 21 hours per month depending on years of state employment. The maximum number of hours that may be carried forward to the next fiscal year ranges from 180 hours to 532 hours based on years of state service.

Overtime, under the Fair Labor Standards Act and state laws, can be accumulated in lieu of immediate payment as compensatory leave (at one-and-one-half hours for each overtime hour worked) for nonexempt, nonemergency employees to a maximum of 240 hours. All overtime exceeding 240 hours must be paid with the next regular payroll. At termination or death, all overtime balances must be paid in full. Unpaid overtime is included in the calculation of current and noncurrent liabilities for each employee because it may be used like compensatory time or be paid.

Compensatory leave is allowed for exempt employees not eligible for overtime pay. This leave is accumulated on an hour-for-hour basis and must be taken within one year from date earned or it lapses. There is no death or termination benefit for compensatory leave. Compensatory leave is reported as a current liability.

No liability is recorded for non-vesting accumulating rights to receive sick leave benefits.

Notes and Loans Payable

The balance of notes and loans payable in the business-type activities represents secured loans made to the Commission by the United States Department of Transportation (USDOT) under the Transportation Infrastructure Finance and Innovation Act of 1998 (TIFIA). USDOT agreed to lend the Commission \$900 million to pay or reimburse a portion of The Central Texas Turnpike System's (CTTS) costs.

The loan will be paid from revenues of CTTS as they are sufficient to pay (a) all interest, which will become due and payable on each such date and (b) the principal, if any, of the secured loan which will become due and payable on each such date. For these reasons the debt service requirements are subject to change each year as actual revenues are received. Per the agreement, principal and interest can be deferred (negatively amortized) depending on the availability of revenues. The principal amount of the loan may increase over time as deferrals are made. As of Aug. 31, 2012, the secured loan agreement's debt service requirements are as follows.

TIFIA Loan – Debt Service Requirements (Amounts in Thousands)			
Business-Type Activities			
Year	Principal	Interest*	Total
2013	\$	\$ 33,698	\$ 33,698
2014		35,022	35,022
2015		36,443	36,443
2016		43,188	43,188
2017		45,478	45,478
2018-2022		267,002	267,002
2023-2027	28,215	332,459	360,674
2028-2032	152,730	319,764	472,494
2033-2037	318,502	261,854	580,356
2038-2042	740,233	137,526	877,759
Total	1,239,680	1,512,434	2,752,114
Unamortized Accretion	(181,803)		(181,803)
Total Requirements	<u>\$1,057,877</u>	<u>\$1,512,434</u>	<u>\$2,570,311</u>
* 5.510 percent.			

Pass-Through Tolls Payable

The balance recorded as pass-through tolls payable relates to the Commission's obligations under executed pass-through financing agreements. As of Aug. 31, 2012, there were 37 active pass-through financing agreements finalized and executed by the Commission. Under these agreements, an outside party (usually a local government) pays for all or a portion of a highway project. In return, TxDOT contractually agrees to make reimbursements after the improvement is open for traffic. Reimbursements are subject to minimum and maximum annual thresholds and are variable within those thresholds based on the volume of traffic on the project roadway. The agreements with multiple projects generally contain a provision allowing for reimbursements to begin as each project is open for traffic.

The obligation to make future reimbursement payments is recognized as pass-through tolls payable as the underlying highway project is constructed. Accruals of payables continue until the liability amount reaches the total TxDOT reimbursement obligation specified in the agreement. If the cost of the completed underlying highway project is less than the total TxDOT reimbursement obligation, TxDOT will accrue the additional obligation amount upon that project's completion and acceptance. The estimated debt service requirements related to pass-through toll contracts executed as of Aug. 31, 2012 are as follows. The timing of actual payments may differ substantially from this estimate, but the total amount paid is linked to contractually established levels. The estimates are updated monthly to account for these variations.

Pass-Through Tolls Payable - Debt Service Requirements (Amounts in Thousands)	
	Governmental Activities
Year	Principal*
2013	\$ 151,689
2014	154,214
2015	179,186
2016	187,877
2017	186,355
2018-2022	711,567
2023-2025	98,387
Total**	1,669,275
Unrealized Payable	(541,048)
Total Requirements	<u>\$1,128,227</u>

* There is not an interest component to the pass-through toll reimbursements.

** This projection assumes TxDOT's maximum potential obligation.

Pollution Remediation Obligations

TxDOT is responsible for the cleanup and remediation of several polluted sites. Regulatory requirements established by federal and state law obligate TxDOT to perform these pollution remediation activities. Historical cost averages were used to calculate the estimated pollution remediation obligation liabilities. The table below details the various compliance requirements under which TxDOT is incurring pollution remediation costs and is recording a pollution remediation liability.

Pollution Remediation Obligations - Disaggregation of Total Liability	
As of August, 31, 2012 (Amounts in Thousands)	
Remove contamination to allow construction of a detention pond	\$ 5,700
Manage contamination associated with Superfund sites	440
Comply with Federal Safe Drinking Water Act requirements	303
Comply with state Leaking Petroleum Storage Tank (LPST) cleanup requirements	122
Comply with state cleanup requirements for releases from non-LPST sources	161
Total	<u>\$ 6,726</u>

Federal reimbursements are expected to offset a portion of these estimated costs. When realizable, the federal reimbursements are recognized as federal revenue. The potential for changes due to price increases or reductions, technology or applicable laws or regulations was incorporated into these estimates.

Claims and Judgments

TxDOT's involvement in claims and judgments is discussed in detail in Note 15. Management's opinion is that the probable outcome of claims and judgments against TxDOT will not materially affect the financial position of TxDOT; therefore, no liability amount has been accrued.

NOTE 5 – BONDED INDEBTEDNESS

As discussed more fully in the sections that follow, the Commission is authorized through various statutory and constitutional provisions to issue general obligation and revenue bonds. As of Aug. 31, 2012, the Commission had 18 bond issues outstanding. In addition, the Texas Private Activity Bond Surface Transportation Corporation (TxPABST), a blended component unit of TxDOT, has two conduit debt bond issues outstanding as of Aug. 31, 2012. The debt service payments associated with the TxPABST bonds are not the responsibility of the state of Texas.

Miscellaneous Bond Information							
(Amounts in Thousands)							
Description of Issue	Bonds Issued to Date	Date Issued	Range of Interest Rates		Maturities		First Call Date
					First Year	Last Year	
GOVERNMENTAL ACTIVITIES							
General Obligation Bonds							
Texas Mobility Fund							
Series 2005-A Fixed Rate Bonds	\$ 900,000	06/08/2005	3.9000%	5.0000%	2006	2035	04/01/2015
Series 2005-B Variable Rate Bonds	100,000	06/08/2005	variable		2030	2030	*
Series 2006 Fixed Rate Bonds	750,000	06/08/2006	3.6250%	5.0000%	2007	2036	04/01/2016
Series 2006-A Fixed Rate Bonds	1,040,275	10/31/2006	4.0000%	5.0000%	2007	2035	04/01/2017
Series 2006-B Variable Rate Bonds	150,000	12/13/2006	variable		2036	2036	*
Series 2007 Fixed Rate Bonds	1,006,330	06/21/2007	4.0000%	5.0000%	2008	2037	04/01/2017
Series 2008 Fixed Rate Bonds	1,100,000	02/28/2008	4.0000%	5.0000%	2009	2037	04/01/2018
Series 2009-A Taxable Fixed Rate Bonds	1,208,495	08/26/2009	5.3670%	5.5170%	2029	2039	*
Texas Highway Improvement							
Series 2010-A Taxable Fixed Rate Bonds	815,420	09/29/2010	3.2030%	4.6810%	2019	2040	*
Series 2010-B Fixed Rate Bonds	162,390	09/29/2010	2.0000%	5.0000%	2012	2018	n/a
Revenue Bonds							
State Highway Fund							
Series 2006 Fixed Rate Bonds	600,000	05/03/2006	4.0000%	5.0000%	2007	2026	04/01/2016
Series 2006-A Fixed Rate Bonds	852,550	11/21/2006	4.0000%	5.2500%	2008	2025	04/01/2016
Series 2006-B Variable Rate Bonds	100,000	11/08/2006	variable		2026	2026	*
Series 2007 Fixed Rate Bonds	1,241,845	10/25/2007	4.0000%	5.0000%	2009	2027	04/01/2017
Series 2008 Fixed Rate Bonds	162,995	08/19/2008	3.5000%	5.2500%	2010	2028	04/01/2018
Series 2010 Taxable Fixed Rate Bonds	1,500,000	08/05/2010	5.0280%	5.1780%	2026	2030	*
Governmental Activities Total	11,690,300						
BUSINESS-TYPE ACTIVITIES							
First Tier Revenue Bonds Series 2002-A							
Non-Callable Capital Appreciation Bonds	494,049	08/29/2002	4.4700%	5.7500%	2012	2030	n/a
Callable Capital Appreciation Bonds	281,474	08/29/2002	6.0000%	6.1000%	2025	2038	08/15/2012
Current Interest Bonds	707,875	08/29/2002	5.0000%	5.7500%	2038	2042	08/15/2012
First Tier Revenue Refunding Put Bonds							
Series 2009	149,275	03/05/2009	variable		2042	2042	02/15/2013
Business-Type Activities Total	\$ 1,632,673						
* Bonds are subject to redemption prior to their respective maturities at the option of the Commission.							

* Bonds are subject to redemption prior to their respective maturities at the option of the Commission.

Changes in Bonds Payable					
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)					
Description	Bonds Outstanding 09/01/2011	Bonds Issued*	Bonds Matured or Retired	Bonds Outstanding 08/31/2012	Due Within One Year
Governmental Activities					
General Obligation Bonds	\$ 7,192,942	\$ (12,867)	\$ 66,930	\$ 7,113,145	\$ 86,434
Revenue Bonds	4,175,318	(6,363)	114,510	4,054,445	126,518
Total Governmental Activities	11,368,260	(19,230)	181,440	11,167,590	212,952
Business-Type Activities					
Revenue Bonds	1,578,430	42,825	4,505	1,616,750	7,288
Business-Type Activities Total	1,578,430	42,825	4,505	1,616,750	7,288
Total	\$12,946,690	\$ 23,595	\$ 185,945	\$12,784,340	\$ 220,240
*Includes current year amortization of premiums, discounts and accretion.					

General Obligation Bonds – General Comments

The Texas Constitution authorizes the Commission to issue general obligation bonds backed by the full faith and credit of the state. As of Aug. 31, 2012, two general obligation bond programs are active. The purpose and the sources of debt service for each program are summarized as follows. All general obligation bond issuances must be approved by the Texas Bond Review Board prior to issuance.

Texas Mobility Fund

Texas Constitution, Article III, Section 49-k and Transportation Code, Chapter 201, Subchapter M authorize the Commission to issue general obligation bonds payable from a pledge of and lien on all or part of the money in the mobility fund. The mobility fund bonds are designed to be self-supporting, but the full faith and credit of the state is pledged in the event the revenue and money dedicated to the mobility fund is insufficient to pay debt service on the bonds. As of Aug. 31, 2012, major sources of pledged revenue for the Mobility Fund include driver license fees, motor vehicle inspection fees, certificate of title fees and driver record information fees.

The \$82 million remaining principal of the Mobility Fund Series 2005-B Variable Rate Bonds (Series 2005-B bonds) was successfully remarketed on March 1, 2012. Upon initial issuance of the Series 2005-B bonds, TxDOT entered into a standby bond purchase agreement with Depfa Bank Plc, to provide for the purchase of Series 2005-B bonds that were tendered for purchase but not remarketed. The Series 2005-B bonds were remarketed to allow for the replacement of the original standby bond purchase agreement. More detail regarding the terms and current liquidity agreement in place for the Series 2005-B bonds can be found in the Demand Bonds section of this note.

Prior to a mobility fund debt issuance, the Texas Comptroller of Public Accounts must certify that there will be sufficient future resources on deposit in the mobility fund to ensure 110 percent coverage of debt service requirements during the period that the debt will be outstanding. As of Aug. 31, 2012, the approved debt capacity of the Mobility Fund is \$7.2 billion. As of Aug. 31, 2012, the Commission is authorized but has not issued approximately \$1.2 billion of the approved debt capacity of the mobility fund.

Bond proceeds are to be used for the purpose of paying or reimbursing the state highway fund for the costs of constructing, reconstructing, acquiring and expanding state highways and providing participation by the state in certain publicly owned toll roads and other public transportation projects.

Texas Highway Improvement/Proposition 12

Texas Constitution, Article III, Section 49-p and Transportation Code, Section 222.004, authorizes the Commission to issue general obligation bonds of the state of Texas for the costs of highway construction, reconstruction and major maintenance, including any necessary design and the acquisition of right-of-way. These bonds are not self-supporting and are considered a general obligation of the state of Texas. As of Aug. 31, 2012, the Commission is authorized but has not issued approximately \$4 billion of remaining bond authority under the Texas highway improvement general obligation bond program.

Debt Service Requirements – Governmental Activities			
General Obligation Bonds			
(Amounts in Thousands)			
Year	Principal	Interest	Total
2013	\$ 74,210	\$ 330,986	\$ 405,196
2014	82,425	327,539	409,964
2015	91,045	323,777	414,822
2016	100,150	319,577	419,727
2017	109,760	314,994	424,754
2018-2022	713,680	1,492,062	2,205,742
2023-2027	1,062,080	1,297,563	2,359,643
2028-2032	1,524,235	1,003,676	2,527,911
2033-2037	2,118,280	591,501	2,709,781
2038-2041	1,092,695	92,829	1,185,524
	6,968,560	6,094,504	13,063,064
Premium	144,755		144,755
Discount	(170)		(170)
Total	\$ 7,113,145	\$ 6,094,504	\$13,207,649

Revenue Bonds – General Comments

The Texas Constitution and Transportation Code authorize the Commission to issue revenue bonds backed by pledged revenue sources and restricted funds. The active revenue bond programs of TxDOT are summarized as follows.

State Highway Fund/Proposition 14

Texas Constitution, Article III, Section 49-n and Transportation Code, Section 222.003 authorizes the Commission to issue revenue bonds to finance highway improvement projects. The bonds are payable from pledged revenues deposited to the credit of the state highway fund, including dedicated taxes, dedicated federal revenues and amounts collected or received pursuant to other state highway fund revenue laws and any interest or earning from the investment of these funds. As of Aug. 31, 2012, the Commission is authorized but has not issued approximately \$1.4 billion of remaining bond authority under the state highway revenue bond program.

Debt Service Requirements – Governmental Activities			
Revenue Bonds			
(Amounts in Thousands)			
State Highway Fund			
Year	Principal	Interest	Total
2013	\$ 120,155	\$ 194,952	\$ 315,107
2014	125,995	189,105	315,100
2015	132,200	182,896	315,096
2016	138,510	176,582	315,092
2017	145,165	169,937	315,102
2018-2022	841,760	733,728	1,575,488
2023-2027	1,447,005	470,502	1,917,507
2028-2031	1,013,145	106,120	1,119,265
	3,963,935	2,223,822	6,187,757
Premium	90,510		90,510
Total	\$ 4,054,445	\$ 2,223,822	\$ 6,278,267

Central Texas Turnpike System

Transportation Code, Section 228.102 authorized the Commission to issue revenue bonds to pay a portion of the costs of planning, designing, engineering, developing and constructing the initial phase of the Central Texas Turnpike System (CTTS) located in the greater Austin metropolitan area in Travis and Williamson counties. The bond obligations are payable from and secured solely by a first lien on and pledge of the trust estate. The trust estate consists of all project revenues and investment earnings. Neither the state, the Commission, TxDOT or any other agency or political subdivision of the state is obligated to pay the debt service on the CTTS revenue bonds.

Debt Service Requirements – Business-Type Activities			
Revenue Bonds			
(Amounts in Thousands)			
Year	Principal	Interest	Total
2013	\$ 7,710	\$ 41,267	\$ 48,977
2014	10,155	41,267	51,422
2015	12,605	41,267	53,872
2016	25,805	41,267	67,072
2017	29,655	41,267	70,922
2018-2022	212,365	206,335	418,700
2023-2027	382,445	206,335	588,780
2028-2032	559,670	206,335	766,005
2033-2037	700,925	206,335	907,260
2038-2042	888,400	126,780	1,015,180
	2,829,735	1,158,455	3,988,190
Accretion	(1,201,567)		(1,201,567)
Premium	8,073		8,073
Discount	(15,418)		(15,418)
Loss on Refunding	(4,073)		(4,073)
Total	\$ 1,616,750	\$ 1,158,455	\$ 2,775,205

Pledged Future Revenues

Pledged revenues are those specific revenues that are formally committed to directly secure the payment of bond debt service. The table below provides information on pledged revenue and pledged future revenue of the self-supporting general obligation and revenue bonds.

Pledged Future Revenue (Amounts in Thousands)	Governmental Activities		Business-Type Activities
	Texas Mobility Fund General Obligation Bonds	State Highway Fund Revenue Bonds	Central Texas Turnpike System
Pledged Revenue Required for Future Principal and Interest on Existing Bonds	\$11,393,870	\$ 6,187,758	\$ 3,988,189
Term of Commitment Year Ending Aug. 31	2039	2030	2042
Percentage of Revenue Pledged	98%	100%	100%
Current Year Pledged Revenue	\$ 395,566	\$ 6,552,269	\$ 93,052
Current Year Principal and Interest Paid	\$ 331,530	\$ 314,897	\$ 77,462

Build America Bonds

The American Recovery and Reinvestment Act of 2009 granted municipal debt issuers access to a broader investor base in the taxable market by providing a federal interest rate subsidy payment to offset debt service costs through the Build America Bonds (BABs) program. See the table below for details on the Commission's Direct Payment BABs outstanding at Aug. 31, 2012. Direct Payment BABs provide a federal reimbursement to TxDOT equal to 35 percent of the interest paid on the bonds.

Direct Payment Build America Bonds (Amounts in Thousands)			
	Issue Date	Par Amount	Amount Outstanding at 08/31/12
Governmental Activities			
General Obligation Bonds			
Texas Mobility Fund Series 2009-A	08/26/2009	\$1,208,495	\$1,208,495
Texas Highway Improvement Bonds Series 2010-A	09/29/2010	815,420	815,420
Revenue Bonds			
State Highway Fund Series 2010	08/05/2010	1,500,000	1,500,000
Total		<u>\$3,523,915</u>	<u>\$3,523,915</u>

Variable Rate Bonds

The Commission has four variable rate bond issues outstanding as of Aug. 31, 2012. The interest rates in effect as of Aug. 31, 2012 for the Texas Mobility Fund Series 2005-B, Texas Mobility Fund Series 2006-B and State Highway Fund Series 2006-B used to calculate the interest debt service requirements were 0.19, 0.19 and 0.65 percent, respectively. These rates reset every seven days. The Central Texas Turnpike System Series 2009 put bonds debt service was calculated based upon the current 2.75 percent interest rate, which expires Feb. 15, 2013. The potential volatility for related debt services increases with these interest rate reset provisions.

Put Bonds

The Central Texas Turnpike System Series 2009 put bonds were initially issued in a multiannual mode which terminated on the mandatory tender date of Feb. 15, 2011. The Commission successfully remarketed the bonds into another multiannual mode of 24 months at a 2.75 percent interest rate. The bonds are subject to mandatory tender on Feb. 15, 2013, subject to the successful remarketing of the bonds. The Commission has not provided any credit or liquidity facility for the payment of the purchase price of bonds payable upon the mandatory tender date. The principal portion of the purchase price for the bonds is expected to be obtained from the remarketing proceeds. The obligation of the Commission to purchase the bonds on the mandatory tender date is subject to the successful remarketing of such bonds. The Commission has no obligation to purchase bonds except from remarketing proceeds. If the bonds are not remarketed, the interest rate on the bonds will be increased to the stepped coupon rate of 12 percent per annum. The impact of such a rate change to the debt service payments on the bonds is disclosed below.

Put Bonds – Debt Service Comparison (Amounts in Thousands)		
	Interest Rate	Interest Payment
Multiannual Mode ending February 15, 2013	2.75 % per annum	\$ 4,105
Stepped coupon rate period if bonds cannot be remarketed	12 % per annum	\$17,913

Demand Bonds

The Texas Mobility Fund Series 2005-B, Series 2006-B and the State Highway Fund Series 2006-B variable rate bonds are demand bonds. A bond holder may tender any of these bonds for repurchase prior to maturity at a price equal to principal plus accrued interest. Any bonds so tendered will be purchased either by the proceeds of the remarketing of such bonds or, if not successfully remarketed, from amounts drawn under the standby bond purchase agreements. The following tables provide details for outstanding demand bonds and related standby bond purchase agreements as of Aug. 31, 2012.

Demand Bonds (Amounts in Thousands)		
Governmental Activities	Bonds Held by Liquidity Providers	Principal Balance Outstanding
General Obligation Bonds		
Series 2005-B	None	\$ 79,130
Series 2006-B	None	150,000
Revenue Bonds		
Series 2006-B	None	100,000
Total		<u>\$329,130</u>

Liquidity facilities provide liquidity in the event demand bonds are tendered for purchase and such bonds are not remarketed by the remarketing agent. The standby bond purchase agreements contain takeout provisions, which provide an alternative debt instrument to replace any repurchased bonds that are not remarketed within the prescribed time constraints. The table shown below provides the estimated impact of such an event.

Demand Bonds – Standby Bond Purchase Agreement Provisions			
Governmental Activities	Counterparties	Annual Liquidity Fee	Agreement Termination Date
General Obligation Bonds			
Series 2005-B	Royal Bank of Canada	0.30%	03/01/2015
Series 2006-B	State Street Bank and Trust Company & California Public Employees' Retirement System	0.10%	12/13/2013
Revenue Bonds			
Series 2006-B	Banco Bilbao Vizcaya Argentaria, S.A.	0.0875%	11/07/2016

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Demand Bonds – Takeout Provisions (Amounts in Thousands)				
Governmental Activities	Estimated Debt Service	Rate	Basis	Replacement Debt Terms
General Obligation Bonds Series 2005-B	\$ 90,998	10.00%	2% + the greater of: Bank Prime rate + 1.5%, Daily Fed Fds Rate +2% or 8%	Semi-annual payments over three years starting on the first day of the third month of that period
Series 2006-B	158,500	4.25%	1% + greater of: 0.5% + Daily Fed Fds Rate or Bank Prime rate	Semi-annual payments over three years starting the first day of the second month of that period
Revenue Bonds Series 2006-B	108,750	5.25%	2% + greater of : 0.5% + Daily Fed Fds Rate or Bank Prime rate	Semi-annual payments over three years starting the first day of the sixth month of that period
Total	<u>\$358,248</u>			

Interest Rate Swaps

As described more fully in Note 6, Government Code, Chapter 1371, as amended, authorizes the Commission to enter into credit agreements that include interest rate swap and other similar agreements. The Commission is a party to three pay-variable, receive-variable constant maturity swaps (CMS basis swaps) associated with the Texas Mobility Fund Series 2006-A bonds. These CMS basis swaps are reported as investment derivatives in this financial report because they do not meet the definition of an effective hedge for accounting purposes.

Using rates as of Aug. 31, 2012, the debt service requirements of the Series 2006-A bonds and associated net swap payments were estimated and presented in the table below.

Estimated Debt Service Requirements of Fixed Rate Debt Outstanding and Net Swap Payments (Amounts in Thousands)				
Series 2006-A Fixed-Rate Bonds				
Fiscal Year	Principal	Interest	Swap Payments*	Net Debt Service
2013	\$ 4,185	\$ 49,507	\$ (5,754)	\$ 47,938
2014	5,115	49,340	(5,541)	48,914
2015	6,045	49,135	(5,541)	49,639
2016	6,955	48,893	(5,541)	50,307
2017	8,895	48,615	(5,541)	51,969
2018-2022	102,985	232,640	(27,704)	307,921
2023-2027	223,925	195,722	(22,625)	397,022
2028-2032	381,200	127,826		509,026
2033-2035	293,585	26,330		319,915
Total	<u>\$1,032,890</u>	<u>\$ 828,008</u>	<u>\$ (78,247)</u>	<u>\$1,782,651</u>

* The swap payments were projected assuming current fixed annuity rates, average historical rates and swap index relationships remain the same for their terms. Interest payments and net swap payments will vary in the future in correlation with the underlying interest rate indexes.

Conduit Debt

Transportation Code, Section 431.070, provides the authority for transportation corporations to issue bonds. The Texas Private Activity Bond Surface Transportation Corporation (TxPABST), a blended component unit, has issued private activity revenue bonds to finance costs and construction of the Interstate Highway 635 managed lanes project located in Dallas County and the North Tarrant Express Facility in Tarrant County.

Conduit Debt Obligations - Miscellaneous Information
 (Amounts in Thousands)

	NTE Mobility Partners LLC	LBJ Infrastructure Group LLC
Bonds Issued	\$400,000	\$615,000
Date Issued	12/10/2009	6/15/2010
Range of Interest Rates	6.875% - 7.500%	7.000% - 7.500%
Maturities (First Year - Last Year)	2031 - 2039	2032 - 2040
First Call Date	12/31/2019	06/30/2020

The proceeds from TxPABST bonds were loaned to LBJ Infrastructure Group LLC and NTE Mobility Partners LLC. These bonds are special limited obligations of TxPABST, payable solely from and secured by loan and interest repayments from the borrowers. The bonds do not constitute a debt or pledge of the faith and credit of TxPABST, TxDOT or the state of Texas.

As of Aug. 31, 2012, TxPABST private activity revenue bonds outstanding aggregated to \$1 billion. TxPABST is authorized but has not issued \$85 million of remaining bond authority. The debt service schedule for the outstanding TxPABST conduit debt is disclosed below.

Conduit Debt Obligations – Debt Service (Amounts in Thousands)			
TxPABST Bonds – Conduit Debt			
Year	Principal	Interest	Total
2013	\$	\$ 71,632	\$ 71,632
2014		71,632	71,632
2015		71,632	71,632
2016		71,632	71,632
2017		71,632	71,632
2018-2022		358,158	358,158
2023-2027		358,158	358,158
2028-2032	150,655	352,092	502,747
2033-2037	484,190	238,971	723,161
2038-2040	380,155	56,622	436,777
	1,015,000	1,722,161	2,737,161
Premium	7,098		7,098
Discount	(17,644)		(17,644)
Total	\$ 1,004,454	\$1,722,161	\$2,726,615

NOTE 6 – DERIVATIVE INSTRUMENTS

In October 2006, the Commission entered into constant maturity basis swap transactions (CMS basis swaps) with the expectation of reducing the interest to be paid by the Commission over the term of the Texas Mobility Fund 2006-A fixed-rate bonds. The basis swaps are scheduled to terminate on Sept. 1, 2027, which is before the final maturity of the related bonds.

By entering into the derivative contracts the Commission is able to achieve spread income, preserve call option and advance refunding capability, lower net interest cost by layering tax risk on top of a traditional fixed rate financing and preserve liquidity capacity. Specific risks and the current terms of the CMS basis swaps are detailed in Note 3.

Derivative instruments are recorded at their fair value in the statement of net assets. Changes in fair value are reported as investment income in the statement of activities. The fair values of the basis swaps were estimated using a proprietary pricing service. The fair values are largely dependent on the relationship of certain indexes and an estimate of where those indexes will be in the future. Given the duration of the swaps, the valuations can change considerably over time.

The \$6.4 million cash payment received in fiscal 2012 reduced the interest expense paid on the related bonds. The fair values and notional amounts of the basis swaps and the changes in fair value of such derivative instruments for the year ended Aug. 31, 2012 are as follows:

Summary of Derivative Activity – CMS Basis Swaps (Amounts in Thousands)			
GOVERNMENTAL ACTIVITIES			
Counterparty	Change in Fair Value	Fair Value As of 8/31/2012	Notional Amount
JPMorgan Chase Bank, N.A.	\$ (549)	\$12,555	\$ 200,000
Goldman Sachs Mitsui Marine Derivative Products, L.P.	(322)	6,293	100,000
Morgan Stanley Capital Services, Inc.	(260)	6,273	100,000
	<u>\$(1,131)</u>	<u>\$25,121</u>	<u>\$ 400,000</u>

NOTE 7 – LEASES**Capital Leases**

TxDOT is financing the acquisition of certain capital assets via the Master Lease Purchase Program (MLPP) which is administered by the Texas Public Finance Authority (TPFA). The liabilities associated with these leases are reported in the financial statements of TPFA. The capital assets associated with these leases are reported in TxDOT's financial statements. TPFA holds the title to the property until the lease is fully paid, at which point title will transfer to TxDOT.

Operating Leases

To minimize long-term costs, and to ensure future availability of essential services, TxDOT, in routine transactions, enters into leases which extend beyond a single fiscal year. Operating lease payments are recorded as expenditures or expenses during the life of the lease. Included in the expenditures reported in the state highway fund is approximately \$7 million of rent paid or due under operating lease obligations.

In fiscal 2012, TxDOT prepaid the remaining lease obligation amounts for the buildings comprising the agency's Austin headquarters known as the Riverside Annex. Rental expenditures will be recognized over the remaining term of the ground leases associated with the buildings. The following table presents future minimum lease rental obligations under noncancelable operating leases having an initial term in excess of one year.

Noncancelable Operating Lease Obligations	
August 31, 2012 (Amounts in Thousands)	
Fiscal Year	Minimum Future Lease Payments
2013	\$ 6,336
2014	5,696
2015	4,906
2016	4,084
2017	3,052
2018-2022	15,560
2023-2027	4,194
Total	\$ 43,828

NOTE 8 - EMPLOYEES' RETIREMENT PLAN

TxDOT employees, as state employees, are enrolled in the Employees Retirement System of Texas defined benefit pension plan (ERS Plan). The financial statements of the ERS Plan are included in the audited annual financial report of the Employees Retirement System of Texas. Audited financial statements and detailed actuarial information for the ERS Plan may be obtained by calling (512) 476-6431 or writing:

Employees Retirement System of Texas
P.O. Box 13207
Austin, Texas 78711-3207

Plan Description

The ERS Plan is a cost-sharing, multiple-employer, defined benefit pension plan. The ERS Plan provides service retirement benefits, disability retirement benefits and death benefits to plan members and beneficiaries.

The ERS Plan, established in the Texas Government Code, Chapters 811-815, covers elected class members and employee class members. The monthly benefit is determined by the years and months of service multiplied by a statutorily determined percentage and may vary by class. All TxDOT employees are considered members of the employee class. The monthly standard annuity equals the statutory percentage of 2.3 percent of the average monthly compensation multiplied by the number of years of service. The minimum monthly standard annuity is \$150; the maximum standard annuity is 100 percent of the average monthly compensation. Changes to the employee class plan provisions were instituted for members hired on or after Sept. 1, 2009.

- Employee class retirement benefits for employees hired on or before Aug. 31, 2009, vest after five years of service credit and employees may retire at age 60 with five years of service credit or at any age when the sum of age and service credit (including months) total 80. The average monthly compensation is the average of the highest 36 months of compensation.
- Employee class retirement benefits for employees hired on or after Sept. 1, 2009, may retire at age 65 with 10 years of service credit or at any age when the sum of age and service credit (including months) equals or exceeds 80. The average monthly compensation is the average of the highest 48 months of compensation. The standard retirement annuity is reduced by five percent for each year the member retires before the member reaches age 60, with a maximum possible reduction of 25 percent.

A Partial Lump Sum Payment Option is available to members of the employee class. A one-time partial lump sum of up to three years of the standard annuity at retirement can be taken and the annuity is reduced for life.

Funding Policy

Contribution requirements are not actuarially determined, but are set by legislation. Plan members are required to contribute 6.5 percent of their annual covered salary and TxDOT contributes an amount equal to 6.95 percent of TxDOT's covered payroll. TxDOT and TxDOT employees contributed \$69.4 million to the ERS Plan for the year ended Aug. 31, 2012, which equaled the required contribution. State statutes prohibit benefit improvements if as a result of the action the time required to amortize the ERS plan unfunded actuarial liabilities would be increased to a period that exceeds 30 years by one or more years.

There are no separate actuarial valuations of pension liabilities by individual state agency. Pension obligation amounts are recorded and disclosed in the audited state of Texas Comprehensive Annual Financial Report.

NOTE 9 - DEFERRED COMPENSATION

The state of Texas offers two deferred compensation plans to all state employees. One was established in accordance with Internal Revenue Code, Section 457. The second was established in accordance with Internal Revenue Code, Section 401(k). All costs of administering and funding these programs are the responsibility of plan participants. The assets of the two plans remain the property of the contributing employees and are not presented in the accompanying financial statements. TxDOT makes no contributions to either plan, the assets do not belong to TxDOT and TxDOT has no liability related to the plans.

NOTE 10 - POSTEMPLOYMENT HEALTH CARE AND LIFE INSURANCE BENEFITS

Eligible TxDOT retirees are provided postemployment health care and life insurance benefits through the State Retiree Health Plan (SRHP). The financial statements of the SRHP are included in the audited annual financial report of the Employees Retirement System of Texas. Audited financial statements and detailed actuarial information for the SRHP may be obtained by calling (512) 476-6431 or writing:

Employees Retirement System of Texas
P.O. Box 13207
Austin, Texas 78711-3207

Plan Description

The SRHP is a cost-sharing multiple-employer defined benefit plan. The SRHP provides postemployment health care, life and dental insurance benefits to retirees through the Texas Employees Group Benefits Program as authorized by the Texas Insurance Code, Section 1551.102.

Retirees must meet certain age and service requirements and have at least 10 years of service at retirement to participate in the plan. Surviving spouses and dependents of retirees are also covered by the SRHP. Benefit and contribution provisions of SRHP are authorized by state law and may be amended by the Legislature.

Funding Policy

The Legislature sets and has the power to amend annual state contributions to SRHP. Currently, the state pays 100 percent of eligible retiree health insurance premiums and 50 percent of dependents' premiums. The retiree contributes any premium over and above state contributions. State contributions to the SRHP are directly appropriated to ERS. The maximum monthly state contribution toward the health and basic life premiums of eligible retirees is disclosed in the following table.

**Employer Contribution Rates –
Retiree Health and Basic Life Premium**
For the Fiscal Year Ended August 31, 2012

<u>Level of Coverage</u>	<u>ERS SRHP</u>
Retiree Only	\$ 438.30
Retiree/Spouse	939.78
Retiree/Children	774.10
Retiree/Family	1,275.58

NOTE 11 – INTERFUND ACTIVITY AND TRANSACTIONS

Interfund activity refers to financial interactions between funds and/or blended component units and is restricted to internal events. Interfund transactions refer to financial interactions between TxDOT and another agency of the state of Texas.

Interfund services are sales and purchases of goods and services between funds for a price approximating their external exchange value. This activity is reported as revenues in seller funds and expenditures or expenses in purchaser funds. Unpaid amounts are reported as receivables and payables.

Interfund transfers represent the flow of assets (cash or goods) without equivalent flow of assets in return or a requirement for repayment. In governmental funds, transfers are reported as other financing uses or sources. Transfers are reported in proprietary funds after nonoperating revenues and expenses in the statement of revenues, expenses and changes in fund net position.

As a general rule, the effect of interfund activity within TxDOT funds is eliminated from the entity-wide financial statements, with exception of activities between governmental activities and business-type activities. Interfund activity with fiduciary funds is reclassified and reported as an external activity.

Interfund Activity

TxDOT's operations are primarily managed through the state highway fund. As such, several routine transfers are reported between the state highway fund and TxDOT's other major and nonmajor funds. The following tables detail the principal purposes of TxDOT's significant routine interfund transfers as well as provide a summary of interfund transfers by individual major fund, nonmajor funds in the aggregate and fiduciary funds.

Interfund Transfers In/Out by Purpose August 31, 2012 (Amounts in Thousands)			
Purpose	Interfund Transfer In (Fund)	Interfund Transfer Out (Fund)	Fiscal 2012 Amount
Reimburse the state highway fund for costs incurred on projects funded by Texas Mobility Fund bond proceeds	Major Fund: State Highway Fund	Major Fund: Texas Mobility Fund	\$ 239,981
Reimburse the state highway fund for costs incurred on projects funded by local government contributions.	Major Fund: State Highway Fund	Nonmajor Fund: County/Political Subdivision/Local Government Road/Airport Trust Account	\$ 180,962
Provide funds to pay debt service principal and interest payments on outstanding Proposition 14/State Highway Fund Revenue Bonds	Nonmajor Fund: Proposition 14 Debt Service Fund	Major Fund: State Highway Fund	\$ 287,581
Provide funds to support the operating and maintenance costs of the Central Texas Turnpike System	Major Fund: Central Texas Turnpike System	Major Fund: State Highway Fund	\$ 55,242

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Interfund Transfers In/Out

August 31, 2012 (Amounts in Thousands)

	<u>Transfers In</u> <u>Other Funds</u>	<u>Transfers Out</u> <u>Other Funds</u>
Governmental Funds		
Major Funds:		
State Highway Fund	\$ 420,943	\$ 342,823
Mobility Fund		239,981
Nonmajor Funds	287,581	180,962
	<u>708,524</u>	<u>763,766</u>
Proprietary Funds		
Central Texas Turnpike System	55,242	
	<u>55,242</u>	
Total	\$ <u>763,766</u>	\$ <u>763,766</u>

Amounts not transferred at fiscal year-end are accrued as due to/due from other funds. Due to/due from amounts between governmental or business-type activities and fiduciary funds are reported as due to/due from amounts between funds in the fund financial statements. Any residual balances between governmental and business-type activities are reported in the entity-wide financial statements as “internal balances.”

Due From/To

August 31, 2012

(Amounts in Thousands)

	<u>Due From</u> <u>Other Funds</u>	<u>Due To</u> <u>Other Funds</u>
Governmental Funds		
Major Funds:		
State Highway Fund	\$ 51,383	\$ 533
Mobility Fund		19,555
Nonmajor Funds	533	31,814
	<u>51,916</u>	<u>51,902</u>
Proprietary Funds		
Central Texas Turnpike System	502	516
	<u>502</u>	<u>516</u>
Total	\$ <u>52,418</u>	\$ <u>54,418</u>

Activity occurring within the same fund is eliminated. Certain reclassifications and eliminations are made between the fund financial statements and the entity-wide financial statements. Transfers between the governmental or business-type activities are reported as transfers on the fund financial statements and are reclassified to revenues and expenses, as if they were external transactions on the entity-wide financial statements. Additional eliminations are made and transfers in and out are netted and presented in the entity-wide statement of activities as “transfers-internal activities.”

Internal Balances per the Entity-wide Financial Statements

August 31, 2012 (Amounts in Thousands)

	Governmental Activities	Business-Type Activities	Total
NONCURRENT ASSETS			
Internal Balances	\$ 14	\$ (14)	\$ 0

Interfund Transfers In/Out Per the Entity-Wide Financial Statements

August 31, 2012 (Amounts in Thousands)

Fund Category	Other Funds
Governmental Activities	\$ (55,242)
Business-Type Activities	\$ 55,242

Interfund reimbursements are repayments from funds responsible for payment of expenditures or expenses to the funds that actually made the payment. Reimbursements are not displayed in the financial statements.

Interfund Transactions

The state highway fund is considered a shared fund and is appropriated for use by multiple state of Texas agencies. TxDOT is considered the controlling agency for the state highway fund and reports the total cash in state treasury balance for the fund at fiscal year-end. TxDOT reports interagency transfers in and out with the other agencies that collect and deposit to or expend out of the state highway fund.

The following tables detail the balances of transfers to/from and due to/from other state agencies and TxDOT. Approximately \$1.3 billion of the interagency transfers-in balance for the state highway fund is related to the net amount of cash collected by Texas Department of Motor Vehicles for certificate of title fees and motor vehicle registration fees. The transfer-in entry resulted in an increase to the TxDOT highway fund cash in state treasury balance. The majority of the interagency transfer-out balance for the highway fund relates to the total cash expended out of the state highway fund by the Texas Department of Public Safety, which is charged with patrolling the state highway system and monitoring compliance with statutes

related to vehicle weight, motor carrier safety and the registration and transportation of persons, hazardous material and other property. Amounts not transferred at fiscal year-end are accrued as due to/from other agencies.

**Transfers In/Out to
Other State Agencies**

August 31, 2012
(Amounts in Thousands)

	Transfers In Other Agencies	Transfers Out Other Agencies
Governmental Funds		
Major Funds:		
State Highway Fund	\$ 1,300,680	\$ 720,485
Nonmajor Funds	15,115	2,589
Total Governmental Funds	1,315,795	723,074
Governmental Activities Adjustments		
Capital Assets		418
Total Governmental Activities	0	418
Total	\$ 1,315,795	\$ 723,492

Due From/To Other State Agencies August 31, 2012 (Amounts in Thousands)		
	Due From Other Agencies	Due To Other Agencies
Governmental Funds		
Major Funds:		
State Highway Fund	\$ 197,597	\$ 52,017
Nonmajor Funds	465	
Total	\$ 198,062	\$ 52,017

TxDOT also has interagency activity with federal and state grant funds. See Schedules 1A and 1B of this report for more details.

Pass-Throughs To/From Other State Agencies August 31, 2012 (Amounts in Thousands)		
		State Highway Fund
Federal Grant Pass-throughs:		
Revenue	\$	5,811
Expenditures		(16,334)
Total		(10,523)
State Grant Pass-throughs:		
Expenditures		(864)
Total	\$	(864)

NOTE 12 – COUNTINUANCE SUBJECT TO REVIEW

TxDOT is currently subject to a continuance review. Under the Texas Sunset Act, TxDOT will be abolished effective Sept. 1, 2015, unless continued in existence by the 84th Legislature as provided by the Act. If abolished, TxDOT may continue until Sept. 1, 2016, to close out its operations. In the event that TxDOT is abolished pursuant to the Texas Sunset Act or other law, Texas Government Code, Section 325.017(f), acknowledges that such action will not alter the obligation of the state to pay bonded indebtedness and all other obligations of the abolished agency.

NOTE 13 – CLASSIFICATION OF FUND BALANCES AND NET ASSETS

The table below presents a summary of the Aug. 31, 2012, governmental fund balances by major and nonmajor governmental funds. With the exception of nonspendable fund balances, fund balance is presented based on specific purpose for which the funds are restricted, committed, assigned or unassigned.

Governmental Fund Balances - Disaggregation of Nonspendable, Restricted, Committed, Assigned and Unassigned (Amounts in Thousands)				
	State Highway Fund	Texas Mobility Fund	Total Major Funds	
MAJOR FUNDS				
Nonspendable:				
Inventory	\$ 123,306	\$	\$ 123,306	
Prepaid Items	2,097		2,097	
Restricted For:				
Capital Projects	914,265	636,184	1,550,449	
Debt Service		472,643	472,643	
Committed To:				
Capital Projects	201,935		201,935	
Unassigned	(511,079)		(511,079)	
Total Fund Balances	\$ 730,524	\$ 1,108,827	\$ 1,839,351	
	General Fund	Special Revenue Fund	Debt Service Fund	Capital Projects Funds
NONMAJOR FUNDS				
Nonspendable:				
Long-Term Receivables	\$ 200	\$	\$	\$
Restricted For:				
Capital Projects				100,923
Debt Service			156,728	
Committed To:				
Highway Beautification	330			
Assigned To:				
Grand Parkway Association		170		
Unassigned	75,550			
Total Fund Balances	\$ 76,080	\$ 170	\$ 156,728	\$ 100,923
ALL GOVERNMENTAL FUNDS				
Nonspendable	\$ 125,603			
Restricted	2,280,743			
Committed	202,265			
Assigned	170			
Unassigned	(435,529)			
Total Fund Balances	\$ 2,173,252			

Restrictions of net assets are listed on the face of the entity-wide and proprietary statements of net assets. Balances reported as restricted in the fund financial statements are reported as restricted in the statement of net assets. All other fund financial balances are reported as unrestricted in the statement of net assets.

NOTE 14 – ADJUSTMENTS TO FUND BALANCES AND NET ASSETS

During fiscal 2012, certain accounting changes and adjustments were made that required the restatement of fund balances or net assets. The impact of these adjustments is summarized below.

Restatements to Fund Balances/Net Assets (Amounts in Thousands)			
	September 1, 2011 As Previously Reported	Restatements	September 1, 2011 As Restated
BUSINESS-TYPE ACTIVITIES			
Central Texas Turnpike System	495,095	(390)	494,705
Total Business-Type Activities	495,095	(390)	494,705

The final costs of right-of-way assets are not determined until pending right-of-way cases are resolved. The settlement of certain right-of-way cases required the restatement of capital assets in the accompanying financial report. An additional restatement was needed to adjust for a correction to prior year roadway costs.

NOTE 15 – COMMITMENTS, CONTINGENCIES AND SERVICE CONCESSION ARRANGEMENTS***Contingencies******Unpaid Claims and Lawsuits***

The type and volume of activity for which TxDOT is responsible exposes it to a large number of claims and lawsuits. TxDOT has vigorously contested lawsuits brought against it and has usually prevailed or made settlements substantially less than the amounts originally sought.

TxDOT is exposed to claims by contractors. TxDOT will most likely settle these claims at substantially less than the amount originally sought. However, if a settlement between TxDOT's claims committee and the contractor cannot be reached, these claims will result in future litigation. As of Aug. 31, 2012 outstanding contractor claims pending at the TxDOT claims committee totaled \$14.4 million.

Settlements are paid by the Texas Comptroller of Public Accounts from the claims and refunds appropriation. The Attorney General's office indicates that the lawsuits listed below were pending as of Aug. 31, 2012. TxDOT management's opinion is that the probable outcome of these cases will not materially affect the financial position of TxDOT.

Type of Suit**Amounts in Controversy**

Eminent Domain

Over 800 cases ranging from \$0 to \$34.5 million. Total claims with amounts indicated came to approximately \$256 million.

Contract

Amounts claimed range from \$13.5 thousand to \$7.1 million. Total claims with amounts indicated came to approximately \$11 million.

Inverse
Condemnation

Monetary amounts have not been specified for any of the 27 cases.

Declaratory Judgment

Monetary amounts have not been specified in one of the two cases. Total claimed with amounts indicated is \$150 thousand.

Employment Law and Related Lawsuits	Monetary amounts have not been specified in the any of the 23 cases. Liability against TxDOT is limited to \$300 thousand. However, there is no limit on attorney fees and front pay.
Tort Claims	Statutory limits of liability on these cases are \$250 thousand per person or \$500 thousand per accident. Amounts claimed range from \$750 to \$500 thousand. Total claims, including estimates of liability limits where no amounts were specified, came to approximately \$25.4 million.
Workers' Comp	Monetary amounts have not been specified in two of the three cases. Total claimed with amounts indicated is \$20 thousand.

Arbitrage

Rebatable arbitrages defined by Internal Revenue Code (IRC), Section 148, is earnings on tax exempt bond proceeds in excess of the yield on the bond. The rebatable arbitrage must be repaid to the federal government. Pursuant to the applicable bond resolution or Indenture of Trust, a Rebate Fund will be established under the Indenture to which deposits will be made upon the determination by a verification agent that a rebate payment may be due. The amount of rebate due to the federal government is determined and payable during each five-year period and upon final payment of the tax-exempt bonds. IRC Section 148 also provides for certain rebate exceptions, including an exception if certain spend-out requirements of the bond proceeds are met. TxDOT estimates that rebatable arbitrage liability, if any, will be immaterial to the agency's overall financial condition.

Federal Reimbursements and Grants

TxDOT receives federal financial assistance for specific purposes that are subject to review or audit by the federal grantor agencies. Entitlement to this assistance is generally conditional upon compliance with the terms and conditions of grant agreements and applicable federal regulations, including the expenditure of assistance for allowable purposes. Such audits could lead to requests for reimbursements to grantor agencies for expenditures disallowed under the terms of the grant. Based on prior experience, management believes such disallowance, if any, will be immaterial.

On Dec. 16, 2011, TxDOT and the Federal Highway Administration (FHWA) approved and executed a Memorandum of Understanding (MOU) for FHWA participation in TxDOT's pass through funding program. This MOU will apply to all pass through finance (PTF) projects approved by TxDOT after Feb. 26, 2009, with some stipulations as detailed within the agreement. This agreement was done in order to facilitate maximum Federal reimbursement on TxDOT PTF projects. The MOU is not applicable to any PTF project agreements executed prior to Feb. 26, 2009. Federal reimbursement for these projects will be set up on an individual basis in separate agreements between TxDOT and FHWA and with compliance reviews being performed on each project.

Grand Parkway Project

TxDOT is proceeding with the development of the SH 99 (Grand Parkway) project. The Commission and TxDOT expect to pay expenditures in connection with the project prior to the issuance of obligations to finance the portion of the project for which TxDOT has jurisdiction. The Grand Parkway Transportation Corporation reasonably expects to incur debt, as one or more separate series of various types of obligations for the purposes of paying the costs of the project prior to issuance of such obligations, with an aggregate maximum amount of project expenditures of \$600 million being incurred prior to such issuance. The Commission and TxDOT are authorized to reimburse for such payments of the project when the obligations are issued to finance the project. The Commission also authorized TxDOT to reimburse for specific expenditures related to the Grand Parkway project made prior to the issuance of any series of bonds in accordance with federal treasury regulations to reimburse capital expenditures for the project when the obligations are issued.

Significant Commitments***Construction Contracts and Comprehensive Development Agreement Obligations***

As of Aug. 31, 2012, TxDOT had outstanding contractual commitments of approximately \$5 billion for construction and \$1.1 billion for comprehensive development agreements, respectively. Of this total, TxDOT expects to receive future reimbursements from the Federal Highway Administration of approximately \$3 billion.

Pass-Through Toll Agreements

Transportation Code, Section 222.104 authorizes TxDOT to enter into an agreement with a public or private entity that provides for the payment of pass-through tolls to the public or private entity as reimbursement for the design, development, financing, construction, maintenance, or operation of a toll or non-toll facility on the state highway system by the public or private entity. As of Aug. 31, 2012, there were 37 active pass-through financing agreements.

TxDOT recognizes liabilities associated with pass-through toll projects as notes payable as the projects are being constructed. Notes payable amounts are determined by contractually negotiated agreements with pass-through toll partners. See Note 4 for details on the payables recognized related to pass-through toll repayment obligations.

The maximum total repayment obligation for pass-through toll projects executed as of Aug. 31, 2012, was approximately \$1.7 billion. Approximately \$95 million of this amount was repaid as of Aug. 31, 2012. The actual repayment obligation for each agreement is not determinable until total construction costs are known.

Toll Equity Grants and Loan Agreements

Transportation Code, Section 222.103 authorizes TxDOT to participate, by spending money from any available source, in the cost of acquisition, construction, maintenance or operation of a toll facility of a public or private entity. The Commission adopted administrative rules (toll equity rules) to prescribe conditions for the Commission's financing of such toll facilities. Under these guidelines the Commission has committed funds in the form of toll equity grants and toll equity loans. As of Aug. 31, 2012, the Commission has outstanding toll equity grant commitments and toll equity loan commitments totaling \$553.6 million and \$6 billion, respectively. Payments of these amounts are made subject to executed financial assistance agreements between TxDOT and the applicable public or private entity.

Of the outstanding toll equity loan commitment, \$6 billion is related to a toll equity loan agreement (TELA) with the North Texas Tollway Authority (NTTA). These funds are to be used to enhance project feasibility and expedite delivery of the State Highway 161 (also known as the President George Bush Western Extension) and Chisholm Trail Parkway projects in the Dallas/Fort Worth area. These roads comprise NTTA's Special Projects System and are separate from the NTTA system as a whole. Under the TELA, TxDOT has agreed to lend a negotiated amount each year should revenues of the projects be insufficient to cover operations and maintenance, including debt service. As of Aug. 31, 2012, no drawdowns of funding have been requested by NTTA under this agreement.

Service Concession Arrangements

As of Aug. 31, 2012, TxDOT has entered into five agreements that are service concession arrangements (SCA). These projects have/will improve mobility by expanding existing road capacity and introducing managed toll lanes, traditional toll lanes and other strategies aimed at reducing traffic congestion. Structuring as a concession arrangement enables TxDOT to deliver these projects faster than would be possible using traditional funding sources. At the end of these arrangements, operations and maintenance of the projects will be transferred to TxDOT. The state of Texas retains ownership rights and title to all assets associated with an SCA.

1. IH 10 “Katy Managed Lanes” – TxDOT, Harris County and the Federal Highway Administration entered into a tri-party agreement to design, build, maintain and operate four managed lanes on Interstate 10 West of Houston. Under this arrangement, Harris County is entitled to all toll revenues until they are fully reimbursed for the cost of construction plus debt service. The Katy Managed Lanes project was completed and opened for traffic in fiscal 2010.
2. SH 130 Segments 5 & 6 Concession – TxDOT and the SH 130 Concession Company, LLC entered into an arrangement for the design, construction, operations and maintenance of the Segments 5 & 6 extension of SH 130. The SH 130 Concession Company is entitled to collect tolls on the roadway for a 50 year term. The arrangement also provides for revenue sharing between the SH 130 Concession Company and TxDOT depending on actual toll results. The SH 130 Segments 5 & 6 extension opened for traffic in October 2012 (fiscal 2013).
3. SH 121 Concession – TxDOT and the North Texas Tollway Authority (NTTA) entered into an agreement, under which NTTA will improve, operate, maintain and retain tolls from a section of SH 121 known as the “Sam Rayburn Tollway” for 50 years. The term of the concession period began in fiscal 2009. All improvements constructed by NTTA were completed as of Aug. 31, 2012.
4. North Tarrant Express Concession – TxDOT and NTE Mobility Partners, LLC entered into an arrangement for the development of segments 1 and 2-West of the North Tarrant Express facility. Under the agreement, NTE Mobility Partners, LLC will finance, design, construct, operate and maintain these segments for 52 years. The term of the concession period will begin upon the first operating commencement date that occurs. The project is under construction as of Aug. 31, 2012.
5. LBJ Managed Lanes – TxDOT and LBJ Development Infrastructure Group, LLC entered into an arrangement, under which LBJ Development Infrastructure Group, LLC will finance, design, construct, operate and maintain a 13 mile corridor along I-635 for 52 years. The term of the concession period will begin upon the first operating commencement date that occurs. The project is under construction as of Aug. 31, 2012.

NOTE 16 – SUBSEQUENT EVENTS

The Commission plans to issue or has issued the following bonds as of the date of this report, through February 2013:

Bond Issuance	Series	Estimated/Actual Par Amount (Amounts in Thousands)	Estimated/Actual Date of Issuance	Purpose
CTTS First Tier Revenue Refunding Bonds	2012A	\$ 585,330	11/27/2012	Refund Series 2002A for savings
CTTS First Tier Revenue Refunding Put Bonds	2012B	\$ 225,000	11/27/2012	Refund Series 2009 for savings
State of Texas Highway Improvement General Obligation Bonds	2012A	\$ 818,635	12/18/2012	Various highway improvement projects
	2012B	\$ 184,756		

In August 2012 the Commission approved the incorporation of SH 45 SE into CTTS to more efficiently and economically meet the mobility needs of the Central Texas region by operating the system and SH 45 SE as one operational and financial enterprise. The change was approved by the U.S. Department of Transportation on Oct. 25, 2012.

The Facility Concession Agreement (FCA) for the SH 130 Segments 5 & 6 facility provides for the developer to pay an additional concession payment to TxDOT if: (1) a maximum posted speed of 80 mph or 85 mph is authorized within 180 days after the service commencement date for the facility, and (2) TxDOT elects to waive increased revenue sharing that otherwise would be required. On Aug. 30, 2012, the Commission authorized and directed the implementation of the maximum speed limit of 85 mph. In addition the Commission authorized and directed TxDOT to notify the developer of TxDOT's election to waive increased revenue sharing and instead receive the additional concession payment amount of \$100 million. On Sept. 17, 2012, the TxDOT executive director provided the developer with TxDOT's written election to waive increased revenue sharing respecting the 85 mph maximum speed limit and instead receive the additional concession payment. The additional concession payment was received on Nov. 9, 2012.

In their October 2012 meeting, the Commission concurred with the Regional Transportation Council of the North Central Texas Council of Governments' (RTC) allocation of a portion of the SH 121 concession funding to pay off the North Texas Tollway Authority's (NTTA) outstanding state infrastructure bank loan balance related to Segments I-IV of the President George Bush Turnpike Authority (SIB loan). It is the intention that the NTTA will continue to make payments in accordance with the SIB loan repayment schedule. The portion of the NTTA payments, remaining after an allocation of a portion to TxDOT to reimburse for prior costs incurred for the development and oversight of projects funded with SH 121 funding, will be deposited to the state highway fund and committed for use in the region served by the RTC. TxDOT is in the process of entering into agreements with NTTA and RTC to formalize these transactions. The transfer of funds totaling approximately \$145 million from the SH 121 account to the SIB is representing the repayment of the SIB loan in full is pending.

NOTE 17 – RISK MANAGEMENT

TxDOT is exposed to various risks of loss related to property, general and employer liability, net income and personnel. TxDOT and its employees are covered by various immunities and defenses that limit some of these risks of loss, particularly in liability actions brought against TxDOT or its employees. Remaining exposures are managed by self-insurance arrangements.

Property and Liability

TxDOT administers a self-insured workers compensation program. Due to the nature of worker compensation claims, amounts are not reasonably estimable. Claims are paid as they become due.

Health, Life and Dental

Insurance coverage is provided to active state employees and their dependents by one of three health plan administrators. All TxDOT employees are included in the Texas Employees Group Benefits Program (GBP) administered by the Employees Retirement System of Texas (ERS). Claims for health, life, accidental death and dismemberment (AD&D), disability and dental insurance coverages are established under the GBP. These coverages are provided through a combination of insurance contracts, a self-funded health plan, a self-funded dental indemnity plan, HMO contracts and dental health maintenance organizations (DHMO) contracts.

Commitments

TxDOT incurs commitments related to outstanding construction contracts and comprehensive development agreements. Further detail of these commitments is provided in Note 15.

NOTE 18 – MATRIX OF EXPENDITURES REPORTED BY FUNCTION

For the year ended Aug. 31, 2012, the following table represents governmental fund expenditures for both natural and function classifications which correlate to the TxDOT Budget Structure. As stated on the reconciliation of the governmental funds statement of revenues, expenditures and changes in fund balances to the statement of activities, certain governmental fund expenditures are converted to increases and decreases in assets and liabilities on the statement of net assets. Thus, those expenditures are not reported by function on the statement of activities.

Matrix of Expenditures Reported by Function						
For the Fiscal Year Ended August 31, 2012						
(Amounts in Thousands)						
	Planning and Construction	Maintenance and Preservation	Public Transportation and Safety	Administration	Total	
Salaries & Wages	\$ 231,316	\$ 248,860	\$ 11,139	\$ 89,674	\$ 580,989	
Payroll Related Costs	87,736	95,946	4,094	34,177	221,953	
Professional Fees & Services	235,471	15,627	10,064	34,224	295,386	
Federal Pass-Through Exp	1,392	163	14,779		16,334	
State Grant Pass-Through Exp		864			864	
Travel	2,201	974	307	1,221	4,703	
Materials & Supplies	14,176	390,662	4,457	10,212	419,507	
Communication & Utilities	6,617	32,050	659	6,665	45,991	
Repairs & Maintenance	6,103	1,429,930	49,781	7,373	1,493,187	
Rentals & Leases	1,869	3,306	558	3,375	9,108	
Printing & Reproduction	40	127	1,466	341	1,974	
Claims & Judgments	10			5,851	5,861	
Intergovernmental Payments	389,135		109,386		498,521	
Public Assistance Payments	6,230		28,708		34,938	
Other Expenditures	31,052	6,093	16,283		53,428	
Total Functional Expenditures	\$ 1,013,348	\$ 2,224,602	\$ 251,681	\$ 193,113	\$ 3,682,744	

NOTE 19 - THE FINANCIAL REPORTING ENTITY

As required by Generally Accepted Accounting Principles, the financial statements present TxDOT, a state agency, and its component units. The component units discussed in this note are included in TxDOT's reporting entity because of the significance of their operational and financial relationships with TxDOT.

Blended Component Units

The Commission is authorized to create Transportation Corporations in Transportation Code, Chapter 431. The Commission approves the creation of transportation corporations, approves the articles of incorporation, appoints directors and approves by-laws. At any time, the Commission may terminate and dissolve a transportation corporation. In the event of dissolution or liquidation of a corporation, all assets shall be turned over to TxDOT. As of Aug. 31, 2012, three such transportation corporations were authorized by the Commission.

The Grand Parkway Association (GPA) facilitates the efficient development of Houston's third outer highway loop to serve the regional mobility needs of the metropolitan Houston area. GPA operates on funds received from various sources including TxDOT, METRO, Harris County, Fort Bend County, Chambers County, Galveston County and Brazoria County. GPA is required to make semi-annual reports to TxDOT detailing the status and financial information of the various project segments. Complete financial statements for the GPA may be obtained by writing:

Grand Parkway Association
4544 Post Oak Place, Suite 222
Houston, Texas 77027

The Texas Private Activity Bond Surface Corp. (TxPABST) acts on behalf of TxDOT in the promotion and development of transportation facilities by issuing private activity bonds for projects developed under comprehensive development agreements (CDA) entered into by TxDOT. Bonds issued by TxPABST are not legal obligations of the state of Texas and are payable solely from payments received or on behalf of a CDA developer. See Note 5 for additional details about the TxPABST private activity bond issuances as of Aug. 31, 2012. TxPABST does not publish financial statements. Further information can be obtained by writing:

Texas Private Activity Bond Surface Corporation
125 East 11th St.
Austin, Texas 78701

The Grand Parkway Transportation Corporation (GPTC) acts on behalf of TxDOT in the promotion and development of the Grand Parkway Project by issuing bonds and entering into comprehensive development agreements with developers for the design and construction of several segments of the Grand Parkway project. As of Aug. 31, 2012, GPTC has not issued any bonds and does not have any financial activity. Further information can be obtained by writing:

Grand Parkway Transportation Corporation
125 East 11th St.
Austin, Texas 78701

The financial activity of the transportation corporations are reported as a nonmajor special revenue fund of the governmental fund type in the accompanying financial statements of TxDOT.

NOTE 20– STEWARDSHIP, COMPLIANCE AND ACCOUNTABILITY**Fund Type Changes**

The nature and activity of the County/Political Subdivision/Local Government Road/Airport Trust Account (Appropriated Fund 0927) and the Colonias Project Fund Account (Appropriated Fund 7604) were analyzed during fiscal 2012. As a result, the County/Political Subdivision/Local Government Road/Airport Trust Account (Appropriated Fund 0927) was reclassified from an agency fund to a capital projects fund and the Colonias Project Fund Account (Appropriated Fund 7604) was reclassified from a capital projects fund to a general fund account. These changes were necessary in order to comply with the governmental fund type definitions as provided in GASB Statement No. 54, *Fund Balance Reporting and Governmental Fund Type Definitions*.

Upcoming GASB Pronouncements

GASB Statement No. 64, *Derivative Instruments: Application of Hedge Accounting Transactions Termination Provisions- an amendment to GASB Statement No. 53* and GASB Statement No. 57, *OPEB Measurements by Agent Employers and Agent Multiple-Employer Plans*, has been implemented by TxDOT in this fiscal 2012 report. The implementation of these statements did not require modifications to this report as TxDOT does not report any derivatives that qualify for hedge accounting and does not administer or participate in an agent multiple-employer OPEB plan.

The GASB has issued several statements that will become effective and be implemented by TxDOT in fiscal 2013. TxDOT is still in the process of determining the effects of implementing these new GASB Statements.

- GASB Statement No. 60, *Accounting and Financial Reporting for Service Concession Arrangements*
- GASB Statement No. 61, *The Financial Reporting Entity: Omnibus – an amendment to GASB Statement No. 14 and No. 34*
- GASB Statement No. 62, *Codification of Accounting and Financial Reporting Guidance Contained in Pre-November 30, 1989 FASB and AICPA Pronouncements*
- GASB Statement No. 63, *Financial Reporting of Deferred Outflows of Resources, Deferred Inflows of Resources and Net Position*

The upcoming implementation of GASB 60 and GASB 63 in fiscal 2013 will have a material impact on the presentation of TxDOT's financial statements prepared under the economic resources measurement focus and the accrual basis of accounting. The implementation of GASB 60 will require a reclassification of deferred revenue associated with service concession arrangements to deferred inflow of resources. Under GASB 63 the statement of net assets will be replaced by the statement of net position. The statement of net position will report all assets, deferred outflows of resources, deferred inflows of resources and net position.

**Required Supplementary Information
Other Than MD&A (unaudited)**

Texas Department of Transportation
Budgetary Comparison Schedule
Major Special Revenue Fund – State Highway Fund
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	<u>Budgetary Amounts</u>		<u>Actual Amounts</u>	<u>Final to Actual</u>
	<u>Original</u>	<u>Final</u>	<u>Budgetary Basis</u>	<u>Variance</u>
REVENUES				
Taxes	\$ 2,316,170	\$ 2,313,010	\$ 2,147,769	\$ (165,241)
Federal	2,755,747	3,170,464	2,845,920	(324,544)
Licenses, Fees and Permits	81,341	81,341	105,500	24,159
Interest and Investment Income	42,899	42,899	39,657	(3,242)
Land Income			9,650	9,650
Settlement of Claims			22,715	22,715
Sales of Goods and Services	200,020	200,020	11,623	(188,397)
Other	88,425	88,425	867	(87,558)
Total Revenues	5,484,602	5,896,159	5,183,701	(712,458)
EXPENDITURES				
Transportation:				
Planning and Construction	3,884,764	3,908,803	2,450,701	1,458,102
Maintenance and Preservation	3,076,207	3,081,771	3,482,404	(400,633)
Public Transportation and Safety	181,236	181,252	255,273	(74,021)
Administration	205,180	234,403	203,910	30,493
Total Expenditures	7,347,387	7,406,229	6,392,288	1,013,941
Excess (Deficiency) of Revenues				
Over (Under) Expenditures	(1,862,785)	(1,510,070)	(1,208,587)	301,483
OTHER FINANCING SOURCES (USES)				
Transfers In			1,721,623	1,721,623
Transfers Out			(1,063,309)	(1,063,309)
Sale of Capital Assets			11,065	11,065
Available Beginning Balances	3,569,607	3,569,607	3,569,607	0
Total Other Financing Sources (Uses)	3,569,607	3,569,607	4,238,986	669,379
Excess (Deficiency) of Revenue and Other				
Financing Sources Over (Under) Expenditures				
and Other Financing Uses	\$ 1,706,822	\$ 2,059,537	\$ 3,030,399	\$ 970,862

NOTE TO BUDGETARY COMPARISON SCHEDULE

The budgetary comparison schedule presents comparisons of the legally adopted budget with actual data on a budgetary basis. Since accounting principles applied for purposes of developing data on a budgetary basis differ significantly from those used to present financial statements in conformity with generally accepted accounting principles (GAAP), a reconciliation of these differences is required and is presented below.

Reconciliation of Budgetary Basis to GAAP Basis For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)	
	State Highway Fund
Excess of Revenues and Other Financing Sources Over Expenditures and Other Financing Uses- Actual Budgetary Basis	\$ <u>3,030,399</u>
Basis of Accounting Differences:	
Receivables and Deferred Revenues	212,159
Payables	84,105
Perspective Differences:	
Beginning Cash Balances Reported as Other Financing Sources	(3,569,607)
Other Expenditures Not Budgeted	<u>(62,979)</u>
Excess of Revenues and Other Financing Sources Over Expenditures and Other Financing Uses – GAAP Basis	\$ <u>(305,923)</u>

The major reconciling items between the budgetary comparison schedule and the GAAP financial statements are due to the following items.

Basis of Accounting Differences

Revenues and expenditures are reported on the cash basis of accounting in the budgetary comparison schedule but are reported on the modified accrual basis of accounting on the GAAP financial statements. Therefore, deferred revenues, receivables and payables are included as reconciling items.

Perspective Differences

Certain revenues and expenditures, including debt service, are not budgeted by the Legislature. The activity for these programs is excluded from the budgetary comparison schedule. The beginning cash balances are included as other financing sources in the budgetary comparison schedule and are not included as financing sources on the GAAP financial statements.

Excess of Actual Budgetary Basis Expenditures over Final Budget

Major special revenue fund – state highway fund – The \$400.6 and \$74 million variance in maintenance and preservation and public transportation and safety is the result of the functional allocation of expenditures to report in the actual amounts on a budgetary basis and not from actual budgetary deficiencies.

Basis of Budgeting

The state's budget is prepared on a cash basis. The Texas Constitution limits appropriations bills to two years. The Legislative Budget Board (LBB) is required by statute to adopt an estimated rate of growth for the next biennium and calculate a limit on the amount of state tax revenue, not dedicated by the Texas Constitution, that is available for spending in the next biennium. If the Legislature, by adoption of a resolution approved by a record vote of a majority of the members of each house, finds that an emergency exists and identifies the nature of the emergency, the Legislature may provide appropriations in excess of the adopted limit.

The Governor's Budget Office and the LBB initiate the process of submitting budget requests to the Legislature. At final passage of the General Appropriations Act by the Legislature, it is sent to the Comptroller of Public Accounts for certification. If the Comptroller certifies that appropriated amounts are available in the affected funds, the bill is sent to the Governor. If not certified, the Legislature may pass the bill with a four-fifths majority vote. The Governor has the option of vetoing the total bill or specific line-item appropriations, but does not have the authority to reduce a line item of appropriation.

Upon approval by the Governor, the bill becomes law and is the budget authority for state agencies to spend state funds. The Comptroller is responsible for controlling, accounting and reporting expenditures in accordance with expenditure budgets.

Legal Level of Budgetary Control

The Texas Constitution requires the Comptroller to submit a *Biennial Revenue Estimate* to the Legislature prior to each regular session. This document contains an itemized estimate of beginning cash balances, anticipated revenues based on laws then in effect and estimated expenditures from prior appropriations. The Texas Constitution also requires the Comptroller to submit supplementary revenue estimates at any special session of the Legislature and at other necessary times to show probable changes.

The level of legal control for the budget is established at the strategy (line item) level by agency. For example, "Right-of-Way Acquisition" and "Routine Maintenance" are two of the strategies for TxDOT. The legal level of budgetary control is defined as the level at which the governing body must approve any over expenditure of appropriations or transfers of appropriated amounts. Agencies are authorized limited transfer authority between strategies, not to exceed 12.5 percent, by the General Appropriations Act. Transfers and expenditures are monitored against the original budget by the Comptroller's office to ensure the agency's authorized budget is not exceeded.

The level of legal control is documented in the *Appropriation Summary Report*, which is available by request from the Comptroller's office. This separate document includes budget and actual data by appropriation line item for each state agency. State agencies cannot exceed approved appropriations. In certain emergency situations, the Governor may authorize additional appropriations from deficiency and emergency appropriation reserves.

Unexpended appropriations generally lapse 60 days after the fiscal year unless they are encumbered during the 60-day "lapse" period. Other appropriations referred to as "reappropriated unexpended balances" represent a continuation of prior year's balances for completion of a program.

MODIFIED APPROACH TO REPORTING INFRASTRUCTURE ASSETS

TxDOT adopted the modified approach for reporting the state's highway system. Under the modified approach, depreciation is not reported and all preservation and maintenance costs are expensed.

The modified approach requires that TxDOT:

- Maintain an asset management system that includes an up-to-date inventory of eligible infrastructure assets,
- Perform condition assessments of the eligible infrastructure assets and summarize the results using a measurement scale in order to document that the eligible infrastructure assets are being preserved approximately at (or above) the condition level established and disclosed by the government, and
- Estimate each year the annual amount needed to maintain and preserve the eligible infrastructure assets at the condition level established and disclosed by the government.

Although bridges are an integral part of the highway system, TxDOT has elected to depreciate bridges. Therefore, they are not reported using the modified approach.

Condition Assessments

TxDOT performs yearly condition assessments through the Texas Maintenance Assessment Program (TxMAP). Under this program, visual inspections are conducted on approximately 10 percent of the Interstate system, 5 percent of the Non-Interstate system (national, state, and farm-to-market roadways) and 20 percent of the Central Texas Turnpike System toll roads. For each section of highway observed, 21 elements separated into three highway components are assessed scores from 0 to 5 (0 = N/A, 1 = Failed, 2 = Poor, 3 = Fair, 4 = Good, 5 = Excellent) in order to determine the condition of the highways. Each element within a component is weighted according to importance and each component is weighted according to importance to determine the overall condition of the highways. The overall score is converted to a percentage measurement for reporting (1 = 20 percent, 2 = 40 percent, 3 = 60 percent, 4 = 80 percent, 5 = 100 percent).

Assessed Conditions

TxDOT has adopted a minimum condition level of 80 percent for the Interstate System, 75 percent for the Non-Interstate system, and 80 percent for the Central Texas Turnpike System based on TxMAP assessments.

Fiscal	Interstate Condition (Minimum 80%)	Non-Interstate Condition (Minimum 75%)	Central Texas Turnpike System (Minimum 80%)
2012	82.0%	77.7%	86.2%
2011	83.0%	78.5%	89.9%
2010	83.6%	77.9%	87.9%
2009	81.4%	76.5%	90.5%
2008	83.7%	79.0%	91.7%

Estimated and Actual Costs for Maintenance

The table below provides a comparison between TxDOT's estimate of maintenance expenditures required to maintain the highway system at or above the adopted condition levels and the actual expenditures. The estimates for the Interstate and Non-Interstate highways reflect the estimated expenditures necessary to achieve the Commission's goal to increase pavement conditions to 90 percent within the next 20 years. In addition, TxDOT has been working to increase the return on maintenance dollars through the implementation of cost saving measures.

Interstate Highways		Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
Estimate		\$191,441,584	\$604,837,150	\$568,455,968	\$534,263,128	\$502,127,903
Actual		\$346,326,141	\$361,824,722	\$333,253,166	\$326,304,671	\$438,236,618
Non-Interstate Highways		Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
Estimate		\$2,224,821,895	\$3,282,946,244	\$3,005,712,533	\$2,687,869,178	\$2,455,243,159
Actual		\$1,594,432,159	\$1,517,603,665	\$1,423,734,251	\$1,519,109,684	\$1,649,316,888
Central Texas Turnpike System		Fiscal 2012	Fiscal 2011	Fiscal 2010	Fiscal 2009	Fiscal 2008
Estimate		\$10,050,181	\$11,577,672	\$11,371,334	\$9,178,651	\$6,909,785
Actual		\$10,627,758	\$11,438,932	\$6,972,452	\$7,261,987	\$5,411,318

Factors Affecting Condition Assessments

TxDOT continues to develop its methods for determining such estimates. As additional experience is acquired in the estimation and reporting processes, TxDOT hopes to achieve a greater correlation between the estimated maintenance expenditures needed to maintain the highway system at or above the adopted condition levels and the condition level of the highways. In comparing actual expenditures to estimated expenditures, factors such as increases in traffic, legislative mandates, budgetary constraints, and environmental effects (rainfall, drought, hurricane, freeze thaw, etc) should be considered as they may have a major impact on needed funds and the condition of Texas roads.

Other Condition Assessments

A separate annual inspection report is performed on the Central Texas Turnpike System in accordance with Section 707 of the Indenture of Trust. Those inspections are performed by the general engineering consultant (GEC) of the Central Texas Turnpike System. The fiscal 2012 inspection noted that the Central Texas Turnpike System roadways were in an overall excellent condition, achieving an overall score of 95 percent. While the GEC inspection uses the same general criteria as TxMAP, both parties have different areas of focus when performing their evaluations resulting in slight differences. In addition, there are other differences in evaluation timing and methodology which may contribute to the difference in scores; it is performed at a different time of the year, covers all 65 miles of the system instead of using a random sample of 20 percent, and uses a more detailed breakdown of each criteria.

Other Supplementary Information

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State Highway Fund Accounts

Combining Financial Statements

TxDOT reports the following accounts/sub-funds, which are consolidated into the state highway fund for the financial statements.

- **State Highway Fund Accounts** – These funds contain the activity related to public road construction, maintenance and monitoring of the state’s highway system. The significant ongoing revenue sources are federal revenues and motor fuels taxes, which are constitutionally restricted and dedicated to the highway fund.

Appropriated Fund: 0006

USAS D23 Funds: 0006, 0016-0019, 0121-0122, 0130, 0513-0515, 0161-0162, 0820 and 8006

- **State Infrastructure Bank Accounts** – This fund operates as a revolving loan program that makes loans to public and private entities to encourage the development of transportation projects and facilities.

Appropriated Fund: 0006

USAS D23 Fund: 0099

- **Federal American Recovery and Reinvestment Fund** – This fund was created to record, track and report the receipt and disbursement of American Recovery and Reinvestment Act (ARRA) funding.

Appropriated Fund: 0369

USAS D23 Fund: 0369

Texas Department of Transportation
Combining Balance Sheet – State Highway Fund
August 31, 2012 (Amounts in Thousands)

	State Highway Fund - Major Special Revenue Fund			
	State Highway Fund Accounts	State Infrastructure Bank	Federal American Recovery & Reinvestment Fund	TOTAL
ASSETS				
Cash and Cash Equivalents:				
Cash on Hand	\$ 398	\$	\$	398
Cash in Bank	597			597
Cash in State Treasury	3,432,058	137,549		3,569,607
Receivables:				
Taxes	218,717			218,717
Federal	327,551			327,551
Other Intergovernmental	60,539			60,539
Interest and Dividends		8,189		8,189
Accounts Receivable	33,510			33,510
Due from Other Funds	51,383			51,383
Due from Other Agencies	197,597			197,597
Prepaid Items	2,097			2,097
Consumable Inventories	123,306			123,306
Loans and Contracts	84,880	307,446		392,326
Total Assets	4,532,633	453,184	0	4,985,817
LIABILITIES AND FUND BALANCES:				
Liabilites:				
Payables:				
Accounts Payable	873,535			873,535
Contracts Payable	8,135			8,135
Payroll Payable	59,777			59,777
Due to Other Funds	533			533
Due to Other Agencies	52,017			52,017
Deferred Revenues	3,261,296			3,261,296
Total Liabilities	4,255,293	0	0	4,255,293
Fund Balances (Deficits):				
Nonspendable				
Inventory	123,306			123,306
Prepaid Items	2,097			2,097
Restricted	461,081	453,184		914,265
Committed	201,935			201,935
Unassigned	(511,079)			(511,079)
Total Fund Balances	277,340	453,184	0	730,524
Total Liabilities and Fund Balances	\$ 4,532,633	\$ 453,184	\$ 0	\$ 4,985,817

Texas Department of Transportation
Combining Statement of Revenues, Expenditures and
Changes in Fund Balances – State Highway Fund
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	State Highway Fund - Major Special Revenue Fund			
	State Highway Fund Accounts	State Infrastructure Bank	Federal American Recovery & Reinvestment Fund	TOTAL
REVENUES:				
Taxes	\$ 2,366,486	\$	\$	\$ 2,366,486
Federal Revenues	2,525,989		297,791	2,823,780
Federal Pass-Through Revenues	5,811			5,811
Licenses, Fees and Permits	120,952			120,952
Interest & Investment Income	21,288	16,439		37,727
Land Income	9,650			9,650
Settlement of Claims	22,715			22,715
Sales of Goods and Services	7,871			7,871
Other Revenues	866			866
Total Revenues	<u>5,081,628</u>	<u>16,439</u>	<u>297,791</u>	<u>5,395,858</u>
EXPENDITURES:				
Transportation:				
Planning and Construction	963,182		28,642	991,824
Maintenance and Preservation	2,224,593		9	2,224,602
Public Transportation and Safety	244,213		5,325	249,538
Administration	193,113			193,113
Capital Outlay	2,385,290		263,815	2,649,105
Principal on Pass-Through Tolls	57,846			57,846
Other Financing Fees	5,132			5,132
Total Expenditures	<u>6,073,369</u>	<u>0</u>	<u>297,791</u>	<u>6,371,160</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	<u>(991,741)</u>	<u>16,439</u>	<u>0</u>	<u>(975,302)</u>
OTHER FINANCING SOURCES (USES):				
Operating Transfers In	1,721,623			1,721,623
Operating Transfers Out	(1,063,308)			(1,063,308)
Sale of Capital Assets	11,064			11,064
Total Other Financing Sources (Uses)	<u>669,379</u>	<u>0</u>	<u>0</u>	<u>669,379</u>
Net Change in Fund Balances	<u>(322,362)</u>	<u>16,439</u>	<u>0</u>	<u>(305,923)</u>
Fund Balances, September 1, 2011	599,702	436,745		1,036,447
Fund Balances, August 31, 2012	<u>\$ 277,340</u>	<u>\$ 453,184</u>	<u>\$ 0</u>	<u>\$ 730,524</u>

Texas Department of Transportation
Combining Balance Sheet – Nonmajor Governmental Funds
August 31, 2012 (Amounts in Thousands)

	General Fund	Special Revenue Fund*	Debt Service Fund**	Capital Projects Funds	Total Nonmajor Funds
ASSETS					
Cash and Cash Equivalents:					
Cash in Bank	\$	\$ 101	\$	\$	\$ 101
Cash in State Treasury	381		145,466	548,934	694,781
Legislative Appropriations	72,866				72,866
Federal Receivables	5,226		11,262		16,488
Due from Other Funds		533			533
Due from Other Agencies	465				465
Loans and Contracts	245				245
Other Assets		3			3
Total Assets	<u>79,183</u>	<u>637</u>	<u>156,728</u>	<u>548,934</u>	<u>785,482</u>
LIABILITIES AND FUND BALANCES					
Liabilities:					
Payables:					
Accounts Payable	2,954	467		56,514	59,935
Payroll Payable	99				99
Due to Other Funds	50			31,764	31,814
Deferred Revenues				359,733	359,733
Total Liabilities	<u>3,103</u>	<u>467</u>	<u>0</u>	<u>448,011</u>	<u>451,581</u>
Fund Balances:					
Nonspendable	200				200
Restricted			156,728	100,923	257,651
Committed	330				330
Assigned		170			170
Unassigned	<u>75,550</u>				<u>75,550</u>
Total Fund Balances	<u>76,080</u>	<u>170</u>	<u>156,728</u>	<u>100,923</u>	<u>333,901</u>
Total Liabilities and Fund Balances	<u>\$ 79,183</u>	<u>\$ 637</u>	<u>\$ 156,728</u>	<u>\$ 548,934</u>	<u>\$ 785,482</u>

* Texas Transportation Corporations (Appropriated Fund 9999) - no combining statements presented.

** Proposition 14/State Highway Fund Debt Service (Appropriated Fund 0008) - no combining statements presented.

Texas Department of Transportation
Combining Statement of Revenues, Expenditures and
Changes in Fund Balances – Nonmajor Governmental Funds
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	General Fund	Special Revenue Fund*	Debt Service Fund**	Capital Projects Funds	Total Nonmajor Funds
REVENUES:					
Legislative Appropriations:					
Original Appropriations	\$ 116,562	\$	\$	\$	\$ 116,562
Additional Appropriations	237				237
Federal Revenues	12,543		27,029		39,572
Licenses, Fees and Permits	7				7
Interest and Investment Income			787	3,310	4,097
Sales of Goods and Services	911			180,962	181,873
Other Revenues		1,590			1,590
Total Revenues	<u>130,260</u>	<u>1,590</u>	<u>27,816</u>	<u>184,272</u>	<u>343,938</u>
EXPENDITURES:					
Transportation:					
Planning and Construction	16,751	2,025			18,776
Public Transportation and Safety	2,143				2,143
Capital Outlay	706			565,456	566,162
Principal on State Bonds	20,160		114,510		134,670
Interest on State Bonds	43,397		200,386		243,783
Other Financing Fees	456				456
Total Expenditures	<u>83,613</u>	<u>2,025</u>	<u>314,896</u>	<u>565,456</u>	<u>965,990</u>
Excess (Deficiency) of Revenues					
Over (Under) Expenditures	<u>46,647</u>	<u>(435)</u>	<u>(287,080)</u>	<u>(381,184)</u>	<u>(622,052)</u>
OTHER FINANCING SOURCES (USES):					
Operating Transfers In	15,115		287,581		302,696
Operating Transfers Out	(2,589)			(180,962)	(183,551)
Sale of Capital Assets	2,176				2,176
Appropriations Lapsed	(63,897)				(63,897)
Total Other Financing Sources (Uses)	<u>(49,195)</u>	<u>0</u>	<u>287,581</u>	<u>(180,962)</u>	<u>57,424</u>
Net Change in Fund Balances	<u>(2,548)</u>	<u>(435)</u>	<u>501</u>	<u>(562,146)</u>	<u>(564,628)</u>
Fund Balances, September 1, 2011	78,628	605	156,227	663,069	898,529
Fund Balances, August 31, 2012	<u>\$ 76,080</u>	<u>\$ 170</u>	<u>\$ 156,728</u>	<u>\$ 100,923</u>	<u>\$ 333,901</u>

* Texas Transportation Corporations (Appropriated Fund 9999) - no combining statements presented.

** Proposition 14/State Highway Fund Debt Service (Appropriated Fund 0008) - no combining statements presented.

Texas Department of Transportation
Combining Balance Sheet – General Fund Accounts
 August 31, 2012 (Amounts in Thousands)

	General Fund	Traffic Safety- Crash Records Information Systems	Texas Highway Beautification	Colonias Projects Fund *	Suspense Fund	TOTAL
ASSETS:						
Cash and Cash Equivalents:						
Cash in State Treasury	\$	\$	\$ 330	\$	\$ 51	\$ 381
Legislative Appropriations	72,866					72,866
Federal Receivables	5,226					5,226
Due from Other Agencies				465		465
Loans and Contracts	245					245
Total Assets	<u>78,337</u>	<u>0</u>	<u>330</u>	<u>465</u>	<u>51</u>	<u>79,183</u>
LIABILITIES AND FUND BALANCES						
Liabilities:						
Payables:						
Accounts Payable	2,488			465	1	2,954
Payroll Payable	99					99
Due to Other Funds					50	50
Total Liabilities	<u>2,587</u>	<u>0</u>	<u>0</u>	<u>465</u>	<u>51</u>	<u>3,103</u>
FUND BALANCES:						
Nonspendable	200					200
Committed			330			330
Unassigned	75,550					75,550
Total Fund Balances	<u>75,750</u>	<u>0</u>	<u>330</u>	<u>0</u>	<u>0</u>	<u>76,080</u>
Total Liabilities and Fund Balances	<u>\$ 78,337</u>	<u>\$ 0</u>	<u>\$ 330</u>	<u>\$ 465</u>	<u>\$ 51</u>	<u>\$ 79,183</u>

* The Colonias Projects Fund was previously reported as a capital projects fund.

Texas Department of Transportation
Combining Statement of Revenues, Expenditures and
Changes in Fund Balances – General Fund Accounts
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	General Fund	Traffic Safety- Crash Records Information Systems	Texas Highway Beautification	Colonias Projects Fund *	Suspense Fund	TOTAL
REVENUES:						
Legislative Appropriations:						
Original Appropriations	\$ 116,562	\$	\$		\$	116,562
Additional Appropriations	237					237
Federal Revenue	12,543					12,543
Licenses, Fees and Permits			7			7
Sale of Goods & Services	925		(14)			911
Total Revenues	<u>130,267</u>	<u>0</u>	<u>(7)</u>	<u>0</u>	<u>0</u>	<u>130,260</u>
EXPENDITURES:						
Transportation:						
Planning and Construction	2,386			14,365		16,751
Public Transportation and Safety	1,393	750				2,143
Capital Outlay	706					706
Principal on State Bonds	20,160					20,160
Interest on State Bonds	43,397					43,397
Other Financing Fees	456					456
Total Expenditures	<u>68,498</u>	<u>750</u>	<u>0</u>	<u>14,365</u>	<u>0</u>	<u>83,613</u>
Excess (Deficiency) of Revenues Over (Under) Expenditures	<u>61,769</u>	<u>(750)</u>	<u>(7)</u>	<u>(14,365)</u>	<u>0</u>	<u>46,647</u>
OTHER FINANCING SOURCES (USES):						
Operating Transfers In		750		14,365		15,115
Operating Transfers Out	(2,589)					(2,589)
Sale of Capital Assets	2,176					2,176
Appropriations Lapsed	(63,897)					(63,897)
Total Other Financing Sources (Uses)	<u>(64,310)</u>	<u>750</u>	<u>0</u>	<u>14,365</u>	<u>0</u>	<u>(49,195)</u>
Net Change in Fund Balances	<u>(2,541)</u>	<u>0</u>	<u>(7)</u>	<u>0</u>	<u>0</u>	<u>(2,548)</u>
Fund Balances, September 1, 2011	78,291		337			78,628
Fund Balances, August 31, 2012	<u>\$ 75,750</u>	<u>\$ 0</u>	<u>\$ 330</u>	<u>\$ 0</u>	<u>0</u>	<u>\$ 76,080</u>

* The Colonias Projects Fund was previously reported as a capital projects fund.

Texas Department of Transportation
Combining Balance Sheet – Nonmajor Capital Projects Funds
August 31, 2012 (Amounts in Thousands)

	Proposition 12 Highway Improvement Project Fund	Local Government, Political Subdivision Road/Airport Account*	TOTAL
ASSETS			
Cash and Cash Equivalents:			
Cash in State Treasury	\$ 188,699	\$ 360,235	\$ 548,934
Total Assets	<u>188,699</u>	<u>360,235</u>	<u>548,934</u>
LIABILITIES AND FUND BALANCES:			
Liabilities:			
Payables:			
Accounts Payable	56,514		56,514
Due to Other Funds	31,262	502	31,764
Deferred Revenues		359,733	359,733
Total Liabilities	<u>87,776</u>	<u>360,235</u>	<u>448,011</u>
FUND BALANCES:			
Restricted	<u>100,923</u>		<u>100,923</u>
Total Fund Balances	<u>100,923</u>	<u>0</u>	<u>100,923</u>
Total Liabilities and Fund Balances	\$ <u>188,699</u>	\$ <u>360,235</u>	\$ <u>548,934</u>

* Previously reported as an agency fund. See Note 20 for more details.

Texas Department of Transportation
Combining Statement of Revenues, Expenditures and
Changes in Fund Balances – Nonmajor Capital Projects Funds
For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	Proposition 12 Highway Improvement Project Fund	Local Government, Political Subdivision Road/Airport Account*	TOTAL
REVENUES:			
Interest & Investment Income	\$ 3,310	\$	\$ 3,310
Sales of Goods & Services		180,962	180,962
Total Revenues	3,310	180,962	184,272
EXPENDITURES:			
Capital Outlay	565,456		565,456
Total Expenditures	565,456	0	565,456
Excess (Deficiency) of Revenues Over (Under) Expenditures	(562,146)	180,962	(381,184)
OTHER FINANCING SOURCES (USES):			
Operating Transfers Out		(180,962)	(180,962)
Total Other Financing Sources (Uses)	0	(180,962)	(180,962)
Net Change in Fund Balances	(562,146)	0	(562,146)
Fund Balances, September 1, 2011	663,069		663,069
Fund Balances, August 31, 2012	\$ 100,923	\$ 0	\$ 100,923

* Previously reported as an agency fund. See Note 20 for more details.

Texas Department of Transportation
Combining Statement of Changes in Assets and Liabilities –
Agency Funds

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	Balances September 1, 2011	Additions	Deductions	Balances August 31, 2012
	\$	\$	\$	\$
UNAPPROPRIATED RECEIPTS				
<u>General Revenue Fund (0001), U/F (1001) *</u>				
Assets:				
Cash on Hand	0	15,684	15,684	0
Total Assets	0	15,684	15,684	0
Liabilities:				
Funds Held for Others	0	15,684	15,684	0
Total Liabilities	0	15,684	15,684	0
OTHER AGENCY FUNDS				
<u>Child Support-Employee Deduction</u>				
<u>Account (0807), U/F (0807) *</u>				
Assets:				
Cash in State Treasury	241	3,467	3,453	255
Total Assets	241	3,467	3,453	255
Liabilities:				
Funds Held for Others	241	3,467	3,453	255
Total Liabilities	241	3,467	3,453	255
<u>Direct Deposit Correction</u>				
<u>Account (0980), U/F (0980 and 9014) *</u>				
Assets:				
Cash in State Treasury	154	24,445	24,255	344
Total Assets	154	24,445	24,255	344
Liabilities:				
Funds Held for Others	154	24,445	24,255	344
Total Liabilities	154	24,445	24,255	344

Concluded on the following page.

* Appropriated Fund is noted as (XXXX), USAS D23 Fund is noted as U/F (XXXX)

Texas Department of Transportation
Combining Statement of Changes in Assets and Liabilities –
Agency Funds (concluded)

For the Fiscal Year Ended August 31, 2012 (Amounts in Thousands)

	Balances September 1, 2011	Additions	Deductions	Balances August 31, 2012
	\$	\$	\$	\$
OTHER AGENCY FUNDS				
Toll Revenue Custodial Account				
<u>Account (9999), U/F (0997)*</u>				
Assets:				
Cash on Hand	23	33	23	33
Cash in Bank	18,902	152,733	151,931	19,704
Total Assets	<u>18,925</u>	<u>152,766</u>	<u>151,954</u>	<u>19,737</u>
Liabilities:				
Funds Held for Others	18,925	152,766	151,954	19,737
Total Liabilities	<u>18,925</u>	<u>152,766</u>	<u>151,954</u>	<u>19,737</u>
TOTALS - ALL AGENCY FUNDS				
Assets:				
Cash on Hand	23	15,717	15,707	33
Cash in Bank	18,902	152,733	151,931	19,704
Cash in State Treasury	395	27,912	27,708	599
Total Assets	<u>19,320</u>	<u>196,362</u>	<u>195,346</u>	<u>20,336</u>
Liabilities:				
Funds Held for Others	19,320	196,362	195,346	20,336
Total Liabilities	<u>\$ 19,320</u>	<u>\$ 196,362</u>	<u>\$ 195,346</u>	<u>\$ 20,336</u>

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Other Information

Schedules*

1A – Schedule of Expenditures of Federal Awards (unaudited)

1B – Schedule of State Grant Pass-Throughs (unaudited)

2A – Miscellaneous Bond Information

2B – Changes in Bonded Indebtedness

2C – Debt Service Requirements

2D– Analysis of Funds Available for Debt Service

* All schedules are presented unrounded (in dollars and cents).

Texas Department of Transportation
Schedule 1A – Schedule of Expenditures of Federal Awards
For the Fiscal Year Ended August 31, 2012

Federal Grantor/ Pass-Through Grantor/ Program Title	Federal CFDA Number	Pass-Through From			Direct Program Amount
		Agency Number	State Entities	Other Entities	
		\$	\$	\$	
<u><i>Federal Aviation Administration (FAA):</i></u>					
Direct Program:					
Airport Improvement Program - ARRA	20.106				398,399.00
Airport Improvement Program	20.106				58,543,936.06
Pass-Through Funds to Other Entities:					
Airport Improvement Program	20.106				485,122.19
Total FAA:			0.00	0.00	59,427,457.25
<u><i>Federal Motor Carrier Safety Administration:</i></u>					
Direct Program:					
Commercial Vehicle Information Systems and Networks	20.237				60,014.62
Total Federal Motor Carrier Safety Administration:			0.00	0.00	60,014.62
<u><i>Federal Railroad Administration:</i></u>					
Direct Program:					
Rail Line Relocation and Improvement	20.320				1,000,000.00
Total Federal Railroad Administration:			0.00	0.00	1,000,000.00
<u><i>Federal Transit Administration (FTA):</i></u>					
Direct Program:					
Formula Grants For Other Than Urbanized Areas	20.509				1,402,005.39
Public Transportation Research	20.514				50,881.51
State Planning and Research	20.515				790,795.20
Pass-Through Funds:					
Formula Grants For Other Than Urbanized Areas	20.509				57,187.56
Pass-Through Funds to Other Entities:					
Federal Transit Metropolitan Planning Grants	20.505				6,009,626.37
Formula Grants For Other Than Urbanized Areas - ARRA	20.509				5,367,631.54
Formula Grants For Other Than Urbanized Areas	20.509				33,648,129.37
Public Transportation Research	20.514				22,859.81
State Planning and Research	20.515				759,783.63
Total FTA:			0.00	0.00	48,108,900.38
<u><i>National Highway Traffic Safety Admin. (NHTSA):</i></u>					
Pass-Through Funds to Other Entities:					
NHTSA Discretionary Safety Grants	20.614				284,872.87
Total NHTSA:			0.00	0.00	284,872.87
<u><i>General Services Administration (GSA):</i></u>					
Pass-Through Funds:					
Donation of Federal Surplus Personal Property (NON-MONETARY)					
Pass-Through from Texas Facilities Commission	39.003	303	14,057.71		
Total GSA:			14,057.71	0.00	0.00
<u><i>Environmental Protection Agency (EPA):</i></u>					
Pass-Through Funds:					
Performance Partnership Grants					
Pass-Through from Texas Comm. On Environmental Qualit	66.605	582	100,000.00		
Total EPA:			100,000.00	0.00	0.00

- Continued on Next Page

Annual Financial Report

Total Pass-Through From and Direct Program	Pass-Through To			Expenditures	Total Pass-Through To and Expenditures Amount
	Agency Number	State Entities	Other Entities		
\$	\$	\$	\$	\$	\$
398,399.00				398,399.00	398,399.00
58,543,936.06				58,543,936.06	58,543,936.06
485,122.19			485,122.19		485,122.19
59,427,457.25		0.00	485,122.19	58,942,335.06	59,427,457.25
60,014.62				60,014.62	60,014.62
60,014.62		0.00	0.00	60,014.62	60,014.62
1,000,000.00				1,000,000.00	1,000,000.00
1,000,000.00		0.00	0.00	1,000,000.00	1,000,000.00
1,402,005.39				1,402,005.39	1,402,005.39
50,881.51				50,881.51	50,881.51
790,795.20				790,795.20	790,795.20
57,187.56	711	57,187.56			57,187.56
6,009,626.37			6,009,626.37		6,009,626.37
5,367,631.54			5,367,631.54		5,367,631.54
33,648,129.37			33,648,129.37		33,648,129.37
22,859.81			22,859.81		22,859.81
759,783.63			759,783.63		759,783.63
48,108,900.38		57,187.56	45,808,030.72	2,243,682.10	48,108,900.38
284,872.87			284,872.87		284,872.87
284,872.87		0.00	284,872.87	0.00	284,872.87
14,057.71				14,057.71	14,057.71
14,057.71		0.00	0.00	14,057.71	14,057.71
100,000.00				100,000.00	100,000.00
100,000.00		0.00	0.00	100,000.00	100,000.00

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Texas Department of Transportation
Schedule 1A – Schedule of Expenditures of Federal Awards (Continued)
For the Fiscal Year Ended August 31, 2012

Federal Grantor/ Pass-Through Grantor/ Program Title	Federal CFDA Number	Pass-Through From			Direct Program Amount
		Agency Number	State Entities	Other Entities	
		\$		\$	\$
<u>Department of Energy:</u>					
Pass-Through Funds:					
Conservation Research and Development - ARRA					
Pass-Through from Texas Railroad Commission	81.086	455	259,000.00		
Total Department of Energy:			259,000.00	0.00	0.00
<i>Other Clusters</i>					
<i>Public Assistance Cluster:</i>					
<u>Department of Homeland Security (DHS):</u>					
Pass-Through Funds:					
Disaster Grants - Public Assistance					
Pass-Through from Texas Department of Public Safety	97.036	405	5,451,591.78		
Total DHS:			5,451,591.78	0.00	0.00
<i>Federal Transit Cluster:</i>					
<u>Federal Transit Administration (FTA):</u>					
Pass-Through Funds to Other Entities:					
Federal Transit - Capital Investment Grants	20.500				3,862,881.13
Total FTA:			0.00	0.00	3,862,881.13
<i>Transit Services Programs Cluster:</i>					
<u>Federal Transit Administration (FTA):</u>					
Direct Program:					
Capital Assistance Program for Elderly Persons and Persons with Disabilities	20.513				505,653.73
Job Access - Reverse Commute	20.516				110,624.35
New Freedom Program	20.521				70,130.63
Pass-Throughs to Other Entities:					
Capital Assistance Program for Elderly Persons and Persons with Disabilities	20.513				7,921,908.41
Job Access - Reverse Commute	20.516				5,420,593.19
New Freedom Program	20.521				3,436,400.69
Total FTA:			0.00	0.00	17,465,311.00
<i>Highway Planning and Construction Cluster:</i>					
<u>Federal Highway Administration (FHWA):</u>					
Direct Program:					
Highway Planning and Construction - ARRA	20.205				204,549,716.74
Highway Planning and Construction	20.205				2,173,397,131.14
Pass-Through Funds:					
Highway Planning and Construction					
Texas A & M University	20.205				7,792,333.06
Prairie View A & M University	20.205				44,062.62
University of Texas - Austin	20.205				95,341.95
University of Texas - El Paso	20.205				45,309.36
Texas Transportation Institute	20.205				1,022.19
Texas Historical Commission	20.205				1,605,624.08
Pass-Through to Other Entities - ARRA	20.205				87,475,802.69
Pass-Through to Other Entities	20.205				185,271,750.71
Total FHWA:			0.00	0.00	2,660,278,094.54

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Total Pass-Through From and Direct Program	Pass-Through To			Expenditures	Total Pass-Through To and Expenditures Amount
	Agency Number	State Entities	Other Entities		
\$	\$	\$	\$	\$	\$
259,000.00				259,000.00	259,000.00
259,000.00		0.00	0.00	259,000.00	259,000.00
5,451,591.78				5,451,591.78	5,451,591.78
5,451,591.78		0.00	0.00	5,451,591.78	5,451,591.78
3,862,881.13			3,862,881.13		3,862,881.13
3,862,881.13		0.00	3,862,881.13	0.00	3,862,881.13
505,653.73				505,653.73	505,653.73
110,624.35				110,624.35	110,624.35
70,130.63				70,130.63	70,130.63
7,921,908.41			7,921,908.41		7,921,908.41
5,420,593.19			5,420,593.19		5,420,593.19
3,436,400.69			3,436,400.69		3,436,400.69
17,465,311.00		0.00	16,778,902.29	686,408.71	17,465,311.00
204,549,716.74				204,549,716.74	204,549,716.74
2,173,397,131.14				2,173,397,131.14	2,173,397,131.14
7,792,333.06	711	7,792,333.06			7,792,333.06
44,062.62	715	44,062.62			44,062.62
95,341.95	721	95,341.95			95,341.95
45,309.36	724	45,309.36			45,309.36
1,022.19	727	1,022.19			1,022.19
1,605,624.08	808	1,605,624.08			1,605,624.08
87,475,802.69			87,475,802.69		87,475,802.69
185,271,750.71			185,271,750.71		185,271,750.71
2,660,278,094.54		9,583,693.26	272,747,553.40	2,377,946,847.88	2,660,278,094.54

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Texas Department of Transportation
Schedule 1A – Schedule of Expenditures of Federal Awards (Concluded)
For the Fiscal Year Ended August 31, 2012

Federal Grantor/ Pass-Through Grantor/ Program Title	Federal CFDA Number	Pass-Through From			Direct Program Amount
		Agency Number	State Entities	Other Entities	
		\$	\$	\$	\$
<i>Highway Safety Cluster:</i>					
<i>National Highway Traffic Safety Admin. (NHTSA):</i>					
Direct Program:					
State and Community Highway Safety Program	20.600				5,596.66
Pass-Through Funds:					
State and Community Highway Safety Program					
Texas Department of Public Safety	20.600				429,146.07
Texas Department of State Health Services	20.600				555,659.86
Texas Cooperative Extension	20.600				215,486.17
University of Texas at Arlington	20.600				527,986.99
Texas A & M Engineering Extension Service	20.600				610,735.69
Texas Transportation Institute	20.600				1,054,050.72
Texas State University	20.600				52,975.37
Texas A & M University - Corpus Christi	20.600				45,116.78
Alcohol Impaired Driving Countermeasures Incentive Grants					
Texas Department of Public Safety	20.601				166,325.74
Texas Alcoholic Beverage Commission	20.601				243,133.40
Texas Cooperative Extension	20.601				234,056.13
Texas Transportation Institute	20.601				577,548.44
Sam Houston State University	20.601				810,601.21
Texas State University	20.601				63,548.53
University of Houston - Downtown	20.601				185,069.37
Occupant Protection Incentive Grants					
Texas Transportation Institute	20.602				45,085.43
Safety Belt Performance Grants					
Texas Transportation Institute	20.609				298,910.67
State Traffic Safety Information System Improvement Grants					
Texas Department of State Health Services	20.610				577,692.61
Pass-Through to Other Entities					
State and Community Highway Safety Program	20.600				9,730,236.36
Alcohol Impaired Driving Countermeasures Incentive Grants	20.601				12,424,921.08
Occupant Protection Incentive Grants	20.602				2,531,841.45
Safety Belt Performance Grants	20.609				0.00
State Traffic Safety Information System Improvement Grants	20.610				197,542.13
Incentive Grant Program to Increase Motorcyclist Safety	20.612				523,073.09
Child Safety and Child Booster Seats Incentive Grants	20.613				1,186,543.58
Total NHTSA:		0.00	0.00		33,292,883.53
Total Other Clusters		5,451,591.78	0.00		2,714,899,170.20
TOTAL FEDERAL ASSISTANCE		\$ 5,824,649.49	\$ 0.00	\$	2,823,780,415.32

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Total Pass-Through From and Direct Program	Pass-Through To			Expenditures	Total Pass-Through To and Expenditures Amount
	Agency Number	State Entities	Other Entities		
\$		\$	\$	\$	\$
5,596.66				5,596.66	5,596.66
429,146.07	405	429,146.07			429,146.07
555,659.86	537	555,659.86			555,659.86
215,486.17	555	215,486.17			215,486.17
527,986.99	714	527,986.99			527,986.99
610,735.69	716	610,735.69			610,735.69
1,054,050.72	727	1,054,050.72			1,054,050.72
52,975.37	754	52,975.37			52,975.37
45,116.78	760	45,116.78			45,116.78
166,325.74	405	166,325.74			166,325.74
243,133.40	458	243,133.40			243,133.40
234,056.13	555	234,056.13			234,056.13
577,548.44	727	577,548.44			577,548.44
810,601.21	753	810,601.21			810,601.21
63,548.53	754	63,548.53			63,548.53
185,069.37	784	185,069.37			185,069.37
45,085.43	727	45,085.43			45,085.43
298,910.67	727	298,910.67			298,910.67
577,692.61	537	577,692.61			577,692.61
9,730,236.36			9,730,236.36		9,730,236.36
12,424,921.08			12,424,921.08		12,424,921.08
2,531,841.45			2,531,841.45		2,531,841.45
0.00			0.00		0.00
197,542.13			197,542.13		197,542.13
523,073.09			523,073.09		523,073.09
1,186,543.58			1,186,543.58		1,186,543.58
33,292,883.53		6,693,129.18	26,594,157.69	5,596.66	33,292,883.53
2,720,350,761.98		16,276,822.44	319,983,494.51	2,384,090,445.03	2,720,350,761.98
\$ 2,829,605,064.81		\$ 16,334,010.00	\$ 366,561,520.29	\$ 2,446,709,534.52	\$ 2,829,605,064.81

Notes to the Schedule of Expenditures of Federal Awards

For the Fiscal Year Ended August 31, 2012

Note 1 - Nonmonetary Assistance

The "Donation of Federal Surplus Personal Property" is presented at 23.3% of the federal acquisition cost of \$ 60,333.50. The surplus property is passed through from the Texas Facilities Commission. The federal grantor agency is the General Services Administration (GSA) and the federal CFDA number is 39.003. The estimated fair value for fiscal year 2012 is \$14,057.71. The difference of the values of the surplus property recorded on the federal schedule and Exhibit II (Federal Revenues) is a reconciling item below.

Note 2 - Reconciliation

Per Combined Statement of Revenues, Expenditures, and Changes in Fund
Balances Governmental Funds :

Federal Revenues before Other Adjustments	\$2,886,656,543.00
Federal Pass Through Revenues	5,810,591.78
Subtotal	<u>\$2,892,467,134.78</u>

Reconciling Items:

Federal Surplus Personal Property Donation (Non-Monetary)	14,057.71
Build America Bonds Federal Subsidy	<u>(62,876,127.68)</u>

Total Pass-Through and Expenditures per Federal Schedule	<u><u>\$2,829,605,064.81</u></u>
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Note 3 - Federal Deferred Revenue

Federal Deferred Revenue 9/1/11	\$24,736,517.00
Increase (Decrease)	5,419,511.39
Federal Deferred Revenue 8/31/12	<u><u>\$30,156,028.39</u></u>

The federal deferred revenue ending balance of \$30,156,028.39 pertains to federal expenditures which were incurred and are reimbursable from the Federal Highway Administration but the federal revenue is not collectable within 60 days after the end of the fiscal year. Federal CFDA number 20.205 applies to this \$30,156,028.39.

Texas Department of Transportation
Schedule 1B – Schedule of State Pass-Through Grants From/To State Agencies
For the Fiscal Year Ended August 31, 2012

Pass-Through To:

Routine Airport Maintenance Grants	
Texas A&M University (Agency #711)	\$ 100,000.00
Research and Development Grants	
University of Texas at Arlington (Agency #714)	<u>764,460.47</u>
Total Pass-Through To Other Agencies	\$ <u>864,460.47</u>

Texas Department of Transportation
Schedule 2A – Miscellaneous Bond Information
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Bonds Issued to Date	Range of Interest Rates		Terms of Variable Interest Rates *	Scheduled Maturities		First Call Date
					First Year	Last Year	
General Obligation Bonds:							
Texas Mobility Fund (Self-Supporting)							
Series 2005-A Fixed Rate Bonds	\$900,000,000.00	3.9000%	5.0000%	Weekly	2006	2035	4/1/2015
Series 2005-B Variable Rate Bonds	100,000,000.00	VAR	VAR		2030	2030	**
Series 2006 Fixed Rate Bonds	750,000,000.00	3.6250%	5.0000%		2007	2036	4/1/2016
Series 2006-A Fixed Rate Bonds	1,040,275,000.00	4.0000%	5.0000%	Weekly	2007	2035	4/1/2017
Series 2006-B Variable Rate Bonds	150,000,000.00	VAR	VAR		2036	2036	**
Series 2007 Fixed Rate Bonds	1,006,330,000.00	4.0000%	5.0000%		2008	2037	4/1/2017
Series 2008 Fixed Rate Bonds	1,100,000,000.00	4.0000%	5.0000%		2009	2037	4/1/2018
Series 2009-A Taxable Fixed Rate Bonds	1,208,495,000.00	5.3670%	5.5170%		2029	2039	**
Total General Obligation Bonds (Self-Supporting)	<u>6,255,100,000.00</u>						
Texas Highway Improvement (Non-Self-Supporting)							
Series 2010-A Taxable Fixed Rate Bonds	815,420,000.00	3.2030%	4.6810%		2019	2040	**
Series 2010-B Fixed Rate Bonds	162,390,000.00	2.0000%	5.0000%		2012	2018	n/a
Total General Obligation (Non-Self-Supporting)	<u>977,810,000.00</u>						
Revenue Bonds:							
State Highway Fund (Self-Supporting)							
Series 2006 Fixed Rate Bonds	600,000,000.00	4.0000%	5.0000%	Weekly	2007	2026	4/1/2016
Series 2006-A Fixed Rate Bonds	852,550,000.00	4.0000%	5.2500%		2008	2025	4/1/2016
Series 2006-B Variable Rate Bonds	100,000,000.00	VAR	VAR		2026	2026	**
Series 2007 Fixed Rate Bonds	1,241,845,000.00	4.0000%	5.0000%		2009	2027	4/1/2017
Series 2008 Fixed Rate Bonds	162,995,000.00	3.5000%	5.2500%		2010	2028	4/1/2018
Series 2010 Taxable Fixed Rate Bonds	1,500,000,000.00	5.0280%	5.1780%		2026	2030	**
Total Revenue Bonds (Self-Supporting)	<u>4,457,390,000.00</u>						
Total Governmental Activities	<u>\$11,690,300,000.00</u>						

* The variable rate bonds were variable based on weekly interest rate resets throughout fiscal 2012. These bonds may be converted to a daily mode, term rate mode, fixed rate mode, auction rate mode or a commercial paper mode at the option of the Commission or under certain conditions detailed in the applicable official statement.

** Bonds are subject to redemption prior to their respective maturities at the option of the Commission.

Concluded on the following page.

Texas Department of Transportation
Schedule 2A – Miscellaneous Bond Information (concluded)
For the Fiscal Year Ended August 31, 2012

Business-Type Activities

Description of Issue	Bonds Issued to Date	Range of Interest Rates		Terms of Variable Interest Rates	Scheduled Maturities		
					First Year	Last Year	First Call Date
Revenue Bonds (Self-Supporting):							
First Tier Revenue Bonds Series 2002-A							
Non-Callable Capital Appreciation Bonds ***	\$494,049,170.34	4.4700%	5.7500%		2012	2030	n/a
Callable Capital Appreciation Bonds ***	281,474,152.07	6.0000%	6.1000%		2025	2038	8/15/2012
Current Interest Bonds	707,875,000.00	5.0000%	5.7500%		2038	2042	8/15/2012
First Tier Revenue Refunding Put Bonds Series 2009	149,275,000.00	2.7500%****			2042	2042	2/15/2013
Total Business-Type Activities	<u>\$1,632,673,322.41</u>						

*** Bonds issued to date include interest accreted to principal through Aug. 31, 2012.

**** Bonds pay interest at 2.75 percent through the 24-month multi-annual period ending Feb. 15, 2013.

***** The Texas Private Activity Bond Surface Transportation Corporation Bonds are not obligations of the state and are not included in this schedule.

Texas Department of Transportation
Schedule 2B – Changes in Bonded Indebtedness
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description	Bonds Outstanding 9/01/2011	Bonds Issued	Bonds Matured or Retired	Bonds Refunded or Extinguished	Bonds Outstanding 8/31/2012
General Obligation Bonds:					
Texas Mobility Fund					
Series 2005-A	\$801,340,000.00		\$17,845,000.00		\$783,495,000.00
Series 2005-B	82,315,000.00		3,185,000.00		79,130,000.00
Series 2006	678,915,000.00		14,785,000.00		664,130,000.00
Series 2006-A	1,036,105,000.00		3,215,000.00		1,032,890,000.00
Series 2006-B	150,000,000.00				150,000,000.00
Series 2007	1,004,435,000.00		250,000.00		1,004,185,000.00
Series 2008	1,096,075,000.00		7,490,000.00		1,088,585,000.00
Series 2009-A	1,208,495,000.00				1,208,495,000.00
Texas Highway Improvement					
Series 2010-A	815,420,000.00				815,420,000.00
Series 2010-B	162,390,000.00		20,160,000.00		142,230,000.00
Total	7,035,490,000.00	0	66,930,000.00	0	6,968,560,000.00
Revenue Bonds:					
State Highway Fund					
Series 2006	497,035,000.00		23,105,000.00		473,930,000.00
Series 2006-A	716,785,000.00		38,155,000.00		678,630,000.00
Series 2006-B	100,000,000.00				100,000,000.00
Series 2007	1,112,710,000.00		47,295,000.00		1,065,415,000.00
Series 2008	151,915,000.00		5,955,000.00		145,960,000.00
Series 2010	1,500,000,000.00				1,500,000,000.00
Total	4,078,445,000.00		114,510,000.00	0	3,963,935,000.00
TOTAL	\$11,113,935,000.00		\$181,440,000.00	\$0	\$10,932,495,000.00

Continued on the following page.

Texas Department of Transportation
Schedule 2B – Changes in Bonded Indebtedness (continued)
For the Fiscal Year Ended August 31, 2012

Governmental Activities (continued)

	Unamortized Premium	Unamortized Discount	Unamortized Gain/(Loss) on Refunding	Net Bonds Outstanding 8/31/2012	Amounts Due Within One Year
General Obligation Bonds:					
Texas Mobility Fund					
Series 2005-A	\$27,370,959.02	\$169,702.92		\$810,696,256.10	\$20,729,324.76
Series 2005-B				79,130,000.00	3,290,000.00
Series 2006	15,024,873.69			679,154,873.69	16,569,229.60
Series 2006-A	25,928,179.55			1,058,818,179.55	5,823,119.29
Series 2006-B				150,000,000.00	
Series 2007	16,359,224.96			1,020,544,224.96	1,126,651.59
Series 2008	46,445,094.14			1,135,030,094.14	14,126,260.03
Series 2009-A				1,208,495,000.00	
Texas Highway Improvement					
Series 2010-A				815,420,000.00	
Series 2010-B	13,626,617.11			155,856,617.11	24,769,059.41
Total	144,754,948.47	169,702.92	0	7,113,145,245.55	86,433,644.68
Revenue Bonds:					
State Highway Fund					
Series 2006				473,930,000.00	24,240,000.00
Series 2006-A	35,231,879.06			713,861,879.06	42,785,144.55
Series 2006-B				100,000,000.00	
Series 2007	47,438,339.25			1,112,853,339.25	52,747,555.95
Series 2008	7,839,692.00			153,799,692.00	6,744,980.75
Series 2010				1,500,000,000.00	
Total	90,509,910.31	0	0	4,054,444,910.31	126,517,681.25
TOTAL	\$235,264,858.78	\$169,702.92	\$0	\$11,167,590,155.86	\$212,951,325.93

Continued on the following page.

Texas Department of Transportation
Schedule 2B – Changes in Bonded Indebtedness (concluded)
For the Fiscal Year Ended August 31, 2012

Business-Type Activities

Description	Bonds Outstanding 9/01/2011	Bonds Issued*	Bonds Matured or Retired	Bonds Refunded or Extinguished	Bonds Outstanding 8/31/2012
Revenue Bonds:					
First Tier Bonds Series 2002-A					
Non-Callable					
CABs	\$468,000,674.41	\$26,048,495.93	\$4,505,000.00		\$489,544,170.34
Callable CABs	265,119,937.97	16,354,214.10			281,474,152.07
CIBs	707,875,000.00				707,875,000.00
First Tier Refunding Put Bonds Series 2009	149,275,000.00				149,275,000.00
TOTAL	\$1,590,270,612.38	\$42,402,710.03	\$4,505,000.00	\$0	\$1,628,168,322.41
	Unamortized Premium	Unamortized Discount	Unamortized Gain/(Loss) on Refunding	Net Bonds Outstanding 8/31/2012	Amounts Due Within One Year
First Tier Bonds Series 2002-A					
Non-Callable					
CABs	\$1,803,339.92	\$3,444,017.50		\$487,903,492.76	\$7,618,851.25
Callable CABs	1,089,974.27	2,081,632.20		280,482,494.14	(38,140.69)
CIBs	5,179,793.37	9,892,366.26		703,162,427.11	(157,085.76)
First Tier Refunding Put Bonds Series 2009			(4,073,605.24)	145,201,394.76	(135,786.84)
TOTAL	\$8,073,107.56	\$15,418,015.96	\$(4,073,605.24)	\$1,616,749,808.77	\$7,287,837.96

* Due to annual principal accretion.

Texas Department of Transportation
Schedule 2C – Debt Service Requirements
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Year	Principal	Interest
TMF General Obligation Bonds			
Series 2005-A	2013	\$ 18,735,000.00	\$ 37,533,702.50
	2014	19,670,000.00	36,596,952.50
	2015	20,655,000.00	35,613,452.50
	2016	21,690,000.00	34,580,702.50
	2017	22,775,000.00	33,496,202.50
	2018-2022	128,470,000.00	152,871,307.50
	2023-2027	162,295,000.00	119,048,687.50
	2028-2032	219,110,000.00	74,036,925.00
	2033-2037	170,095,000.00	16,408,875.00
		<u>\$ 783,495,000.00</u>	<u>\$ 540,186,807.50</u>
Series 2005-B	2013	\$ 3,290,000.00	\$ 147,742.42
	2014	3,400,000.00	141,404.33
	2015	3,510,000.00	134,857.25
	2016	3,625,000.00	128,097.21
	2017	3,745,000.00	121,114.71
	2018-2022	20,670,000.00	492,446.75
	2023-2027	24,300,000.00	279,870.01
	2028-2032	16,590,000.00	50,592.24
		<u>\$ 79,130,000.00</u>	<u>\$ 1,496,124.92</u>
Series 2006	2013	\$ 15,485,000.00	\$ 32,859,912.50
	2014	16,225,000.00	32,115,562.50
	2015	16,940,000.00	31,405,037.50
	2016	17,770,000.00	30,572,037.50
	2017	18,630,000.00	29,714,162.50
	2018-2022	108,085,000.00	133,631,562.50
	2023-2027	137,755,000.00	103,966,737.50
	2028-2032	175,470,000.00	66,243,250.00
	2033-2037	157,770,000.00	18,684,750.00
		<u>\$ 664,130,000.00</u>	<u>\$ 479,193,012.50</u>
Series 2006-A	2013	\$ 4,185,000.00	\$ 49,506,900.00
	2014	5,115,000.00	49,339,500.00
	2015	6,045,000.00	49,134,900.00
	2016	6,955,000.00	48,893,100.00
	2017	8,895,000.00	48,614,900.00
	2018-2022	102,985,000.00	232,640,250.00
	2023-2027	223,925,000.00	195,721,950.00
	2028-2032	381,200,000.00	127,826,100.00
	2033-2037	293,585,000.00	26,330,250.00
		<u>\$ 1,032,890,000.00</u>	<u>\$ 828,007,850.00</u>

Texas Department of Transportation
Schedule 2C – Debt Service Requirements (continued)
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Year	Principal	Interest
TMF General Obligation Bonds			
Series 2006-B	2013	\$	\$ 285,000.00
	2014		285,000.00
	2015		285,000.00
	2016		285,000.00
	2017		285,000.00
	2018-2022		1,425,000.00
	2023-2027		1,425,000.00
	2028-2032		1,425,000.00
	2033-2037	150,000,000.00	983,459.00
		<u>\$ 150,000,000.00</u>	<u>\$ 6,683,459.00</u>
Series 2007	2013	\$ 250,000.00	\$ 48,739,262.50
	2014	2,350,000.00	48,729,262.50
	2015	5,130,000.00	48,635,262.50
	2016	8,125,000.00	48,430,062.50
	2017	10,890,000.00	48,105,062.50
	2018-2022	79,180,000.00	230,763,062.50
	2023-2027	129,675,000.00	206,381,925.00
	2028-2032	194,105,000.00	169,875,250.00
	2033-2037	574,480,000.00	112,605,025.00
		<u>\$ 1,004,185,000.00</u>	<u>\$ 962,264,175.00</u>
Series 2008	2013	\$ 11,245,000.00	\$ 52,792,075.00
	2014	13,625,000.00	52,229,825.00
	2015	15,645,000.00	51,548,575.00
	2016	17,765,000.00	50,766,325.00
	2017	19,465,000.00	49,878,075.00
	2018-2022	130,055,000.00	232,565,375.00
	2023-2027	192,910,000.00	194,163,125.00
	2028-2032	275,055,000.00	138,411,200.00
	2033-2037	412,820,000.00	64,548,225.00
		<u>\$ 1,088,585,000.00</u>	<u>\$ 886,902,800.00</u>

Texas Department of Transportation
Schedule 2C – Debt Service Requirements (continued)
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Year	Principal	Interest
TMF General Obligation Bonds			
Series 2009-A	2013	\$	\$ 66,582,669.16
	2014		66,582,669.16
	2015		66,582,669.16
	2016		66,582,669.16
	2017		66,582,669.16
	2018-2022	3,245,000.00	332,829,083.90
	2023-2027	31,745,000.00	329,482,759.38
	2028-2032	78,870,000.00	316,168,252.84
	2033-2037	146,180,000.00	287,642,587.52
	2038-3042	948,455,000.00	79,190,190.46
		\$ 1,208,495,000.00	\$ 1,678,226,219.90
Texas Highway Improvement General Obligation Bonds			
Series 2010-A	2013	\$	\$ 35,837,342.50
	2014		35,837,342.50
	2015		35,837,342.50
	2016		35,837,342.50
	2017		35,837,342.50
	2018-2022	114,520,000.00	173,595,128.10
	2023-2027	159,475,000.00	147,093,334.06
	2028-2032	183,835,000.00	109,639,441.28
	2033-2037	213,350,000.00	64,297,562.16
	2038-3042	144,240,000.00	13,638,795.66
		\$ 815,420,000.00	\$ 687,450,973.76
Series 2010-B	2013	\$ 21,020,000.00	\$ 6,701,400.00
	2014	22,040,000.00	5,681,150.00
	2015	23,120,000.00	4,600,150.00
	2016	24,220,000.00	3,502,150.00
	2017	25,360,000.00	2,359,400.00
	2018-2022	26,470,000.00	1,249,000.00
		\$ 142,230,000.00	\$ 24,093,250.00
TOTAL General Obligation Bonds		\$ 6,968,560,000.00	\$ 6,094,504,672.58

Texas Department of Transportation
Schedule 2C – Debt Service Requirements (continued)
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Year	Principal	Interest
SHF Revenue Bonds			
Series 2006	2013	\$ 24,240,000.00	\$ 23,623,850.00
	2014	25,435,000.00	22,429,850.00
	2015	26,680,000.00	21,184,850.00
	2016	27,985,000.00	19,876,500.00
	2017	29,385,000.00	18,479,500.00
	2018-2022	170,480,000.00	68,833,750.00
	2023-2027	169,725,000.00	21,732,750.00
		<u>\$ 473,930,000.00</u>	<u>\$ 196,161,050.00</u>
Series 2006-A	2013	\$ 40,075,000.00	\$ 33,133,925.00
	2014	42,070,000.00	31,130,175.00
	2015	44,185,000.00	29,015,250.00
	2016	46,170,000.00	27,026,925.00
	2017	48,255,000.00	24,949,275.00
	2018-2022	279,955,000.00	86,051,875.00
	2023-2027	177,920,000.00	15,925,550.00
		<u>\$ 678,630,000.00</u>	<u>\$ 247,232,975.00</u>
Series 2006-B	2013	\$	\$ 650,000.00
	2014		650,000.00
	2015		650,000.00
	2016		650,000.00
	2017		650,000.00
	2018-2022		3,250,000.00
	2023-2027	100,000,000.00	2,161,759.17
		<u>\$ 100,000,000.00</u>	<u>\$ 8,661,759.17</u>
Series 2007	2013	\$ 49,585,000.00	\$ 53,000,125.00
	2014	51,960,000.00	50,625,875.00
	2015	54,500,000.00	48,084,750.00
	2016	57,200,000.00	45,386,000.00
	2017	60,035,000.00	42,552,250.00
	2018-2022	347,995,000.00	164,930,250.00
	2023-2027	444,140,000.00	68,785,750.00
		<u>\$ 1,065,415,000.00</u>	<u>\$ 473,365,000.00</u>
Series 2008	2013	\$ 6,255,000.00	\$ 7,318,400.00
	2014	6,530,000.00	7,042,625.00
	2015	6,835,000.00	6,735,250.00
	2016	7,155,000.00	6,416,437.50
	2017	7,490,000.00	6,080,237.50
	2018-2022	43,330,000.00	24,531,437.50
	2023-2027	55,470,000.00	12,390,962.50
	2028-2032	12,895,000.00	676,987.50
		<u>\$ 145,960,000.00</u>	<u>\$ 71,192,337.50</u>

Texas Department of Transportation
Schedule 2C – Debt Service Requirements (concluded)
For the Fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Year	Principal	Interest
SHF Revenue Bonds			
Series 2010	2013	\$	\$ 77,226,067.50
	2014		77,226,067.50
	2015		77,226,067.50
	2016		77,226,067.50
	2017		77,226,067.50
	2018-2022		386,130,337.50
	2023-2027	499,750,000.00	349,505,631.30
	2028-2032	1,000,250,000.00	105,443,497.50
		\$ 1,500,000,000.00	\$ 1,227,209,803.80
TOTAL Revenue Bonds		\$ 3,963,935,000.00	\$ 2,223,822,925.47
TOTAL GOVERNMENTAL ACTIVITIES		\$ 10,932,495,000.00	\$ 8,318,327,598.05

Business-Type Activities

Description of Issue	Year	Principal	Interest
CTTS Revenue Bonds			
	2013	\$ 7,710,000.00	\$ 37,161,837.50
	2014	10,155,000.00	37,161,837.50
	2015	12,605,000.00	37,161,837.50
	2016	25,805,000.00	37,161,837.50
	2017	29,655,000.00	37,161,837.50
	2018-2022	212,365,000.00	185,809,187.50
	2023-2027	382,445,000.00	185,809,187.50
	2028-2032	559,670,000.00	185,809,187.50
	2033-2037	700,925,000.00	185,809,187.50
	2038-2042	739,125,000.00	106,256,562.50
		\$ 2,680,460,000.00	\$ 1,035,302,500.00
Series 2009			
	2013	\$	\$ 4,105,062.50
	2014		4,105,062.50
	2015		4,105,062.50
	2016		4,105,062.50
	2017		4,105,062.50
	2018-2022		20,525,312.50
	2023-2027		20,525,312.50
	2028-2032		20,525,312.50
	2033-2037		20,525,312.50
	2038-2042	149,275,000.00	20,525,312.50
		\$ 149,275,000.00	\$ 123,151,875.00
TOTAL Business –Type Activities		\$ 2,829,735,000.00	\$ 1,158,454,375.00

Texas Department of Transportation
Schedule 2D – Analysis of Funds Available for Debt Service
For the fiscal Year Ended August 31, 2012

Governmental Activities

Description of Issue	Application of Funds			
	Principal	Interest		
Texas Mobility and Texas Highway Improvement General Obligation Bonds	\$66,930,000.00	\$328,157,178.25		
	<u>\$66,930,000.00</u>	<u>\$328,157,178.25</u>		
Pledged and Other Sources and Related Expenditures for FY 2012				
Net Available for Debt Service			Debt Service	
Description of Issue	Total Pledged and Other Sources	Operating Expenses/Expenditures and Capital Outlay		
			Principal	Interest
State Highway Fund Revenue Bonds	\$6,552,269,465.02	(A)	\$114,510,000.00	\$200,386,886.84
	<u>\$6,552,269,465.02</u>		<u>\$114,510,000.00</u>	<u>\$200,386,886.84</u>

(A) TxDOT State Highway Fund expenditures associated with pledged sources were \$6,073,368,843.25.

Business-Type Activities

Description of Issue	Pledged and Other Sources and Related Expenditures for FY 2012			
	Net Available for Debt Service			Debt Service
	Total Pledged and Other Sources	Operating Expenses/Expenditures and Capital Outlay		
Series 2002-A and Series 2009 Revenue Bonds	\$93,052,094.82	(C)	\$4,500,000.00	\$41,266,900.00
	\$93,052,094.82		\$4,500,000.00	\$41,266,900.00

(C) Expenditures associated with pledged sources were \$645,541.90



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**Produced by the Finance Division
Texas Department of Transportation**

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APPENDIX C

DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT

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DEFINITIONS AND SUMMARY OF CERTAIN PROVISIONS OF THE TRUST AGREEMENT AND THE FIRST SUPPLEMENTAL AGREEMENT

The following statements summarize certain provisions of the Master Trust Agreement and the First Supplemental Agreement. These statements do not purport to be comprehensive or definitive and are qualified in their entirety by reference to the Master Trust Agreement and the First Supplemental Agreement, respectively. Copies of the Master Trust Agreement and the First Supplemental Agreement are available for examination at the offices of the Commission.

Definitions

"Accounting Principles" – the "Generally Accepted Accounting Principles" for governmental entities in the United States, which are promulgated by the Governmental Accounting Standards Board ("GASB"), the Financial Accounting Standards Board ("FASB") and, when applicable, such other accounting principles as the Corporation or the State, as applicable, may be required to employ from time to time, in order to comply with the terms of the Trust Agreement, or pursuant to State law or regulation or as the Corporation may otherwise elect, provided such election does not cause a violation of the Rule.

"Acts" – Subchapters A-C of Chapter 431 of the Texas Transportation Code, as amended, Chapter 1371, Texas Government Code, as amended, Section 228.053, Texas Transportation Code, as amended, and the Nonprofit Corporations Act, Business Organization Code, Chapter 22, as amended.

"Additional Obligation Security" – any credit enhancement for specified Obligations and any funds received or obligations payable to the Corporation, other than Senior Net Revenues or Junior Net Revenues, which the Corporation chooses to include as security for specified First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and/or TELA/Other Tier Obligations pursuant to a Supplemental Agreement as provided in the Master Trust Agreement. Additional Obligation Security does not include a Toll Equity Loan Agreement.

"Additional Obligations" – any First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations issued after the issuance and initial delivery of the Initial Obligations.

"Annual Budget" – the budget adopted or in effect for each Fiscal Year as provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Budget," as may be amended.

"Balloon Indebtedness" – a series of Obligations of which 25% or more of the original Principal matures or is otherwise due in the same annual period and is not required by the documents pursuant to which such Obligations were issued to be amortized by payment or redemption prior to that annual period (excluding any contingent mandatory redemptions), provided that such Obligations will not constitute Balloon Indebtedness and will be assumed to amortize in accordance with its stated terms if the Trustee is provided a certificate of a Corporation Representative certifying that such Obligations are not to be treated as Balloon Indebtedness.

"Bankruptcy Related Event" – (a) an involuntary proceeding shall be commenced or an involuntary petition shall be filed seeking (i) if applicable, liquidation, receivership, reorganization or other relief in respect of the Corporation or any of its debts, or of a substantial part of the assets of the Corporation, under any Insolvency Law, or (ii) the appointment of a receiver, trustee, liquidator, custodian, sequestrator, conservator or similar official for the Corporation or for a substantial part of the assets of the Corporation, and, in any case referred to in the foregoing subclauses (i) and (ii), such proceeding or petition shall continue undismissed for 60 days or an order or decree approving or ordering any of the foregoing shall be entered; or (b) the Corporation shall (i) apply for or consent to the appointment of a receiver, trustee, liquidator, custodian, sequestrator, conservator, or similar official for the Corporation or for a substantial part of the assets of the System or the Corporation, or (ii) become unable to pay its debts generally as they become due, or (iii) make a general assignment for the benefit of creditors, or (iv) be adjudicated a bankrupt or insolvent, or (v) commence a voluntary case under any Insolvency Law or file a voluntary petition seeking liquidation, reorganization, an arrangement with creditors or an order for relief or otherwise seeking to take advantage of any Insolvency Law or admit the material allegations of a petition filed against the Corporation in any proceeding referred to in the foregoing clauses of this definition, or (vi) take any action for the purpose of effecting any of the foregoing.

"Bond Counsel" - A firm of attorneys of nationally recognized standing in the field of law relating to municipal bond law and the exemption from federal income taxation of interest on state or local bonds, selected by the Corporation.

"Bond Insurer" - The municipal bond insurance company or companies, if any, which have issued a municipal bond insurance policy or policies insuring the scheduled payment of principal and interest of a Series of Obligations.

"Bond Insurance Policy" – an insurance policy issued upon the initial issuance of the Obligations with the consent of the Corporation by a Bond Insurer insuring or guaranteeing the payment of Principal of and interest on any Obligations.

"Bond Resolution" – The resolutions approved by the Board of Directors of the Corporation on December 21, 2012 and April 5, 2013 authorizing the Obligations.

"Book-Entry Obligations" – all of the Obligations or those Obligations of a particular lien subject to the Book-Entry-Only System.

"Book-Entry-Only System" – a system similar to the system described herein pursuant to which Obligations are registered in book-entry form.

"Business Day" - Any day other than a Saturday or a Sunday or a day on which banking institutions are required or authorized by law or executive order to remain closed in the State or the City of New York or in the city in which the designated office of the Trustee or the Securities Depository is located or the New York Stock Exchange is closed.

"Capitalized Interest Account" – any capitalized interest account established (i) in connection with the issuance of the Initial Obligations or (ii) under subparagraph (g) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," and "- Issuance of Subordinate Tier Obligations" within an Interest Account or the Construction Fund, as the case may be, funded in whole or in part with proceeds from the sale of the Initial Obligations or Additional Obligations for the purpose, to the extent permitted by law, of paying all or a portion of the debt service on the Initial Obligations or such Additional Obligations, as the case may be, during the applicable Construction and Ramp-Up Period.

"Code" - The Internal Revenue Code of 1986, as amended.

"Commission" – the Texas Transportation Commission and its successors and assigns.

"Commission Rate Covenant" – the toll rate covenants of the Commission as set forth in the Toll Rate Agreement.

"Completion Obligations" – the First Tier Obligations and/or the Subordinate Tier Obligations issued pursuant to subparagraph (j) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of First Tier Obligations" and/or "-Issuance of Subordinate Tier Obligations."

"Construction Fund" – the Construction Fund created and established by the Trust Agreement.

"Construction and Ramp-Up Period" – the period (i) commencing with the delivery of Initial Obligations and ending thirty-six (36) months after Substantial Completion of the Initial Project or (ii) commencing with the delivery of any Additional Obligations to finance the Costs of any additional System Segment and ending thirty-six (36) months after Substantial Completion of such System Segment.

"Corporation" - The Grand Parkway Transportation Corporation and its successors and assigns.

"Corporation-Held Obligations" - Obligations owned by or held in the name of the Corporation or its designee or held by the Trustee for the account of the Corporation or its designee.

"Corporation Representative" – the President or the Secretary/Treasurer of the Board of Directors of the Corporation, the Deputy Director of the Innovative Financing/Debt Management Office of the Department or such other individuals designated by the Corporation to perform the duties of a Corporation Representative under the Master Trust Agreement, each as evidenced by a written signature identification and incumbency certificate, furnished to the Trustee, signed on behalf of the Corporation by the President, any Vice President, the Secretary/Treasurer or any Assistant Secretary of the Corporation.

"Cost" – all obligations and expenses and all items of cost with respect to any project or facility and include all costs related to such project or facility set forth below or as otherwise authorized to be incurred or paid under the Acts or State law. For the purpose of the Trust Agreement, the term "cost" when used with respect to any project or facility shall mean and

include all costs related to such project or facility, and, without intending thereby to limit or restrict any such definition, shall include the following:

(a) obligations incurred for labor and to contractors, builders and materialmen in connection with the construction of a facility or any part thereof, and obligations incurred for machinery and equipment;

(b) payments to owners and others, for real property, or interests therein, or for options or other property or contractual rights;

(c) all expenses of every kind or character incurred in the acquisition of real property, including all costs and expenses of whatever kind in connection with the exercise of the power of condemnation, and including the cost of title searches and reports, abstracts of title, title certificates and opinions, title guarantees, title insurance policies, appraisals, negotiations and surveys;

(d) the amount of any damages or claimed damages incident to or consequent upon the construction of a facility; also the cost of any litigation and amounts paid by court order or upon settlement of any litigation or of any claim (although not litigated) of any kind during construction or of any claim arising during or out of or related to construction of a facility;

(e) as to toll collection equipment, it is recognized that some manufacturers of such equipment will not sell such equipment outright, and that some manufacturers will sell it; but that it will not be known, until bids are received by the Corporation for the acquisition of such equipment, which manufacturer will offer the most advantageous terms to the Corporation. The acquisition of toll collection equipment is hereby determined and declared to be a capital expenditure, and a proper "cost". It is specially provided, however, that if, in the discretion of the Corporation, it will be to the advantage of the Corporation to do so, and upon the written recommendation of the General Engineering Consultant, the Corporation may enter into lease-purchase or lease-rental agreements for the acquisition of such equipment with a term not to exceed three years from the date of acceptance of such equipment by the Corporation. In such event the Corporation shall so advise the Trustee, and the Trustee shall set aside and retain the amounts required for the payments under such agreements in the Construction Fund, and shall make such payments as so required, upon requisitions as provided for in the Master Trust Agreement. Any such payments shall constitute proper items of "cost" for all purposes;

(f) the cost of any necessary indemnity and surety bonds, the cost of all fidelity bonds, the fees and expenses of the Trustee and the Paying Agent, and premiums on all insurance deemed necessary and advisable by the Corporation, until one year after the completion of construction thereof;

(g) the cost of borings and other preliminary investigations to determine foundation or other conditions, all fees, costs, and expenses necessary or incident to determining the feasibility and practicability of constructing a facility, and all fees, costs, and expenses of engineers and others for making traffic studies, surveys, and estimates, and all fees, costs, and expenses of engineering services, plans, specifications, surveys, and estimates of cost and revenues, and all costs of supervising construction, as well as for the performance of all other duties of engineers in relation to the construction of a facility or the issuance of bonds therefor;

(h) the cost of preparing and issuing Obligations, including refunding Obligations, and all legal, accounting and other professional expenses and fees and financing charges in connection with any Obligations and/or any facility, and expenses of administration properly chargeable to the construction of a facility, including salaries and all payments and deductions as provided by law pertaining to retirement system;

(i) the cost of restoring, repairing and placing in its original condition, as nearly as practicable, all public or private property damaged or destroyed in the construction of a facility, or the amount paid by the Corporation as compensation for such damage or destruction, and all costs lawfully incurred or damages lawfully payable, with respect to the restoration, relocation, removal, reconstruction or duplication of property or facilities in connection with or made necessary or caused by the construction of a facility, and the cost of building facilities to connect land severed by a facility or severance damages paid in lieu of such facilities;

(j) any obligation or expense heretofore or hereafter incurred by the Corporation in connection with any of the foregoing items of cost, and the reimbursement of any obligations or expenses incurred in connection with any of the foregoing items of cost;

(k) utility relocations, buildings and other structures, fencing, landscaping, illumination, communication systems, and safety devices; and

(l) all other items of cost and expense not elsewhere in this definition specified, incident to the construction and equipment of a facility, the financing thereof and the costs of placing a facility in operation, including all costs as defined under the term "Cost" in the Acts and State law.

"Counsel to the Corporation" – an attorney or law firm acting as counsel to the Corporation (who may be general counsel to TxDOT).

"Credit Agreement" – a First Tier Credit Agreement, a Second Tier Credit Agreement or a Subordinate Tier Credit Agreement, as applicable.

"Credit Provider" – any Bank, financial institution, insurance company, surety bond provider, or other public or private entity which provides, executes, issues, or otherwise is a party to or provider of a Credit Agreement and shall include the Department as the provider of the Toll Equity Loan Agreement.

"Debt Service Funds" – the First Tier Debt Service Fund, the Second Tier Debt Service Fund, the Subordinate Tier Debt Service Fund and, when appropriate, the TELA/Other Tier Payment Fund.

"Debt Service Requirements" – for any annual period (any Fiscal Year, or any other consecutive twelve calendar month period), the aggregate amount of interest on and Principal of Outstanding Obligations specified for the purposes for which Debt Service Requirements is to be calculated, other than any Credit Agreement, and, with respect to any Credit Agreement, the Payment Obligations relating thereto due in such period, as limited and calculated in the following manner; provided, however, that this definition shall never be applied in a manner which results in Debt Service Requirements for any Fiscal Year being an amount that is less than the aggregate amount actually required to be paid in such Fiscal Year with respect to Outstanding Obligations:

(a) Except as modified below, (i) for any Fiscal Year while the Corporation's Fiscal Year is the same as TxDOT's fiscal year, the aggregate amount of interest on and Principal of the Obligations, including Payment Obligations, which was paid or redeemed or is scheduled to accrue and be paid or redeemed on September 1 of such Fiscal Year shall be excluded from the calculation of debt service for such Fiscal Year, and the aggregate amount of interest on and Principal of the Obligations, including Payment Obligations, which was paid or redeemed or is scheduled to accrue and be paid or redeemed on September 1 immediately following such Fiscal Year shall be included in the calculation of debt service for such Fiscal Year; and (ii) for any consecutive twelve calendar month period other than the TxDOT's fiscal year, whether or not such period constitutes any future Corporation Fiscal Year, the aggregate amount of interest on and Principal of the Obligations, including Payment Obligations, which was paid or redeemed or is scheduled to accrue and be paid or redeemed during such consecutive twelve month period;

(b) As to any annual period prior to the date of any calculation, such requirements shall be calculated solely on the basis of Obligations which were Outstanding as of the first day of such period; and as to any future year such requirements shall be calculated solely on the basis of Obligations Outstanding as of the date of calculation plus any Obligations then proposed to be issued as Additional Obligations;

(c) Notwithstanding the foregoing, all amounts which are deposited to the credit of the Interest Accounts, including any Capitalized Interest Accounts created therein or any Capitalized Interest Accounts created in the Construction Fund from original proceeds from the sale of any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations, as applicable, any investment income from the Interest Accounts, the Redemption Accounts, the Reserve Accounts, any Capitalized Interest Accounts and the Construction Fund which is deposited to the credit of the Interest Accounts or from any other lawfully available source (other than from the Revenue Fund and advances under any Toll Equity Loan Agreement), and which are used or scheduled to be used to pay interest on such Obligations during any annual period, shall be deemed to reduce the Debt Service Requirements for any such annual period to the extent of such

deposits; and the amount of such deposits shall be excluded from and shall not constitute Debt Service Requirements for any such annual period;

(d) If any of the Obligations or proposed Additional Obligations bear interest at a Variable Rate, the interest rate on such Obligations or Additional Obligations for all periods for which the interest rate is not known, shall be assumed and deemed to be the Assumed Variable Rate;

(e) If any of the Obligations or proposed Additional Obligations constitute Balloon Indebtedness or Short-Term Indebtedness, then such amounts thereof as constitute Balloon Indebtedness or Short-Term Indebtedness shall be treated as if such Obligations are to be amortized in substantially equal annual installments of Principal and interest over the useful life of the improvements financed with the proceeds of such Balloon Indebtedness or Short-Term Indebtedness as calculated by, and set forth in, a certificate of a Corporation Representative. Anything to the contrary herein notwithstanding, during the annual period preceding any annual period in which 25% or more of the original Principal of such Balloon Indebtedness is payable or, in the case of Short-Term Indebtedness, in each annual period, all of the Principal thereof shall be considered to be due on the Stated Maturity or due date of such Balloon Indebtedness or Short-Term Indebtedness unless the Corporation provides to the Trustee, prior to the beginning of such annual period, a certificate of a Financial Consultant certifying that, in its judgment, the Corporation will be able to refund such Balloon Indebtedness or Short-Term Indebtedness through the issuance of Additional Obligations, in which event the Balloon Indebtedness or Short-Term Indebtedness shall be amortized over the term of such proposed refunding Additional Obligations and shall be deemed to bear the interest rate specified in the certificate of the Financial Consultant;

(f) Notwithstanding anything to the contrary in clause (e) above, with respect to Short-Term Indebtedness that is part of a commercial paper or similar program of the Corporation, the amount of debt service of such Short-Term Indebtedness taken into account during any annual period shall be equal to the Principal component of debt service calculated using the outstanding Principal amount of such Short-Term Indebtedness on the date of calculation amortized over the period ending on the date of the maximum maturity date under such program on a level debt service basis at an interest rate deemed to be the Assumed Variable Rate determined as if such Short-Term Indebtedness were Obligations bearing interest at a Variable Rate; and

(g) Notwithstanding anything to the contrary contained in clauses (a) through (e) above, the Debt Service Requirements for each annual period for a series of Additional Obligations issued (i) in conjunction with one or more Qualified Credit Agreements shall be deemed to be the total net payments which a Corporation Representative certifies the Corporation expects to pay in such annual period with respect to such series of Additional Obligations after taking into account the Principal and interest payments and the Payment Obligations under such Qualified Credit Agreements made or to be made in such annual period and the amounts received or to be received from the Qualified Credit Provider under such Qualified Credit Agreement in such annual period or (ii) as a series of Variable Rate Obligations, or one or more maturities within a series, of equal par amounts, issued simultaneously with inverse floating interest rates providing a composite fixed interest rate for such Obligations taken as a whole, such composite fixed rate shall be used in determining the Debt Service Requirement with respect to such Obligations;

(h) Debt Service Requirements shall exclude any termination or similar payments owed or paid by the Corporation under any Credit Agreement.

"Defeased Debt" – as defined in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Release of Trust Agreement" and any applicable Supplemental Agreement.

"Department" or "TxDOT" - The Texas Department of Transportation and its successors and assigns.

"Depository" – any Bank selected by the Corporation as a depository of moneys under the provisions of the Master Trust Agreement, which may include the Trustee.

"Design-Build Contract" – the Development Agreement Grand Parkway Project bearing contract No. 86-XXDB002, with respect to Segments F-1, F-2 and G, dated as of March 22, 2013, as amended from time to time, between TxDOT and the Zachry-Odebrecht Parkway Builders and assigned by TxDOT to the Corporation.

"Draw Request" – as defined in the Master Trust Agreement.

"Estimated Date of Completion" – for any System Segment, the estimated date on which the System Segment will be placed in operation.

"Event of Default" – as defined in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Events of Default."

"Favorable Opinion" - An opinion of Bond Counsel addressed to the Corporation for the related Series of Obligations, and the Trustee to the effect that the action proposed to be taken is authorized or permitted by the Acts and the Trust Agreement and will not adversely affect the excludability from gross income for federal income tax purposes of interest on a Series of Obligations.

"Financial Consultant" – a nationally recognized firm of independent professional financial consultants knowledgeable in the financial operation of toll roads and having a favorable reputation for skill and experience in the field of financial consultation relating to toll roads.

"Financing Documents" – the Master Trust Agreement, the Toll Equity Loan Agreement, the Master Custodial Agreement (and related joinder agreements), the Project Agreement, the Toll Rate Agreement, the Initial Obligations, the First Supplemental Agreement and the Second Supplemental Agreement.

"First Supplemental Agreement" - the First Supplemental Agreement, dated as of August 1, 2013, between the Corporation and the Trustee.

"First Tier Credit Agreement" – collectively, an obligation entered into on a parity with Outstanding First Tier Obligations in the form of a loan agreement, revolving credit agreement, agreement establishing a line of credit, letter of credit, reimbursement agreement, insurance contract, commitments to purchase obligations, purchase or sale agreement, interest rate swap, cap and floor agreement, or commitment or other contract or agreement authorized, recognized and approved by the Corporation as a First Tier Credit Agreement, whether authorized or approved in anticipation of, simultaneously with, or subsequent to, the authorization of the First Tier Obligations in connection with which it is executed.

"First Tier Debt Service Fund" – the First Tier Debt Service Fund created by the Master Trust Agreement.

"First Tier Interest Account" – an account in the First Tier Debt Service Fund created by the Master Trust Agreement.

"First Tier Non-TELA Obligations" – any Series of First Tier Obligations and any First Tier Credit Agreement that are not supported by a Toll Equity Loan Agreement.

"First Tier Obligations" – the Series 2013A Bonds and, unless otherwise specifically stated, any bond, bonds, note, notes, other obligation or obligations, including any First Tier Credit Agreement, issued, incurred or entered into pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of First Tier Obligations" as First Tier Obligations, or all of the foregoing, as the case may be, authorized by law and issued under and secured by the provisions of the Master Trust Agreement and any Supplemental Agreement.

"First Tier Payment Obligations" – unless otherwise specifically stated in a Supplemental Agreement, all amounts payable by the Corporation under a First Tier Credit Agreement less any amounts of Principal or interest payable with respect to any First Tier Obligations pledged under a First Tier Credit Agreement as collateral for the amounts due thereunder and any payment obligations evidenced by a First Tier Obligation; and all such First Tier Payment Obligation payments shall be deemed to constitute Principal payments of First Tier Obligations, and shall be paid from the First Tier Redemption Account as provided in the Master Trust Agreement; provided, however, that, if so provided in a First Tier Credit Agreement or in the proceedings approved by the Corporation in connection therewith, some or all of the amounts payable under a First Tier Credit Agreement may be designated to be Second Tier Payment Obligations or Subordinate Tier Payment Obligations.

"First Tier Redemption Account" – an account in the First Tier Debt Service Fund created by the Master Trust Agreement.

"First Tier Reserve Account" – an account in the First Tier Debt Service Fund created by the Trust Agreement.

"First Tier Reserve Requirement" – The lesser of (i) the maximum annual Debt Service Requirements of all the First Tier Obligations, (ii) 1.25 times the average annual Debt Service Requirements of all First Tier Obligations or (iii) ten (10) percent of the aggregate principal amount of the Outstanding First Tier Obligations, as determined on the date each Series of First Tier Obligations is issued.

"First Tier TELA Obligations" – any Series of First Tier Obligations and any First Tier Credit Agreement that are supported by a Toll Equity Loan Agreement.

"Fiscal Year" – presently, September 1 through August 31 of the following year; or any other period hereafter designated by the Corporation as its Fiscal Year in accordance with law.

"Fitch" - Fitch, Inc. or any successor thereto maintaining a rating on the Obligations.

"General Counsel" - general counsel to the Corporation acting through the Office of General Counsel to the Department.

"General Engineering Consultant" or "GEC" – an engineer or engineering firm or corporation at the time employed by the Corporation pursuant to the provisions of subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Employment of General Engineering Consultant and Traffic Consultant" to carry out the duties imposed by the Master Trust Agreement on the General Engineering Consultant.

"Governmental Lender" – a federal agency or instrumentality, federal government-sponsored enterprise or federal government corporation.

"Government Obligations" – as defined in subparagraph (e) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Release of Trust Agreement."

"Grand Parkway Enhancement Fund" – the Grand Parkway Enhancement Fund created by the Trust Agreement.

"Grand Parkway Project" – the State Highway 99 (Grand Parkway) is the proposed approximately 184 mile circumferential highway traversing seven counties and encircling the Greater Houston MSA region as set forth in Exhibit A to the Market Valuation Waiver Agreement, as may be amended from time to time.

"Highest Lawful Rate" – the maximum net effective interest rate permitted by law to be paid on obligations issued or incurred by the Corporation in the exercise of its borrowing powers (prescribed by Chapter 1204, Texas Government Code, or any successor provisions).

"Initial Obligations" – the Series 2013A Bonds, issued as First Tier Non-TELA Obligations, the Series 2013B Bonds, the Series 2013C Bonds, the Series 2013D Bonds and the Series 2013E Bonds, each issued as Subordinate Tier TELA Obligations, and the Initial Toll Equity Note, issued as a TELA/Other Tier Obligation.

"Initial Project" – the initial project of the Grand Parkway System, financed through the issuance of the Initial Obligations under the Trust Agreement and the Second Supplemental Agreement that includes Segments D (from 0.72 miles north of Kingsland Boulevard to 0.30 miles north of Colonial Parkway), E, F-1, F-2 and G and a portion of the Costs related to the development, , acquisition and construction of possible extensions and expansions of the Grand Parkway System or the Grand Parkway Project, all as described in the General Engineering Consulting Report or the Design-Build Contract.

"Initial Toll Equity Loan Agreement" – the Toll Equity Loan Agreement, dated as of July 17, 2013, as supplemented and amended from time to time, between the Corporation and TxDOT, authorized by the Second Supplemental Agreement, which agreement is intended to be a credit agreement under Chapter 1371, Texas Government Code, and a contract providing revenue and security to pay the Initial Obligations that constitute Toll Equity Loan Supported Obligations, and is, for purposes of the Master Trust Agreement, a TELA/Other Tier Credit Agreement.

"Initial Toll Equity Note" – the note entitled "Grand Parkway Transportation Corporation Grand Parkway System TELA/Other Tier Toll Revenue Note, Series 2013 (Toll Equity Loan Agreement)" authorized by the Second Supplemental Agreement and issued as a TELA/Other Tier Debt Obligation to evidence a Toll Equity Loan, as may be amended or supplemented pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - TELA/Other Tier Obligations."

"Interest Accounts" – the First Tier Interest Account, the Second Tier Interest Account and the Subordinate Tier Interest Account.

"Interest Payment Date" – Unless otherwise specified in an Award Certificate, the following dates upon which interest is payable on the Variable Rate Obligations (i) when used with respect to any particular Obligation accruing interest at a Flexible Rate, the day after the last day of each Interest Rate Period applicable thereto (provided that Interest Payment Dates shall not be more frequent than once every five Business Days); (ii) when used with respect to Obligations accruing interest at Daily, Weekly, Monthly or Index Floating Rates, the first Business Day of each calendar month following a month in which interest at such rate has accrued; (iii) when used with respect to Obligations accruing interest at a Quarterly Rate, the first day of the immediately succeeding January, April, July, or October after Conversion to the Quarterly Rate, and thereafter April 1, July 1, October 1, and January 1; (iv) when used with respect to Obligations accruing interest at a Semiannual, Multiannual, or Fixed Rate, the first day of the immediately succeeding July or January after the Conversion to a Semiannual, Multiannual, or Fixed Rate, and thereafter January 1 and July 1; and (v) the Maturity Date; provided, however, that if the Obligations are initially issued in a Semiannual Mode, a Multiannual Mode, or a Fixed Rate Mode, the initial Interest Payment Date, if any, may be set forth in each Award Certificate.

"Interest Rate Period," "Rate Period," or "Period" - When used with respect to any particular rate of interest for an Obligation, the period during which such rate of interest determined for such Obligation will remain in effect as described in the First Supplemental Agreement, provided that, with respect to Obligations in the Flexible Mode, the Remarketing Agent, in accordance with Section 2.01(A) of Exhibit "C" to the First Supplemental Agreement, shall (i) not offer Interest Rate Periods longer than the lesser of the period used to calculate the "Available Interest Commitment" under the Liquidity Agreement or 270 days or which end on a day which does not immediately precede a Business Day, (ii) not offer Interest Rate Periods applicable to Obligations to be converted extending beyond the day immediately preceding any scheduled Conversion of the Obligations to another Mode or the Maturity Date, and (iii) follow any written directions of the Corporation not inconsistent with the preceding clauses (i) and (ii) as to the Interest Rate Periods to be made available.

"Junior Net Revenues" – with respect to any consecutive 12-month period or any Fiscal Year, the Senior Net Revenues for such period or year, less the Debt Service Requirements for such period or year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations and less the Junior Operating Expenses for any such period or year.

"Junior Operating Expenses" – consisting of TELA Supported Junior Operating Expenses and Non-TELA Supported Junior Operating Expenses, the Corporation's reasonable and necessary accrued operating expenses of maintaining, repairing and operating (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation, which includes, without limiting the generality of the foregoing, any repair or replacement of any part of such portions of the System relating to any insurance or condemnation proceeds, expenses (including reasonably allocated portions thereof) for toll collection, all premiums for insurance and payments into any self-insurance reserve fund, all administration and engineering expenses relating to operation of (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation, fees and expenses of the Traffic Consultant, the General Engineering Consultant, the Trustee and of the Paying Agents, Policy Costs, legal expenses, expenses for Public Safety Officers and any other expenses required to be paid by the Corporation as shown in the Annual Budget for (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation. Any allocation of expenses between TELA Supported Junior Operating Expenses and Non-TELA Supported Junior Operating Expenses shall be on a consistent and rational basis.

"Junior Operation and Maintenance Fund" – the Junior Operation and Maintenance Fund created by the Master Trust Agreement.

"Major Maintenance Expenses" – the reasonable and necessary expenses (but excluding non-cash expenses such as depreciation, depletion and amortization) of repair and maintenance of the System, including the Initial Project, that do not occur at annual or shorter periods, as determined by the Corporation, including, without limiting the generality of the foregoing, periodic roadway resurfacing and repair, replacement of toll collection, vehicle identification, toll integration and video enforcement equipment, and all administrative and engineering expenses relating to such expenses and any other maintenance expenses required to be paid by the Corporation; provided, however, that Major Maintenance Expenses shall exclude Operating Expenses.

"Major Maintenance Fund" – the Major Maintenance Fund created by the Master Trust Agreement.

"Major Maintenance Requirement" – an amount each Fiscal Year as recommended by the General Engineering Consultant.

"Market Valuation Waiver Agreement" – the Market Valuation Waiver Agreement for SH 99 (Grand Parkway) among TxDOT and each of Brazoria County, Texas, Chambers County, Texas, Fort Bend County, Texas, Galveston County, Texas, Harris County, Texas, Liberty County, Texas, and Montgomery County, Texas, effective as of March 25, 2009, as amended, supplemented or superseded by any similar agreement among such parties.

"Master Custodial Agreement" – the Master Lockbox and Custodial Account Agreement dated as of November 9, 2007 between TxDOT and The Bank of New York Mellon Trust Company, N.A., as successor to the Bank of New York Trust Company, N.A., as custodian, amended by the Amendment No. 1 to such agreement, dated as of September 22, 2009 and Amendment No. 2 to such agreement, dated as of September 2, 2012 and as extended by a letter agreement dated November 2, 2012, and the various joinder agreements thereto, all as may be further amended from time to time.

"Master Trust Agreement" - The Trust Agreement dated as of August 1, 2013 between the Corporation and U.S. Bank National Association, as trustee.

"Maximum Available Aggregate Amount" – has the meaning assigned to such term in the applicable Toll Equity Loan Agreement.

"Maximum Available Annual Amount" – has the meaning assigned to such term in the applicable Toll Equity Loan Agreement.

"Maximum Rate" – the greater of (i) 8% per annum and (ii) the interest rate for which the Liquidity Agreement or Credit Agreement related to the Obligations, if any, provides coverage, but in no event to exceed the lesser of (a) 15% per annum or (b) the Highest Lawful Rate.

"Mode" - The period for and the manner in which the interest rates on the Obligations, or any portion of the Obligations, are set and includes the Daily Mode, the Flexible Mode, the Weekly Mode, the Monthly Mode, the Quarterly Mode, the Semiannual Mode, the Multiannual Mode, the Index Floating Rate Mode and the Fixed Rate Mode.

"Moody's" - Moody's Investors Service, Inc. or any successor thereto maintaining a rating on the Obligations.

"Non-Appropriation Event" – the failure of TxDOT to honor a Draw Request by the Trustee for an advance under a Toll Equity Loan Agreement due solely to the fact that funds had not been appropriated to TxDOT by the Texas State Legislature in a manner that would allow its use for such purpose.

"Non-TELA Supported Junior Operating Expenses" – the Junior Operating Expenses of or allocable to any additional System Segments (or portions thereof) as determined by the Corporation and which are not supported by a Toll Equity Loan Agreement.

"Non-Toll Equity Loan Supported Obligations" – any Series of First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations, respectively, which are not Toll Equity Loan Supported.

"Obligation," "Obligations" and "Initial Obligations" – One or more Series of the "Grand Parkway Transportation Corporation Grand Parkway System Revenue Obligations" as further designated in the First Supplemental Agreement and each Award Certificate which includes Fixed Rate Obligations as Current Interest Obligations, Capital Appreciation Obligations, Convertible Obligations and Variable Rate Obligations, as applicable, in accordance with each Award Certificate.

"Operating Expenses" – the Senior Operating Expenses and the Junior Operating Expenses.

"Operation and Maintenance Reserve Fund" – the Operation and Maintenance Reserve Fund created by the Master Trust Agreement.

"Operation and Maintenance Reserve Requirement" – the amount equal to one quarter (1/4) of the then current Annual Budget's Operating Expenses.

"Outstanding" – when used with reference to Obligations, at any date of which the amount of the Outstanding Obligations is to be determined, the aggregate of all Obligations secured by the Trust Agreement, except:

- (a) Obligations paid, cancelled or delivered to the Paying Agent for cancellation at or prior to such date;
- (b) Obligations for the full payment of the Principal of, premium, if any, and interest on which cash shall have been theretofore deposited with the Paying Agent and which (i) shall have matured by their terms, or otherwise shall have become payable, but shall not have been surrendered for payment or (ii) shall have been purchased by the Trustee but shall not have been presented for payment;
- (c) Obligations which are deemed paid pursuant to subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Release of Trust Agreement;" and
- (d) Obligations in exchange or in lieu of which other Obligations have been delivered under the Trust Agreement.

"Owner" – (i) the registered owner of any bond, note of other obligation as shown on the Trustee's Obligation registration records and books provided for in the applicable Supplemental Agreement and (ii) the Credit Provider of any Credit Agreement.

"Paying Agent" – the Trustee.

"Payment Obligations" – First Tier Payment Obligations, Second Tier Payment Obligations, Subordinate Tier Payment Obligations and TELA/Other Tier Payment Obligations.

"Permitted Investments" – any security or obligation or combination thereof permitted under the Public Funds Investment Act, Chapter 2256, Texas Government Code, as may be amended from time to time, and the Corporation's duly approved investment policy, including forward purchase agreements and guaranteed investment contracts to the extent permitted by such investment policy.

"Person" – an individual, partnership, corporation (including a business trust), limited or unlimited liability company, joint stock company, trust, unincorporated association, joint venture, governmental authority or other entity.

"Policy Costs" – a periodic fee or charge required to be paid to maintain a Reserve Surety Agreement.

"Preliminary Budget" – the preliminary budget prepared pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Budget."

"Principal" – (i) the principal amount of an Obligation or (ii) when used in connection with determining whether owners of a percentage of the principal amount of Outstanding Obligations has given any consent, order, request, direction or other act (1) with respect to any Obligation that evidences one or more financial hedge obligations, the amount, if any, that would be payable by the Corporation if the transaction in respect of which such financial hedge obligations are payable were terminated as of a recent date (within 30 days of the date of determination) specified by the Corporation, and (2) with respect to any other Obligation, means the Outstanding unpaid principal sum or amount of such Obligation.

"Principal Office" – when used with respect to the Trustee, the business office of the Trustee specified in writing by the Trustee to the Corporation as the principal office of the Trustee for the administration of the Master Trust Agreement and, initially, shall be 5555 San Felipe, Suite 1150, Houston, Texas 77056, telephone (713) 235-9208.

"Project Agreement" – the Project Agreement, effective July 17, 2013, as supplemented and amended from time to time, between the Corporation and TxDOT relating to the Initial Project and the System.

"Project Budget" – the Project Budget as defined and set forth in the applicable Toll Equity Loan Agreement.

"Public Safety Officers" – licensed public safety officers, if any, in the employment of or under contract to TxDOT for the purpose of performing public safety duties in connection with the System.

"Qualified Credit Agreement" – a First Tier Credit Agreement, a Second Tier Credit Agreement or a Subordinate Tier Credit Agreement, as applicable, entered into with a Qualified Credit Provider.

"Qualified Credit Provider" – a Credit Provider (or its corporate parent as guarantor of its obligations under a Credit Agreement) whose long term debt is rated or whose credit rating is, at the time the Qualified Credit Agreement is entered into, in one of the three highest rating categories by Moody's or S&P or Fitch, without regard to rating sub-categories.

"Rate Stabilization Fund" – the Rate Stabilization Fund created by the Master Trust Agreement.

"Rating Agencies" - Any or all of S&P, Moody's and Fitch then providing a rating for the Obligations; and provided that if none of such rating agencies then rates the Obligations, the term "Rating Agencies" shall refer to any national rating agency (if any) which provides such rating.

"Redemption Accounts" – the First Tier Redemption Account, the Second Tier Redemption Account and the Subordinate Tier Redemption Account.

"Reserve Accounts" - The First Tier Debt Service Reserve Fund, the Second Tier Debt Service Reserve Fund, the Third Tier Reserve Fund and the Subordinate Tier Debt Service Reserve Fund as may be applicable in connection with the issuance of Additional Obligations.

"Reserve Surety Agreement" – any substitute for cash and Permitted Investments in any respective Reserve Account as may be provided in a Supplemental Agreement.

"Revenue Fund" – the Revenue Fund created by the Master Trust Agreement.

"Revenues of the System" – (a) the aggregate revenues and all other receipts and income collected, received or derived by the Corporation from the operation of the System in any period, or estimated aggregate revenues and other receipts and income estimated to be collected, received or derived by the Corporation from the operation of the System in any period, including all such revenues, receipts and income assigned to the Corporation by the Commission and the Department pursuant to the Toll Rate Agreement and the Project Agreement, and all investment income from the Revenue Fund, the Senior Operation and Maintenance Fund, the Junior Operation and Maintenance Fund, the Operation and Maintenance Reserve Fund, the Construction Fund (excluding investment income from any Capitalized Interest Account within the Construction Fund and any other investment income from the Construction Fund that is deposited or estimated to be deposited to the credit of the Interest Accounts), the Rate Stabilization Fund, the Major Maintenance Fund and the Grand Parkway Enhancement Fund and (b) any other sources of revenues or funds of the Corporation that the Corporation chooses to designate as "Revenues of the System" pursuant to a Supplemental Agreement or as designated, from time to time, by the Corporation Representative in a written certificate provided to the Trustee. Revenues of the System do not include (i) payments or revenues received by the Corporation or the Trustee from TxDOT pursuant to a Toll Equity Loan Agreement for such Fiscal Year, (ii) the investment income from the Interest Accounts, including any Capitalized Interest Accounts within the Interest Accounts, the Redemption Accounts, the Reserve Accounts, the TELA/Other Tier Payment Fund and any Capitalized Interest Account within the Construction Fund, (iii) any investment income from the Construction Fund which is deposited or estimated to be deposited to the credit of the Interest Accounts and (iv) any of the amounts described above collected or received by the Corporation and required to be paid to TxDOT or other Persons as revenue sharing payments pursuant to the Project Agreement or other agreement.

"Rule" – United States Securities Exchange Commission Rule 15c2-12, as amended from time to time.

"S&P" - Standard & Poor's Rating Services, a division of The McGraw-Hill Companies, Inc. or any successor thereto.

"Second Supplemental Agreement" – the Second Supplemental Agreement, dated as of August 1, 2013, between the Corporation and the Trustee.

"Second Tier Credit Agreement" – collectively, an obligation entered into on a parity with Outstanding Second Tier Obligations in the form of a loan agreement, revolving credit agreement, agreement establishing a line of credit, letter of credit, reimbursement agreement, insurance contract, commitments to purchase obligations, purchase or sale agreement,

interest rate swap, cap and floor agreement, or commitment or other contract or agreement authorized, recognized and approved by the Corporation as a Second Tier Credit Agreement, whether authorized or approved in anticipation of, simultaneously with, or subsequent to, the authorization of the Second Tier Obligations in connection with which it is executed.

"Second Tier Debt Service Fund" – the Second Tier System Debt Service Fund created by the Master Trust Agreement.

"Second Tier Interest Account" – an account in the Second Tier Debt Service Fund created by the Master Trust Agreement.

"Second Tier Non-TELA Obligations" – any Series of Second Tier Obligations and any Second Tier Credit Agreement that are not supported by a Toll Equity Loan Agreement.

"Second Tier Obligations" – unless otherwise specifically stated, any bond, bonds, note, notes, other obligation or obligations, including any Second Tier Credit Agreement, issued, incurred or entered into pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Second Tier Obligations" as Second Tier Obligations, or all of the foregoing, as the case may be, authorized by law and issued under and secured by the provisions of the Master Trust Agreement and any Supplemental Agreement.

"Second Tier Payment Obligations" – unless otherwise specifically stated in a Supplemental Agreement, all amounts payable by the Corporation under a Second Tier Credit Agreement less any amounts of Principal or interest payable with respect to any Second Tier Obligations pledged under a Second Tier Credit Agreement as collateral for the amounts due thereunder and any payment obligations evidenced by a Second Tier Obligation; and all such Second Tier Payment Obligation payments shall be deemed to constitute Principal payments of Second Tier Obligations, and shall be paid from the Second Tier Redemption Account as provided in the Master Trust Agreement provided, however, that, if so provided in a Second Tier Credit Agreement or in the proceedings approved by the Corporation in connection therewith, some or all of the amounts payable under a Second Tier Credit Agreement may be designated to be Subordinate Tier Payment Obligations and all payment obligations under a First Tier Credit Agreement which are designated to be Second Tier Payment Obligations shall be treated as and constitute Second Tier Payment Obligations for all purposes under the Master Trust Agreement.

"Second Tier Redemption Account" – an account in the Second Tier Debt Service Fund created by the Master Trust Agreement.

"Second Tier Reserve Account" – an account in the Second Tier Debt Service Fund created by the Trust Agreement.

"Second Tier TELA Obligations" – any Series of Second Tier Obligations and any Second Tier Credit Agreement that are supported by a Toll Equity Loan Agreement.

"section" - Unless the context clearly requires otherwise, refers to a section of the First Supplemental Agreement.

"Securities Depository" – a Person that is registered as a clearing agency under Section 17A of the Securities Exchange Act of 1934 or whose business is confined to the performance of the functions of a clearing agency with respect to exempted securities, as defined in Section 3(a)(12) of such act for the purposes of Section 17A thereof.

"Senior Net Revenues" – with respect to any consecutive 12-month period or any Fiscal Year, the Revenues of the System in any such period or year, less the Senior Operating Expenses for any such period or year.

"Senior Operating Expenses" – the Corporation's reasonable and necessary accrued operating expenses of maintaining, repairing and operating the System, excluding (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation, which includes, without limiting the generality of the foregoing, any repair or replacement of any part of such portions of the System relating to any insurance or condemnation proceeds, expenses (including reasonably allocated portions thereof) for toll collection, all premiums for insurance and payments into any self-insurance reserve fund, all administration and engineering expenses relating to operation of the System, excluding (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation, fees and expenses of the Traffic Consultant, the General Engineering Consultant, the Trustee and of the Paying Agents, Policy Costs, legal expenses, expenses for Public Safety Officers and any other expenses required to be paid

by the Corporation as shown in the Annual Budget for the System, excluding (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation.

"Senior Operation and Maintenance Fund" – the Senior Operation and Maintenance Fund created by the Master Trust Agreement.

"Series" - one or more Obligations issued at the same time and having the same parity insofar as the lien of the Trust Estate is concerned and any Obligations thereafter authenticated and delivered in lieu of or in substitution for such Obligations, or sharing some other common term or characteristic, and designated as a separate Series of Obligations.

"Series 2013A Bonds" – the Grand Parkway Transportation Corporation Grand Parkway System First Tier Toll Revenue Bonds, Series 2013A issued in the original aggregate principal amount of \$200,000,000.

"Series 2013B Bonds" – the Grand Parkway Transportation Corporation Grand Parkway System Subordinate Tier Toll Revenue Bonds, Series 2013B (TELA Supported) issued in the original aggregate principal amount of \$1,414,934,856.15.

"Series 2013C Bonds" – the Grand Parkway Transportation Corporation Grand Parkway System Subordinate Tier Toll Revenue Tender Bonds, Series 2013C (TELA Supported - Interim Construction Financing) issued in the original aggregate principal amount of \$836,440,000.

"Series 2013D Bonds" – the Grand Parkway Transportation Corporation Grand Parkway System Subordinate Tier Toll Revenue Tender Bonds, Taxable Series 2013D (TELA Supported) issued in the original aggregate principal amount of \$106,890,000.

"Series 2013E Bonds" – the Grand Parkway Transportation Corporation Grand Parkway System Subordinate Tier Toll Revenue Bonds, Taxable Series 2013E (TELA Supported) issued in the original aggregate principal amount of \$361,810,000.

"Short-Term Indebtedness" – all Obligations that mature in less than 365 days and are issued as Short-Term Indebtedness. In the event a Credit Provider has extended a line of credit or the Corporation has undertaken a commercial paper or similar program, only amounts actually borrowed under such line of credit or program and repayable in less than 365 days shall be considered Short-Term Indebtedness and the full amount of such commitment or program shall not be treated as Short-Term Indebtedness to the extent that such facility remains available but undrawn.

"Standard & Poor's" or "S&P" – Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business, or, if such corporation is dissolved or liquidated or otherwise ceases to perform securities rating services, such other nationally recognized securities rating agency as may be designated in writing by a Corporation Representative.

"State" - The State of Texas.

"Stated Maturity" – for any Obligation, the scheduled maturity date or final mandatory sinking fund redemption date of such Obligation.

"Subordinate Tier Credit Agreement" – collectively, an obligation entered into on a parity with the Outstanding Subordinate Tier Obligations in the form of a loan agreement, revolving credit agreement, agreement establishing a line of credit, letter of credit, reimbursement agreement, insurance contract, commitments to purchase obligations, purchase or sale agreement, interest rate swap, cap and floor agreement, or commitment or other contract or agreement authorized, recognized and approved by the Corporation as a Subordinate Tier Credit Agreement, whether authorized or approved in anticipation of, simultaneously with, or subsequent to, the authorization of the Subordinate Tier Obligations in connection with which it is executed.

"Subordinate Tier Debt Service Fund" – the Subordinate Tier Debt Service Fund created by the Master Trust Agreement.

"Subordinate Tier Interest Account" – an account in the Subordinate Tier Debt Service Fund created by the Trust Agreement.

"Subordinate Tier Non-TELA Obligations" – any Series of Subordinate Tier Obligations and any Subordinate Tier Credit Agreement that are not supported by a Toll Equity Loan Agreement.

"Subordinate Tier Obligations" – the Series 2013B Bonds, the Series 2013C Bonds, the Series 2013D Bonds, the Series 2013E Bonds and, unless otherwise specifically stated, any bond, bonds, note, notes, other obligation or obligations, including any Subordinate Tier Credit Agreement, issued, incurred or entered into pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of Subordinate Tier Obligations" as Subordinate Tier Obligations, or all of the foregoing, as the case may be, authorized by law and issued under and secured by the provisions of the Master Trust Agreement and any Supplemental Agreement.

"Subordinate Tier Payment Obligations" – unless otherwise specifically stated in a Supplemental Agreement, all amounts payable by the Corporation under a Subordinate Tier Credit Agreement less any amounts of Principal or interest payable with respect to any Subordinate Tier Obligations pledged under a Subordinate Tier Credit Agreement as collateral for the amounts due thereunder and any payment obligations evidenced by a Subordinate Tier Obligation; and all such Subordinate Tier Payment Obligation payments shall be deemed to constitute Principal payments of Subordinate Tier Obligations, and shall be paid from the Subordinate Tier Redemption Account or sub-account therein as provided in the Master Trust Agreement and specified in a Supplemental Agreement; and all payment obligations under a First Tier Credit Agreement or Second Tier Credit Agreement which are designated to be Subordinate Tier Payment Obligations shall be treated as and constitute Subordinate Tier Payment Obligations for all purposes under the Master Trust Agreement.

"Subordinate Tier Redemption Account" – an account in the Subordinate Tier Debt Service Fund created by the Trust Agreement.

"Subordinate Tier Reserve Account" – an account in the Subordinate Tier Debt Service Fund created by the Trust Agreement.

"Subordinate Tier TELA Obligations" – any Series of Subordinate Tier Obligations and any Subordinate Tier Credit Agreement that are supported by a Toll Equity Loan Agreement.

"Substantial Completion" – as evidenced by the certificate of a Corporation Representative, pursuant to the Master Trust Agreement, (i) with respect to the Initial Project, the date which Segments F-1, F-2 and G reach "substantial completion" under the terms of the development agreement related to the acquisition and construction of such portions of the Initial Project and (ii) with respect to any additional System Segment financed with Additional Obligations, the date which such additional System Segments reach "substantial completion" under the terms of the development or construction agreement related to the acquisition and construction of such additional System Segments.

"Supplemental Agreement" or "Supplement" – any supplemental agreement to the Master Trust Agreement, now or hereafter duly authorized and entered into in accordance with the Master Trust Agreement, together with, to the extent applicable, the related award certificate of the Corporation.

"System" - Certain portions of the Grand Parkway Project designated as such by the Corporation, initially the Initial Project, and any System Segment or other toll project or facilities added to, grouped with, or otherwise constituted and declared to be a part of the System by the Corporation in accordance with State law and pursuant to an order or orders adopted by the Corporation.

"System Segment" – the meaning given such term in the Master Trust Agreement.

"Tax-Exempt Obligations" - Any Obligation the interest on which is excludable from gross income for federal income tax purposes.

"TELA Supported Junior Operating Expenses" – the Junior Operating Expenses of or allocable to (a) the System Segments and portions of System Segments comprising a portion of the Initial Project and the portion of Segment D within Harris County and (b) any additional System Segments (or portions thereof) as determined by the Corporation and which are supported by a Toll Equity Loan Agreement.

"TELA Coverage Deficit" – the meaning given such term in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - TELA/Other Tier Obligations."

"TELA/Other Tier Credit Agreement" – the Toll Equity Loan Agreement.

"TELA/Other Tier Debt Obligations" – a Toll Equity Note and any amendment or supplement, if any, thereunder incurred or entered into pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," and "-Issuance of Subordinate Tier Obligations" as additional TELA/Other Tier Debt Obligations.

"TELA/Other Tier Obligations" – collectively, the TELA/Other Tier Debt Obligations and the TELA/Other Tier Payment Obligations.

"TELA/Other Tier Payment Fund" – the TELA/Other Tier Payment Fund created by the Master Trust Agreement.

"TELA/Other Tier Payment Obligations" – unless otherwise specifically stated in a Supplemental Agreement, all amounts payable by the Corporation under a TELA/Other Tier Credit Agreement, other than payment obligations evidenced by a TELA/Other Tier Debt Obligation; and all such TELA/Other Tier Payment Obligations shall be deemed to constitute Principal payment of TELA/Other Tier Obligations, and shall be paid from the TELA/Other Tier Payment Fund and specified in a Supplemental Agreement.

"Tier" – the designation of priority of an Obligation, with First Tier Obligations being the most senior, Second Tier Obligations being the second most senior, Subordinate Tier Obligations being the third most senior and, subject to subsection (f) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee," TELA/Other Tier Obligations being the fourth most senior.

"TIFIA Obligation" – an Obligation initially delivered to and owned by USDOT or other Governmental Lender related to a TIFIA Loan Agreement.

"Toll Equity Loan" – the loan or loans consisting of advances from time to time from TxDOT incurred by the Corporation and paid to the Trustee pursuant to a Toll Equity Loan Agreement and evidenced by a Toll Equity Note. For the avoidance of doubt, as of any date of determination, the Outstanding amount under a Toll Equity Loan shall be the aggregate outstanding amount of all advances drawn under such Toll Equity Loan commitment plus the aggregate outstanding amount of interest compounded in accordance therewith as of such date.

"Toll Equity Loan Agreement" – (i) the Initial Toll Equity Loan Agreement and (ii) any other Toll Equity Loan Agreement, each as supplemented and amended from time to time, between the Corporation and TxDOT, which shall be a credit agreement under Chapter 1371, Texas Government Code, and a contract providing revenue and security to pay certain Additional Obligations, as determined in such agreement, and, for purposes of the Master Trust Agreement, shall be a TELA/Other Tier Credit Agreement.

"Toll Equity Loan Supported Obligations" – any Series of the First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations, respectively.

"Toll Equity Note" – (i) the Initial Toll Equity Note and (ii) any note executed and delivered pursuant to a Supplemental Agreement relating to a new Toll Equity Loan Agreement and issued as a Subordinate Tier Obligation to evidence a Toll Equity Loan, all as may be amended, supplemented or delivered pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - TELA/Other Tier Obligations."

"Toll Rate Agreement" – the Toll Rate Agreement, dated as of August 1, 2013, as supplemented and amended from time to time, between the Corporation and the Commission which, among other matters, the Commission covenants with respect to certain rates and charges relating to the System for the benefit of the Corporation, the Trustee and the Owners of any Obligations.

"Toll Rate Schedule" – the schedule of tolls, fees or charges to be collected for the use of the System established by the Commission pursuant to the Toll Rate Agreement, any changes in such tolls, rates and charges and any changes in design of the overall configuration and toll road plans of the System from that included in the Comprehensive Traffic and Revenue Study Update 2013 Final Report dated June 26, 2013 by CDM Smith Inc. and the General Engineering Consulting Report in connection with the issuance of the Initial Obligations.

"Traffic Consultant" – the traffic engineer or engineering firm or corporation at the time employed by the Corporation pursuant to the provisions of subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT

PROVISIONS - Employment of General Engineering Consultant and Traffic Consultant" to carry out the duties imposed by the Master Trust Agreement on the Traffic Consultant.

"Transfer Date" – the meaning given such term in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds."

"Trust Agreement" - Collectively, the Master Trust Agreement as supplemented by the First Supplemental Agreement.

"Trust Estate" – the meaning given such term in the granting clauses of the recitals of the Master Trust Agreement.

"Trustee" – U.S. Bank National Association, or its permitted successors and assigns under the Master Trust Agreement. "Principal Office" of the Trustee shall mean the business address specified in writing by the Trustee to the Corporation as its principal office for its duties under the Master Trust Agreement.

"TxDOT" or "Department"– the Texas Department of Transportation, or any successor thereto.

"Unanimous Voting Matters" - the meaning given such term in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Modification of Trust Agreement and Supplemental Agreements with Consent of a Majority of Owners of Obligations; Restrictions on Modifications; Notice of Supplemental Agreements."

"USDOT" – the United States Department of Transportation, or any successor thereto.

"Variable Rate" – interest on an Obligation which does not have a predetermined fixed rate or rates to maturity.

"Variable Rate Obligations" - Obligations in the Daily Mode, the Flexible Mode, the Weekly Mode, the Monthly Mode, the Quarterly Mode, the Semiannual Mode, the Multiannual Mode, Index Floating Rate Mode, the Fixed Rate Mode or such other mode, interest rate or other provisions and terms as set forth in each Award Certificate.

SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS

Issuance of First Tier Obligations.

(a) This section shall not be applicable to the issuance of any First Tier Obligations which constitute all or a portion of the Initial Obligations.

(b) To the extent and in the manner provided in this section, the Corporation reserves and shall have the right and power to issue or incur, at one time or from time to time, First Tier Obligations, including First Tier Credit Agreements, which First Tier Obligations, when issued or incurred, shall be secured by and payable from a lien on and pledge of the Senior Net Revenues. First Tier Obligations shall be in all respects of equal dignity and on parity with any then Outstanding First Tier Obligations.

(c) First Tier Obligations may be issued for any purpose then authorized by law, including the refunding of Obligations or other debt and/or the interest thereon at any time authorized. Such First Tier Obligations shall be designated as First Tier Non-TELA Obligations or First Tier TELA Obligations, dated, bear interest (either fixed, variable, or a combination thereof), mature, and shall or may be subject to mandatory or optional redemption prior to maturity with moneys from the First Tier Debt Service Fund, shall be payable from such source or sources, further secured by any reserve fund or other funds, if any, and shall be executed, sold, and delivered, all as is provided in the resolution and the Supplemental Agreement authorizing the issuance of such First Tier Obligations, provided that the provisions of such Obligations shall not be in conflict with the provisions of the Master Trust Agreement. Such First Tier Obligations shall be issued, executed, and delivered in the form and manner as prescribed in the resolution and the Supplemental Agreement authorizing same, and such First Tier Obligations shall be secured and payable as in the Master Trust Agreement and the resolution provided, and shall be on parity with any then Outstanding First Tier Non-TELA Obligations and First Tier TELA Obligations with respect to the Senior Net Revenues.

(d) First Tier Obligations shall be issued and delivered only after adoption by the Corporation of a resolution and Supplemental Agreement which shall (i) authorize the Obligations as either First Tier Non-TELA Obligations or First Tier TELA Obligations and direct their delivery, (ii) describe in brief and general terms the purpose or purposes for which such Obligations are to be issued, (iii) specify and determine the title and other provisions of such Obligations in accordance with

paragraph (c) of this section, (iv) set forth or provide for the approval of the form of the Obligation, (v) authorize any reserve fund or other funds for such Obligations pursuant to subparagraph (g) of this section and (vi) provide for the retirement of such Obligations from the First Tier Redemption Account or otherwise, provided that the provisions with respect to such Obligations shall not be in conflict with the provisions of the Master Trust Agreement.

(e) Upon their authorization by resolution of the Corporation as described above, the First Tier Obligations of a Series issued under this section shall be issued in the manner hereinabove set forth or referred to, and shall be delivered to the purchasers thereof, but before, or concurrently with, the delivery of such Obligations to such purchasers there shall have been filed with the Trustee the following:

- (i) a copy, certified by an official of the Corporation, of the resolution of the Corporation authorizing the First Tier Obligations and directing their delivery to the purchasers;
- (ii) an original executed counterpart of the Supplemental Agreement;
- (iii) a certificate signed by a Corporation Representative to the effect that (1) (A) no default has occurred and is continuing under the Master Trust Agreement or (B) after the issuance of the proposed Obligations to cure an existing default under the Master Trust Agreement, no default will have occurred and be continuing under the Master Trust Agreement and (2) (A) no default by the Commission has occurred and is continuing under the Toll Rate Agreement or (B) after the issuance of the proposed Obligations, no default by the Commission will have occurred and be continuing under the Toll Rate Agreement;
- (iv) a certificate of a Corporation Representative regarding transfers from the Revenue Fund required under the Master Trust Agreement;
- (v) a certificate by the General Engineering Consultant setting forth their opinions as to: (1) the aggregate estimated amount of the cost of the acquisition or construction of the System Segment for which the First Tier Obligations are to be issued, (2) the Estimated Date of Completion for such System Segment, and (3) the estimated amount of the Senior Operating Expenses and Junior Operating Expenses for each of the Fiscal Years through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the First Tier Obligations proposed to be issued (provided that items (1) and (2) shall not be applicable with respect to First Tier Obligations issued solely for refunding purposes and item (3) shall not be applicable in the case of First Tier Obligations issued to refund Outstanding First Tier Obligations which do not cause, in any Fiscal Year, an increase in then existing annual Debt Service Requirements of the First Tier Obligations);
- (vi) a certificate by the Traffic Consultant setting forth their opinion as to the aggregate amount of projected Revenues of the System (which may include appropriate investment income as estimated by a Corporation Representative) under the Toll Rate Schedule then in effect and referred to, set forth in, or attached to, such certificate, for each of the Fiscal Years through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the First Tier Obligations proposed to be issued;
- (vii) a certificate by a Corporation Representative, derived, in part, from the certificates described in subparagraphs (e)(v) and (vi) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of First Tier Obligations," stating (1) the projected Senior Net Revenues and projected Junior Operating Expenses for each Fiscal Year through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the First Tier Obligations proposed to be issued; (2) the annual Debt Service Requirements (which may account for appropriate investment income as estimated by a Corporation Representative) for all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the First Tier Obligations proposed to be issued; (3) the projected balance of the Rate Stabilization Fund for each Fiscal Year during any Construction and Ramp-up Period; and (4) in the case of First Tier Obligations proposed to be issued to refund Outstanding First Tier Obligations, (A) the annual Debt Service Requirements for all Outstanding First Tier Obligations (including any First Tier Obligations being refunded but excluding the First Tier Obligations then proposed to be delivered) and (B) the annual

Debt Service Requirements for all Outstanding First Tier Obligations (excluding any First Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered;

(viii) for the issuance of a Series of First Tier TELA Obligations, (1) an original executed counterpart of any amendment or supplement to any outstanding Toll Equity Loan Agreement, if necessary, providing for, in each Fiscal Year such First Tier TELA Obligations are to be Outstanding, any necessary or related adjustment in (A) the Maximum Available Aggregate Amount and the Maximum Available Annual Amount, respectively, and (B) the TELA Supported Junior Operating Expenses or other amounts in the Project Budget or (2) an original executed counterpart of any new Toll Equity Loan Agreement providing for, in each Fiscal Year such First Tier TELA Obligations are to be Outstanding, any necessary or related adjustment in or establishment of (A) the particular Maximum Available Aggregate Amount and the particular Maximum Available Annual Amount, respectively, and (B) the particular Project Budget;

(ix) for the issuance of a Series of First Tier TELA Obligations, a certificate of a Corporation Representative, demonstrating with reasonable detail that the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations (excluding any Obligations being refunded), including the First Tier TELA Obligations proposed to be issued plus the projected TELA Supported Junior Operating Expenses, for the current Fiscal Year and in each Fiscal Year thereafter is less than or equal to the applicable aggregate Maximum Available Annual Amount for each such Fiscal Year as set forth in any outstanding Toll Equity Loan Agreements (as may have been amended or supplemented); and

(x) for the issuance of a Series of First Tier TELA Obligations, an opinion or opinions of general counsel to TxDOT and Counsel to the Corporation to the effect that the Toll Equity Loan Agreement or any amendment or supplement thereto described in clause (viii) above has been duly authorized, executed and delivered and is a valid, binding and enforceable obligation of TxDOT and the Corporation, respectively, subject to sovereign immunity, bankruptcy, equitable principles and other standard legal opinion exceptions.

(f) For the issuance of a Series of First Tier Obligations, except as provided in subparagraphs (a) and (j) of this section, when the documents mentioned above shall have been filed with the Trustee and when the First Tier Obligations authorized by the resolution provided in subparagraph (e)(i) of this section shall have been executed in accordance with the Master Trust Agreement and the resolution, the Corporation may deliver such Obligations at one time to or upon the order of the purchasers named in such resolution, upon receipt by the purchasers and the Trustee of an opinion of Bond Counsel that the issuance of such Obligations has been duly authorized and that all conditions precedent to the delivery of such Obligations have been fulfilled; provided that, except in the case of refunding First Tier Obligations being issued to refund Outstanding First Tier Obligations which do not cause an increase in the then existing annual Debt Service Requirements of the First Tier Obligations in any Fiscal Year, such Obligations shall not be delivered unless there shall have been filed with the Trustee an additional certificate by a Corporation Representative (based on the above described certificates of the General Engineering Consultant, the Traffic Consultant, and the Corporation Representative, as applicable) certifying that:

(i) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.50 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and any then Outstanding Second Tier Obligations and Subordinate Tier Obligations for which Section 210 is applicable (excluding any such First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered;

(ii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.30 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and Second Tier Obligations (excluding any First Tier Obligations or Second Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered; and

(iii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.10 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations being refunded) and the First Tier Obligations then proposed to be delivered; provided that for this clause (iii),

the Corporation Representative may assume that Senior Net Revenues include the amounts forecasted to be on deposit in the Rate Stabilization Fund during any Construction and Ramp-up Period.

(g) The Corporation may establish a reserve account, a Capitalized Interest Account and/or any other fund or funds pursuant to the provisions of the applicable Supplemental Agreement for the purpose of paying or securing a particular Series of First Tier Obligations, any specific group or Series of First Tier Obligations or, for a Capitalized Interest Account, any specific group of Obligations authorized by the same particular Supplemental Agreement. Any reserve account shall be segregated into a separate subaccount and separately identified within the First Tier Reserve Account. Any reserve account or other fund so established shall be held solely for the benefit of the Owners of the particular Series or group of Series of First Tier Obligations for which such subaccount or fund was established. Each such reserve account shall be designated in such manner as is necessary to identify the First Tier Obligations it secures and to distinguish such subaccount from any other accounts or subaccounts within the First Tier Reserve Account created for the benefit of any other First Tier Obligations. Any Capitalized Interest Account shall be segregated into a separate subaccount and separately identified within the First Tier Interest Account or the Construction Fund, as directed by the Corporation Representative. Any such Capitalized Interest Account so established shall be held for the benefit of the Owners of the particular Series, group of Series of First Tier Obligations or group of Obligations authorized by the same particular Supplemental Agreement, for which such account was established, as the case may be. Each such Capitalized Interest Account shall be designated in such manner as is necessary to identify the Obligations it secures and to distinguish such subaccount from any other subaccounts within (i) the First Tier Interest Account created for the benefit of any other First Tier Obligations or (ii) the Construction Fund. Any other fund created hereby shall be designated in such manner as is necessary to identify the First Tier Obligations it secures and to distinguish such subaccount from any other funds, account or subaccounts created for the benefit of any other First Tier Obligations. Prior to establishing any reserve account, Capitalized Interest Account or other fund hereby, a Corporation Representative shall deliver a certificate to the Trustee to the effect that the establishment and operation of such account or fund will not have a material adverse effect on the ability of the Corporation to comply with its covenants in the Master Trust Agreement or in the Supplemental Agreements authorizing the issuance of the Outstanding First Tier Obligations.

(h) Immediately after the delivery of any First Tier Obligations issued under this section, the Corporation shall deposit the proceeds thereof, if any, (including accrued interest, if any, collected at the time of the delivery of such Obligations) with the Trustee, which shall in turn deposit the proceeds as directed by a Corporation Representative in accordance with the purposes for which such First Tier Obligations were issued.

(i) Notwithstanding anything to the contrary contained in this section, the Corporation may enter into First Tier Credit Agreements constituting Qualified Credit Agreements in connection with First Tier Obligations and the First Tier Payment Obligations as specified thereunder may be secured by and made payable from a lien on and pledge of the pledged Senior Net Revenues on a parity with the Outstanding First Tier Obligations. In addition, the Trustee shall withdraw from the Revenue Fund for deposit into the First Tier Debt Service Fund such amounts as are necessary for the Corporation to pay such First Tier Payment Obligations in accordance with the Master Trust Agreement.

(j) To finance the costs of completion of the Initial Project, the Corporation may, without complying with the provisions of subparagraphs (e)(iv) through (vii), (e)(ix) and (f) of this section, issue First Tier Obligations in a Principal amount, together with any Subordinate Tier Obligations issued pursuant to subparagraph (j) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations," not in excess of 10% of the Principal amount of the Initial Obligations issued to finance the Initial Project, if prior to the issuance thereof there is delivered to the Trustee a certificate of the General Engineering Consultant stating: (i) that at the time the Initial Obligations were issued, the Corporation had reason to believe that the proceeds of such Initial Obligations, together with any other moneys then expected to be available, would provide sufficient moneys for the completion of the Initial Project (ii) the amount estimated to be needed to so complete the Initial Project; and (iii) that the proceeds of all such Completion Obligations to be applied to the completion of the Initial Project, together with a reasonable estimate by a Corporation Representative of (1) investment income to be earned on the proceeds of all such Completion Obligations and available to pay such costs, (2) the amount of moneys, if any, committed to such completion from available cash or marketable securities and reasonably estimated earnings thereon, (3) enumerated bank loans (including letters or lines of credit), and (4) any other moneys reasonably expected to be available, will be in an amount not less than the estimated amount needed to complete the Initial Project set forth in such certificate of the General Engineering Consultant. The Principal amount of the Completion Obligations permitted in subparagraph (j) of this section may include the amount required to (I) provide completed and equipped facilities of substantially the same type and scope contemplated at the time the Initial Obligations were originally issued, (II) provide for capitalized interest during the period of construction, (III) provide the required deposit, if any, in any reserve fund permitted by subparagraphs (d) and (g) of this section and (IV) pay the costs and expenses of issuing such First Tier Obligations being issued as Completion Obligations.

(k) Notwithstanding anything in this section to the contrary, subparagraphs (e)(iv) through (vii), (e)(ix) and (f) shall not be applicable to the issuance of any First Tier Obligations (i) issued to refund any of the Series 2013C Bonds and/or the Series 2013D Bonds, (ii) issued to refund any obligations that refunded any of the Series 2013C Bonds and/or the Series 2013D Bonds or (iii) initially delivered to USDOT or other Governmental Lender for certain eligible costs, the proceeds of which are to be used to retire any of the Series 2013C Bonds and/or the Series 2013D Bonds or obligations described in clause (ii) above.

Issuance of Second Tier Obligations.

(a) This section shall not be applicable to the issuance of any Second Tier Obligations which constitute all or a portion of the Initial Obligations.

(b) To the extent and in the manner provided in this section, the Corporation reserves and shall have the right and power to issue or incur, at one time or from time to time, Second Tier Obligations, including Second Tier Credit Agreements, which Second Tier Obligations, when issued or incurred, shall be secured by and payable from a lien on and pledge of the Senior Net Revenues subordinate to any First Tier Obligations. Second Tier Obligations shall be in all respects of equal dignity and on parity with any then Outstanding Second Tier Obligations.

(c) Second Tier Obligations may be issued for any purpose then authorized by law, including the refunding of Obligations or other debt and/or the interest thereon, at any time authorized. Such Second Tier Obligations shall be designated Second Tier Non-TELA Obligations or Second Tier TELA Obligations, dated, bear interest (either fixed, variable, or a combination thereof), mature, and shall or may be subject to mandatory or optional redemption prior to maturity with moneys from the Second Tier Debt Service Fund, shall be payable from such source or sources, further secured by any reserve fund or other funds, if any, and shall be executed, sold, and delivered, all as is provided in the resolution and the Supplemental Agreement authorizing the issuance of such Second Tier Obligations, provided that the provisions of such Obligations shall not be in conflict with the provisions of the Master Trust Agreement. Such Second Tier Obligations shall be issued, executed, and delivered in the form and manner as prescribed in the resolution and the Supplemental Agreement authorizing same, and such Second Tier Obligations shall be secured and payable as in the Master Trust Agreement and the resolution provided, and shall be on parity with any then Outstanding Second Tier Non-TELA Obligations or Second Tier TELA Obligations with respect to the Senior Net Revenues.

(d) Second Tier Obligations shall be issued and delivered only after adoption by the Corporation of a resolution and Supplemental Agreement which shall (i) authorize the Obligations as either Second Tier Non-TELA Obligations or Second Tier TELA Obligations and direct their delivery, (ii) describe in brief and general terms the purpose or purposes for which such Obligations are to be issued, (iii) specify and determine the title and other provisions of such Obligations in accordance with paragraph (c) of this section, (iv) set forth or provide for the approval of the form of the Obligation, (v) authorize any reserve fund or other funds for such Obligations pursuant to subparagraphs (g) and (vi) of this section provide for the retirement of such Obligations from the Second Tier Redemption Account or otherwise, provided that the provisions with respect to such Obligations shall not be in conflict with the provisions of the Master Trust Agreement.

(e) Upon their authorization by resolution of the Corporation as described above, the Second Tier Obligations of a Series issued under this section shall be issued in the manner hereinabove set forth or referred to, and shall be delivered to the purchasers thereof, but before, or concurrently with, the delivery of such Obligations to such purchasers there shall have been filed with the Trustee the following:

(i) a copy, certified by an official of the Corporation, of the resolution of the Corporation authorizing the Second Tier Obligations and directing their delivery to the purchasers;

(ii) an original executed counterpart of the Supplemental Agreement;

(iii) a certificate signed by a Corporation Representative to the effect that (1) (A) no default has occurred and is continuing under the Master Trust Agreement or (B) after the issuance of the proposed Obligations to cure an existing default under the Master Trust Agreement, no default will have occurred and be continuing under the Master Trust Agreement and (2) (A) no default by the Commission has occurred and is continuing under the Toll Rate Agreement or (B) after the issuance of the proposed Obligations, no default by the Commission will have occurred and be continuing under the Toll Rate Agreement;

- (iv) a certificate of a Corporation Representative regarding transfers from the Revenue Fund required under the Master Trust Agreement;
- (v) a certificate by the General Engineering Consultant setting forth their opinions as to: (1) the aggregate estimated amount of the cost of the acquisition or construction of the System Segment for which the Second Tier Obligations are to be issued, (2) the Estimated Date of Completion for such System Segment, and (3) the estimated amount of the Senior Operating Expenses and Junior Operating Expenses for each of the Fiscal Years through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Second Tier Obligations proposed to be issued (provided that items (1) and (2) shall not be applicable with respect to Second Tier Obligations issued for refunding purposes and item (3) shall not be applicable in the case of Second Tier Obligations issued to refund Outstanding First Tier Obligations and/or Second Tier Obligations where the annual Debt Service Requirements of such refunding Second Tier Obligations in any Fiscal Year is less than the aggregated Debt Service Requirements in each such Fiscal Year of the First Tier Obligations and Second Tier Obligations being refunded);
- (vi) a certificate by the Traffic Consultant setting forth their opinion as to the aggregate amount of projected Revenues of the System (which may include appropriate investment income as estimated by a Corporation Representative) under the Toll Rate Schedule then in effect and referred to, set forth in, or attached to, such certificate, for each of the Fiscal Years through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Second Tier Obligations proposed to be issued;
- (vii) a certificate by a Corporation Representative, derived, in part, from the certificates described in subparagraphs (e)(v) and (vi) of this section, stating (1) the projected Senior Net Revenues and projected Junior Operating Expenses for each Fiscal Year through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Second Tier Obligations proposed to be issued; (2) the annual Debt Service Requirements (which may account for appropriate investment income as estimated by a Corporation Representative) for all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Second Tier Obligations proposed to be issued; (3) the projected balance of the Rate Stabilization Fund for each Fiscal Year during any Construction and Ramp-up Period; and (4) in the case of Second Tier Obligations proposed to be issued to refund Outstanding First Tier Obligations and/or Second Tier Obligations, (A) the annual Debt Service Requirements for all Outstanding First Tier Obligations and Second Tier Obligations (including any First Tier Obligations and Second Tier Obligations being refunded, as the case may be, but excluding the Second Tier Obligations then proposed to be delivered) and (B) the annual Debt Service Requirements for all Outstanding First Tier Obligations and Second Tier Obligations (excluding any First Tier Obligations and Second Tier Obligations being refunded) and the Second Tier Obligations then proposed to be delivered;
- (viii) for the issuance of a Series of Second Tier TELA Obligations, (1) an original executed counterpart of any amendment or supplement to any outstanding Toll Equity Loan Agreement, if necessary, providing for, in each Fiscal Year such Second Tier TELA Obligations are to be Outstanding, any necessary or related adjustment in (A) the Maximum Available Aggregate Amount and the Maximum Available Annual Amount, respectively, and (B) the TELA Supported Junior Operating Expenses or other amounts in the Project Budget or (2) an original executed counterpart of any new Toll Equity Loan Agreement providing for, in each Fiscal Year such Second Tier TELA Obligations are to be Outstanding, any necessary or related adjustment in or establishment of (A) the particular Maximum Available Aggregate Amount and the particular Maximum Available Annual Amount, respectively, and (B) the particular Project Budget;
- (ix) for the issuance of a Series of Second Tier TELA Obligations, a certificate of a Corporation Representative demonstrating with reasonable detail that the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations (excluding any Obligations being refunded), including the Second Tier TELA Obligations proposed to be issued, plus the projected TELA Supported Junior Operating Expenses, for the current Fiscal Year and in each Fiscal Year thereafter is less than or equal to the applicable aggregate Maximum Available Annual Amount for each such Fiscal Year as set forth in any outstanding Toll Equity Loan Agreements (as may have been amended or supplemented); and

(x) for the issuance of a Series of Second Tier TELA Obligations, an opinion or opinions of general counsel to TxDOT and Counsel to the Corporation to the effect that the Toll Equity Loan Agreement or any amendment or supplement thereto described in clause (viii) above has been duly authorized, executed and delivered and is a valid, binding and enforceable obligation of TxDOT and the Corporation, respectively, subject to sovereign immunity, bankruptcy, equitable principles and other standard legal opinion exceptions.

(f) For the issuance of a Series of Second Tier Obligations, except as provided in subparagraphs (a) and (j) of this section, when the documents mentioned above shall have been filed with the Trustee and when the Second Tier Obligations authorized by the resolution provided in subparagraph (e)(i) of this section shall have been executed in accordance with the Master Trust Agreement and the resolution, the Corporation may deliver such Obligations at one time to or upon the order of the purchasers named in such resolution, upon receipt by the purchasers and the Trustee of an opinion of Bond Counsel that the issuance of such Obligations has been duly authorized and that all conditions precedent to the delivery of such Obligations have been fulfilled; provided that, except in the case of refunding Second Tier Obligations being issued to refund Outstanding First Tier Obligations and/or Second Tier Obligations where the annual Debt Service Requirements of such refunding Second Tier Obligations in any Fiscal Year is less than the aggregated Debt Service Requirements in each such Fiscal Year of the First Tier Obligations and Second Tier Obligations being refunded, such Obligations shall not be delivered unless there shall have been filed with the Trustee an additional certificate by a Corporation Representative (based on the above described certificates of the General Engineering Consultant, the Traffic Consultant, and the Corporation Representative, as applicable) certifying that:

(i) for the issuance of Second Tier Obligations which are to be TIFIA Obligations for which "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Effect of Bankruptcy Related Event on TIFIA Obligations" could apply, the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.50 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and any then Outstanding Second Tier Obligations and Subordinate Tier Obligations for which "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Effect of Bankruptcy Related Event on TIFIA Obligations" is applicable (excluding any such First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the Second Tier Obligations which are to be TIFIA Obligations then proposed to be delivered;

(ii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.30 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations and Second Tier Obligations (excluding any First Tier Obligations or Second Tier Obligations being refunded) and the Second Tier Obligations then proposed to be delivered; and

(iii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.10 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations being refunded) and the Second Tier Obligations then proposed to be delivered; provided that for this clause (iii), the Corporation Representative may assume that Senior Net Revenues include the amounts forecasted to be on deposit in the Rate Stabilization Fund during any Construction and Ramp-up Period.

(g) The Corporation may establish a reserve account, a Capitalized Interest Account and/or any other fund or funds pursuant to the provisions of the applicable Supplemental Agreement for the purpose of paying or securing a particular Series of Second Tier Obligations, any specific group or Series of Second Tier Obligations or, for a Capitalized Interest Account, any specific group of Obligations authorized by the same particular Supplemental Agreement. Any reserve account shall be segregated into a separate subaccount and separately identified within the Second Tier Reserve Account. Any reserve account or other fund so established shall be held solely for the benefit of the Owners of the particular Series or group of Series of Second Tier Obligations for which such subaccount or fund was established. Each such reserve account shall be designated in such manner as is necessary to identify the Second Tier Obligations it secures and to distinguish such subaccount from any other accounts or subaccounts within the Second Tier Reserve Account created for the benefit of any other Second Tier Obligations. Any Capitalized Interest Account shall be segregated into a separate subaccount and separately identified within the Second Tier Interest Account or the Construction Fund, as directed by the Corporation Representative. Any such Capitalized Interest Account so established shall be held for the benefit of the Owners of the particular Series, group of Series

of Second Tier Obligations or group of Obligations authorized by the same particular Supplemental Agreement, for which such account was established, as the case may be. Each such Capitalized Interest Account shall be designated in such manner as is necessary to identify the Second Tier Obligations it secures and to distinguish such subaccount from any other subaccounts within (i) the Second Tier Interest Account created for the benefit of any other Second Tier Obligations or (ii) the Construction Fund. Any other fund created hereby shall be designated in such manner as is necessary to identify the Second Tier Obligations it secures and to distinguish such subaccount from any other funds, account or subaccounts created for the benefit of any other Second Tier Obligations. Prior to establishing any reserve account, Capitalized Interest Account or other fund hereby, a Corporation Representative shall deliver a certificate to the Trustee to the effect that the establishment and operation of such account or fund will not have a material adverse effect on the ability of the Corporation to comply with its covenants in the Master Trust Agreement or in the Supplemental Agreements authorizing the issuance of the Outstanding Second Tier Obligations.

(h) Immediately after the delivery of any Second Tier Obligations issued under this section, the Corporation shall deposit the proceeds thereof, if any, (including accrued interest, if any, collected at the time of the delivery of such Obligations) with the Trustee, which shall in turn deposit the proceeds as directed by a Corporation Representative in accordance with the purposes for which such Second Tier Obligations were issued.

(i) Notwithstanding anything to the contrary contained in this section, the Corporation may enter into Second Tier Credit Agreements constituting Qualified Credit Agreements in connection with Second Tier Obligations and the Second Tier Payment Obligations as specified thereunder may be secured by and made payable from a lien on and pledge of the pledged Senior Net Revenues on a parity with the Outstanding Second Tier Obligations. In addition, the Trustee shall withdraw from the Revenue Fund for deposit into the Second Tier Debt Service Fund such amounts as are necessary for the Corporation to pay such Second Tier Payment Obligations in accordance with the Master Trust Agreement.

(j) Notwithstanding anything in this section to the contrary, subparagraphs (e)(iv) through (vii), (e)(ix) and (f) of this section shall not be applicable to the issuance of any Second Tier Obligations (i) issued to refund any of the Series 2013C Bonds and/or the Series 2013D Bonds, (ii) issued to refund any obligations that refunded any of the Series 2013C Bonds and/or the Series 2013D Bonds or (iii) initially delivered to USDOT or other Governmental Lender for certain eligible costs, the proceeds of which are to be used to retire any of the Series 2013C Bonds and/or the Series 2013D Bonds or obligations described in clause (ii) above.

Issuance of Subordinate Tier Obligations.

(a) This section shall not be applicable to the issuance of any Subordinate Tier Obligations which constitute all or a portion of the Initial Obligations.

(b) To the extent and in the manner provided in this section, the Corporation reserves and shall have the right and power to issue or incur, at one time or from time to time, Subordinate Tier Obligations, including Subordinate Tier Credit Agreements, which Subordinate Tier Obligations, when issued or incurred, shall be secured by and payable from a lien on and pledge of the Senior Net Revenues subordinate to any First Tier Obligations and any Second Tier Obligations. Each Series of Subordinate Tier Obligations shall be created pursuant to a Supplemental Agreement and shall identify the level of subordination and the priority of payment to which such series is entitled relative to any other Series of Subordinate Tier Obligations, provided, however, that in no event shall the priority of payment be above that of any First Tier Obligations or any Second Tier Obligations. Subject to the foregoing sentence, Subordinate Tier Obligations shall be in all respects of equal dignity and on parity with any then Outstanding Subordinate Tier Obligations.

(c) Subordinate Tier Obligations may be issued for any purpose then authorized by law, including the refunding of Obligations or other debt and/or the interest thereon, at any time authorized. Such Subordinate Tier Obligations shall be designated Subordinate Tier Non-TELA Obligations or Subordinate Tier TELA Obligations, dated, bear interest (either fixed, variable, or a combination thereof), mature, and shall or may be subject to mandatory or optional redemption prior to maturity with moneys from the Subordinate Tier Debt Service Fund, shall be payable from such source or sources, further secured by any reserve fund or other funds, if any, and shall be executed, sold, and delivered, all as is provided in the resolution and the Supplemental Agreement authorizing the issuance of such Subordinate Tier Obligations, provided that the provisions of such Obligations shall not be in conflict with the provisions of the Master Trust Agreement and the priority of payment of such Obligations shall be established as set forth above. Such Subordinate Tier Obligations shall be issued, executed, and delivered in the form and manner as prescribed in the resolution and the Supplemental Agreement authorizing same, and such Subordinate Tier Obligations shall be secured and payable as in the Master Trust Agreement and the resolution provided.

(d) Subordinate Tier Obligations shall be issued and delivered only after adoption by the Corporation of a resolution and Supplemental Agreement which shall (i) authorize the Obligations as either Subordinate Tier Non-TELA Obligations or Subordinate Tier TELA Obligations and direct their delivery, (ii) describe in brief and general terms the purpose or purposes for which such Obligations are to be issued, (iii) specify and determine the title and other provisions of such Obligations in accordance with paragraph (b) of this section, including the level of subordination and priority of payment therefor, (iv) set forth or provide for the approval of the form of the Obligation, (v) authorize any reserve fund or other funds for such Obligations pursuant to subparagraph (g) of this section and (vi) provide for the retirement of such Obligations from the Subordinate Tier Redemption Account or otherwise, provided that the provisions with respect to such Obligations shall not be in conflict with the provisions of the Master Trust Agreement.

(e) Upon their authorization by resolution of the Corporation as described above, the Subordinate Tier Obligations of a Series issued under this section shall be issued in the manner hereinabove set forth or referred to, and shall be delivered to the purchasers thereof, but before, or concurrently with, the delivery of such Obligations to such purchasers there shall have been filed with the Trustee the following:

(i) a copy, certified by an official of the Corporation, of the resolution of the Corporation authorizing the Subordinate Tier Obligations and directing their delivery to the purchasers;

(ii) an original executed counterpart of the Supplemental Agreement;

(iii) a certificate signed by a Corporation Representative to the effect that (1) (A) no default has occurred and is continuing under the Master Trust Agreement or (B) after the issuance of the proposed Obligations to cure an existing default under the Master Trust Agreement, no default will have occurred and be continuing under the Master Trust Agreement and (2) (A) no default by the Commission has occurred and is continuing under the Toll Rate Agreement or (B) after the issuance of the proposed Obligations, no default by the Commission will have occurred and be continuing under the Toll Rate Agreement;

(iv) a certificate of a Corporation Representative regarding transfers from the Revenue Fund required under the Master Trust Agreement;

(v) a certificate by the General Engineering Consultant setting forth their opinions as to: (1) the aggregate estimated amount of the cost of the acquisition or construction of the System Segment for which the Subordinate Tier Obligations are to be issued, (2) the Estimated Date of Completion for such System Segment, and (3) the estimated amount of the Senior Operating Expenses and Junior Operating Expenses for each of the Fiscal Years through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Subordinate Tier Obligations proposed to be issued (provided that items (1) and (2) shall not be applicable with respect to Subordinate Tier Obligations issued for refunding purposes and item (3) shall not be applicable in the case of Subordinate Tier Obligations issued to refund Outstanding First Tier Obligations, Second Tier Obligations and/or Subordinate Tier Obligations where the annual Debt Service Requirements of such refunding Subordinate Tier Obligations in any Fiscal Year is less than the aggregated Debt Service Requirements in each such Fiscal Year of the First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded);

(vi) a certificate by the Traffic Consultant setting forth their opinion as to the aggregate amount of projected Revenues of the System (which may include appropriate investment income as estimated by a Corporation Representative) under the Toll Rate Schedule then in effect and referred to, set forth in, or attached to, such certificate, for each of the Fiscal Years through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Subordinate Tier Obligations proposed to be issued;

(vii) a certificate by a Corporation Representative, derived, in part, from the certificates described in subparagraphs (e)(v) and (vi) of this section, stating (1) the projected Senior Net Revenues and projected Junior Operating Expenses for each Fiscal Year through the repayment of all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Subordinate Tier Obligations proposed to be issued; (2) the annual Debt Service Requirements (which may account for appropriate investment income

as estimated by a Corporation Representative) for all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations (excluding any Obligations being refunded), including the Subordinate Tier Obligations proposed to be issued; (3) the projected balance of the Rate Stabilization Fund for each Fiscal Year during any Construction and Ramp-up Period; and (4) in the case of Subordinate Tier Obligations proposed to be issued to refund Outstanding First Tier Obligations, Second Tier Obligations and/or Subordinate Tier Obligations, (A) the annual Debt Service Requirements for all Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (including any First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded, as the case may be, but excluding the Second Tier Obligations then proposed to be delivered) and (B) the annual Debt Service Requirements for all Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the Subordinate Tier Obligations then proposed to be delivered;

(viii) for the issuance of a Series of Subordinate Tier TELA Obligations, (1) an original executed counterpart of any amendment or supplement to any outstanding Toll Equity Loan Agreement, if necessary, providing for, in each Fiscal Year such Subordinate Tier TELA Obligations are to be Outstanding, any necessary or related adjustment in (A) the Maximum Available Aggregate Amount and the Maximum Available Annual Amount, respectively, and (B) the TELA Supported Junior Operating Expenses or other amounts in the Project Budget or (2) an original executed counterpart of any new Toll Equity Loan Agreement providing for, in each Fiscal Year such Subordinate Tier TELA Obligations are to be Outstanding, any necessary or related adjustment in or establishment of (A) the particular Maximum Available Aggregate Amount and the particular Maximum Available Annual Amount, respectively, and (B) the particular Project Budget;

(ix) for the issuance of a Series of Subordinate Tier TELA Obligations, a certificate of a Corporation Representative demonstrating with reasonable detail that the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations (excluding any Obligations being refunded), including the Subordinate Tier TELA Obligations proposed to be issued, plus the projected TELA Supported Junior Operating Expenses, for the current Fiscal Year and in each Fiscal Year thereafter is less than or equal to the applicable aggregate Maximum Available Annual Amount for each such Fiscal Year as set forth in any outstanding Toll Equity Loan Agreements (as may have been amended or supplemented); and

(x) for the issuance of a Series of Subordinate Tier TELA Obligations, an opinion or opinions of general counsel to TxDOT and Counsel to the Corporation to the effect that the Toll Equity Loan Agreement or any amendment or supplement thereto described in clause (viii) above has been duly authorized, executed and delivered and is a valid, binding and enforceable obligation of TxDOT and the Corporation, respectively, subject to sovereign immunity, bankruptcy, equitable principles and other standard legal opinion exceptions.

(f) For the issuance of a Series of Subordinate Tier Obligations, except as provided in subparagraphs (a), (j) and (k) of this section, when the documents mentioned above shall have been filed with the Trustee and when the Subordinate Tier Obligations authorized by the resolution provided in subparagraph (e)(i) of this section shall have been executed in accordance with the Master Trust Agreement and the resolution, the Corporation may deliver such Obligations at one time to or upon the order of the purchasers named in such resolution, upon receipt by the purchasers and the Trustee of an opinion of Bond Counsel that the issuance of such Obligations has been duly authorized and that all conditions precedent to the delivery of such Obligations have been fulfilled; provided that, except in the case of refunding Subordinate Tier Obligations being issued to refund Outstanding First Tier Obligations, Second Tier Obligations and/or Subordinate Tier Obligations where the annual Debt Service Requirements of such refunding Subordinate Tier Obligations in any Fiscal Year is less than the aggregated Debt Service Requirements in each such Fiscal Year of the First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded, such Obligations shall not be delivered unless there shall have been filed with the Trustee an additional certificate by a Corporation Representative (based on the above described certificates of the General Engineering Consultant, the Traffic Consultant, and the Corporation Representative, as applicable) certifying that:

(i) for the issuance of Subordinate Tier Obligations which are to be TIFIA Obligations for which "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Effect of Bankruptcy Related Event on TIFIA Obligations" could apply, the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.50 times the annual Debt Service Requirements for each such

Fiscal Year for all then Outstanding First Tier Obligations and any then Outstanding Second Tier Obligations and Subordinate Tier Obligations for which "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Effect of Bankruptcy Related Event on TIFIA Obligations" is applicable (excluding any such First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations being refunded) and the Subordinate Tier Obligations which are to be TIFIA Obligations then proposed to be delivered; and

(ii) the projected Senior Net Revenues for the current and each Fiscal Year after the date of such certificate are at least 1.10 times the annual Debt Service Requirements for each such Fiscal Year for all then Outstanding First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations (excluding any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations being refunded) and the Subordinate Tier Obligations then proposed to be delivered; provided that for this clause (ii), the Corporation Representative may assume that Senior Net Revenues include the amounts forecasted to be on deposit in the Rate Stabilization Fund during any Construction and Ramp-up Period.

(g) The Corporation may establish a reserve account, a Capitalized Interest Account and/or any other fund or funds pursuant to the provisions of the applicable Supplemental Agreement for the purpose of paying or securing a particular Series of Subordinate Tier Obligations, any specific group or Series of Subordinate Tier Obligations or, for a Capitalized Interest Account, any specific group of Obligations authorized by the same particular Supplemental Agreement. Any reserve account shall be segregated into a separate subaccount and separately identified within the Subordinate Tier Reserve Account. Any reserve account or other fund so established shall be held solely for the benefit of the Owners of the particular Series or group of Series of Subordinate Tier Obligations for which such subaccount or fund was established. Each such reserve account shall be designated in such manner as is necessary to identify the Subordinate Tier Obligations it secures and to distinguish such subaccount from any other accounts or subaccounts within the Subordinate Tier Reserve Account created for the benefit of any other Subordinate Tier Obligations. Any Capitalized Interest Account shall be segregated into a separate subaccount and separately identified within the Subordinate Tier Interest Account or the Construction Fund, as directed by the Corporation Representative. Any such Capitalized Interest Account so established shall be held for the benefit of the Owners of the particular Series, or group of Series of Subordinate Tier Obligations or group of Obligations authorized by the same particular Supplemental Agreement, for which such account was established, as the case may be. Each such Capitalized Interest Account shall be designated in such manner as is necessary to identify the Subordinate Tier Obligations it secures and to distinguish such subaccount from any other subaccounts within (i) the Subordinate Tier Interest Account created for the benefit of any other Subordinate Tier Obligations or (ii) the Construction Fund. Any other fund created hereby shall be designated in such manner as is necessary to identify the Subordinate Tier Obligations it secures and to distinguish such subaccount from any other funds, account or subaccounts created for the benefit of any other Subordinate Tier Obligations. Prior to establishing any reserve account, Capitalized Interest Account or other fund hereby, a Corporation Representative shall deliver a certificate to the Trustee to the effect that the establishment and operation of such account or fund will not have a material adverse effect on the ability of the Corporation to comply with its covenants in the Master Trust Agreement or in the Supplemental Agreements authorizing the issuance of the Outstanding Subordinate Tier Obligations.

(h) Immediately after the delivery of any Subordinate Tier Obligations issued under this section, the Corporation shall deposit the proceeds thereof, if any, (including accrued interest, if any, collected at the time of the delivery of such Obligations) with the Trustee, which shall in turn deposit the proceeds as directed by a Corporation Representative in accordance with the purposes for which such Subordinate Tier Obligations were issued.

(i) Notwithstanding anything to the contrary contained in this section, the Corporation may enter into Subordinate Tier Credit Agreements constituting Qualified Credit Agreements in connection with Subordinate Tier Obligations and the Subordinate Tier Payment Obligations as specified thereunder may be secured by and made payable from a lien on and pledge of the pledged Senior Net Revenues, subject to subparagraph (b) of this section, on parity with the Outstanding Subordinate Tier Obligations. In addition, the Trustee shall withdraw from the Revenue Fund for deposit into the Subordinate Tier Debt Service Fund such amounts as are necessary for the Corporation to pay such Subordinate Tier Payment Obligations in accordance with the Master Trust Agreement.

(j) To finance the costs of completion of the Initial Project, the Corporation may, without complying with the provisions of subparagraphs (e)(iv) through (vii), (e)(ix) and (f) of this section, issue Subordinate Tier Obligations in a Principal amount, together with any First Tier Obligations issued pursuant to subparagraph (j) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," not in excess of 10% of the Principal amount of the Initial Obligations issued to finance the Initial Project, if prior to the issuance thereof there is delivered to the Trustee a certificate of the General Engineering Consultant stating: (i) that at the time the Initial Obligations were issued, the Corporation had reason to believe that the proceeds of such Initial Obligations, together with any other moneys then expected

to be available, would provide sufficient moneys for the completion of the Initial Project (ii) the amount estimated to be needed to so complete the Initial Project; and (iii) that the proceeds of all such Completion Obligations to be applied to the completion of the Initial Project, together with a reasonable estimate by a Corporation Representative of (1) investment income to be earned on the proceeds of all such Completion Obligations and available to pay such costs, (2) the amount of moneys, if any, committed to such completion from available cash or marketable securities and reasonably estimated earnings thereon, (3) enumerated bank loans (including letters or lines of credit), and (4) any other moneys reasonably expected to be available, will be in an amount not less than the estimated amount needed to complete the Initial Project set forth in such certificate of the General Engineering Consultant. The Principal amount of the Completion Obligations permitted in this section may include the amount required to (I) provide completed and equipped facilities of substantially the same type and scope contemplated at the time the Initial Obligations were originally issued, (II) provide for capitalized interest during the period of construction, (III) provide the required deposit, if any, in any reserve fund permitted by subparagraphs (d) and (g) of this section and (IV) pay the costs and expenses of issuing such Subordinate Tier Obligations being issued as Completion Obligations.

(k) Notwithstanding anything in this section to the contrary, subparagraphs (e)(iv) through (vii), (e)(ix) and (f) of this section shall not be applicable to the issuance of any Subordinate Tier Obligations (i) issued to refund any of the Series 2013C Bonds and/or the Series 2013D Bonds, (ii) issued to refund any obligations that refunded any of the Series 2013C Bonds and/or the Series 2013D Bonds or (iii) initially delivered to USDOT or other Governmental Lender for certain eligible costs, the proceeds of which are to be used to retire any of the Series 2013C Bonds and/or the Series 2013D Bonds or obligations described in clause (ii) above.

Effect of Bankruptcy Related Event on TIFIA Obligations.

Notwithstanding any other provision to the contrary in the Master Trust Agreement or in any of the Financing Documents, upon the occurrence and during the continuance of any Bankruptcy Related Event of the Corporation, any TIFIA Obligations, if issued and outstanding, shall, if the Owner of such particular TIFIA Obligations is USDOT or another Governmental Lender requiring the same treatment, at such time, automatically and without action on the part of such owner or any other Person immediately become, and be of equal rank and on parity with the First Tier Obligations and shall be entitled to all rights of an Owner of First Tier Obligations (including, without limitation, the right of payment pro rata with other First Tier Obligations pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Pro Rata Application of Funds"); provided the benefit of any sub-account created within the First Tier Reserve Account shall be determined pursuant to the terms of the Supplemental Agreement establishing such sub-account. Upon such event, the money and investments held in any Debt Service Fund allocable to the payment of any TIFIA Obligation shall be transferred by the Trustee to the First Tier Debt Service Fund.

TELA/Other Tier Obligations.

Subject to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Actions Relating to Certain Financing Documents," the Corporation, without the consent of any Owner, reserves the right to amend or supplement the Initial Toll Equity Note and the related Initial Toll Equity Loan Agreement, execute and deliver additional Toll Equity Notes and the related Toll Equity Loan Agreements and incur the related additional TELA/Other Tier Debt Obligations to evidence any Toll Equity Loan in connection with any Toll Equity Loan Agreement in accordance with subparagraph (e)(viii) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," and "- Issuance of Subordinate Tier Obligations." The Toll Equity Note, as so amended, supplemented or subsequently delivered, and any such additional TELA/Other Tier Debt Obligations shall be secured by and payable from a lien on and pledge of the Trust Estate equally and ratably with, and in the same manner and to the same extent as the Outstanding TELA/Other Tier Obligations, and shall be payable from and secured by the TELA/Other Tier Payment Fund and shall be in all respects of equal dignity and on a parity with any then Outstanding TELA/Other Tier Obligations.

Further, subject to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Actions Relating to Certain Financing Documents," the Corporation, without the consent of any Owner, reserves the right to amend or supplement any Toll Equity Note and the related Toll Equity Loan Agreement, in any manner provided that, as certified by the Corporation Representative, (i) the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations and the estimated TELA Supported Junior Operating Expenses (as certified by the General Engineering Consultant) for the current Fiscal Year and in each Fiscal Year any Toll Equity Loan Supported Obligations are Outstanding is less than or equal to the applicable aggregate Maximum Available Annual Amount for each such Fiscal Year as set forth in any outstanding Toll Equity Loan Agreements, as amended or supplemented or (ii) if prior to any amendment or supplement, there is any Fiscal Year (including the then current Fiscal Year) in which the applicable aggregate Maximum Available Annual Amount for such Fiscal Year as set forth in any outstanding Toll Equity

Loan Agreements is less than the annual Debt Service Requirements for all Outstanding First Tier TELA Obligations, Second Tier TELA Obligations and Subordinate Tier TELA Obligations and the estimated TELA Supported Junior Operating Expenses (as certified by the General Engineering Consultant for the current Fiscal Year and in each Fiscal Year any Toll Equity Loan Supported Obligations are Outstanding) for any such Fiscal Year (in each such Fiscal Year, a "TELA Coverage Deficit"), then the amendment or supplement to any outstanding Toll Equity Loan Agreements must (A) reduce the TELA Coverage Deficit in each Fiscal Year such a deficit occurs and (B) for all other Fiscal Years that do not have a TELA Coverage Deficit, not create a TELA Coverage Deficit in any such Fiscal Year.

Project Budget.

In the event that a particular Project Budget is amended or supplemented in connection with the issuance of Additional Obligations pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," and "- Issuance of Subordinate Tier Obligations," and in accordance with "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Actions Relating to Certain Financing Documents," such amended and supplemented Project Budget shall replace and be substituted for the superseded Project Budget. In the event that a new discrete Project Budget established in connection with the issuance of Additional Obligations pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," and "- Issuance of Subordinate Tier Obligations," and in accordance with "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Actions Relating to Certain Financing Documents," such new discrete Project Budget shall be added to the existing Project Budget.

Construction Fund.

A special fund is hereby created and designated System "Construction Fund," and established initially with the Trustee, and into which (i) any amounts as determined by a Corporation Representative, and (ii) any designated portion of the purchase price of the Initial Obligations or any Obligations issued under "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations" and "- Issuance of Subordinate Tier Obligations" shall be deposited. There also may be deposited to the credit of the Construction Fund or any subaccount therein any moneys received from any other source for paying Costs of a System Segment or for any other purpose authorized by law. A Supplemental Agreement or a Corporation Representative in writing may direct the Trustee to create accounts within the Construction Fund for particular sources of funds deposited into the Construction Fund.

Subject to the other provisions of the Master Trust Agreement, the moneys credited to the Construction Fund (including all obligations held as investments thereof and the proceeds of such investments) shall be applied to the payment of (i) the Costs of any System Segments or other improvements, extensions, enlargements, or additions to the System or the Grand Parkway Project, (ii) the interest on Obligations to the extent such money is credited to a Capitalized Interest Account within the Construction Fund or (iii) the cost of other purposes then authorized by law; and, pending such application, shall be subject to a lien and charge in favor of the Owners of all Obligations then Outstanding and for the further security of such owners until paid out or transferred as herein provided. Any liquidated damages for delayed completion under a construction contract relating to the acquisition or construction of a System Segment shall be deposited initially into the Construction Fund to be used for the Costs of related System Segment, Costs of the acquisition or construction of any other System Segment, and, if there are no such Costs, such amounts shall be transferred to the Debt Service Funds as directed by a Corporation Representative in writing to the Trustee.

Notwithstanding anything in the Master Trust Agreement to the contrary, the Corporation may contribute any amounts to the Construction Fund from any source other than proceeds of Obligations provided any such funds shall be maintained in a separate subaccount of the Construction Fund and shall not be comingled with proceeds of any Obligations. Any such amounts contributed to the Construction Fund (and investment earnings thereon) by the Corporation may be transferred out of the Construction Fund and no longer subject to the provisions of the Master Trust Agreement upon written direction of a Corporation Representative to the Trustee.

Progress Reports; Audits During Construction.

The Corporation covenants that, at least quarterly during the acquisition and construction of any portion of the System which it finances in whole or in part with Obligations, commencing within 120 days from the initial delivery of the Initial Obligations or Obligations financing an additional System Segment, as the case may be, it will cause the General Engineering Consultant to prepare a progress report, within 45 days after the end of each quarter, in connection with the acquisition or construction of such System Segment, including their then current estimates of:

- (i) the date on which such System Segment will be opened for traffic, unless such System Segment shall have been opened for traffic prior to the date of such System Segment,
- (ii) the Estimated Date of Completion and an estimated date of Substantial Completion of such System Segment,
- (iii) the cost of such System Segment but excluding any Obligation discount and the interest during construction and for one year after completion of construction, and
- (iv) the amount of funds required each six (6) months during the remaining estimated period of construction to meet the above described cost of such System Segment exclusive of funds provided for construction contingencies, and accompanied by a progress schedule for such construction, and further including, as to construction, comparisons between the actual times elapsed and the actual costs, and the original estimates of such times and costs.

Copies of such progress reports shall be filed with the Trustee and the Corporation. The Corporation shall file such progress reports with the Municipal Securities Rulemaking Board through its Electronic Municipal Market Access system within 15 days of the Corporation's receipt of such reports.

A Corporation Representative shall deliver to the Trustee a report or certificate certifying when Substantial Completion of the Initial Project, or any additional System Segment, has occurred. In certifying Substantial Completion of the Initial Project and any additional System Segment, such Corporation Representative shall base such certification upon his or her review of the quarterly progress reports for such project prepared by the General Engineering Consultant and upon consultation with the Traffic Consultant. After a Corporation Representative has delivered a report or certificate certifying Substantial Completion of the Initial Project or any additional System Segment, as the case may be, to the Trustee, no further progress reports under this Section shall be required to be prepared with respect to such project or segment.

Alternate Provisions for Construction Fund.

Notwithstanding any other provisions of the Master Trust Agreement, if Additional Obligations are issued, the Corporation may, in a Supplemental Agreement, provide that the Construction Fund shall be held, used, and drawn on for such purposes, in such manner, and under such circumstances as shall be directed and prescribed in such Supplemental Agreement, and all provisions of the Master Trust Agreement with respect to the Construction Fund shall be altered, modified, or abrogated accordingly. A Supplemental Agreement or a Corporation Representative in writing may direct the Trustee to create accounts within the Construction Fund for particular sources of funds deposited into the Construction Fund.

Covenants as to Tolls.

In the Toll Rate Agreement for the benefit of the Corporation, the Trustee and the Owners of the Obligations, the Commission has covenanted that it will (1) adopt and maintain in effect a Toll Rate Schedule for the System and (2) establish charges for other uses of the property constituting a part of the System such as property leases, designed, collectively, to produce Senior Net Revenues in each Fiscal Year in an amount in compliance with the Commission Rate Covenant. To the extent permitted by law, the Corporation covenants and agrees to take all such action necessary to cause the Commission to meet its obligations under the Toll Rate Agreement.

Revenue Fund.

A special fund held by the Trustee is hereby created and designated "Revenue Fund." The Corporation covenants that all Revenues of the System (excepting investment income from such funds and accounts that constitute a portion of the Revenues of the System, other than the Revenue Fund, which shall be retained in such funds and accounts except as otherwise required to be transferred as provided herein) will be collected by the Corporation and deposited daily, as far as practicable and within the control of the Corporation, with the Trustee for the credit of the Revenue Fund. It shall be the duty of the Trustee to provide the Corporation the ability to verify the amount of each such daily deposit separately.

To the extent authorized by law and subject to the Toll Rate Agreement, the Corporation may enter into an agreement, or consent to any agreements entered into by the Commission or the Department, with any other authority or other similar legal body operating a toll road whether or not connected to the System, for the collection and application of tolls charged for trips over all or a portion of one or more toll roads, which, on the basis of the revenues to be received by any such agreement, will result in the receipt by the Corporation of the allocable portion of such tolls relating to the System (less fees and expenses associated with such arrangement). Amounts relating to the System which constitute Revenues of the System received by the Corporation from such other authority or other similar legal body or pursuant to the Toll Rate Agreement, the Project

Agreement and the Master Custodial Agreement, in accordance with such agreements, shall be deposited when received with the Trustee for credit to the Revenue Fund.

Duties of General Engineering Consultant.

The Corporation covenants that it will cause the General Engineering Consultant employed by it under the provisions of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Employment of General Engineering Consultant and Traffic Consultant," to make an inspection of the System on or before the 90th day prior to the end of each Fiscal Year and to submit to the Corporation a report setting forth (a) their findings whether the System has been maintained in good repair, working order and condition and (b) their advice and recommendations as to the proper maintenance, repair, and operation of the System during the ensuing Fiscal Year and an estimate of the amount of money necessary for such purposes, including their recommendations as to the total amounts and classifications of items and amounts that should be provided for Operating Expenses, Major Maintenance Expenses, Major Maintenance Requirement, capital expenditures and the Operation and Maintenance Reserve Fund in the Annual Budget for the next ensuing Fiscal Year and for Major Maintenance Expenses and capital expenditures for the next following three Fiscal Years. Copies of such reports shall be filed with the Trustee.

Budget.

The Corporation covenants that on or before the 60th day prior to the end of each Fiscal Year it will adopt a preliminary budget of Revenues of the System, Operating Expenses, Major Maintenance Expenses, capital expenditures (to include a projected budget of Major Maintenance Expenses and capital expenditures for an additional three Fiscal Years beyond the ensuing Fiscal Year) and payments into the Debt Service Funds, the Operation and Maintenance Reserve Fund, the Rate Stabilization Fund and the Major Maintenance Fund for the ensuing Fiscal Year (the "Preliminary Budget"). Such Preliminary Budget must separately account for TELA Supported Junior Operating Expenses, Non-TELA Supported Junior Operating Expenses, Major Maintenance Expenses and capital expenditures between System Segments financed with Toll Equity Loan Supported Obligations, accounting among the respective Toll Equity Loan Agreements, and System Segments which were not so financed. Copies of each such Preliminary Budget shall be filed with the Trustee and mailed to the General Engineering Consultant.

The Corporation further covenants that on or before the fifth Business Day preceding the first day of each Fiscal Year it will finally adopt the budget of Revenues of the System, Operating Expenses, Major Maintenance Expenses, capital expenditures (to include a projected budget of Major Maintenance Expenses and capital expenditures for an additional three Fiscal Years beyond then beginning Fiscal Year) and payments into the Debt Service Funds, the Operation and Maintenance Reserve Fund, the Rate Stabilization Fund and the Major Maintenance Fund for such Fiscal Year (hereinafter sometimes called the "Annual Budget"). Such Annual Budget must separately account for TELA Supported Junior Operating Expenses, Non-TELA Supported Junior Operating Expenses, Major Maintenance Expenses and capital expenditures between System Segments financed with Toll Equity Loan Supported Obligations, accounting among the respective Toll Equity Loan Agreements, and System Segments which were not so financed. Copies of the Annual Budget shall be filed with the Trustee and mailed to the General Engineering Consultant. As no payment of Operating Expenses or payments from the Debt Service Funds will occur prior to October 15, 2013 and notwithstanding the preceding paragraph, the Corporation shall only be required to adopt its first Annual Budget by October 15, 2013 which budget shall include the period from the initial delivery date of the Initial Obligations through August 31, 2014.

If for any reason the Corporation shall not have adopted the Annual Budget before the first day of any Fiscal Year, the Preliminary Budget for such Fiscal Year or, if there is none prepared, the Annual Budget for the preceding Fiscal Year, shall, until the adoption of the Annual Budget, be deemed to be in force and shall be treated as the Annual Budget under the Master Trust Agreement.

The Corporation may at any time adopt an amended or supplemental Annual Budget for the remainder of the then current Fiscal Year, and when so adopted the Annual Budget as so amended or supplemented shall be treated as the Annual Budget under the provisions of the Master Trust Agreement; provided, however, that before the adoption of any such amended or supplemental Annual Budget, the Corporation shall have obtained and filed with the Trustee the recommendations of the General Engineering Consultant in connection therewith. Copies of any such amended or supplemental Annual Budget shall be filed with the Trustee and mailed to the General Engineering Consultant.

The Corporation covenants that all payments for maintenance, repair and operation in any Fiscal Year will not exceed the reasonable and necessary amount required therefor, and that it will not expend any amount or incur any obligations for maintenance, repair, and operation in excess of the amounts provided for Operating Expenses in the Annual Budget, or amended or supplemental Annual Budget, except as provided in the Master Trust Agreement and except amounts payable

from the Operation and Maintenance Reserve Fund, the Rate Stabilization Fund, the Major Maintenance Fund and the Grand Parkway Enhancement Fund. Nothing in this section contained shall limit the amount which the Corporation may expend for Operating Expenses in any Fiscal Year provided any amounts expended therefor in excess of the Annual Budget shall be received by the Corporation from some source other than the Revenues of the System for such Fiscal Year.

Payment of Senior Operating Expenses.

(a) A special fund held by the Trustee and created and designated the "Senior Operation and Maintenance Fund" is hereby created. On each Transfer Date, the Trustee shall withdraw from the Revenue Fund and deposit to the Senior Operation and Maintenance Fund an amount required to make the total amount in the Senior Operation and Maintenance Fund equal to one-sixth (1/6) of the amount of the total Senior Operating Expenses scheduled for the then current Fiscal Year in the then current Annual Budget, plus all prior accruals for any insurance and other periodic or regularly recurring expenses. All Senior Operating Expenses shall be paid directly by the Trustee, upon written direction of a Corporation Representative, by drawing checks or drafts or by other means on the Senior Operation and Maintenance Fund as may be determined by the Trustee and the Corporation Representative and such fund shall be used for no other purpose.

(b) Notwithstanding the above paragraph and as an alternative to such paragraph, the Corporation may cause a Depositary of the Corporation to create a special fund to be held by the Corporation and designated the "Senior Operation and Maintenance Fund" and, upon written direction from the Corporation Representative to the Trustee, the Trustee shall transfer all amounts in the Senior Operation and Maintenance Fund to the credit of the Senior Operation and Maintenance Fund held by such Depositary and such fund will be maintained and administered by the Corporation and the Senior Operation and Maintenance Fund held by the Trustee shall be closed. On each Transfer Date, the Trustee shall withdraw from the Revenue Fund and deposit to the credit of the Corporation in the Senior Operation and Maintenance Fund, on written request of the Corporation, an amount which a Corporation Representative shall certify in such request to the Trustee at least one Business Day prior to such Transfer Date to be required to make the total amount in the Senior Operation and Maintenance Fund equal to one-sixth (1/6) of the amount of the total Senior Operating Expenses scheduled for the then current Fiscal Year in the then current Annual Budget, plus all prior accruals for any insurance and other periodic or regularly recurring expenses. All Senior Operating Expenses shall be paid directly by the Corporation by drawing checks or drafts on the Senior Operation and Maintenance Fund in such manner as may be determined by the Corporation and such fund shall be used for no other purpose.

Creation of Rebate Fund; Debt Service Funds; Junior Operation and Maintenance Fund; Operation and Maintenance Reserve Fund; TELA/Other Tier Payment Fund; Rate Stabilization Fund; Major Maintenance Fund; and Grand Parkway Enhancement Fund.

(a) A special fund held by the Trustee is created and designated the "Rebate Fund."

(b) A special fund held by the Trustee is created and designated the "First Tier Debt Service Fund" and the three separate accounts are hereby designated the "First Tier Interest Account," "First Tier Redemption Account" and "First Tier Reserve Account," respectively. There may be created pursuant to a Supplemental Agreement sub-accounts within the First Tier Reserve Account necessary or convenient to the creation and method of funding a reserve fund for a series of First Tier Obligations.

(c) A special fund held by the Trustee is created and designated "Second Tier Debt Service Fund." There are hereby created three separate accounts in the Second Tier Debt Service Fund, designated "Second Tier Interest Account," "Second Tier Redemption Account" and "Second Tier Reserve Account," respectively. There may be created pursuant to a Supplemental Agreement sub-accounts within the Second Tier Reserve Account necessary or convenient to the creation and method of funding a reserve fund for a series of Second Tier Obligations.

(d) A special fund held by the Trustee is created and designated "Subordinate Tier Debt Service Fund." There are hereby created three separate accounts in the Subordinate Tier Debt Service Fund, designated "Subordinate Tier Interest Account," "Subordinate Tier Redemption Account" and "Subordinate Tier Reserve Account," respectively. There may be created pursuant to a Supplemental Agreement sub-accounts within the Subordinate Tier Interest Account, the Subordinate Tier Redemption Account and the Subordinate Tier Reserve Account necessary or convenient to the payment of Principal of or interest on a series of Subordinate Tier Obligations, priorities of such payment among series of Subordinate Tier Obligations and the creation and method of funding a reserve fund for a series of Subordinate Tier Obligations.

(e) A special fund held by the Trustee is created and designated "Junior Operation and Maintenance Fund" is hereby created, subject to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Payment of Junior Operating Expenses."

(f) A special fund held by the Trustee is created and designated "Operation and Maintenance Reserve Fund."

(g) A special fund held by the Trustee is created and designated "TELA/Other Tier Payment Fund."

(h) A special fund held by the Trustee is created and designated "Rate Stabilization Fund."

(i) A special fund held by the Trustee is created and designated "Major Maintenance Fund."

(j) A special fund held by the Trustee is created and designated "Grand Parkway Enhancement Fund."

Flow of Funds.

(a) Commencing on the fifth Business Day preceding the first day of November 2013 and each month thereafter (each such date, a "Transfer Date"), transfers from the Revenue Fund shall be made to the below-listed funds and accounts in the order of priority in which the funds and accounts are listed below.

In the event that in any month the Trustee submits a Draw Request solely with respect to (i) the First Tier TELA Obligations and the related First Tier Debt Service Fund, (ii) the Second Tier TELA Obligations and the related Second Tier Debt Service Fund, (iii) the Subordinate Tier TELA Obligations and the related Subordinate Tier Debt Service Fund, (iv) TELA Supported Junior Operating Expenses and the Junior Operation and Maintenance Fund and (v) the Major Maintenance Fund, under a Toll Equity Loan Agreement pursuant to "TRUST AGREEMENT – Toll Equity Loan Agreement Draw Requests," and the amount received by the Trustee pursuant to such Draw Request is insufficient to pay all amounts requested in such Draw Request, the Trustee shall apply the amounts received under such Draw Request, (A) first, to any amounts required to be deposited in the First Tier Debt Service Fund on such date with respect to the First Tier TELA Obligations pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Application and Pledge of Moneys in Debt Service Funds," "- Withdrawals from Interest Accounts" and "- Application of Moneys in Redemption Accounts; Payment of Obligations and Payment Obligations; Redemption of Obligations," (B) second, to any amounts required to be deposited in the Second Tier Debt Service Fund on such date with respect to the Second Tier TELA Obligations pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Application and Pledge of Moneys in Debt Service Funds," "- Withdrawals from Interest Accounts" and "- Application of Moneys in Redemption Accounts; Payment of Obligations and Payment Obligations; Redemption of Obligations," (C) third, to any amounts required to be deposited in the Subordinate Tier Debt Service Fund on such date with respect to the Subordinate Tier TELA Obligations pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Application and Pledge of Moneys in Debt Service Funds," "- Withdrawals from Interest Accounts" and "- Application of Moneys in Redemption Accounts; Payment of Obligations and Payment Obligations; Redemption of Obligations," (D) fourth, to any amounts required to be deposited in the Junior Operation and Maintenance Fund on such date pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Payment of Junior Operating Expenses" and (E) fifth, to any amounts required to be deposited in the Major Maintenance Fund on such date pursuant to SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Major Maintenance Fund."

- (1) Rebate Fund;
- (2) Senior Operation and Maintenance Fund;
- (3) First Tier Interest Account;
- (4) First Tier Redemption Account;
- (5) First Tier Reserve Account;
- (6) Second Tier Interest Account;
- (7) Second Tier Redemption Account;

- (8) Second Tier Reserve Account;
- (9) Subordinate Tier Interest Account;
- (10) Subordinate Tier Redemption Account;
- (11) Subordinate Tier Reserve Account;
- (12) Junior Operation and Maintenance Fund;
- (13) Operation and Maintenance Reserve Fund;
- (14) TELA/Other Tier Payment Fund;
- (15) Rate Stabilization Fund;
- (16) Major Maintenance Fund; and
- (17) Grand Parkway Enhancement Fund.

In recognition that (i) Obligations and the interest thereon, including Payment Obligations, may come due on various dates, (ii) First Tier Obligations have a security interest in the Senior Net Revenues senior to that securing the Second Tier Obligations and the Subordinate Tier Obligations and senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations, (iii) Second Tier Obligations have a security interest in the Senior Net Revenues senior to that securing the Subordinate Tier Obligations and senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations, (iv) Subordinate Tier Obligations have a security interest in the Senior Net Revenues senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations, (v) Second Tier Obligations or interest thereon, may become due and payable on a date or dates in a Fiscal Year prior to the date a First Tier Obligation or the interest thereon is due, (vi) Subordinate Tier Obligations, or interest thereon, may become due and payable on a date or dates in a Fiscal Year prior to the date a First Tier Obligation or a Second Tier Obligation, or the interest thereon, is due, (vii) a series of Subordinate Tier Obligations may have a priority of payment different than another series of Subordinate Tier Obligations, as may be provided in the applicable Supplemental Agreements and (viii) TELA/Other Tier Obligations, or interest thereon, may become due and payable on a date or dates in a Fiscal Year prior to the date a First Tier Obligation, a Second Tier Obligation or a Subordinate Tier Obligation, or the interest thereon, is due, the Corporation covenants that no transfer from the Revenue Fund to any fund or account, other than the Senior Operation and Maintenance Fund or the First Tier Debt Service Fund), will be made in any Fiscal Year unless, in the opinion of a Corporation Representative (based on the Annual Budget for such Fiscal Year) set forth in a certificate delivered to the Trustee on or before the first business day of such Fiscal Year and updated on the date of delivery of any Additional Obligations issued during such year, such transfers during such Fiscal Year are not anticipated to result in the inability of the Corporation to make a later transfer, as required by the Master Trust Agreement, to a fund or account securing Obligations that have a security interest in the Senior Net Revenues or the Junior Net Revenues, as the case may be, senior to that securing the Obligations that are secured by the fund or account into which the transfer is scheduled to be made. If (A) a Corporation Representative fails to deliver the certificate described in the prior sentence for a Fiscal Year, or (B) at any time during a Fiscal Year the Corporation determines that transfers from the Revenue Fund to any fund or account may result in the inability of the Corporation to make a later transfer within the six (6) month period from the date of such determination, as required by the Master Trust Agreement, to a fund or account securing Obligations that have a security interest in the Senior Net Revenues or the Junior Net Revenues, as the case may be, senior to that securing the Obligations that are secured by the fund or account into which the transfer is scheduled to be made, a Corporation Representative shall deliver to the Trustee a certificate to that effect, then, in either case, for such Fiscal Year or the remainder of such Fiscal Year (i) transfers from the Revenue Fund to any fund or account shall be made strictly in the priority set forth in the first paragraph of subparagraph (a) of this section and subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations," (ii) such transfers from the Revenue Fund shall be made once each month on each Transfer Date, and (iii) after each monthly deposit to the Senior Operation and Maintenance Fund, no transfer to a fund or account shall be made until all funds and accounts with a higher priority have on deposit therein all amounts to be deposited in such fund or account for such Fiscal Year.

(b) The Corporation covenants to calculate and to pay directly to the government of the United States all amounts due for payment of "arbitrage rebate" under Section 148(a) of the Code with respect to any Tax-Exempt Obligations. Nevertheless, the Corporation in the future may deposit with the Trustee or direct the Trustee to deposit in the Rebate Fund amounts held in any fund hereunder for any or all Series of First Tier Obligations, Second Tier Obligations, Subordinate Tier

Obligations or TELA/Other Tier Obligations (which direction shall specify the procedures for collection and payment of amounts due in respect of arbitrage rebate) if (a) required under any amendments to Section 148(a) of the Code or (b) the Corporation otherwise determines that the funding of the Rebate Fund is necessary or appropriate. The Rebate Fund is a trust fund but the amounts therein do not constitute part of the Trust Estate. Amounts on deposit in the Rebate Fund may be used solely to make payments to the United States under Section 148 of the Code and to pay costs related to the calculation of the amounts due. Upon satisfaction of the Corporation's covenants described above, any amounts remaining in the Rebate Fund shall be deposited in the Revenue Fund.

(c) After first having made the deposits required by subparagraph (b) of this section prior to the transfer under this clause (c), if any, and subject to subparagraph (a) of this section, on each Transfer Date, the Trustee shall withdraw from the Revenue Fund and deposit to the credit of the Senior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation), the amount to be deposited into the Senior Operation and Maintenance Fund as determined pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Payment of Senior Operating Expenses."

If at the time the Trustee is required to make a deposit to the credit of the Senior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation) from the Revenue Fund pursuant to the above paragraph the money therein shall not be sufficient for such purpose, the Trustee shall withdraw the amount of such deficiency from the money on deposit in the following funds or accounts and transfer the same to the credit of the Senior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation) in the following order of priority to the extent that funds are available therein: the Revenue Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund, the Rate Stabilization Fund and the Operation and Maintenance Reserve Fund.

(d) After first having made the deposits required by subsections (b) and (c) of this section prior to the transfer under this clause (d), if any, and subject to subparagraph (a) of this section, on the Transfer Date preceding each interest, Principal or redemption payment date for the First Tier Obligations or such other day as set forth in a Supplemental Agreement, the Trustee shall withdraw from the Revenue Fund and deposit to the applicable account in the First Tier Debt Service Fund (or to a fund or account created to pay or repay amounts owed under a First Tier Credit Agreement entered into in connection with a series of First Tier Obligations in lieu of the foregoing) the amounts due on any First Tier Obligation.

If at the time the Trustee is required to make a deposit into the First Tier Debt Service Fund from the Revenue Fund pursuant to the above paragraph, the money therein shall not be sufficient for paying amount then to be due on the First Tier Obligations (allocated on the basis provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Pro Rata Application of Funds"), then the Trustee shall withdraw the amount of such deficiency from the money on deposit in the following funds or accounts and transfer the same to the First Tier Debt Service Fund in the following order of priority to the extent that funds are available therein: the Revenue Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund, the Rate Stabilization Fund, the Operation and Maintenance Reserve Fund, any applicable reserve subaccount in the First Tier Reserve Account and the Junior Operation and Maintenance Fund. If, after making such transfers, the money in the First Tier Debt Service Fund allocated to the First Tier TELA Obligations is insufficient to make payment, when due, of interest on and/or the Principal or premium on such First Tier TELA Obligations, the Trustee shall make a draw under the applicable Toll Equity Loan Agreement by submitting a Draw Request in accordance with "TRUST AGREEMENT - Toll Equity Loan Agreement Draw Requests" in an amount sufficient to satisfy any shortfall relating to the First Tier TELA Obligations, to the extent that funds are available thereunder. Amounts drawn under the applicable Toll Equity Loan Agreement for the foregoing purpose as described in this clause (d) shall be deposited by the Trustee into the TELA Draw Clearing Account and then credited to the First Tier Debt Service Fund for application solely for the benefit of such First Tier TELA Obligations to which the Toll Equity Loan Agreement relates as set forth in this clause (d).

(e) After first having made the deposits required by subparagraphs (b) through (d) of this section prior to the transfer under this clause (e), if any, and subject to subparagraph (a) of this section, on each Transfer Date the Trustee shall transfer from the Revenue Fund to the credit of the First Tier Reserve Account or subaccount therein the amount, if any, required to accumulate any applicable reserve requirement or restore any deficiency in such account or subaccount due to a withdrawal or change in value of Permitted Investments in order to make the amount on deposit therein or reimbursement to an obligor of any Reserve Surety Agreement related thereto, as provided in any Supplemental Agreements.

(f) After first having made the deposits required by subparagraphs (b) through (e) of this section prior to the transfer under this clause (f), if any, and subject to subparagraph (a) of this section, on the Transfer Date preceding each interest, Principal or redemption payment date for any Second Tier Obligations or such other day as set forth in a Supplemental Agreement, the Trustee shall withdraw from the Revenue Fund and deposit to the applicable account in the Second Tier Debt Service Fund (or to a fund or account created to pay or repay amounts owed under a Second Tier Credit

Agreement entered into in connection with a series of Second Tier Obligations in lieu of the foregoing) the amounts due on any Second Tier Obligation.

If at the time the Trustee is required to make a deposit into the Second Tier Debt Service Fund from the Revenue Fund pursuant to the above paragraph, the money therein shall not be sufficient for paying amount then to be due on the Second Tier Obligations (allocated on the basis provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Pro Rata Application of Funds"), then the Trustee shall withdraw the amount of such deficiency from the money on deposit in the following funds or accounts and transfer the same to the Second Tier Debt Service Fund in the following order of priority to the extent that funds are available therein: the Revenue Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund, the Rate Stabilization Fund, the Operation and Maintenance Reserve Fund, any applicable reserve subaccount in the Second Tier Reserve Account and the Junior Operation and Maintenance Fund. If, after making such transfers, the money in the Second Tier Debt Service Fund allocated to the Second Tier TELA Obligations is insufficient to make such payment relating to such Second Tier TELA Obligations, the Trustee shall make a draw under the applicable Toll Equity Loan Agreement by submitting a Draw Request in accordance with "TRUST AGREEMENT - Toll Equity Loan Agreement Draw Requests" in an amount sufficient to satisfy any shortfall relating to the Second Tier TELA Obligations, to the extent that funds are available thereunder. Amounts drawn under the applicable Toll Equity Loan Agreement for the foregoing purpose as described in this clause (f) shall be deposited by the Trustee into the TELA Draw Clearing Account and then credited to the Second Tier Debt Service Fund for application solely for the benefit of such Second Tier TELA Obligations to which the Toll Equity Loan Agreement relates as set forth in this clause (f).

(g) After first having made the deposits required by subparagraphs (b) through (f) of this section prior to the transfer under this clause (g), if any, and subject to subparagraph (a) of this section, on each Transfer Date the Trustee shall transfer from the Revenue Fund to the credit of the Second Tier Reserve Account or subaccount therein the amount, if any, required to accumulate any applicable reserve requirement or restore any deficiency in such account or subaccount due to a withdrawal or change in value of Permitted Investments in order to make the amount on deposit therein or reimbursement to an obligor of any Reserve Surety Agreement related thereto, as provided in any Supplemental Agreements.

(h) After first having made the deposits required by subparagraphs (b) through (g) of this section prior to the transfer under this clause (h), if any, and subject to subparagraph (a) of this section, on each Transfer Date preceding each interest, Principal or redemption payment date for any Subordinate Tier Obligations or such other day as set forth in a Supplemental Agreement and subject to subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations," the Trustee shall withdraw from the Revenue Fund and deposit to the applicable account in the Subordinate Tier Debt Service Fund (or to a fund or account created to pay or repay amounts owed under a Subordinate Credit Agreement entered into in connection with a series of Subordinate Tier Obligations in lieu of the foregoing) the amounts due on any Subordinate Tier Obligation.

Subject to subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations," if at the time the Trustee is required to make a deposit into the Subordinate Tier Debt Service Fund from the Revenue Fund pursuant to the above paragraph, the money therein shall not be sufficient for paying amount then to be due on the Subordinate Tier Obligations (allocated on the basis provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Pro Rata Application of Funds"), then the Trustee shall withdraw the amount of such deficiency from the money on deposit in the following funds or accounts and transfer the same to the Subordinate Tier Debt Service Fund in the following order of priority to the extent that funds are available therein: the Revenue Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund, the Rate Stabilization Fund, the Operation and Maintenance Reserve Fund, any applicable reserve subaccount in the Subordinate Tier Reserve Account and the Junior Operation and Maintenance Fund. If, after making such transfers, the money in the Subordinate Tier Debt Service Fund allocated to the Subordinate Tier TELA Obligations is insufficient to make payment, when due, of interest on and/or Principal of or premium on such Subordinate Tier TELA Obligations, the Trustee shall make a draw under the applicable Toll Equity Loan Agreement by submitting a Draw Request in accordance with "TRUST AGREEMENT - Toll Equity Loan Agreement Draw Requests" in an amount sufficient to satisfy any shortfall relating to the Subordinate Tier TELA Obligations, to the extent that funds are available thereunder. Amounts drawn under the applicable Toll Equity Loan Agreement for the foregoing purpose as described in this clause (h) shall be deposited by the Trustee into the TELA Draw Clearing Account and then credited to the Subordinate Tier Debt Service Fund for application solely for the benefit of such Subordinate Tier TELA Obligations to which the Toll Equity Loan Agreement relates as set forth in this clause (h).

(i) In each Fiscal Year, after first having made the deposits required by subparagraphs (b) through (h) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" prior to the transfer under this clause (i), if any, and subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," on the Transfer Date the Trustee shall transfer from the Revenue Fund to the credit of the Subordinate Tier Reserve Account or

subaccount therein the amount, if any, required to accumulate any applicable reserve requirement or restore any deficiency in such account or subaccount due to a withdrawal or change in value of Permitted Investments in order to make the amount on deposit therein or reimbursement to an obligor of any Reserve Surety Agreement related thereto, as provided in any Supplemental Agreements.

(j) After first having made the deposits required by subparagraphs (b) through (i) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" prior to the transfer under this clause (j), if any, and subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," on each Transfer Date, the Trustee shall transfer from the Revenue Fund and deposit to the credit of the Junior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation), the amount to be deposited into the Junior Operation and Maintenance Fund as determined pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Payment of Junior Operating Expenses."

If at the time the Trustee is required to make a deposit to the credit of the Junior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation) from the Revenue Fund pursuant to the above paragraph the money therein shall not be sufficient for such purpose, the Trustee shall withdraw the amount of such deficiency from the money on deposit in the following funds or accounts and transfer the same to the credit of the Junior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation) in the following order of priority to the extent that funds are available therein: the Revenue Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund, the Rate Stabilization Fund and the Operation and Maintenance Reserve Fund for application, pro rata, between TELA Supported Junior Operating Expenses and Non-TELA Supported Junior Operating Expenses. If, after making such transfers, on the Transfer Date the money in the Junior Operation and Maintenance Fund allocated to the TELA Supported Junior Operating Expenses is insufficient to make such payment of such TELA Supported Junior Operating Expenses, the Trustee shall make a draw under the applicable Toll Equity Loan Agreement by submitting a Draw Request in accordance with "TRUST AGREEMENT - Toll Equity Loan Agreement Draw Requests" in an amount sufficient to satisfy any such shortfall, to the extent that funds are available thereunder. Amounts drawn under the applicable Toll Equity Loan Agreement for the foregoing purpose as described in this clause (j) shall be deposited by the Trustee into the TELA Draw Clearing Account and then credited to the Junior Operation and Maintenance Fund (whether maintained by the Trustee or the Corporation) for application to TELA Supported Junior Operating Expenses as set forth in this clause (j) and "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Payment of Junior Operating Expenses."

(k) After first having made the deposits required by subparagraphs (b) through (j) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" prior to the transfer under this clause (k), if any, and subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," on each Transfer Date, the Trustee shall transfer from the Revenue Fund to the credit of the Operation and Maintenance Reserve Fund an amount sufficient to accumulate an amount equal to or restore the balance in the Operation and Maintenance Reserve Fund to an amount equal to the Operation and Maintenance Reserve Requirement.

(l) After first having made the deposits required by subparagraphs (b) through (k) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" prior to the transfer under this clause (l), if any, and subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," on the Transfer Date preceding each interest, Principal or redemption payment date for any TELA/Other Tier Obligations, the Trustee shall withdraw from the Revenue Fund and deposit to the TELA/Other Tier Payment Fund the amounts due on any TELA/Other Tier Obligation.

(m) After first having made the deposits required by subparagraphs (b) through (l) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" prior to the transfer under this clause (m), if any, and subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," on each Transfer Date, the Trustee shall transfer from the Revenue Fund, but only to the extent Revenues of the System in such fund are available and as provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Rate Stabilization Fund," to the credit of the Rate Stabilization Fund amounts sufficient to accumulate an amount equal to or to restore the balance in the Rate Stabilization Fund to an amount equal to the Rate Stabilization Fund Requirement.

(n) After first having made the deposits required by subparagraphs (b) through (m) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" prior to the transfer under this clause (n), if any, and subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," on each Transfer Date the Trustee shall transfer from the Revenue Fund, but only to the extent Revenues of the System in such fund are available, to the credit of the Major Maintenance Fund amounts sufficient to accumulate an amount equal to or to restore the balance in the Major Maintenance Fund to an amount equal to the Major Maintenance Requirement.

(o) After first having made the deposits provided by subparagraphs (b) through (n) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," subject to the following conditions, on or before the last Business Day of each Fiscal Year (or more frequently if every condition set forth below has been satisfied) the Trustee shall transfer from the Revenue Fund to the credit of the Grand Parkway Enhancement Fund all Revenues of the System remaining in the Revenue Fund (and accrued to such current Fiscal Year) that a Corporation Representative determines, in a certificate delivered to the Trustee, to be in excess of the amount required to be reserved therein for transfers expected to be made in the first two months of the following Fiscal Year to the First Tier Interest Account, the First Tier Redemption Account, the Second Tier Interest Account, the Second Tier Redemption Account, the Subordinate Tier Interest Account, the Subordinate Tier Redemption Account or the TELA/Other Tier Payment Fund. The certificate of a Corporation Representative must also state that, as of the date of the transfer:

(1) no Event of Default under "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Events of Default" currently exists, and

(2) every fund and account established by or required to be established by the Master Trust Agreement contains at least the amount required to be deposited therein in such Fiscal Year.

Application and Pledge of Moneys in Debt Service Funds.

(a) Subject to the terms and conditions set forth in the Master Trust Agreement, the First Tier Debt Service Fund shall be held in trust and disbursed by the Trustee for (1) after utilizing amounts available in any applicable Capitalized Interest Account for the related First Tier Obligations, the payment of interest upon the First Tier Obligations issued hereunder as such interest falls due, or (2) the payment of the Principal of such First Tier Obligations at maturity, or (3) the payment of First Tier Payment Obligations, or (4) the payment of the purchase price or redemption price of such First Tier Obligations before maturity, as provided in the Master Trust Agreement or any Supplemental Agreement, and such moneys are hereby pledged to and charged with the payment mentioned in this subparagraph.

(b) Subject to the terms and conditions set forth in the Master Trust Agreement, the Second Tier Debt Service Fund shall be held in trust and disbursed by the Trustee for (1) after utilizing amounts available in any applicable Capitalized Interest Account for the related Second Tier Obligations, the payment of interest upon the Second Tier Obligations issued hereunder as such interest falls due, or (2) the payment of the Principal of such Second Tier Obligations at maturity, or (3) the payment of Second Tier Payment Obligations, or (4) the payment of the purchase price or redemption price of such Second Tier Obligations before maturity, as provided in the Master Trust Agreement or any Supplemental Agreement, and such moneys are hereby pledged to and charged with the payment mentioned in this subparagraph.

(c) Subject to the terms and conditions set forth in the Master Trust Agreement, including subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations," the Subordinate Tier Debt Service Fund shall be held in trust and disbursed by the Trustee for (1) after utilizing amounts available in any applicable Capitalized Interest Account for the related Subordinate Tier Obligations, the payment of interest upon the Subordinate Tier Obligations issued hereunder as such interest falls due, or (2) the payment of the Principal of such Subordinate Tier Obligations at maturity, or (3) the payment of Subordinate Tier Payment Obligations, or (4) the payment of the purchase price or redemption price of such Subordinate Tier Obligations before maturity, as provided in the Master Trust Agreement or any Supplemental Agreement, and such moneys are hereby pledged to and charged with the payment mentioned in this subparagraph.

Withdrawals from Interest Accounts.

(a) The Trustee shall, from time to time and after utilizing amounts available in any applicable Capitalized Interest Account for the related First Tier Obligations, withdraw from the First Tier Interest Account and remit to the respective Owners of First Tier Obligations the amounts required for paying interest upon the First Tier Obligations as such interest comes due on the dates and in the manner provided in the Master Trust Agreement or any Supplemental Agreement or other proceedings approved by the Corporation.

(b) The Trustee shall, from time to time and after utilizing amounts available in any applicable Capitalized Interest Account for the related Second Tier Obligations, withdraw from the Second Tier Interest Account and remit to the respective Owners of Second Tier Obligations the amounts required for paying interest upon the Second Tier Obligations as such interest comes due on the dates and in the manner provided in the Master Trust Agreement or any Supplemental Agreement or other proceedings approved by the Corporation.

(c) Subject to subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations" and "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Flow of Funds," the Trustee shall, from time to time and after utilizing amounts available in any applicable Capitalized Interest Account for the related Subordinate Tier Obligations, withdraw from the Subordinate Tier Interest Account or any applicable sub-account therein and remit to the respective Owners of Subordinate Tier Obligations the amounts required for paying interest upon the Subordinate Tier Obligations as such interest comes due on the dates and in the manner provided in the Master Trust Agreement or any Supplemental Agreement or other proceedings approved by the Corporation.

Application of Moneys in Redemption Accounts; Payment of Obligations and Payment Obligations; Redemption of Obligations.

(a) To the extent of any moneys at any time in the First Tier Redemption Account, the Trustee shall retire or provide for the retirement of Principal of First Tier Obligations, including First Tier Payment Obligations, with money from the First Tier Redemption Account, and the Trustee shall pay, when due, the amount of Principal of all First Tier Obligations scheduled to mature and all First Tier Payment Obligations, and the Trustee shall redeem or purchase First Tier Obligations prior to maturity during each year specified in, and pursuant to, any optional or mandatory redemption or purchase provisions required for First Tier Obligations, and shall pay the Principal, any redemption premium required therefor, and all necessary and proper expenses in connection therewith, from the First Tier Redemption Account, but shall pay all accrued interest on First Tier Obligations from the First Tier Interest Account.

(b) To the extent of any moneys at any time in the Second Tier Redemption Account, the Trustee shall retire or provide for the retirement of Principal of Second Tier Obligations, including Second Tier Payment Obligations, with money from the Second Tier Redemption Account, and the Trustee shall pay, when due, the amount of Principal of all Second Tier Obligations scheduled to mature and all Second Tier Payment Obligations, and the Trustee shall redeem or purchase Second Tier Obligations prior to maturity during each year specified in, and pursuant to, any optional or mandatory redemption or purchase provisions required for Second Tier Obligations, and shall pay the Principal, any redemption premium required therefor, and all necessary and proper expenses in connection therewith, from the Second Tier Redemption Account, but shall pay all accrued interest on Second Tier Obligations from the Second Tier Interest Account.

(c) Subject to subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Issuance of Subordinate Tier Obligations" and the related Supplemental Agreements, to the extent of any moneys at any time in the Subordinate Tier Redemption Account or any sub-account therein, the Trustee shall retire or provide for the retirement of Principal of Subordinate Tier Obligations, including Subordinate Tier Payment Obligations, with money from the Subordinate Tier Redemption Account or the applicable sub-account therein, and the Trustee shall pay, when due, the amount of Principal of all Subordinate Tier Obligations scheduled to mature and all Subordinate Tier Payment Obligations, and the Trustee shall redeem or purchase Subordinate Tier Obligations prior to maturity during each year specified in, and pursuant to, any optional or mandatory redemption or purchase provisions required for Subordinate Tier Obligations, and shall pay the Principal, any redemption premium required therefor, and all necessary and proper expenses in connection therewith, from the Subordinate Tier Redemption Account or the applicable sub-account therein, but shall pay all accrued interest on Subordinate Tier Obligations from the Subordinate Tier Interest Account or the applicable sub-account therein.

Application of Moneys in Reserve Accounts.

(a) Moneys and investments held for the credit of any subaccounts of the First Tier Reserve Account shall be used finally to retire the last of the applicable Outstanding First Tier Obligations to which the subaccounts relate, respectively, and/or for the purpose of paying interest on and Principal of the First Tier Obligations to which the subaccounts relate whenever and to the extent that the moneys held for the credit of the First Tier Interest Account and the First Tier Redemption Account shall be insufficient for such purpose. The provision for any subaccount of the First Tier Reserve Account related to a Series of First Tier Obligations shall be set out in the Supplemental Agreement related thereto, including any reserve requirement, requirement to make up any deficiency in such account and disposition of any excess moneys and investments therein. If a Reserve Surety Agreement is used as a reserve for any Series of First Tier Obligations, any reimbursements required thereunder to be paid to an obligor as a result of a draw or demand thereunder and any expenses payable thereunder shall be made, as provided in the related Reserve Surety Agreement, from moneys deposited into the applicable subaccount of the First Tier Reserve Account until fully paid.

(b) Moneys and investments held for the credit of any subaccounts of the Second Tier Reserve Account shall be used finally to retire the last of the applicable Outstanding Second Tier Obligations to which the subaccounts relate, respectively, and/or for the purpose of paying interest on and Principal of the Second Tier Obligations to which the subaccounts relate whenever and to the extent that the moneys held for the credit of the Second Tier Interest Account and the Second Tier

Redemption Account shall be insufficient for such purpose. The provision for any subaccount of the Second Tier Reserve Account related to a Series of Second Tier Obligations shall be set out in the Supplemental Agreement related thereto, including any reserve requirement, requirement to make up any deficiency in such account and disposition of any excess moneys and investments therein. If a Reserve Surety Agreement is used as a reserve for any Series of Second Tier Obligations, any reimbursements required thereunder to be paid to an obligor as a result of a draw or demand thereunder and any expenses payable thereunder shall be made, as provided in the related Reserve Surety Agreement, from moneys deposited into the applicable subaccount of the Second Tier Reserve Account until fully paid.

(c) Moneys and investments held for the credit of any subaccounts of the Subordinate Tier Reserve Account shall be used finally to retire the last of the applicable Outstanding Subordinate Tier Obligations to which the subaccounts relate, respectively, and/or for the purpose of paying interest on and Principal of the Subordinate Tier Obligations to which the subaccounts relate whenever and to the extent that the moneys held for the credit of the Subordinate Tier Interest Account and the Subordinate Tier Redemption Account shall be insufficient for such purpose. The provision for any subaccount of the Subordinate Tier Reserve Account related to a Series of Subordinate Tier Obligations shall be set out in the Supplemental Agreement related thereto, including any reserve requirement, requirement to make up any deficiency in such account and disposition of any excess moneys and investments therein. If a Reserve Surety Agreement is used as a reserve for any Series of Subordinate Tier Obligations, any reimbursements required thereunder to be paid to an obligor as a result of a draw or demand thereunder and any expenses payable thereunder shall be made, as provided in the related Reserve Surety Agreement, from moneys deposited into the applicable subaccount of the Subordinate Tier Reserve Account until fully paid.

Payment of Junior Operating Expenses.

(a) On each Transfer Date, the Trustee shall withdraw from the Revenue Fund and deposit to the credit of the Junior Operation and Maintenance Fund an amount required to make the total amount in the Junior Operation and Maintenance Fund equal to one-sixth (1/6) of the amount of the total Junior Operating Expenses scheduled for the then current Fiscal Year in the then current Annual Budget, plus all prior accruals for any insurance and other periodic or regularly recurring expenses. All Junior Operating Expenses shall be paid directly by the Trustee, upon written direction of a Corporation Representative, by drawing checks or drafts or by other means on the Junior Operation and Maintenance Fund as may be determined by the Trustee and the Corporation Representative.

(b) Notwithstanding subparagraph (a) of this section and as an alternative to such section, the Corporation may cause a Depository of the Corporation to create a special fund to be held by the Corporation and designated the "Junior Operation and Maintenance Fund" and, upon written direction from the Corporation Representative to the Trustee, the Trustee shall transfer all amounts in the Junior Operation and Maintenance Fund to the credit of the Junior Operation and Maintenance Fund held by such Depository and such fund will be maintained and administered by the Corporation and the Junior Operation and Maintenance Fund held by the Trustee shall be closed. On each Transfer Date, the Trustee shall withdraw from the Revenue Fund and deposit to the credit of the Corporation in the Junior Operation and Maintenance Fund, on written request of the Corporation, an amount which a Corporation Representative shall certify in such request to the Trustee at least one Business Day prior to such Transfer Date to be required to make the total amount in the Junior Operation and Maintenance Fund equal to one-sixth (1/6) of the amount of the total Junior Operating Expenses scheduled for the then current Fiscal Year in the then current Annual Budget, plus all prior accruals for any insurance and other periodic or regularly recurring expenses. All Junior Operating Expenses shall be paid directly by the Corporation by drawing checks or drafts on the Junior Operation and Maintenance Fund as may be determined by the Corporation Representative.

(c) If at any time the amount in the Debt Service Funds to the credit of the Interest Accounts, the Redemption Accounts, and the Reserve Accounts relating to First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations shall be insufficient for the purpose of paying the interest on or Principal or premium of the First Tier Obligations, the Second Tier Obligations and Subordinate Tier Obligations when due, then the Trustee or the Corporation, as the case may be, shall transfer, in the priorities set forth in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," from the Junior Operation and Maintenance Fund, to the Trustee in the case of the Corporation, for deposit in such applicable the Debt Service Funds for credit to the Interest Accounts and Redemption Accounts an amount sufficient to make up any such deficiency, provided that no such transfer shall be made of moneys in the Junior Operation and Maintenance Fund which are, determined by a written certificate of the Corporation Representative provided to the Trustee, to be needed then for operation and maintenance necessary to maintain safe operation of the System or to prevent loss of revenue of the System. Any moneys so required to be transferred from the Junior Operation and Maintenance Fund to such Interest Accounts or the Redemption Accounts shall be restored by the Trustee from the first available moneys in the Revenue Fund, subject to the same conditions as are prescribed for deposits to the credit of the Junior Operation and Maintenance Fund under the provisions of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds."

(d) At such time that there are TELA Supported Junior Operating Expenses and Non-TELA Supported Junior Operating Expenses, the Trustee or the Corporation, as the case may be, shall establish a special subaccount within the Junior Operation and Maintenance Fund for each type of Junior Operating Expenses and allocate the funds in the Junior Operation and Maintenance Fund between such subaccounts pro rata as such expenses are provided for in the applicable Annual Budget.

Use of Operation and Maintenance Reserve Fund.

Moneys held by the Trustee in the Operation and Maintenance Reserve Fund shall be used (i) for the purpose of paying the cost of Operating Expenses by the Trustee transferring amounts on deposit therein to the credit of the Senior Operation and Maintenance Fund and the Junior Operation and Maintenance Fund, as the case may be and in such priority, to cure any deficiencies therein to the extent of any such deficiency and (ii) as provided in this section and "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds."

The Trustee shall make payments directly from the Operation and Maintenance Reserve Fund to the Corporation or TxDOT, as directed in writing by a Corporation Representative, and such Fund shall be used only for the purposes and in the manner provided in this section.

If at any time the amount in the Debt Service Funds to the credit of the Interest Accounts, the Redemption Accounts, and the Reserve Accounts relating to First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations shall be insufficient for the purpose of paying the interest on or Principal of the First Tier Obligations, the Second Tier Obligations and the Subordinate Tier Obligations, respectively, when due, then the Trustee shall transfer, in the priorities set forth in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," from the Operation and Maintenance Reserve Fund to the applicable Debt Service Funds for credit to the Interest Accounts and Redemption Accounts an amount sufficient to make up any such deficiency, provided that no such transfer shall be made of moneys in the Operation and Maintenance Reserve Fund which are, determined by the Corporation which a Corporation Representative shall certify to the Trustee, to be needed then for operation and maintenance necessary to maintain safe operation of the System or to prevent loss of revenue of the System. Any moneys so required to be transferred from the Operation and Maintenance Reserve Fund to the Interest Accounts or the Redemption Accounts shall be restored by the Trustee from the first available moneys in the Revenue Fund, subject to the same conditions as are prescribed for deposits to the credit of the Operation and Maintenance Reserve Fund under the provisions of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds."

Application and Pledge of Moneys in TELA/Other Tier Payment Fund.

Subject to the terms and conditions set forth in the Master Trust Agreement, the TELA/Other Tier Payment Fund shall be held in trust and disbursed by the Trustee for (1) the payment of the TELA/Other Tier Debt Obligations issued hereunder as such falls due, or (2) the payment of the TELA/Other Tier Payment Obligations, as such become due, as provided in the Master Trust Agreement or any Supplemental Agreement, and such moneys are hereby pledged to and charged with the payment mentioned in this section.

Rate Stabilization Fund.

The Corporation shall make provision for funding the Rate Stabilization Fund Requirement in the Rate Stabilization Fund with proceeds of the Initial Obligations pursuant to the First Supplemental Agreement. Upon the issuance of Additional Obligations for a purpose other than refunding any Outstanding Obligations or completing the Initial Project pursuant to subparagraph (j) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations" or "- Issuance of Subordinate Tier Obligations" (and funding any related reserve or other funds), the Corporation shall deposit an amount necessary to cause the Rate Stabilization Fund to have an amount equal to the Rate Stabilization Fund Requirement as of such date (i) from proceeds of such Additional Obligations, (ii) from Revenues of the System, but only to the extent available pursuant to this section and subparagraph (m) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," or (iii) at the option of the Corporation, from any other lawfully available source.

In the priorities established in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," amounts on deposit in the Rate Stabilization Fund (a) shall be transferred by the Trustee to the Senior Operation and Maintenance Fund, the First Tier Debt Service Fund, the Second Tier Debt Service Fund, the Subordinate Tier Debt Service Fund or the Junior Operation and Maintenance Fund to cure a deficiency therein and (b) upon written direction by the Corporation Representative, may be transferred by the Trustee to any other fund under the Master Trust Agreement to be used for any other purpose for which Revenues of the System are permitted to be used under applicable law and the Master Trust Agreement, including as a claims payment fund or any similar function for any self-insurance program of the Corporation pursuant to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Insurance Recommendations"

and "- Schedule of Insurance Policies; Settlement of Insurance Claims; Insurance Proceeds." Use of amounts on deposit to the Rate Stabilization Fund for any of the foregoing purposes shall not constitute an Event of Default. In the event that the amounts on deposit in the Rate Stabilization Fund exceed the Rate Stabilization Fund Requirement, the Trustee shall transfer such excess to the Revenue Fund. The moneys in the Rate Stabilization Fund, after their use as provided in this paragraph, need not be replenished; provided, however, pursuant to the preceding paragraph, the Corporation shall replenish the Rate Stabilization Fund to the Rate Stabilization Fund Requirement upon the issuance of any Additional Obligations for a purpose other than refunding any Outstanding Obligations or completing the Initial Project pursuant to subparagraph (j) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations" or "- Issuance of Subordinate Tier Obligations" (and funding any related reserve or other funds).

Notwithstanding anything in this section to the contrary, the Trustee shall replenish the Rate Stabilization Fund to the Rate Stabilization Fund Requirement or a lesser amount at such time and in such manner as directed in writing by a Corporation Representative from Revenues of the System available pursuant to subparagraph (m) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds." Additionally, notwithstanding anything in the Master Trust Agreement to the contrary, at such time that there is no Toll Equity Loan Agreement outstanding, the Corporation may determine to (i) reduce the Rate Stabilization Fund Requirement to a lesser amount or (ii) eliminate the requirement for the Rate Stabilization Fund and the Rate Stabilization Fund Requirement, and, upon such determination and receipt by the Corporation and the Trustee of (y) written confirmation that such action will not, in and of itself, cause any ratings then assigned to any Outstanding First Tier Obligations or Second Tier Obligations to be adversely affected by Moody's, S&P and/or Fitch, respectively, and (z) an opinion of Bond Counsel that the use of any released amounts from the Rate Stabilization Fund complies with applicable law, the Corporation Representative shall give written notice to the Trustee of such Corporation determination and direct the Trustee to transfer any released amounts from the Rate Stabilization Fund into the Revenue Fund and, if appropriate, close the Rate Stabilization Fund.

A Rate Stabilization Fund Obligation issued in an amount equal to all or part of the Rate Stabilization Fund Requirement may be used in lieu of depositing cash into the Rate Stabilization Fund. In addition, a Rate Stabilization Fund Obligation may be substituted for monies and investments in the Rate Stabilization Fund if the substitution of the Rate Stabilization Fund Obligation will not, in and of itself, cause any ratings then assigned to the Obligations by Moody's, S&P and/or Fitch, respectively, to be lowered, the Rate Stabilization Fund Obligation is approved by the Texas Attorney General, if then required by State law, and the resolution authorizing the substitution of the Rate Stabilization Fund Obligation for all or part of the Rate Stabilization Fund Requirement contains a finding that such substitution is cost effective.

If (i) the long-term, unsecured credit rating of the issuer of the Rate Stabilization Fund Obligation falls below the third highest generic rating category (i.e., "A") by Moody's, S&P and/or Fitch, respectively, (ii) the issuer of the Rate Stabilization Fund Obligation defaults in its payment obligations thereunder, or (iii) the issuer of the Rate Stabilization Fund Obligation becomes insolvent, the Corporation shall within three months of such occurrence either, only to the extent Revenues of the System are available pursuant to this section and subparagraph (m) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," (A) deposit into the Rate Stabilization Fund an amount sufficient to cause the cash and investments on deposit therein to accumulate to the Rate Stabilization Fund Requirement, or (B) replace such instrument with a Rate Stabilization Fund Obligation meeting the requirements of this section. Upon replacement, the Commission may terminate the existing Rate Stabilization Fund Obligation in accordance with its terms. The Trustee shall have no obligation to monitor the credit ratings of the issuer of any Rate Stabilization Fund Obligation.

Any cash released from the Rate Stabilization Fund as a result of deposit of a Rate Stabilization Fund Obligation may be used for any purpose authorized by State law upon written direction of the Corporation Representative to the Trustee, subject to receipt of an opinion of Bond Counsel that such use will not adversely affect the tax-exempt status of any Tax-Exempt Obligations that may have funded the cash deposit.

Major Maintenance Fund.

Moneys in the Major Maintenance Fund shall be disbursed to pay Major Maintenance Expenses shown in the Annual Budget for the System and shall be disbursed only for such purposes, except to the extent hereinafter provided in this section. All Major Maintenance Expenses shall be paid directly by the Trustee, upon written direction of a Corporation Representative, by drawing checks or drafts or by other means on the Major Maintenance Fund as may be determined by the Trustee and the Corporation Representative.

In addition and in the priorities established in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," amounts on deposit in the Major Maintenance Fund shall be transferred by the Trustee to the Senior Operation and

Maintenance Fund, the First Tier Debt Service Fund, the Second Tier Debt Service Fund, the Subordinate Tier Debt Service Fund or the Junior Operation and Maintenance Fund to cure a deficiency therein.

Subject to subparagraph (a) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds" and to the extent moneys in the Major Maintenance Fund are insufficient to pay the Major Maintenance Expenses then due, the Trustee shall transfer the amount of such deficiency from the money on deposit in the following funds or accounts and transfer the same to the credit of the Major Maintenance Fund in the following order of priority to the extent that funds are available therein: the Revenue Fund and the Grand Parkway Enhancement Fund. If, after making such transfers, the moneys in the Major Maintenance Fund are insufficient to pay the Major Maintenance Expenses then due, upon written direction of the Corporation Representative, the Trustee shall make a draw under the applicable Toll Equity Loan Agreement by submitting a Draw Request in accordance with "TRUST AGREEMENT - Toll Equity Loan Agreement Draw Requests" in an amount sufficient to satisfy any shortfall as determined by the Corporation Representative, to the extent that funds are available thereunder, and the Corporation Representative certifies in writing to the Trustee that, after such draw, there remains sufficient capacity in the unused portion of the Maximum Available Annual Amount for such Fiscal Year to pay any unpaid Debt Service Requirements of the Outstanding Toll Equity Loan Supported Obligations for which the applicable Toll Equity Loan Agreement is applicable due through the end of such Fiscal Year. Amounts drawn under the applicable Toll Equity Loan Agreement for the foregoing purpose as described in this section shall be deposited by the Trustee into the TELA Draw Clearing Account and then credited to the Major Maintenance Fund for application as set forth in this section.

Grand Parkway Enhancement Fund.

Moneys held in the Grand Parkway Enhancement Fund shall be used for any lawful purpose with priority given to (a) in the priorities established in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds", curing a deficiency in the Senior Operation and Maintenance Fund, the First Tier Debt Service Fund, the Second Tier Debt Service Fund, the Subordinate Tier Debt Service Fund or the Junior Operation and Maintenance Fund, (b) paying for any of the purposes set forth in the Master Trust Agreement, including any amounts due to the Department under any Toll Equity Loan Agreement, the Project Agreement or any other agreement and any amounts transferred and deposited to any fund or account created under the Master Trust Agreement or any Supplemental Agreement and (c) paying any costs of the System or paying any costs related to any section or segment of the Grand Parkway Project without regard to whether such section or segment can become part of the System. The Trustee shall disburse moneys on deposit in the Grand Parkway Enhancement Fund within two Business Days after receipt by the Trustee of written requisition requests, in substantially the form attached to the Master Trust Agreement as Exhibit D signed by a Corporation Representative.

Investment of Moneys; Time Deposits or Other Arrangements in Lieu of Investments.

All moneys held for the credit of the Construction Fund shall, as nearly as may be practicable, be invested and reinvested by the Trustee, as directed by the Corporation, in Permitted Investments which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, in such amounts and at such times as will be required to provide moneys when needed to pay the Costs payable from the Construction Fund or interest on the particular Obligations with respect to any Capitalized Interest Account within the Construction Fund.

Moneys held for the credit of the Reserve Accounts shall, as nearly as may be practicable, be invested and reinvested by the Trustee, as directed by the Corporation, in Permitted Investments which shall mature, or shall be subject to redemption by the holder thereof at the option of such holder, not later than five years after the date of such investment.

Moneys held for the credit of the Operation and Maintenance Reserve Fund, the Major Maintenance Fund and the Rate Stabilization Fund shall be invested and reinvested by the Trustee, as directed by the Corporation, in Permitted Investments which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than five years after the date of such investment.

Moneys held for the credit of the Grand Parkway Enhancement Fund may be invested by the Trustee, as directed by the Corporation, in any of the Permitted Investments.

Moneys held for the credit of the Senior Operation and Maintenance Fund and the Junior Operation and Maintenance Fund shall, as nearly as may be practicable, be invested and reinvested by the Corporation, and moneys held for the credit of the Revenue Fund, the Interest Accounts, the Redemption Accounts and the TELA/Other Tier Payment Fund shall, as nearly as may be practicable, be invested and reinvested by the Trustee, as directed by the Corporation, in Permitted Investments which shall mature, or which shall be subject to redemption by the holder thereof at the option of such holder, not later than the respective dates which will allow moneys to be available in each of such funds and accounts for use at the appropriate times and for the purposes for which they were created.

In lieu of the investments as provided above, and at the option of the Corporation, and in any other case where the Corporation deems it advisable, the Corporation may make interest bearing time deposits, invest in certificates of deposit, or make other similar arrangements with the Trustee or any other Depositary in connection with moneys in any fund or account created by the Master Trust Agreement, as may be permitted by law, and which will allow moneys to be available in each of the funds and accounts created by the Master Trust Agreement for use at the appropriate times and for the purposes for which they were created, provided that all such time deposits, certificates of deposit, and other similar agreements shall be secured in the manner provided in "TRUST AGREEMENT - Depositaries; Deposits Constitute Trust Funds; Qualifications of Depositaries; Security for Deposits" for uninvested moneys.

Investments and Deposits Deemed to be Part of Funds and Accounts for which Purchased; Valuation of Funds or Accounts; Rebates to United States of America.

Obligations purchased as an investment of moneys in any fund or account created under the provisions of the Master Trust Agreement and all time deposits or similar arrangements made in connection therewith, shall be deemed at all times to be a part of such fund or account, and the interest accruing thereon and any profit realized from any investment shall be credited to such fund or account, and any loss resulting from any investment shall be charged to such fund or account. It is further provided that, at the option of the Corporation, during the period of construction or completion of construction of any System Segments, the Corporation may transfer, or direct the Trustee to transfer, as the case may be, from the Construction Fund and deposit to the credit of the applicable Interest Account, from the investment earnings deposited in the Construction Fund and/or the Operation and Maintenance Reserve Fund all or any part of an amount, which, together with the amount then available in the applicable Interest Account, will be sufficient to pay the interest coming due on the Obligations on each interest payment date, respectively. The Trustee shall account for all amounts at any time on hand in the Construction Fund attributable to all investment earnings, regardless of their source, and shall make the deposits required above to the extent of such investment earnings on hand at the time each such deposit is required to be made.

The Trustee, any other Depositaries, and the Corporation, as the case may be, shall sell at the best price obtainable in the exercise of reasonable diligence, or present for payment or redemption, any obligation or investment so purchased, whenever and to the extent it shall be necessary so to do, in order to provide moneys required to meet any payment or transfer from any fund or account. The Trustee, any other Depositaries, and the Corporation, as the case may be, shall present for payment all such obligations or investments when they mature or when they shall be called for redemption and the proceeds thereof shall be reinvested promptly, unless needed to meet any such payment or transfer. Neither the Trustee, any other Depositaries, nor the Corporation shall be liable or responsible for making any such investment or for any loss resulting from any such investment, but any resulting deficiency in any fund or account shall be restored from the first moneys available therefor in accordance with "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds." The Trustee and any other Depositaries shall advise the Corporation in writing, on or before the eighth day of each month, of the details of all money and investments held by them for the credit of any such fund or account.

The provisions of the Master Trust Agreement which relate to the deposit and to the investment of moneys shall be subject to the provisions of any applicable laws of the State.

All Permitted Investments purchased as an investment of any fund or account created hereunder shall be valued at the value of Permitted Investments. The Corporation shall advise the Trustee of the value of Permitted Investments for any Permitted Investments for any funds held by the Corporation or the Trustee as of the last business day of the current Fiscal Year and semiannually thereafter as of the last business day of the sixth and twelfth months, respectively, of each Fiscal Year.

Notwithstanding any other provisions of the Master Trust Agreement, other than "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Flow of Funds," if investment income derived from any fund or account maintained pursuant hereto is required to be rebated to the United States of America, as may required by the federal tax covenants of the Corporation set forth in the relevant Supplemental Agreement, in order to prevent any Tax-Exempt Obligations from being "arbitrage bonds," such investment income shall be so rebated, through the Rebate Fund, if required, from the appropriate fund or account, and the amounts of such rebates shall not be considered to be Revenues of the System. The Trustee shall forthwith, upon the request and direction of the Corporation, transmit any such rebate amounts held by it to the United States of America as directed by the Corporation.

Use and Operation of System; Project Agreement.

(a) The Corporation covenants that it will establish and enforce reasonable rules and regulations governing the use of the System and the operation thereof, that all compensation, salaries, fees and wages paid by it in connection with the maintenance, repair and operation thereof will be reasonable, that no more persons will be employed by it than are necessary, that it will maintain and operate the System in an efficient and economical manner, that, from the Revenues of the System, it will at all times maintain the same in good repair and in sound operating condition and will make all necessary repairs,

renewals and replacements, and that it will comply with all valid acts, rules, regulations, orders and directions of any legislative, executive, administrative or judicial body applicable to the System.

(b) The Corporation further covenants that it will take all lawful action on its part which may be necessary or desirable to advertise and promote the System to the traveling public and to place and replace highway designation signs and adequate directional signs to the System which, in the judgment of the Corporation, may be beneficial to the System or necessary to protect against the diversion of traffic from the System.

(c) In the Project Agreement for the benefit of the Corporation, the Trustee and the Owners of the Obligations, the Department has covenanted that, among other obligations, it will (i) perform or discharge certain retained obligations of the Department with respect to the System, (ii) limit and restrict the sale, lease, transfer or creation of certain other encumbrances of all or part of the System while the Master Trust Agreement is outstanding, (iii) take certain actions or refrain from certain actions relating to the tax-exempt status of any Tax-Exempt Obligations, (iii) comply with certain legal requirements and not create any lien or charge on the Revenues of the System and (iv) take certain action relating to insurance policies and proceeds. To the extent permitted by law, the Corporation covenants and agrees to take all such action necessary to cause the Department to meet its obligations under the Project Agreement.

Observance and Compliance with Valid Requirements; No Liens or Charges Upon System, Tolls or Other Revenues; Payment of Lawful Charges.

The Corporation covenants that it will duly observe and comply with all valid requirements of any governmental authority relative to the System or any part thereof, that it will not create or suffer to be created any lien or charge upon the System or any part thereof or upon the tolls or other revenue therefrom, including the Revenues of the System, except (i) the lien and charge of the Obligations secured hereby upon such tolls and revenues, including the Revenues of the System and (ii) the lien or encumbrance permitted by the Master Trust Agreement, unless any such lien or charge is junior and subordinate in all respects to the lien and charge of the Obligations secured hereby, it being understood that the Corporation may issue Obligations payable from, or secured by, moneys in the Grand Parkway Enhancement Fund to the extent now or hereafter permitted by law without violating the foregoing covenant. The Corporation further covenants that, from such revenues or other available funds, it will pay or cause to be discharged, or will make adequate provision to satisfy and discharge, within sixty (60) days after the same shall accrue, all lawful claims and demands for labor, materials, supplies or other objects which, if unpaid, might by law become a lien upon the System or any part thereof or the tolls or other revenue therefrom; provided, however, that nothing in contained in this section shall require the Corporation to pay or cause to be discharged, or make provision for, any such lien or charge so long as the validity thereof shall be contested in good faith and by appropriate legal proceedings.

Employment of General Engineering Consultant and Traffic Consultant.

(a) The Corporation covenants that, until the Obligations and the interest thereon shall have been paid or provision for such payment shall have been made, it will employ a General Engineering Consultant for the purpose of performing and carrying out the duties imposed on the General Engineering Consultant by the Master Trust Agreement.

(b) The Corporation covenants that, until the Obligations and the interest thereon shall have been paid or provision for such payment shall have been made, it will, for the purpose of performing and carrying out the duties imposed on the Traffic Consultant by the Master Trust Agreement, employ from time to time where required by the Master Trust Agreement, an independent engineer or engineering firm or corporation, other than the General Engineering Consultant, having a nation-wide and favorable repute for skill and experience in such work.

Insurance Recommendations.

The Corporation covenants that it will keep the System and its use and operation thereof insured (including through self-insurance) at all times in such amounts, subject to such exceptions and deductibles and against such risks, as are customary for similar organizations, including business interruption insurance. Any insurance policies shall be carried with a responsible insurance company or companies authorized to do business in the State. Any self-insurance program shall be deemed actuarially sound in the written opinion of an accredited actuary, which opinion shall be filed with the Trustee at least annually. At any time and from time to time, the Corporation may elect to terminate self-insurance of a given type. Upon making such election, the Corporation shall, to the extent then deemed necessary by a qualified insurance consultant, determined by the Corporation, obtain and maintain comparable commercial insurance.

On the July 1 following the Substantial Completion of the Initial Project and every three years thereafter (except with respect to self-insurance, which shall be annually deemed actuarially sound in the written opinion of an accredited actuary), the Corporation shall cause a qualified insurance consultant, determined by the Corporation, to certify to the Trustee that (a) it has reviewed the adequacy of the Corporation's insurance, listing the types and amounts of insurance, and (b) it finds such coverage to be reasonable and customary for similar organizations. If the qualified insurance consultant concludes that coverage other than that currently carried by the Corporation should be carried, the Corporation shall obtain such insurance coverage unless it determines in good faith that it is unreasonable or uneconomical to obtain such coverage and a Corporation Representative certifies the same in writing to the Trustee.

Any insurance policies maintained by the Corporation shall name the Trustee as a co-insured and be available at reasonable times for inspection by the Trustee, its agents and representatives.

Schedule of Insurance Policies; Settlement of Insurance Claims; Insurance Proceeds.

Within the first three (3) months of each Fiscal Year **following the Substantial Completion of the Initial Project**, the Corporation shall mail to the General Engineering Consultant and the Trustee a schedule or other evidence of all insurance policies or self-insurance programs referred to "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Insurance Recommendations" which are then in effect, stating with respect to each policy the name of the insurer, the amount, number and expiration date, and the hazards and risks covered thereby, and also stating the details of each self insurance program established by the Corporation. Any such insurance policies and self-insurance programs shall be open to the inspection of the Owners and their representatives at all reasonable times. The Trustee is hereby authorized, but is not obligated, in its own name to demand, collect, sue and receipt for any insurance money which may become due and payable under any policies payable to it.

Any appraisal or adjustment of any loss or damage under any policy payable to the Trustee and any settlement or payment of indemnity under such policy which may be agreed upon between the Corporation and any insurer shall be evidenced to the Trustee by a certificate, signed by a Corporation Representative, which certificate may be relied upon by the Trustee as conclusive. The Trustee shall in no way be liable or responsible for the collection of insurance moneys in case of any loss or damage.

The Corporation covenants that it will take actions as it deems necessary to demand, collect and sue for any proceeds that may become due and payable to it under any policy.

The Corporation shall pay any insurance proceeds it receives under builders all risk, and property all risk to the Trustee for deposit into the Revenue Fund to the extent attributable to the debt service. Otherwise, such insurance proceeds shall be deposited to the Construction Fund and used for any repairs or modifications of the System necessary or desirable as a result of damage or destruction to the System. If no such repairs or modifications are necessary or desirable, or if any funds remain in the Construction Fund after completion of all such repairs and modifications, the proceeds of such insurance or remaining proceeds, as applicable, shall be deposited to the Revenue Fund and applied as provided in the Master Trust Agreement.

The Corporation shall direct that the any contractor related to the construction and acquisition of the System pay insurance proceeds payable to the Corporation under any insurance policies maintained by such contractor pursuant to the terms of any construction or similar agreement with the Corporation directly to the Trustee for deposit into the Revenue Fund to the extent attributable to the debt service. Otherwise, such insurance proceeds shall be deposited to the Construction Fund. To the extent that the Corporation receives insurance payments under a business interruption insurance policy, such amounts shall be deposited into the Revenue Fund as directed by a Corporation Representative in writing to the Trustee.

Accurate Records; Monthly Reports; Annual Audits; Additional Reports or Audits, Annual Report.

The Corporation covenants that it will keep an accurate record of the daily tolls and other revenues collected, of the number and class of vehicles using the System and of the application of such tolls. Such record shall be open to the inspection of the Owners and their agents and representatives.

The Corporation further covenants that, by the last day of each month, commencing after the first full month after Substantial Completion of any System Segment, it will cause to be filed with the Trustee and mailed to the General Engineering Consultant and the Traffic Consultant copies of any revision of the Toll Rate Schedule during the preceding calendar month and a report setting forth in respect of the preceding calendar month:

- (a) the income and expense account of the System, which will separately account for Senior Operating Expenses and Junior Operating Expenses,
- (b) the number of vehicles in each class using the System,
- (c) all payments, deposits and credits to and any payments, transfers and withdrawals from each fund and account created under the provisions of the Trust Agreement,
- (d) all Obligations issued, paid, purchased or redeemed,
- (e) the amounts at the end of such month to the credit of each such fund and account, created pursuant to the provisions of the Trust Agreement and any Supplemental Agreement, showing the respective amounts to the credit of each such fund and account, and any security held therefor, and showing the details of any investments thereof, and
- (f) the amounts of the proceeds received from any sales of property.

The Corporation covenants that it will maintain books and accounts reflecting the operations of the System, as a separate enterprise, in accordance with Accounting Principles. The books and records of the System may form a part of the books and records of the Corporation but shall be maintained as a separate enterprise account.

In addition, the Corporation covenants that as soon as practicable, but in no event more than one hundred eighty (180) days after the last day of each Fiscal Year, beginning with the Fiscal Year in which Substantial Completion occurs, it will prepare or cause to be prepared a financial report of the results of operations of the System for such Fiscal Year in accordance with Accounting Principles, certified by a certified public accountant approved by the Corporation, and containing an audited balance sheet as of the end of such Fiscal Year, an audited statement of operations for such Fiscal Year, and an audited statement of cash flows of such Fiscal Year. A copy of such audit shall be filed with the Trustee promptly after the receipt by the Corporation for such purpose.

The Corporation further covenants that it will furnish to the Trustee such other information concerning the System or the operation thereof as the Trustee may reasonably request.

Sale or Factoring of Accounts Receivable.

The Corporation may sell all or a portion of its accounts receivables provided the Corporation receives fair and reasonable value as determined by a Corporation Representative. The Corporation may create a security interest, lien or pledge in its accounts receivable component of the Revenues of the System and the proceeds thereof securing an obligation of the Corporation to repurchase or replace accounts receivables sold as long as the aggregate maximum amount secured by any such pledges, liens or security interests does not exceed ten percent (10%) of the Revenues of the System of the Fiscal Year preceding the creation of such pledge or security interest. Notwithstanding the foregoing, the Corporation may sell or otherwise create a security interest lien or pledge in the accounts receivables related to video tolling transactions or other tolling transactions that has toll rates greater than the toll rates applicable to base electronic transponder transactions so long as the Corporation receives an amount not less than the revenue the Corporation would have received applying the electronic transponder toll rates to such transactions. All amounts received by the Corporation pursuant to this section shall be deposited into the Revenue Fund.

Condemnation Proceeds.

In the event the Corporation receives any payment or other proceeds in respect of a total or partial condemnation of the System, it shall cause such proceeds to be deposited to the Construction Fund and utilized for any repairs or modifications of the System necessary or desirable as a result of such condemnation. If no such repairs or modifications are necessary or desirable, the proceeds of such condemnation shall be deposited to the Revenue Fund.

Events of Default.

Each of the following events is hereby declared an "Event of Default," that is to say: If

(a) subject to the last three sentences of this section, the Corporation shall default in the payment of the Principal or premium, if any, of any of the Obligations when the same shall become due and payable, either at maturity or otherwise; or

(b) subject to the last three sentences of this section, the Corporation shall default in the payment of any installment of interest on any Obligation when the same shall become due and payable; or

(c) any part of the System shall be destroyed or damaged to the extent of impairing its efficient operation and materially adversely affecting its Revenues of the System, the Senior Net Revenues or the Junior Net Revenues and shall not be promptly repaired, replaced or reconstructed (whether such failure promptly to repair, replace or reconstruct the same be due to the impracticability of such repair, replacement or reconstruction or to lack of funds therefor or for any other reason); or

(d) judgment for the payment of money shall be rendered against the Corporation if such judgment is under any circumstances payable from the Revenues of the System and any such judgment shall not be discharged within ninety (90) days from the entry thereof or an appeal shall not be taken therefrom or from the order, decree or process upon which or pursuant to which such judgment shall have been granted or entered, in such manner as to set aside or stay the execution of or levy under such judgment, decree or process or the enforcement thereof; or

(e) an order or decree shall be entered, with the consent or acquiescence of the Corporation, appointing a receiver or receivers of the System or any part thereof or of the Revenues of the System thereof, or if such order or decree, having been entered without the consent or acquiescence of the Corporation, shall not be vacated or discharged or stayed within ninety (90) days after the entry thereof; or

(f) any proceeding shall be instituted, with the consent or acquiescence of the Corporation, for the purpose of effecting a composition between the Corporation and its creditors or for the purpose of adjusting the claims of such creditors, pursuant to any federal or state statute now or hereafter enacted, if the claims of such creditors are under any circumstances payable from the Revenues of the System; or

(g) the Corporation shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Obligations or in the Master Trust Agreement on the part of the Corporation to be performed, and such default shall continue for sixty (60) days after written notice specifying such default and requiring same to be remedied shall have been given to the Corporation by the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the Owners of not less than ten percent (10%) in Principal amount of the Obligations then Outstanding; and the Trustee shall investigate and consider any allegation of such default; or

(h) the Corporation shall default in the due and punctual performance of any of the covenants, conditions, agreements and provisions contained in the Obligations or in the particular Supplemental Agreement with respect only to the Owners of the particular Obligations issued thereunder on the part of the Corporation to be performed, and such default shall continue for sixty (60) days after written notice specifying such default and requiring same to be remedied shall have been given to the Corporation by the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the Owners of the particular Obligations issued under such Supplemental Agreement of not less than ten percent (10%) in Principal amount of such particular Obligations then Outstanding; and the Trustee shall investigate and consider any allegation of such default; or

(i) the occurrence and continuance of an event of default by the Corporation under a Credit Agreement; or

(j) the Commission or the Corporation shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Toll Rate Agreement on the part of the Commission or the Corporation, as the case may be, to be performed, and such default shall continue for sixty (60) days after written notice specifying such default and requiring same to be remedied shall have been given to the Commission or the Corporation, as the case may be, by the Corporation or by the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the Owners of not less than ten percent (10%) in Principal amount of the Obligations then Outstanding; and the Trustee shall investigate and consider any allegation of such default; or

(k) the Department or the Corporation shall default in the due and punctual performance of any other of the covenants, conditions, agreements and provisions contained in the Project Agreement on the part of the Department or the Corporation, as the case may be, to be performed, and such default shall continue for sixty (60) days after written notice specifying such default and requiring same to be remedied shall have been given to the Department or the Corporation, as the

case may be, by the Corporation or by the Trustee, which may give such notice in its discretion and shall give such notice at the written request of the Owners of not less than ten percent (10%) in Principal amount of the Obligations then Outstanding; and the Trustee shall investigate and consider any allegation of such default.

A payment default under subparagraph (a) or (b) of this section with respect to a Second Tier Obligation or a Subordinate Tier Obligation shall not constitute an Event of Default with respect to First Tier Obligations. A payment default under subparagraph (a) or (b) of this section with respect to a Subordinate Tier Obligation shall not constitute an Event of Default with respect to First Tier Obligations or Second Tier Obligations. A payment default under a TELA/Other Tier Obligation shall not constitute an Event of Default under the Master Trust Agreement.

Enforcement of Remedies.

Upon the happening and continuance of any Event of Default specified in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Events of Default," then and in every such case the Trustee may proceed, and upon the written request of the Owners of not less than twenty percent (20%) in Principal amount of the Obligations then Outstanding under the Master Trust Agreement shall proceed, subject to the provisions of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Majority of Owners May Control Proceedings" and the Master Trust Agreement, to protect and enforce its rights and the rights of the Owners under Chapter 431, Transportation Code, and under the Master Trust Agreement, the Toll Rate Agreement or the Project Agreement by such suits, actions or special proceedings in equity or at law, or by proceedings in the office of any board or officer having jurisdiction, either for mandamus or the specific performance of any covenant or agreement contained in the Master Trust Agreement or in aid or execution of any power granted in the Master Trust Agreement or for the enforcement of any proper legal or equitable remedy, as the Trustee, being advised by counsel, shall deem most effectual to protect and enforce such rights. Notwithstanding anything to the contrary contained in the Master Trust Agreement, acceleration of the Principal of or interest on the Obligations upon the occurrence of an Event of Default is not a remedy available under the Master Trust Agreement and in no event shall the Trustee, the Owners or other parties have the ability, upon the occurrence of an Event of Default, to declare immediately due and payable the Principal of or interest on the Obligations.

In the enforcement of any remedy under the Master Trust Agreement the Trustee shall be entitled to sue for, enforce payment of and receive any and all amounts then or during any default becoming, and at any time remaining, due from the Corporation for Principal, interest or otherwise under any of the provisions of the Master Trust Agreement or of the Obligations and unpaid, with interest on overdue payments at the rate or rates of interest borne by such Obligations, together with any and all costs and expenses of collection and of all proceedings hereunder and under such Obligations, without prejudice, to any other right or remedy of the Trustee or of the Owners, and to recover and enforce judgment or decree against the Corporation, but solely as provided in the Master Trust Agreement and in such Obligations, for any portion of such amounts remaining unpaid, with interest, costs and expenses, and to collect (but solely from moneys in the applicable Debt Service Fund or the TELA/Other Tier Payment Fund, as the case may be, and any other moneys available for such purposes) in any manner provided by law, the moneys adjudged or decreed to be payable.

Pro Rata Application of Funds.

If an Event of Default specified in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Events of Default" has occurred and is continuing and the moneys in the Revenue Fund, the First Tier Debt Service Fund, the Second Tier Debt Service Fund, the Subordinate Tier Debt Service Fund, the Operation and Maintenance Reserve Fund, the Rate Stabilization Fund, the Major Maintenance Fund, the Grand Parkway Enhancement Fund, the Construction Fund or any other debt service funds established under the Master Trust Agreement shall not be sufficient to pay the Principal of or the interest on the Obligations as the same become due and payable, such moneys, together with any moneys then available or thereafter becoming available for such purpose, whether through the exercise of the remedies provided for in this section or otherwise, shall be applied (subject to the provisions of the Master Trust Agreement) as follows; provided, however, amounts on deposit in a fund or account (i) dedicated to the payment or security of the First Tier Obligations, the Second Tier Obligations or Subordinate Tier Obligations, including any proceeds of a draw on a Toll Equity Loan Agreement pursuant to the Master Trust Agreement, or (ii) constituting Additional Obligation Security for the benefit of one or more specific series of obligations shall not be applied as provided below but shall be used only for the purpose for which such deposits were made:

(a) Unless the Principal of all the First Tier Obligations shall then be due and payable, all such moneys shall be applied first: to the payment to the persons entitled thereto of all installments of interest then due on the First Tier Obligations, in the order of the maturity of the installments of such interest, and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the

respective rates of interest specified in the First Tier Obligations; and second: to the payment of the Principal of any First Tier Obligations which have matured, and, if the amount available shall not be sufficient to pay all of such matured First Tier Obligations, then to the payment thereof ratably, according to the amount due; or if no First Tier Obligations have matured, to the retirement of First Tier Obligations in accordance with the provisions of the Master Trust Agreement.

(b) If the Principal of all the First Tier Obligations shall then be due and payable, all such moneys shall be applied to the payment of the Principal and interest then due and unpaid upon the First Tier Obligations, without preference or priority of Principal over interest or of interest over Principal, or of any installment of interest over any other installment of interest, or of any First Tier Obligation over any other First Tier Obligation, ratably, according to the amounts due respectively for Principal and interest, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the First Tier Obligations.

(c) If there is no default existing in the payment of the Principal of, premium, if any, or interest on the First Tier Obligations but the Principal of, premium, if any, or interest on Second Tier Obligations has not been paid when due, unless the Principal of all the Second Tier Obligations shall then be due and payable, all such moneys shall be applied first: to the payment to the persons entitled thereto of all installments of interest then due on the Second Tier Obligations, in the order of the maturity of the installments of such interest, and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference except as to any difference in the respective rates of interest specified in the Second Tier Obligations; and second: to the payment of the Principal of any Second Tier Obligations which have matured, and, if the amount available shall not be sufficient to pay all of such matured Second Tier Obligations, then to the payment thereof ratably, according to the amount due; or if no Second Tier Obligations have matured, to the retirement of Second Tier Obligations in accordance with the provisions of the Master Trust Agreement.

(d) If there is no default existing in the payment of the Principal of, premium, if any, or interest on the First Tier Obligations, but the Principal of all the Second Tier Obligations shall then be due and payable, all such moneys shall be applied to the payment of the Principal and interest then due and unpaid upon the Second Tier Obligations, without preference or priority of Principal over interest or of interest over Principal, or of any installment of interest over any other installment of interest, or of any Second Tier Obligation over any other Second Tier Obligation, ratably, according to the amounts due respectively for Principal and interest, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Second Tier Obligations.

(e) If there is no default existing in the payment of the Principal of, premium, if any, or interest on the First Tier Obligations and Second Tier Obligations but the Principal of, premium, if any, or interest on Subordinate Tier Obligations has not been paid when due, unless the Principal of all the Subordinate Tier Obligations shall then be due and payable, all such moneys shall be applied first: to the payment to the persons entitled thereto of all installments of interest then due on the Subordinate Tier Obligations, in the order of priority established in the Supplemental Agreement entered into in conjunction with the issuance of such Subordinate Tier Obligations, and within a class of Subordinate Tier Obligations, in the order of the maturity of the installments of such interest, and, if the amount available shall not be sufficient to pay in full any particular installment, then to the payment ratably, according to the amounts due on such installment, to the persons entitled thereto, without any discrimination or preference within a class of Subordinate Tier Obligations except as to any difference in the respective rates of interest specified in the Subordinate Tier Obligations; and second: to the payment of the Principal of any Subordinate Tier Obligations, in the order of priority established in the Supplemental Agreement entered into in conjunction with the issuance of such Subordinate Tier Obligations, which have matured, and, if the amount available shall not be sufficient to pay all of such matured Subordinate Tier Obligations within such class, then to the payment thereof ratably, according to the amount due; or if no Subordinate Tier Obligations have matured, to the retirement of Subordinate Tier Obligations in accordance with the provisions of the Master Trust Agreement and the applicable Supplemental Agreements executed and delivered in conjunction with the issuance of such Subordinate Tier Obligations.

(f) If there is no default existing in the payment of the Principal of, premium, if any, or interest on the First Tier Obligations and Second Tier Obligations, but the Principal of all the Subordinate Tier Obligations shall then be due and payable, all such moneys shall be applied to the payment of the Principal and interest then due and unpaid upon the Subordinate Tier Obligations of each class, in the order of priority established in the Supplemental Agreement entered into in conjunction with the issuance of such Subordinate Tier Obligations, without preference or priority of Principal over interest or of interest over Principal, or of any installment of interest over any other installment of interest, or of any Subordinate Tier Obligation over any other Subordinate Tier Obligation within the same class, ratably, according to the amounts due respectively for Principal and interest, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the Subordinate Tier Obligations.

(g) If there is no default existing in the payment of the Principal of, premium, if any, or interest on the First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations, but the TELA/Other Tier Obligations shall then be due and payable, all such moneys shall be applied to the payment of the Principal and interest then due and unpaid upon the TELA/Other Tier Obligations, without preference or priority of any TELA/Other Tier Obligations over any other TELA/Other Tier Obligations, ratably, according to the amounts due respectively for such obligations, to the persons entitled thereto without any discrimination or preference except as to any difference in the respective rates of interest specified in the TELA/Other Tier Obligations.

Whenever moneys are to be applied by the Trustee pursuant to the provisions of this section, such moneys shall be applied by the Trustee at such times, and from time to time, as the Trustee in its sole discretion shall determine, having due regard to the amount of such moneys available for application and the likelihood of additional moneys becoming available for such application in the future; the deposit of such moneys with the Paying Agent, or otherwise setting aside such moneys, in trust for the proper purpose shall constitute proper application by the Trustee; and the Trustee shall incur no liability whatsoever to the Corporation, to any Owner or to any other person for any delay in applying any such moneys, so long as the Trustee acts with reasonable diligence, having due regard to the circumstances, and ultimately applies the same in accordance with such provisions of the Master Trust Agreement as may be applicable at the time of application by the Trustee. Whenever the Trustee shall exercise such discretion in applying such moneys, it shall fix the date (which shall be an interest payment date unless the Trustee shall deem another date more suitable) upon which such application is to be made and upon such date interest on the amounts of Principal to be paid on such date shall cease to accrue. The Trustee shall give such notice as it may deem appropriate of the fixing of any such date, and shall not be required to make payment to the Owner of any unpaid Obligation or the interest thereon unless such Obligation shall be presented to the Trustee for appropriate endorsement or for cancellation if fully paid.

Effect of Discontinuance of Proceedings.

In case any action taken by the Trustee on account of any default under the Master Trust Agreement or under the Toll Rate Agreement or the Project Agreement shall have been discontinued or abandoned for any reason, then and in every such case the Corporation, the Trustee and the Owners shall be restored to their former positions and rights under the Master Trust Agreement, respectively, and all rights, remedies, powers and duties of the Trustee shall continue as though no such action had been taken.

Majority of Owners May Control Proceedings.

Anything in the Master Trust Agreement to the contrary notwithstanding, but subject to SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Bond Insurer's Rights" and "- TxDOT Control Rights," the Owners of not less than a majority in Principal amount of the First Tier Obligations then Outstanding hereunder (or, if no First Tier Obligations are then Outstanding, then the Owners of not less than a majority in Principal amount of the Second Tier Obligations then Outstanding, or, if no First Tier Obligations or Second Tier Obligations are then Outstanding, then the Owners of not less than a majority in Principal amount of the Subordinate Tier Obligations then Outstanding) shall have the right, subject to the provisions of the Master Trust Agreement, by an instrument or concurrent instruments in writing executed and delivered to the Trustee, to direct the method and place of conducting all remedial actions to be taken by the Trustee hereunder, provided that such direction shall not be otherwise than in accordance with law or the provisions of the Master Trust Agreement, and that the Trustee shall have the right to decline to follow any such direction which in the opinion of the Trustee, subject to the Master Trust Agreement would be unjustly prejudicial to Owners not parties to such direction.

Restrictions Upon Action by Individual Owner.

No Owner of any of the Outstanding Obligations shall have any right to institute any suit, action, mandamus or other proceeding in equity or at law for the execution of any trust hereunder or the protection or enforcement of any right under the Master Trust Agreement or any resolution of the Corporation authorizing the issuance of Obligations, or any right under the Toll Rate Agreement or the Project Agreement or any right under the Chapter 228, Transportation Code, or the laws of Texas, excepting only an action for the recovery of overdue and unpaid Principal, interest or redemption premium, unless such Owner previously shall have given to the Trustee written notice of the Event of Default or breach of trust or duty on account of which such suit or action is to be taken, and unless the Owners of not less than twenty percent (20%) in Principal amount of the Obligations then Outstanding shall have made written request of the Trustee after the right to exercise such powers or right of action, as the case may be, shall have accrued, and shall have afforded the Trustee a reasonable opportunity either to proceed to exercise the powers granted in the Master Trust Agreement or granted by the Chapter 228, Transportation Code, or by the laws of the State, or to institute such action, suit or proceeding in its or their name, and unless,

also, there shall have been offered to the Trustee reasonable security and indemnity satisfactory to it against the costs, expenses and liabilities to be incurred therein or thereby, and the Trustee shall have refused or neglected to comply with such request within a reasonable time; and such notification, request and offer of indemnity are hereby declared in every such case, at the option of the Trustee, to be conditions precedent to the execution of the powers and trusts of the Master Trust Agreement or for any other remedy hereunder or under the Chapter 228, Transportation Code, or the laws of the State. It is understood and intended that no one or more Owners of the Obligations hereby secured shall have any right in any manner whatsoever by his or their action to affect, disturb or prejudice the security of the Master Trust Agreement, or to enforce any right hereunder or under the Chapter 228, Transportation Code, or the laws of the State with respect to the Obligations or the Master Trust Agreement, except in the manner provided in the Master Trust Agreement, and that all proceedings at law or in equity shall be instituted, had and maintained in the manner provided in the Master Trust Agreement and for the benefit of all Owners of the Outstanding Obligations, except as otherwise permitted in the Master Trust Agreement with reference to overdue and unpaid Principal, interest or redemption premium.

Actions by Trustee.

All rights of action under the Master Trust Agreement or under any of the Obligations or under the Toll Rate Agreement or the Project Agreement, enforceable by the Trustee, may be enforced by it without the possession of any of the Obligations or the production thereof on the trial or other proceeding relative thereto, and any such suit, action or proceeding instituted by the Trustee shall be brought in its name for the benefit of all the Owners of such Obligations, subject to the provisions of the Master Trust Agreement.

No Remedy Exclusive.

No remedy in the Master Trust Agreement conferred upon or reserved to the Trustee or to the Owners of the Obligations is intended to be exclusive of any other remedy or remedies, and each and every such remedy shall be cumulative and shall be in addition to every other remedy given hereunder or now or hereafter existing at law or in equity or by statute.

No Delay or Omission Construed to be a Waiver; Repeated Exercise of Powers and Remedies; Waiver of Default.

No delay or omission of the Trustee or of any Owner of the Obligations to exercise any right or power accruing upon any default shall impair any such right or power or shall be construed to be a waiver of any such default or any acquiescence therein; and every power and remedy given by the Master Trust Agreement to the Trustee and the Owners of the Obligations, respectively, may be exercised from time to time and as often as may be deemed expedient.

The Trustee may, and upon written request of the Owners of not less than a majority in Principal amount of the Obligations then Outstanding shall, waive any default which in its opinion shall have been remedied before the completion of the enforcement of any remedy under the Master Trust Agreement, but no such waiver shall extend to or affect any other existing or any subsequent default or defaults or impair any rights or remedies consequent thereon.

Notice of Default.

The Trustee shall mail to each Bond Insurer of record, and each Owner of record written notice of the occurrence of any Event of Default set forth in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Events of Default," within thirty (30) days after the Trustee has knowledge of any such Event of Default. If in any Fiscal Year the total amount of deposits to the Debt Service Funds shall be less than the amounts required so to be deposited under the provisions of the Master Trust Agreement, after taking in account all transfers from other funds in the Master Trust Agreement and all draws under any Toll Equity Loan Agreement, the Trustee, on or before the first day of the second month of the next succeeding Fiscal Year, shall mail to each Bond Insurer of record, and all Owners of record written notice of the failure to make such deposits. The Trustee shall not, however, be subject to any liability to any Bond Insurer or Owner by reason of its failure to mail any notice required by this section.

Bond Insurer's Rights.

Notwithstanding any other provisions of the Master Trust Agreement, if there has been filed with the Trustee a Bond Insurance Policy, or a certified copy thereof, with respect to any Obligation, provided the Bond Insurer is not in default under such Bond Insurance Policy, the Bond Insurer shall be entitled (i) upon the occurrence and continuance of any Event of Default, to exercise, control and direct the enforcement of all rights and remedies under the Master Trust Agreement granted to the Owners of Obligations entitled to the benefit of such Bond Insurance Policy or the Trustee for the benefit of such Owners under the Master Trust Agreement and direct the Trustee to take any actions in connection therewith and (ii) to grant

any consent, direction or approval or take any action expressly permitted by or required under the Master Trust Agreement to be granted or taken by the Owners of Obligations entitled to the benefit of such Bond Insurance Policy, except with respect to the Unanimous Voting Matters. In such event, the Bond Insurer shall be deemed to be the Owner of Obligations entitled to the benefit of the related Bond Insurance Policy for such purpose. Any Bond Insurer under a Bond Insurance Policy, or certified copy thereof, which has been filed with the Trustee and is then in effect shall, for all purposes of the Master Trust Agreement, constitute and may be called a Bond Insurer of record.

TxDOT Control Rights.

So long as TxDOT has not failed to honor a Draw Request under a Toll Equity Loan Agreement, whether due to a Non-Appropriation Event or otherwise:

(a) TxDOT shall be deemed to be the Owner of all Toll Equity Loan Supported Obligations for purposes of (i) exercising all remedies and directing the Trustee to take actions or for any other purposes following an Event of Default, and (ii) granting any consent (other than a consent under "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Actions Relating to Certain Financing Documents"), direction or approval or taking any action permitted by or required under the Master Trust Agreement to be granted or taken by the Owners of such Toll Equity Loan Supported Obligations.

(b) Anything in the Master Trust Agreement to the contrary notwithstanding, upon the occurrence and continuance of an Event of Default, TxDOT shall be entitled to control and direct the enforcement of all rights and remedies granted to the Owners of Toll Equity Loan Supported Obligations or the Trustee for the benefit of such Owners of Toll Equity Loan Supported Obligations under the Master Trust Agreement.

Supplemental Agreements by Corporation and Trustee.

The Corporation and the Trustee may, from time to time and at any time, without the consent of the Owners of the Obligations, enter into such agreements supplemental hereto as shall not be in conflict with the terms and provisions hereof (which supplemental agreements shall thereafter form a part hereof),

(a) to cure any ambiguity or formal defect or omission in the Master Trust Agreement or in any Supplemental Agreement, or

(b) to grant to or confer upon the Trustee for the benefit of the Owners any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Owners or the Trustee, or

(c) to close the Master Trust Agreement against or provide limitations and restrictions, in addition to the limitations and restrictions contained in the Master Trust Agreement, with respect to the future issuance of Additional Obligations, or

(d) to set forth additional covenants and provisions with respect to any System Segments, and any Obligations issued in connection therewith, or

(e) to provide for the issuance of Additional Obligations and any related adjustment, modification or addition to the Project Budget, all pursuant to "SUMMARY OF MASTER TRUST PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," "- Issuance of Subordinate Tier Obligations," "- TELA/Other Tier Obligations," and "- Project Budget," or

(f) to provide for a new Tier with a security interest in the Junior Net Revenues senior to the security interest in the Junior Net Revenues securing the TELA/Other Tier Obligations and for the issuance of obligations within such new Tier (together with any amendment to the Toll Rate Agreement to provide for such new Tier as provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Actions Relating to Certain Financing Documents"), or

(g) to set forth additional provisions, if deemed necessary or advisable, with respect to the issuance of the Additional Obligations permitted under "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," "- Issuance of Subordinate Tier Obligations," and "- TELA/Other Tier Obligations," including provisions for the use and functioning of the Construction Fund for additional System Segments, and the addition of certain other funds and accounts necessary or convenient for effecting the payment of Principal of or interest on such Obligations, which changes or amendments do not, in the judgment of the Corporation, materially adversely affect the interests of the Owners of the Outstanding Obligations or any Bond Insurer of record, or

(h) to comply with additional requirements to the extent necessary in the opinion of Bond Counsel to preserve the exemption from federal income taxation of interest on any applicable Obligations under section 103 of the Code, or

(i) to make any changes or amendments requested by Standard & Poor's, Fitch or Moody's, as a condition to the issuance or maintenance of a rating, which changes or amendments do not, in the judgment of the Corporation, materially adversely affect the interests of the Owners of the Outstanding Obligations or any Bond Insurer of record, or

(j) to provide for additional defeasance provisions to the provisions of the Master Trust Agreement or different defeasance provisions to the provisions of the Master Trust Agreement, applicable to the Obligations authorized by such a Supplemental Agreement, or

(k) to the extent permitted by law, to permit the Corporation to enter into Qualified Credit Agreements or to issue Additional Obligations in foreign denominated currencies; provided, however, no such amendment shall be made unless the Corporation shall have received a letter from Standard & Poor's, Fitch and Moody's, as the case may be, to the effect that such amendment will not result in any of such rating agencies lowering the assigned rating on the then Outstanding Obligations, or

(l) upon direction of the Corporation, provided that the Trustee receives a written confirmation from each rating agency then maintaining a rating on the First Tier Obligations, the Second Tier Obligations and the Subordinate Tier Obligations to the effect that the execution and delivery of such Supplemental Agreement will not in and of itself cause such rating agency to reduce or withdraw the then current rating on the First Tier Obligations, the Second Tier Obligations and the Subordinate Tier Obligations, together with the prior written consent of each Bond Insurer and other Credit Provider then providing credit support for any series of affected Obligations;

provided, however, that no such amendment shall have the effect of amending a provision of the Master Trust Agreement with respect to Unanimous Voting Matters.

Modification of Trust Agreement and Supplemental Agreements with Consent of a Majority of Owners of Obligations; Restrictions on Modifications; Notice of Supplemental Agreements.

Subject to the terms and provisions contained in this section, and not otherwise, the Owners of not less than a majority of the aggregate Principal amount of the Obligations then Outstanding, or in case less than all of the Obligations then Outstanding are affected by the modification or amendment, the Owners of not less than a majority of the aggregate Principal amount of the Obligations so affected and Outstanding, shall have the right, from time to time, anything contained in the Master Trust Agreement to the contrary notwithstanding, to consent to and approve the execution by the Corporation and the Trustee of such agreement or agreements supplemental hereto as shall be deemed necessary or desirable by the Corporation for the purpose of modifying, altering, amending, adding to or rescinding, in any particular, any of the terms or provisions contained in the Master Trust Agreement or in any Supplemental Agreement; notwithstanding the foregoing or the provisions of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Bond Insurer's Rights" and "- TxDOT Control Rights," nothing herein contained shall permit, or be construed as permitting, (a) an extension of the Principal of or the interest on any Obligation issued hereunder, or (b) a reduction in the Principal amount of any Obligation or the redemption premium or the rate of interest thereon, or (c) the creation of a lien upon or a pledge of revenues ranking prior to or on a parity with (to the extent not permitted hereunder) the lien or pledge created by the Master Trust Agreement, or (d) except as otherwise provided in the Master Trust Agreement, including subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of Subordinate Tier Obligations," the applicable Supplemental Agreements and in the Master Trust Agreement, preference or priority of any First Tier Obligations, Second Tier Obligations or Subordinate Tier Obligations, as the case may be, over any other First Tier Obligations, Second Tier Obligations, or Subordinate Tier Obligations, or (e) a reduction in the aggregate Principal amount of the Obligations required for consent to such Supplemental Agreement or for any other consent, direction or determination required in the Master Trust Agreement, or (f) a deprivation of an Owner to the lien on the Trust Estate granted by the Master Trust Agreement, or (g) a modification of any term of the Master Trust Agreement relating to drawings under, enforcement rights and remedies concerning, consent rights pertaining to or otherwise affecting the rights of the Trustee in, or the pledge to the Trustee for the benefit of the Owners of the Obligations of, the Toll Equity Loan Agreement (except for modifications in any Supplemental Agreement entered into in accordance with subparagraphs (d), (e) or (f) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee), without the consent of the Owners of not less than 100% in aggregate Principal amount of the Obligations Outstanding that are affected thereby (collectively "Unanimous Voting Matters"). Any amendment or modification of any Unanimous Voting Matter shall also require the written consent of (i) the Bond Insurer as provided in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Rights of Bond Insurers"

and (ii) TXDOT for any affected Toll Equity Loan Supported Obligations Outstanding, provided TxDOT has not failed to honor a draw request under the related Toll Equity Loan Agreement, whether due to a Non-Appropriation Event or otherwise. Nothing herein contained, however, shall be construed as making necessary the approval by Owners of the execution of any Supplemental Agreement or Agreements as authorized in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee."

If at any time the Corporation shall request the Trustee to enter into any Supplemental Agreement for any of the purposes of this section, the Trustee shall, at the expense of the Corporation, cause notice of the proposed execution of such Supplemental Agreement to be published once in each week for four successive weeks in a financial journal of general circulation published in the State; provided that if before the first publication of such notice, the Trustee shall cause such notice to be mailed, postage prepaid, to all Owners of Obligations then Outstanding at their addresses as they appear on the registration books provided for in the applicable Supplemental Agreement, then no such publication shall be required. The notice shall briefly set forth the nature of the proposed Supplemental Agreement and shall state that a copy thereof (or a substantially final draft thereof) is on file at the office of the Trustee for inspection by all Owners. The Trustee shall not, however, be subject to any liability to any Owner by reason of its failure to mail the notice required by this section, and any such failure shall not affect the validity of such Supplemental Agreement when consented to and approved as provided in this section.

Whenever, at any time within one (1) year after the date of the first publication of such notice or the date of mailing of such notice, as applicable, the Corporation shall deliver to the Trustee an instrument or instruments purporting to be executed by the Owners of not less than a majority of the aggregate Principal amount of the Obligations then Outstanding, which instrument or instruments shall refer to proposed Supplemental Agreement described in such notice and shall specifically consent to and approve the execution thereof in substantially the form of the copy thereof referred to in such notice as on file with the Trustee, thereupon, but not otherwise, the Trustee may execute such Supplemental Agreement in substantially such form, without liability or responsibility to any Owner of any Obligation, whether or not such Owner shall have consented thereto.

If the Owners of not less than a majority of the aggregate Principal amount of the Obligations Outstanding at the time of the execution (or, in the case that less than all of the Obligations then Outstanding are affected by the modification or amendment, the Owners of not less than a majority of the aggregate Principal amount of the Obligations so affected and Outstanding at the time of the execution) of such Supplemental Agreement shall have consented to and approved the execution thereof as herein provided, no Owner of any Obligation shall have any right to object to the execution of such Supplemental Agreement, or to object to any of the terms and provisions contained therein or the operation thereof, or in any manner to question the propriety of the execution thereof, or to enjoin or restrain the Trustee or the Corporation from executing the same or from taking any action pursuant to the provisions thereof.

Trustee Joining in Supplemental Agreements; Supplemental Agreements Part of Trust Agreement.

The Trustee is authorized to join with the Corporation in the execution of any such Supplemental Agreement and to make the further agreements and stipulations which may be contained therein. Any Supplemental Agreement executed in accordance with the provisions of the Master Trust Agreement shall thereafter form a part of the Master Trust Agreement, and all the terms and conditions contained in any such Supplemental Agreement as to any provision authorized to be contained therein shall be and shall be deemed to be part of the terms and conditions of the Master Trust Agreement for any and all purposes. In case of the execution and delivery of any Supplemental Agreement, express reference may be made thereto in the text of any Obligations issued thereafter, if deemed necessary or desirable by the Trustee or the Corporation.

Upon the execution of any Supplemental Agreement pursuant to the provisions of this section, "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Supplemental Agreements by Corporation" and the Master Trust Agreement, the Master Trust Agreement shall be and be deemed to be modified and amended in accordance therewith, and the respective rights, duties, and obligations under the Master Trust Agreement of the Corporation and the Trustee and all Owners of Obligations then Outstanding shall thereafter be determined, exercised and enforced hereunder, subject in all respects to such modifications and amendments.

Reliance by Trustee on Opinion of Counsel.

The Trustee shall be entitled to receive, and shall be fully protected in relying upon, the opinion of any counsel approved by it, who may be Counsel to the Corporation, as conclusive evidence that any such proposed Supplemental Agreement complies with the provisions of the Master Trust Agreement, and that it is proper for the Trustee, under the provisions of the Master Trust Agreement, to join in the execution of such Supplemental Agreement.

Rights of Bond Insurers.

Notwithstanding the foregoing provisions of the Master Trust Agreement, if there has been filed with the Trustee a Bond Insurance Policy, or a certified copy thereof, with respect to any Obligation, no consent by the Owner of such Obligation to the execution of any Supplemental Agreement or other modification of the Master Trust Agreement shall be effective unless the Bond Insurer consents in writing to the execution of such Supplemental Agreement or other modification, provided the Bond Insurer is not in default under the related Bond Insurance Policy. The Corporation further covenants that it will furnish to each Bond Insurer of record a transcript of the pertinent proceedings relating to each Supplemental Agreement to the Master Trust Agreement.

Release of Trust Agreement.

(a) If the whole amount of the Principal and the interest and the premium, if any, due or to become due and payable upon all of the Obligations then Outstanding shall be paid or sufficient funds shall be held by the Trustee for such purpose, and provision shall also be made for paying all other sums payable hereunder by the Corporation, and if any Obligations to be redeemed prior to maturity shall have been duly called for redemption or irrevocable instructions to call such Obligations for redemption shall have been given by the Corporation to the Trustee, then and in that case the right, title and interest of the Trustee herein shall thereupon cease, determine and become void, provided that the sufficiency of the above funds held by the Trustee for such purpose must be verified in a report which must be obtained by the Trustee from an independent nationally recognized certified public accountant. The Trustee in such case, on demand of the Corporation, shall release the Master Trust Agreement and shall execute such documents to evidence such release as may be reasonably required by the Corporation, and shall turn over to the Corporation all balances remaining in all funds and accounts created by the Master Trust Agreement, other than funds held for redemption or payment of Obligations or interest thereon; otherwise the Master Trust Agreement shall be, continue and remain in full force and effect.

(b) Any Obligation shall be deemed to be paid and no longer Outstanding within the meaning of the Master Trust Agreement (a "Defeased Debt") and any applicable Supplemental Agreement, when payment of the Principal of, redemption premium, if any, on such Defeased Debt, plus interest thereon to the due date thereof and, in the case of an Obligation bearing interest at Variable Rates, at the lesser of the maximum rate allowed by law or provided in such Obligation (whether such due date be by reason of maturity, upon redemption, mandatory or optional tender, or otherwise), either (i) shall have been made in accordance with the terms thereof, or (ii) shall have been provided by irrevocably depositing with the Trustee, in trust, and irrevocably set aside exclusively for such payment, (1) money sufficient to make such payment or (2) Government Obligations, as defined in the Master Trust Agreement, certified by an independent public accounting firm of national reputation to mature as to Principal and interest in such amount and at such times as will ensure the availability, without reinvestment, of sufficient money to make such payment, and all necessary and proper fees, compensation, and expenses of the Trustee and the Paying Agent pertaining to such Defeased Debt with respect to which such deposit is made shall have been paid or the payment thereof provided for to the satisfaction of the Trustee. At such time as a Defeased Debt shall be deemed to be paid hereunder, it shall no longer be secured by or entitled to the benefits of the Master Trust Agreement except for the purposes of any such payment from such money or Government Obligations.

(c) Any moneys so deposited with the Trustee may at the direction of the Corporation also be invested in Government Obligations, maturing in the amounts and times as hereinbefore set forth, and all income from all Government Obligations in the hands of the Trustee pursuant to the Master Trust Agreement which is not required for the payment of the Obligations, the redemption premium, if any, and interest thereon, with respect to which such money has been so deposited, shall be turned over to the Corporation.

(d) The Corporation hereby covenants that it will not instruct the Trustee to deposit any funds under clause (ii) of subparagraph (b) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Release of Trust Agreement" or direct the use of any such deposit which would cause any Tax-Exempt Obligations to be treated as "arbitrage bonds" within the meaning of section 148 of the Code.

(e) For the purpose of the Master Trust Agreement, the term "Government Obligations" shall mean (i) direct, noncallable obligations of the United States of America, including obligations that are unconditionally guaranteed by the United States of America, (ii) noncallable obligations of an agency or instrumentality of the United States of America, including obligations that are unconditionally guaranteed or insured by the agency or instrumentality and that, on the date of the purchase thereof are rated as to investment quality by a nationally recognized investment rating firm not less than "AAA" or its equivalent, (iii) noncallable obligations of a state or an agency or a county, municipality, or other political subdivision of a state that have been refunded and that, on the date the Board of Directors of the Corporation adopts or approves the

proceedings authorizing the financial arrangements are rated as to investment quality by a nationally recognized investment rating firm not less than "AAA" or its equivalent and (iv) any other then authorized securities or obligations under applicable State law that may be used to defease obligations such as the Obligations.

(f) Any determination not to redeem Defeased Debt that is made in conjunction with the payment arrangements specified in subparagraphs (b)(i) or (ii) of this section shall not be irrevocable, provided that: (1) in the proceedings providing for such defeasance, the Corporation expressly reserves the right to call the Defeased Debt for redemption; (2) the Corporation gives notice of the reservation of that right to the Owners of the Defeased Debt immediately following the defeasance; (3) the Corporation directs that notice of the reservation be included in any defeasance or redemption notices that it authorizes; and (4) at or prior to the time of the redemption, the Corporation satisfies the conditions of subparagraph (b) of this section with respect to such Defeased Debt as though it was being defeased at the time of the exercise of the option to redeem the Defeased Debt, after taking the redemption into account in determining the sufficiency of the provisions made for the payment of the Defeased Debt.

Actions Relating to Certain Financing Documents.

(a) Notwithstanding any other provision in the Master Trust Agreement to the contrary, except and subject to subparagraph (c) of this section and "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," "- Issuance of Subordinate Tier Obligations," "- TELA/Other Tier Obligations," and subparagraph (e) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee," without the prior written direction or consent of the Owners of not less than a majority of the aggregate Principal amount of the Toll Equity Loan Supported Obligations then Outstanding, (i) neither the Corporation nor the Trustee may sell, assign, delegate or otherwise transfer any of its rights or obligations under the Toll Equity Loan Agreement or consent to or accept any such assignment, delegation or other transfer of rights and obligations under the Toll Equity Loan Agreement; (ii) the Trustee may not assume any obligation of the Corporation under the Toll Equity Loan Agreement, and (iii) neither the Corporation nor the Trustee may amend, modify or supplement the Toll Equity Loan Agreement (other than is contemplated in "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - Issuance of First Tier Obligations," "- Issuance of Second Tier Obligations," "- Issuance of Subordinate Tier Obligations," "- TELA/Other Tier Obligations," and subparagraph (e) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee") in a manner that is materially adverse to the Owners of Toll Equity Loan Supported Obligations. The Trustee may not amend, modify or supplement the Toll Equity Loan Agreement without the prior written consent of the Corporation.

(b) Notwithstanding any other provision in the Master Trust Agreement to the contrary, except and subject to subparagraph (f) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee," without the prior written direction or consent of the Owners of not less than a majority of the aggregate Principal amount of the Obligations then Outstanding, neither the Corporation nor the Trustee may amend, modify or supplement the Toll Rate Agreement (other than is contemplated in subparagraph (f) of "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS – Supplemental Agreements by Corporation and Trustee" or provisions of the Project Agreement described above in "- Use and Operation of System; Project Agreement), or otherwise consent to any such amendment, modification or supplement thereof, in a manner that is materially adverse to the Owners of Obligations.

(c) Notwithstanding any other provision in the Master Trust Agreement to the contrary, except and subject to subparagraph (d) of this section and "SUMMARY OF MASTER TRUST AGREEMENT PROVISIONS - TELA/Other Tier Obligations," neither the consent of any Owner of the Obligations, of any Bond Insurer nor of the Trustee shall be required for (i) a new Toll Equity Loan Agreement, (ii) any amendment, modification or supplement to any existing Toll Equity Loan Agreement for any adjustment to the Maximum Available Aggregate Amount, the Maximum Available Annual Amount for any Fiscal Year or the Project Budget for any Fiscal Year, as may be required in connection with the issuance of Additional Obligations pursuant to the terms and conditions of the Master Trust Agreement, or (iii) for any other amendment, modification or supplement to a Toll Equity Loan Agreement in connection therewith so long as such other amendment, modification or supplement does not adversely modify the obligations of TxDOT to pay any Draw Request under any such existing Toll Equity Loan Agreement.

(d) Prior to the execution of any amendment, modification or supplement to the Toll Equity Loan Agreement, and as a condition to the effectiveness thereof, the Corporation shall have filed with the Trustee evidence of any consent required of the Owner of any TIFIA Obligation pursuant to any related loan agreement with respect thereto.

(e) For the avoidance of doubt, no term or provision of the Master Trust Agreement providing for the grant of waivers or consent or acceptance of a cure by any party other than the Trustee shall be deemed or interpreted by any Person to require

the direction or consent of the Owners of not less than a majority of the aggregate Principal amount of the Obligations then Outstanding in addition to the party whose consent is required.

SUMMARY OF FIRST SUPPLEMENTAL AGREEMENT PROVISIONS

Provisions Related to First Tier Reserve Fund.

An amount from the proceeds of First Tier Obligations will be used to initially fund the First Tier Reserve Requirement.

When and for so long as the cash, investments and Reserve Surety Agreement in the First Tier Reserve Account equal the First Tier Reserve Requirement, no deposits need be made to the credit of the First Tier Reserve Account; but, if and when the First Tier Reserve Account at any time contains less than the First Tier Reserve Requirement, the Corporation covenants and agrees that the Corporation shall cure the deficiency in the First Tier Reserve Account by resuming deposits into the First Tier Reserve Account in amounts equal to not less than 1/36th of the First Tier Reserve Requirement until the First Tier Reserve Requirement has been fully restored.

A Reserve Surety Agreement issued in an amount equal to all or part of the First Tier Reserve Requirement may be used in lieu of depositing cash into the First Tier Reserve Account. In addition, a Reserve Surety Agreement may be substituted for monies and investments in the First Tier Reserve Account if the substitution of the Reserve Surety Agreement will not, in and of itself, cause any ratings then assigned to the First Tier Obligations by Moody's, S&P and/or Fitch, respectively, to be lowered, the Reserve Surety Agreement is approved by the Texas Attorney General, if then required by State law, and the resolution authorizing the substitution of the Reserve Surety Agreement for all or part of the First Tier Reserve Requirement contains a finding that such substitution is cost effective.

If (i) the long-term, unsecured credit rating of the issuer of the Reserve Surety Agreement falls below the third highest generic rating category (i.e., "A") by Moody's, S&P and/or Fitch, respectively, (ii) the issuer of the Reserve Surety Agreement defaults in its payment obligations thereunder, or (iii) the issuer of the Reserve Surety Agreement provider becomes insolvent, the Corporation shall within 36 months of such occurrence either, only to the extent Revenues of the System are available, (A) deposit into the First Tier Reserve Account an amount sufficient to cause the cash and investments on deposit therein to accumulate to the First Tier Reserve Requirement, or (B) replace such instrument with a Reserve Surety Agreement meeting the requirements of this Section. Upon replacement, the Corporation may terminate the existing Reserve Surety Agreement. Any cash released from the First Tier Reserve Account as a result of deposit of a Reserve Surety Agreement may be used for any purpose authorized by the Trust Agreement, as instructed in writing to the Trustee by a Corporation Representative and subject to receipt by the Corporation and the Trustee of an opinion of Bond Counsel that such use will not adversely affect the tax-exempt status of such First Tier Obligations and is permitted by State law.

Supplemental Agreements Without Owners' Consent.

Subject to the Master Trust Agreement and as otherwise provided in the First Supplemental Agreement, the Corporation and the Trustee may from time to time and at any time enter into Supplemental Agreements, without the consent of or notice to any Owner of the Obligations, to effect any one or more of the following:

- (a) cure any ambiguity, defect or omission or correct any provision in the First Supplemental Agreement;
- (b) grant to or confer upon the Trustee for the benefit of the Owners of the Obligations any additional rights, remedies, powers, authority or security that may lawfully be granted to or conferred upon the Owners of the Obligations or the Trustee which are not contrary to or inconsistent with the Master Trust Agreement and the First Supplemental Agreement as then in effect or to subject to the pledge and lien of the First Supplemental Agreement additional revenues, properties or collateral, including Government Obligations;
- (c) add to the covenants and agreements of the Corporation in the First Supplemental Agreement other covenants and agreements thereafter to be observed by the Corporation or to surrender any right or power herein reserved to or conferred upon the Corporation which are not contrary to or inconsistent with the Master Trust Agreement and the First Supplemental Agreement as then in effect;
- (d) permit the appointment of a co-trustee under the First Supplemental Agreement;
- (e) modify, alter, supplement or amend the First Supplemental Agreement in such manner as shall permit the qualification of the First Supplemental Agreement, if required, under the Trust Agreement Act of 1939, the Securities Act of 1933 or any similar federal statute hereafter in effect;

(f) make any other change herein that is determined by the Corporation not to be materially adverse to the interests of the Owners of the Obligations, including changes or amendments requested by any Rating Agency as a condition to the issuance or maintenance of a rating or requested by the Texas Attorney General's office as a condition to the approval of any Obligations;

(g) if all the Obligations are Book-Entry Obligations, amend, modify, alter or replace any Letter of Representations as provided in the Master Trust Agreement or other provisions relating to Book-Entry Obligations;

(h) except with respect to the Initial Mode of any Initial Obligations issued as Variable Rate Obligations, make any change with respect to the terms and provisions of the Variable Rate Obligations with respect to Modes, Interest Payment Dates, Interest Rate Periods, Interest Rates and similar terms whenever converting from one Mode to another Mode.

The Trustee shall not be obligated to enter into any such Supplemental Trust Agreement that adversely affects the Trustee's own rights, duties or immunities under the First Supplemental Agreement.

Notice of any amendment pursuant to this section shall be sent to the Rating Agencies.

Supplemental Agreements Requiring Owners' Consent.

Subject to the Master Trust Agreement, the Corporation and the Trustee, at any time and from time to time, may execute and deliver a Supplemental Agreement for the purpose of making any modification or amendment to the First Supplemental Agreement, but only with the written consent, given as provided in "SUMMARY OF FIRST SUPPLEMENTAL AGREEMENT PROVISIONS - Consent of Owners and Opinions," of the Owners of at least a majority in aggregate principal amount of the Obligations Outstanding at the time such consent is given, and in case less than all of the Obligations then Outstanding are affected by the modification or amendment, of the Owners of at least a majority in aggregate principal amount of the Obligations so affected and Outstanding at the time such consent is given; provided, however, that if such modification or amendment will, by its terms, not take effect so long as any Obligations so affected remain Outstanding, the consent of the Owners of such Obligations shall not be required and such Obligations shall not be deemed to be Outstanding for the purpose of any calculation of Outstanding Obligations under this section. Notwithstanding the foregoing, no modification or amendment contained in any such Supplemental Agreement shall permit any of the following, without the consent of each Owner of the Obligations whose rights are affected thereby:

(a) a change in the terms of stated maturity or redemption of any Obligation or of any installment of interest thereon;

(b) a reduction in the principal amount of or redemption premium on any Obligation or in the rate of interest thereon or a change in the coin or currency in which such Obligation is payable;

(c) the creation of a lien on or a pledge of any part of the Trust Estate which has priority over or parity with (to the extent not permitted hereunder) the lien or pledge granted to the Owners of the Obligations under the First Supplemental Agreement (but this provision shall not apply to the release of any part of the Trust Estate as opposed to the creation of a prior or parity lien or pledge);

(d) the granting of a preference or priority of any Obligation over any other Obligation, except to the extent permitted herein;

(e) a reduction in the aggregate principal amount of Obligations of which the consent of the Owners is required to effect any such modification or amendment; or

(f) any provision which requires the consent of each Owner of the Obligations.

Notwithstanding the foregoing, the Owner of any Obligation may extend the time for payment of the principal of or interest on such Obligation; provided, however, that upon the occurrence of an Event of Default, funds available under the First Supplemental Agreement for the payment of the principal of and interest on such Obligations shall not be applied to any payment so extended until all principal and interest payments which have not been extended have first been paid in full. Notice of any Supplemental Agreement executed pursuant to this section shall be given to the Owners of the Obligations promptly following the execution thereof.

Notice of any amendment pursuant to this section shall be sent to the Rating Agencies then maintaining a rating on the Obligations.

Consent of Owners and Opinions.

Each Supplemental Agreement executed and delivered pursuant to the provisions of "FIRST SUPPLEMENTAL AGREEMENT – Supplemental Agreements – Supplemental Agreements Requiring Owner's Consent" shall take effect only when and as provided in this section. A copy of such Supplemental Agreement (or brief summary thereof or reference thereto in form approved by the Trustee), together with a request to Owners of the Obligations for their consent thereto in form satisfactory to the Trustee, shall be sent by the Trustee to Owners of the Obligations, at the expense of the Corporation, by first class mail, postage prepaid, provided that a failure to mail such request shall not affect the validity of the Supplemental Trust Agreement when consented to as provided hereinafter. Such Supplemental Agreement shall not be effective unless and until there shall have been filed with the Trustee the written consents of Owners of the Obligations of the percentage of Obligations specified in "SUMMARY OF FIRST SUPPLEMENTAL AGREEMENT PROVISIONS - Supplemental Agreements Requiring Owners' Consent" given as provided in the Master Trust Agreement. Any such consent shall be binding upon the Owner giving such consent and upon any subsequent Owner of such Obligations and of any Obligations issued in exchange therefor or in lieu thereof (whether or not such subsequent Owner has notice thereof), unless such consent is revoked in writing by the Owner giving such consent or a subsequent Owner of such Obligations by filing such revocation with the Trustee prior to the date the Trustee receives the material required in subsections (a) and (b) of this section.

Exclusion of Certain Obligations for the Purpose of Consent, Etc.

Obligations that are to be disregarded under the last sentence of the definition of "Outstanding" in the Master Trust Agreement shall not be deemed Outstanding for the purpose of consent or other action or any calculation of Outstanding Obligations provided for in "FIRST SUPPLEMENTAL AGREEMENT – Supplemental Agreements." At the time of any consent or other action taken under that Article or elsewhere in the First Supplemental Agreement, the Corporation shall furnish the Trustee a certificate of a Pricing Officer, upon which the Trustee may rely, describing all Obligations so to be excluded.

Effect of Supplemental Agreements.

Upon the execution and delivery of any Supplemental Agreement under "FIRST SUPPLEMENTAL AGREEMENT – Supplemental Agreements," the First Supplemental Agreement shall be modified in accordance therewith, and such Supplemental Agreement shall form a part of the First Supplemental Agreement for all purposes; and every Owner of any Obligation theretofore or thereafter authenticated and delivered under the First Supplemental Agreement shall be bound thereby.

Law and Place of Enforcement of the First Supplemental Agreement.

The First Supplemental Agreement shall be construed and interpreted in accordance with the laws of the State. All suits and actions arising out of the First Supplemental Agreement shall be instituted in a court of competent jurisdiction in the State except to the extent necessary for enforcement by any Trustee, appointed pursuant to the provisions of the Master Trust Agreement, of remedies under the Master Trust Agreement.

Notices to Rating Agencies and Bond Insurer.

The Trustee, or the Corporation in the event of the resignation of the Trustee, shall send to the Rating Agencies, if any, notice of (i) a change of the Trustee, (ii) material changes to the First Supplemental Agreement, the Master Trust Agreement or a Credit Agreement, (iii) expiration, termination, substitution, or extension of a Credit Agreement, (iv) redemption or defeasance of the Obligations and (v) Events of Default under the Master Trust Agreement or a Credit Agreement. The Trustee shall also provide to the Rating Agencies any other information that they may reasonably request to maintain a rating on a Series of the Obligations. The Bond Insurer, if any, shall receive such notices as required by their commitment or other agreement.

Sovereign Immunity.

The Corporation has not waived sovereign immunity from suit for the purpose of adjudicating a claim to enforce the Obligations or for damages for breach of the Obligations.

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APPENDIX D

TOLL EQUITY LOAN AGREEMENT

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TOLL EQUITY LOAN AGREEMENT

dated as of July 17, 2013

between

Grand Parkway Transportation Corporation, as Borrower,

and

Texas Department of Transportation, as TxDOT,

relating to

STATE HIGHWAY 99 (GRAND PARKWAY) PROJECT

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TOLL EQUITY LOAN AGREEMENT

This TOLL EQUITY LOAN AGREEMENT (this “Agreement”), dated as of July 17, 2013 (the “Effective Date”) is made by and between the Grand Parkway Transportation Corporation (the “Borrower”) and the Texas Transportation Commission, acting by and through the Texas Department of Transportation (“TxDOT”), and constitutes a credit agreement under Chapter 1371, Texas Government Code.

PRELIMINARY STATEMENTS:

(1) On March 29, 2009, TxDOT and the counties of Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, and Montgomery (the “Counties”) entered into the Market Valuation Waiver Agreement for SH 99 (Grand Parkway) (the “Market Valuation Waiver Agreement”).

(2) Under prior Texas Transportation Code, Section 228.0111, TxDOT and the local toll project entity, the Harris County Toll Road Authority (“HCTRA”), agreed that the Grand Parkway should be developed, constructed, operated and expanded as a toll highway on the terms and conditions set forth in the Market Valuation Waiver Agreement, and by agreement, waived the statutory requirement to prepare a market valuation based on the terms and conditions set forth therein.

(3) The Commission adopted Minute Order No. 113046 on March 29, 2012, which authorized the creation of the Borrower for the purpose of acting on behalf of the Commission to develop, finance, refinance, design, construct, reconstruct, expand, operate, or maintain the Grand Parkway, including execution of contracts with TxDOT or a developer, and borrowing money.

(4) On July 17, 2013, the Borrower and TxDOT entered into a Project Agreement for State Highway 99 (GRAND PARKWAY) Grand Parkway System, as amended (the “Project Agreement”), which Project Agreement assigns certain rights and responsibilities with respect to the development, construction, operation, maintenance and financing of Segments E, F-1, F-2 and G of the Grand Parkway and the portion of Segment D of the Grand Parkway located in Harris County (each such segment or portion of a segment referred to herein respectively as “Segment E”, “Segment F-1”, “Segment F-2”, “Segment G” and “Segment D”, and collectively, the “Segments”) and the pre-development of possible extensions or expansions of the Grand Parkway Project (collectively, the “Project”).

(5) In order to provide financing for a portion of the Project and to reimburse TxDOT for certain costs incurred for the Project pursuant to the Project Agreement, the Borrower intends to issue, pursuant to a certain Trust Agreement, to be dated on or prior to the Closing Date, between the Trustee (as defined herein) and the Borrower (said Trust Agreement and any amendments or supplements thereto, the “Trust Agreement”), one or more series of the Borrower’s Obligations, including the Toll Equity Loan Supported Obligations supported by the Toll Equity Loan Commitment.

(6) To provide support for the Borrower’s efforts to develop, construct, operate, maintain and provide financing for the Project, TxDOT has agreed to establish a toll equity loan

commitment in favor of the Trustee on the Borrower's behalf (the "Toll Equity Loan Commitment") in accordance with the terms of this Agreement.

(7) TxDOT is entering into this Agreement pursuant to the provisions of Section 222.103, Texas Transportation Code.

NOW, THEREFORE, in consideration of the premises and other good and valuable consideration, including the covenants, terms and conditions hereinafter appearing and in order to induce TxDOT to establish the Toll Equity Loan Commitment, the parties agree as follows:

ARTICLE I. **DEFINITIONS**

Section 1.01 Certain Defined Terms. Capitalized terms used in this Agreement shall have the meanings set forth in this Section 1.01 below (such meanings to be equally applicable to both the singular and plural forms of the terms defined). All other capitalized terms to the extent not otherwise defined herein shall have the respective meanings given to them in the Trust Agreement or the Project Agreement, as applicable. In the event of any conflict in definitions between the Trust Agreement and the Project Agreement, the terms contained in the Trust Agreement shall control.

"Agreement" means this Toll Equity Loan Agreement and any amendments or supplements hereto in accordance with the terms hereof.

"Annual Budget" has the meaning set forth in the Trust Agreement.

"Bankruptcy Event" means (a) commencement by a Person of any case or other proceeding (i) under any existing or future law of any jurisdiction, domestic or foreign, relating to bankruptcy, insolvency, reorganization or relief of debtors, seeking to have an order for relief entered with respect to it, or seeking to adjudicate it a bankrupt or insolvent, or seeking reorganization, arrangement, adjustment, winding up, liquidation, dissolution, composition or other relief with respect to it or its debts, or (ii) seeking appointment of a receiver, trustee, custodian or other similar official for it or for all or any substantial part of its assets, or seeking to make a general assignment for the benefit of its creditors; or (b) commencement against such Person of any case or other proceeding of a nature referred to in clause (a) above that (i) results in the entry of an order for relief or any such adjudication or appointment or (ii) remains undismissed, undischarged or unbonded for a period of sixty (60) days; or (c) commencement against such Person of any case or other proceeding seeking issuance of a warrant of attachment, execution or similar process against all or any substantial part of its assets which results in the entry of an order for any such relief which shall not have been vacated, discharged, or stayed or bonded pending appeal within sixty (60) days from the entry thereof; or (d) such Person shall take any action in furtherance of, or indicating its consent to, approval of, or acquiescence in, any of the acts set forth in clause (a), (b) or (c) above; or (e) such Person shall admit in writing its inability to pay its debts as they become due.

"Base Price Index" means the CPI for October, 2013.

“Bond Purchase Contract” means one or more Bond Purchase Contracts between the Borrower and the initial purchaser(s) of the Project Debt.

“Borrower” means Grand Parkway Transportation Corporation.

“Borrower’s Accountant” means any nationally recognized accounting firm or other accountant or auditor reasonably acceptable to TxDOT.

“Capital Maintenance Agreement” means the Capital Maintenance Agreement for the Grand Parkway Project bearing contract No. 86-3XXDB002, with respect to Segments F-1, F-2 and G, dated as of March 22, 2013, as amended from time to time, between TxDOT and the Capital Maintenance Contractor and assigned by TxDOT to the Borrower.

“Capital Maintenance Contractor” means Zachry-Odebrecht Parkway Builders, or its successor or assign, in its capacity as the company with primary responsibility to provide major maintenance for Segments F-1, F-2 and G under the Capital Maintenance Agreement.

“Closing Date” means the date on which the initial Project Debt is issued, authenticated and delivered in accordance with the Trust Agreement.

“Corporation Representative” has the meaning set forth in the Trust Agreement.

“CPI” means the Consumer Price Index based on All Urban Consumers (CPI-U) applicable to the South Urban area, published by the Bureau of Labor Statistics of the United States Department of Labor or any successor agency thereto, or any other measure thereafter employed by said Bureau or agency in lieu of such index that measures the cost of living in such geographic area.

“Default” means each event which, with the giving of notice or lapse of time, or both, would constitute an Event of Default.

“Design-Build Contract” means the Development Agreement Grand Parkway Project bearing contract No. 86-3XXDB002, with respect to Segments F-1, F-2 and G, dated as of March 22, 2013, as amended from time to time, between TxDOT and the Design-Build Contractor and assigned by TxDOT to the Borrower.

“Design-Build Contractor” means Zachry-Odebrecht Parkway Builders, or its successor or assign, in its capacity as the company with primary responsibility to provide design and construction services under the Design-Build Contract.

“Direct Agreement” means, with respect to any contract entered into by a third-party contractor and TxDOT with respect to the design, construction, operation or maintenance of any Segment, the agreement, assignment, acknowledgment, consent or other instrument entered into between the Borrower and the applicable third-party contractor with respect to such contract and the assignment of certain of TxDOT's rights and obligations thereunder to the Borrower.

“Draw Period” means each 12-month period (September 1 to August 31) set forth in Appendix B attached hereto.

“Effective Date” has the meaning set forth in the preamble to this Agreement.

“Eligible Costs” means amounts expended or incurred, or reasonably anticipated to be expended or incurred, by the Borrower for Project Costs, Major Maintenance Expenses and Operating Expenses.

“Environmental Claim” means any notice, claim or demand (collectively, a “claim”) by any Person alleging or asserting liability for investigatory costs, cleanup or other remedial costs, legal costs, environmental consulting costs, governmental response costs, damages to natural resources or other property, personal injuries, fines or penalties related to (a) the presence, or release into the environment, of any Hazardous Substance located within the right of way or emanating from the right of way relating to the construction, operation or maintenance of the Project, whether or not owned by the Person against whom such claim is made, or (b) any violation of, or alleged violation of, or liability arising under any Environmental laws that relate to the construction, operation or maintenance of the Project. The term “Environmental Claim” shall include, without limitation, any claim by any Person or Government Authority for investigation, enforcement, cleanup, removal, response, remedial or other actions or damages pursuant to any Environmental laws, and any claim by any third party seeking damages, contribution, indemnification, cost recovery, compensation or injunctive relief under any Environmental laws that relate to construction, operation or maintenance of the Project.

“Environmental laws” means any laws as modified and supplemented and in effect from time to time regulating or imposing liability or standards of conduct concerning or relating to the regulation, use or protection of human health or other living organisms, the environment, Hazardous Substances or natural resources related to the environment, or may at any time hereafter be, in effect, including, by way of example and not limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 USC Section 9601 et seq., the Resource Conservation and Recovery Act, 42 USC 6901 et seq., the Federal Clean Water Act, 33 USC Section 1351 et seq., the Occupational Safety and Health Act, 29 USC Section 651 et seq., as currently in force or as hereafter amended. Further, without limiting any of the forgoing, Environmental laws as used in this Agreement shall also include all “Environmental Laws” as that term is defined in the Design-Build Contract.

“Estimated Date of Completion” means for any Segment, the estimated Service Commencement Date of the Segment.

“Event of Default” (a) with respect to the Borrower, has the meaning assigned to that term in Section 6.01 of this Agreement, and (b) with respect to TxDOT, has the meaning assigned to that term in Section 7.05 of this Agreement.

“Finance Documents” means each of the Trust Agreement, the Project Debt, this Agreement and the Master Custodial Agreement.

“Financial Model” means the financial model prepared by the Borrower as of the date specified in Section 3.01(b) hereof and delivered to TxDOT as provided in Section 3.01(b) hereof that contains the details of the proposed Project Debt, the Project Budget, the respective Maximum Available Annual Amounts and the Maximum Available Aggregate Amount, as updated after the Pricing Date from time to time in accordance with Section 5.02(b) hereof.

“Fiscal Year” means, presently, each 12-month period ending August 31, or any other period agreed to by the Borrower and TxDOT as the Fiscal Year for the Project or the System.

“Future Offering Document” means any offering document delivered in connection with the sale and delivery of any Refunding Bonds.

“Generally Accepted Accounting Principles” or “GAAP” means those principles of accounting promulgated by the Financial Accounting Standards Board, the Governmental Accounting Standards Board or the standards of the Office of Management and Budget Circular A-133, Audits of States, Local Government and Non-Profit Organizations, as applicable, or which have other substantial authoritative support and are applicable in the circumstances as of the date of a report, as such principles are from time to time supplemented and amended or such other accounting principles as the Commission and TxDOT may be required to employ from time to time pursuant to State law or regulation.

“Governmental Approval” means all authorizations, covenants, consents, approvals, waivers, exceptions, variances, filings, permits, orders, licenses, exemptions and declarations of or with any Government Authority, including to the extent required under Environmental laws.

“Government Authority” means any court, federal, state or local government, department, commission, board, bureau, agency or other regulatory or governmental authority.

“Hazardous Substances” means but is not limited to, any solid, liquid, gas, odor, heat, sound, vibration, radiation or other substance or emission which is at the time of the application of this definition, or could be considered as a public health matter, a contaminant, pollutant, dangerous substance, toxic substance, hazardous waste, solid waste, hazardous material or hazardous substance which is or becomes regulated by applicable Environmental laws or which is classified as “hazardous” or “toxic,” a “pollutant” or a “contaminant” or words of similar import under applicable Environmental laws (including but not limited to gasoline, diesel fuel or other petroleum hydrocarbons, polychlorinated biphenyls, asbestos and urea formaldehyde foam insulation and naturally asbestos-containing soils or sulfidic geological materials).

“HCTRA” shall have the meaning given to such term in paragraph (2) of the Preliminary Statements hereto.

“Insurance Consultant” means any qualified insurance consultant of the Borrower hired in accordance with the Trust Agreement.

“Interest Rate” means for any day, the fixed rate per annum equal to the ten-year “Aaa (pure)” rate provided by Municipal Market Data and published in The Bond Buyer under the caption “Municipal Market Data General Obligation Yields”, plus 100 basis points; *provided, however*, if the ten year “Aaa (pure)” rate is no longer provided by Municipal Market Data, the rate to be used in its place shall be that rate which most closely replicates such rate, as agreed to by the Borrower and TxDOT; *provided further, however*, that the Interest Rate shall never exceed the Maximum Rate.

“Major Maintenance Expenses” means the reasonable and necessary expenses (but excluding non-cash expenses such as depreciation, depletion and amortization) of repair and

maintenance of the Project that do not occur at annual or shorter periods, as determined by the Borrower, including, without limiting the generality of the foregoing, periodic roadway resurfacing and repair, replacement of toll collection, vehicle identification, toll integration and video enforcement equipment, and all administrative and engineering expenses relating to the repair and maintenance of the Project and any other maintenance expenses required to be paid by the Borrower, *provided, however*, that Major Maintenance Expenses shall exclude Operating Expenses and any costs related to the Pre-Development Work.

“Master Custodial Agreement” has the meaning set forth in the Trust Agreement.

“Material Adverse Effect” means a material adverse effect on (i) the operations or financial condition of the Project, (ii) the authority or ability of the Borrower to perform any of its obligations under this Agreement, any Transaction Document or any Project Document, or (iii) the validity or enforceability against the Borrower of this Agreement, any Transaction Document or any Project Document.

“Maturity Date” means each date on which a principal amount of the TELA Project Debt is due and payable.

“Maximum Available Aggregate Amount” means the maximum amount of funds available to the Borrower in the form of advances under the Toll Equity Loan Commitment in accordance with the terms of this Agreement and as set forth in Section 2.01 hereof.

“Maximum Available Annual Amount” means the maximum amount of funds available to the Borrower in the form of advances under the Toll Equity Loan Commitment in any given Draw Period in accordance with the terms of this Agreement and as set forth in Appendix B attached hereto.

“Maximum Permitted Amount” means debt service payments associated with the TELA Project Debt for the applicable period for which an advance is requested, plus Operating Expenses and Major Maintenance Expenses up to the amounts for the applicable period as set forth in the Annual Budget, but minus balances available in the Trust Agreement Funds for the payment of capitalized interest on any TELA Project Debt for the applicable period to the extent that a portion of a requested advance is to be used to pay interest on such TELA Project Debt, minus any deposit of Revenues into the applicable Debt Service Fund that are available to pay principal of or interest on TELA Project Debt, and minus any amounts in the Junior Operation and Maintenance Fund, Operation and Maintenance Reserve Fund, Major Maintenance Fund, Rate Stabilization Fund and Grand Parkway Enhancement Fund that are available to pay principal of and interest on TELA Project Debt, Operating Expenses and Major Maintenance Expenses, as applicable; *provided however*, that for purposes of calculating the Maximum Permitted Amount, “debt service payments associated with the TELA Project Debt” shall not include (i) the redemption price of any TELA Project Debt due as a result of the Borrower’s election to optionally redeem such TELA Project Debt or (ii) the purchase price of any TELA Project Debt due as a result of any optional or mandatory tender of such TELA Project Debt.

“Maximum Rate” means the maximum net effective interest rate permitted by applicable law to be paid on obligations issued or incurred by the Borrower in the exercise of its borrowing

powers as prescribed in Chapter 1204, Texas Government Code, or any successor statute, determined on the basis of a weighted average interest cost for all advances.

“Note Issuance Date” means the date the Toll Equity Loan Note is issued by the Borrower after satisfaction of the requirements set forth in Section 3.01 hereof.

“Note Maturity Date” means for the principal amount of each advance under the Toll Equity Loan Commitment the date which is 40 years after the Note Issuance Date.

“Official Statement” means the Official Statement, relating to the Project Debt, together with any supplements thereto.

“Operating Expenses” means all reasonable current expenses incurred and paid or payable by the Borrower in relation to the Project, including without limitation costs for operation, maintenance and repair, consumables, payments under any lease or rental payments properly considered to be operating expenses, payments pursuant to the agreements for the management, operation and maintenance of the Project, taxes, premiums payable on any insurance, payments for oversight services, all administrative, engineering and policing costs, costs for any security, toll collection and enforcement expenses, fees and expenses of the Trustee, the Paying Agent, the Traffic Consultants, the General Engineering Consultants, the Insurance Consultant, legal and accounting expenses, and any other reasonable expense paid for the operations and maintenance of the Project; *provided, however*, that Operating Expenses shall not include Major Maintenance Expenses, Debt Service Requirements, the redemption price of any Obligation, the purchase price of any tendered Obligation, any non-cash charges, such as depreciation, amortization or other bookkeeping entries of a similar nature, and any costs related to the Pre-Development Work.

“Person” means any individual, joint venture, corporation, company, voluntary association, partnership, limited liability company, trust, joint stock company, unincorporated organization, association, government, or any agency, instrumentality, or political subdivision thereof, or any other form of entity.

“Pre-Development Work” has the meaning set forth in the Project Agreement.

“Preliminary Official Statement” means the Preliminary Official Statement, relating to the Project Debt, together with any supplements thereto.

“Pricing Date” means the date of the execution of the Bond Purchase Contract.

“Project” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto. For the avoidance of doubt, the Project shall not include the SH 249 Interchange that is the subject of work to be performed by the Design-Build Contractor pursuant to the SH 249 Change Order (as such term is defined in the Project Agreement).

“Project Agreement” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Project Budget” means the amounts estimated to be spent in each year for Project Costs, Operating Expenses and Major Maintenance Expenses, mutually approved by the Borrower and TxDOT as of the Effective Date as set forth in Appendix D attached hereto and as amended by mutual agreement by the Borrower and TxDOT within ninety (90) days of Substantial Completion for the last Segment of the Project to achieve Substantial Completion.

“Project Costs” means Costs for design, development and construction of the Project, including certain costs related to the pre-development of possible extensions and expansions of the System and any payments to HCTRA for reimbursement of costs incurred with respect to the Project; *provided, however*, that with respect to Segment D, Project Costs shall be limited to Costs for design, development and construction of Segment D from 0.72 miles north of Kingsland Boulevard to 0.30 miles north of Colonial Parkway. For the avoidance of doubt, Project Costs shall not include any costs incurred for construction of the SH 249 Interchange that is the subject of the SH 249 Change Order (as such term is defined in the Project Agreement).

“Project Debt” means the Toll Equity Loan Note and one or more series of the Borrower's Obligations issued with respect to the Project, including the Toll Equity Loan Supported Obligations supported by the Toll Equity Loan Commitment.

“Project Documents” means, the list of contracts set forth in Schedule 1 to this Agreement, which schedule may be amended from time to time upon mutual agreement by the Borrower and TxDOT.

“Refunding Bonds” means any bond issued to redeem or defease, in whole or in part, the outstanding principal amount of any TELA Project Debt where the interest on and principal of such refunding bonds are eligible to be paid from advances under the Toll Equity Loan Commitment.

“Revenues” means all “Revenues of the System” as defined in the Trust Agreement.

“Segment D” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Segment E” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Segment F-1” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Segment F-2” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Segment G” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Segments” shall have the meaning given to such term in paragraph (4) of the Preliminary Statements hereto.

“Service Commencement Date” means, for each of the Segments, the respective date on which such Segment is open for normal and continuous operations and use by the traveling public; *provided*, that for purposes of this Agreement, for any Segment for which such date has occurred prior to the Effective Date, the Service Commencement Date shall be the Effective Date.

“Substantial Completion” means, for each Segment, the date on which the Borrower has completed or caused the completion of all acquisition, equipping and construction of such Segment, in accordance with the requirements of the Project Documents or other applicable documents, such that it is in a condition that can be used for normal and safe vehicular travel in all lanes and at all points of entry and exit, and for any tolled Segment or portion of a Segment, with a fully operable electronic toll collection system meeting the technical standards of the Project Documents or other applicable documents.

“System” means the certain portions of the Grand Parkway Project (as defined in the Trust Agreement) designated by the Texas Transportation Commission as the Grand Parkway System, initially the Segments, and together with any other toll project or facilities added to, grouped with, or otherwise constituted and declared to be a part of the System by the Borrower in accordance with State law and pursuant to an order or orders adopted by the Texas Transportation Commission.

“System Debt” means the Project Debt and any bond, note or other evidence of indebtedness secured by Revenues and/or amounts held in any fund or account and pledged under the Trust Agreement.

“TELA Project Debt” means as of any date, the Borrower's Toll Equity Loan Supported Obligations issued with respect to the Project and supported by the Toll Equity Loan Commitment, including any Refunding Bonds incurred as of such date and as permitted in this Agreement.

“Term” means the period of time between the Effective Date and the Termination Date.

“Termination Date” means the earlier of (i) the final Maturity Date of the TELA Project Debt or (ii) the date of the defeasance or refunding in whole of the TELA Project Debt, the effect of which is to terminate the Toll Equity Loan Commitment.

“Toll Equity Loan” means the aggregate outstanding amount of all advances drawn under the Toll Equity Loan Commitment, as provided in this Agreement.

“Toll Equity Loan Commitment” means the obligation on the part of TxDOT to make advances of funds available to the Trustee on behalf of the Borrower as provided in Section 2.01 hereof, subject to the requirements of this Agreement.

“Toll Equity Loan Commitment Establishment Date” means the date on which the Toll Equity Loan Commitment is established in favor of the Trustee on behalf of the Borrower as described in Section 2.01 hereof.

“Toll Equity Loan Note” means the promissory note executed by the Borrower in favor of TxDOT evidencing the Toll Equity Loan, substantially in the form of Appendix A attached hereto.

“Toll Rate Schedule” shall have the meaning assigned thereto in the Trust Agreement.

“Transaction Document” means each of (a) the Finance Documents, (b) any Direct Agreement, (c) the Design-Build Contract, (d) the Capital Maintenance Agreement, (e) the Project Agreement and (d) the list of documents mutually approved by the Borrower and TxDOT as of the Effective Date as set forth in Schedule 2 attached hereto.

“Trust Agreement” has the meaning assigned to that term in paragraph (5) of the Preliminary Statements hereto and includes any supplements or amendments thereto.

“Trust Agreement Funds” means the funds and accounts created and established pursuant to the Trust Agreement and as further described in the Trust Agreement.

“Trust Estate” shall have the meaning assigned to such term in the Trust Agreement.

“Trustee” means a nationally recognized trust company designated by the Borrower as trustee under the Trust Agreement and reasonably acceptable to TxDOT and shall include any successor entity thereto.

“Trustee Request” has the meaning assigned to that term in Section 2.03 hereof.

Section 1.02 Certain Interpretations.

(a) Computation of Time Periods. In this Agreement, in the computation of a period of time from a specified date to a later specified date, the word “from” means “from and including” and the words “to” and “until” each mean “to but excluding.”

(b) Accounting Terms. All accounting terms not specifically defined herein shall be construed in accordance with GAAP consistently applied, except as otherwise stated herein.

(c) Assignments. In this Agreement, where the terms “assignment agreement”, “assignment” or “assignee” are used in relation to the obligations of the Borrower or TxDOT under any Transaction Document or Project Document, the term “assignment” or “assignment agreement” shall mean any document evidencing the transfer of certain TxDOT obligations under such Transaction Document or Project Document (as applicable) with respect to the Project to the Borrower, and “assignee” shall mean the applicable role of the Borrower as obligated under each of such documents evidencing such transfer.

ARTICLE II.

AMOUNT AND TERMS OF THE TOLL EQUITY LOAN COMMITMENT

Section 2.01 Establishing the Toll Equity Loan Commitment. Upon fulfillment of all of the applicable conditions precedent set forth in Section 3.01 hereof (the “Toll Equity Loan Commitment Establishment Date”), TxDOT shall establish the Toll Equity Loan Commitment. The Toll Equity Loan Commitment shall not exceed in total principal amount \$9,600,000,000 (the “Maximum Available Aggregate Amount”) and no advance thereunder shall cause the aggregate principal amount of all advances: (i) in any of the Draw Periods as set forth in Appendix B attached hereto to exceed the Maximum Available Annual Amount applicable to any of such Draw Periods and (ii) taking into account such advance and all prior advances, to exceed the aggregate amount of Eligible Costs. Any advance thereunder shall additionally be subject to the limitations as set forth in Section 2.03 hereof.

Section 2.02 Term of the Toll Equity Loan Commitment. Once established pursuant to Section 2.01 hereof, the Toll Equity Loan Commitment shall remain in effect until the Termination Date. No extension of the Toll Equity Loan Commitment beyond the Termination Date shall be permitted without prior written consent from TxDOT.

Section 2.03 Toll Equity Loan. After TxDOT receives a request from the Trustee as provided in the Trust Agreement in the form of Exhibit C to the Trust Agreement (each, a “Trustee Request”), TxDOT shall make a corresponding advance under the Toll Equity Loan Commitment to the Borrower by 2:00 p.m. on the third Business Day after receipt of the Trustee Request, the proceeds of which shall be deposited with the Trustee in the fund or account held under or as permitted by the Trust Agreement as identified in such Trustee Request; *provided* that in no event shall the amount of the advance exceed (i) the Maximum Permitted Amount, (ii) when added to other amounts advanced under the Toll Equity Loan Commitment during the current Draw Period, the Maximum Available Annual Amount for such Draw Period and (iii) when taking into account such advance and all prior advances, the aggregate amount of Eligible Costs; *provided further* that in no event shall any advance be made for either (i) the redemption price of any TELA Project Debt due as a result of the Borrower’s election to optionally redeem such TELA Project Debt or (ii) the purchase price of any TELA Project Debt due as a result of any optional or mandatory tender of such TELA Project Debt. The Borrower shall deliver to TxDOT a certificate in the form of Appendix C attached hereto on the same day as any such Trustee Request, provided that TxDOT’s obligation to make any advance shall not be conditioned on receipt of such Borrower’s certificate. Each advance under the Toll Equity Loan Commitment shall be evidenced in the Toll Equity Loan Note which shall set forth the date of the advance, the principal amount and Interest Rate therefor. TxDOT shall make such advances under the Toll Equity Loan Commitment from time to time during the Term of the Toll Equity Loan Commitment Period up to the Maximum Available Aggregate Amount starting on the date the Toll Equity Loan Note is delivered to TxDOT, but not to exceed with any advance, taking into account all prior advances, the aggregate amount of Eligible Costs. If the principal amount of advances under the Toll Equity Loan Commitment made in a given Draw Period is less than the Maximum Available Annual Amount for such Draw Period (or if no Toll Equity Loans have been made in such Draw Period), the difference shall not be carried forward and may not be applied to increase the amount available to be advanced in any future Draw Period. Each advance under the Toll Equity Loan Commitment shall bear interest on the principal amount of

such advance from the date of such advance to the date on which such advance and the interest thereon are repaid in full at a rate per annum equal to the Interest Rate in effect on the day such advance is made.

TxDOT may rely on the certificate, in the form of Appendix C attached hereto, as to compliance with the limitations on advances as set forth in this Section 2.03; *provided* that within thirty (30) days of any advance under the Toll Equity Loan Commitment, TxDOT shall have the right to request and the Borrower shall provide written documentation, including copies of invoices, reports or notices from the Trustee, any vendor or supplier of goods or services to the Project or others, in support of the need for the advance and the use of the proceeds of advances.

Any advances under the Toll Equity Loan Commitment relating to amounts anticipated to be expended or incurred by the Borrower must be accompanied by documentation or other evidence demonstrating to the reasonable satisfaction of TxDOT that such amounts are reasonably likely to be expended or incurred; *provided* that, amounts in the Project Budget shall be considered to be amounts reasonably anticipated to be expended or incurred.

Proceeds of advances under the Toll Equity Loan Commitment shall be used to pay or reimburse for Project Costs, Major Maintenance Expenses and Operating Expenses in accordance with applicable state and federal laws, including the cost principles established in OMB Circular A-87 that specify that costs must be allowable, reasonable and allocable to the Project.

Section 2.04 Repayment of Principal of and Interest on Toll Equity Loan; Interest on Excess Advances. The Borrower shall make payments of principal and interest to TxDOT according to the provisions of this Agreement, the Trust Agreement and the Toll Equity Loan Note. Interest on the Toll Equity Loan shall be paid on the first Business Day of each month from amounts available therefore in the TELA/Other Tier Payment Fund.

The Borrower shall, without discretion, return or direct the Trustee to return to TxDOT any amounts included in an advance under the Toll Equity Loan Commitment that are in excess of the Maximum Permitted Amount for an advance, the Maximum Available Annual Amount for a Draw Period or the Maximum Available Aggregate Amount immediately upon becoming aware of such amounts, and any such amount returned to TxDOT shall reduce the amount of principal of the Toll Equity Loan Note. The Borrower shall pay interest on any such amount commencing on the date of the applicable advance under the Toll Equity Loan Commitment at the Interest Rate applicable to such advance until the date on which such amount is returned to TxDOT.

Section 2.05 Prepayment.

(a) Voluntary Prepayment. The Borrower may prepay any amount of principal of the Toll Equity Loan, without premium or penalty, upon at least two Business Days' notice to TxDOT specifying the date and amount of prepayment. If any such notice is given, the amount specified in such notice shall be due and payable on the date specified therein, unless such notice is revoked by the Borrower on or prior to the prepayment date specified therein. Upon such prepayment, unpaid amounts of interest

and principal shall continue unaffected and the Toll Equity Loan Note shall be adjusted to reflect the amount of principal prepaid.

(b) Mandatory Prepayment. The principal amount of the Toll Equity Loan shall be prepaid prior to maturity on the first Business Day of each month in the order in which advances under the Toll Equity Loan Commitment were made, but solely from and to the extent of funds available therefor held in the TELA/Other Tier Payment Fund created and maintained pursuant to the Trust Agreement.

Section 2.06 Release of Toll Equity Loan Commitment; Fee. TxDOT's obligation to establish and maintain the Toll Equity Loan Commitment and make any advances thereunder will terminate upon the receipt of notice from the Borrower that a refunding, payment or legal defeasance of all of the outstanding principal amount of and any unpaid interest on the TELA Project Debt has occurred.

On the first day of the Fiscal Year following the 10th anniversary of the Effective Date and on the first day of each Fiscal Year thereafter, the Borrower shall pay to TxDOT, from unencumbered amounts on deposit in the Grand Parkway Enhancement Fund, a non-refundable amount equal to three percent of that Fiscal Year's Maximum Available Annual Amount. Failure to pay such amounts shall not constitute a default under this Agreement, unless sufficient unencumbered funds are on deposit in the Grand Parkway Enhancement Fund to make such payment; *provided* that in any event any accrued unpaid amounts shall be due and payable in full on the Termination Date. If payment is not made on the first day of the applicable Fiscal Year, the unpaid amount shall bear interest from such date to the date on which such amount and the interest thereon are repaid in full at a rate per annum equal to the Interest Rate in effect on the first day of the applicable Fiscal Year. To the extent permitted by State law, the amount of interest on any such amount which is not paid as of April 1 and October 1 of each year shall be compounded semi-annually and shall bear interest at the same rate applicable to such amount. Payments received under this paragraph shall be applied in an order of priority based on when the amount payable arose, with amounts payable arising earlier having priority over amounts payable arising later.

TxDOT will apply the payments it receives under the immediately preceding paragraph in accordance with the Market Valuation Waiver Agreement.

Section 2.07 Place and Manner of Payments. All payments by the Borrower to TxDOT under this Agreement shall be made in lawful currency of the United States by wire transfer in immediately available funds on or prior to 2:00 p.m. on the date such payment is due, to the following account:

Texas Comptroller of Public Accounts
ABA Number: 114900164
Account Name: Texas Comptroller of Public Accounts
Account Number: 463600001
Attention: 601-Texas Department of Transportation, Chema Sanchez,
Diana Ruiz, and Coleta Dille
Reference: Grand Parkway Transportation Corporation, SH 99

or as TxDOT may otherwise stipulate by notice to the Borrower. Any such payments received after 2:00 p.m. on any day will be deemed to have been received on the next succeeding Business Day. If any payment becomes due and payable on a day other than a Business Day, unless sooner paid such payment shall be extended to the next succeeding Business Day and interest thereon shall be payable at the then applicable rate during such extension. TxDOT acknowledges and agrees that any such payments may be made by the Trustee on behalf of the Borrower from funds on deposit under the Trust Agreement.

Section 2.08 Obligations Absolute. Subject to Section 8.11 hereof, the obligations of the Borrower under this Article II shall be absolute, unconditional and irrevocable, shall be performed strictly in accordance with the terms of this Agreement, under all circumstances whatsoever, including without limitation, the following circumstances: (i) any lack of validity or enforceability of any Finance Documents or any other agreement or document relating thereto; (ii) any amendment or waiver of or any consent to or departure from any Finance Documents or any agreement or document relating thereto; or (iii) the existence of any claim, set-off, defense or other right which the Borrower may have at any time against the Trustee (or any Person for whom the Trustee may be acting), TxDOT, or any other Person, whether in connection with this Agreement, the transactions described herein or any unrelated transaction.

Section 2.09 Security.

(a) Security Under the Trust Agreement. Amounts payable under this Agreement and the Toll Equity Loan Note are special obligations of the Borrower payable from and secured solely by the funds pledged therefor pursuant to the Trust Agreement. The Toll Equity Loan Note and all other payment obligations of the Borrower owed to TxDOT under this Agreement constitute TELA/Other Tier Obligations under the Trust Agreement. Revenues shall be transmitted to the Trustee and used along with the other amounts held in the funds and accounts established under the Trust Agreement in accordance with the provisions of the Trust Agreement.

(b) No Termination of the Trust Agreement. The Trust Agreement shall not terminate or be discharged until all sums owing hereunder are paid in full unless and until all such amounts are deemed paid and satisfied and the Toll Equity Loan Note is cancelled by TxDOT in its sole discretion in accordance with Section 2.11 of this Agreement.

Section 2.10 Pledge and Assignment to Trustee.

(a) TxDOT consents to the pledge and assignment to the Trustee of, and the grant to the Trustee of a lien on and security interest in, all of the Borrower's right, title and interest in, to and under this Agreement, pursuant to the terms and conditions of the Trust Agreement, as collateral security for all of the obligations secured or purported to be secured by the Trust Agreement.

(b) TxDOT agrees that as a result of the pledge and assignment referred to in clause (a) above, the Trustee shall have the full right and power, in the exercise of the Trustee's rights and remedies under the Trust Agreement, to enforce directly against TxDOT all obligations of TxDOT under this Agreement, to exercise all

other rights and remedies of the Borrower hereunder and to make all demands and requests and give all notices required or permitted to be made by the Borrower or the Trustee hereunder.

Section 2.11 Cancellation of Toll Equity Loan Note by TxDOT. If, at any time, payment or legal defeasance of all of the outstanding principal amount of and any unpaid interest on the System Debt other than the Toll Equity Loan Note has occurred such that the Toll Equity Loan Note is the only System Debt outstanding under the Trust Agreement, TxDOT shall have the right, in its sole discretion to the extent permitted by law, to cancel the Toll Equity Loan Note and to deem all obligations of the Borrower under the Toll Equity Loan or otherwise owed by the Borrower to TxDOT under this Agreement to be paid and satisfied in full by providing written notice thereof to the Borrower and the Trustee, which notice shall set forth the date for such cancellation and satisfaction.

ARTICLE III.

CONDITIONS OF ESTABLISHING TOLL EQUITY LOAN COMMITMENT

Section 3.01 Condition Precedent to Establishment of the Toll Equity Loan Commitment. The obligation of TxDOT to establish the Toll Equity Loan Commitment is subject to the condition precedent that TxDOT shall have received from, or on behalf of, the Borrower, (and with respect to subsection (f), TxDOT shall have provided to the Borrower) on or before the Toll Equity Loan Commitment Establishment Date, the following, each in form and substance satisfactory to TxDOT (and on the Closing Date TxDOT shall deliver to the Borrower a certificate that all conditions precedent to the establishment of the Toll Equity Loan Commitment have been satisfied or expressly waived):

(a) Documents to Be Delivered. Either an original or a copy of each of the following documents to be delivered on or before the Closing Date:

- (i) this Agreement;
- (ii) each other Finance Document, together with any exhibit or schedule thereto and any document entered into in accordance therewith;
- (iii) each of the other Transaction Documents, together with any exhibit or schedule thereto and any document entered into in accordance therewith or in order to support the obligations of any party thereunder
- (iv) additional documentation needed to evidence the obligations of the Borrower to make all payments incurred under agreements between TxDOT and third parties in respect of the Project as requested by TxDOT, if any; and
- (v) the Preliminary Official Statement and the Official Statement;

each of which shall have been duly authorized, executed and delivered by the parties thereto, and, except for the Preliminary Official Statement and the Official Statement, shall be in full force and effect as of the required date and, to the extent that a copy is

provided, accompanied by a certificate by an authorized officer of the Borrower certifying as of the Toll Equity Loan Commitment Establishment Date that each such copy that is delivered to TxDOT is a true, complete and correct copy thereof, as amended as of the Toll Equity Loan Commitment Establishment Date.

(b) Financial Model. On the Pricing Date, an electronic copy of the Financial Model, demonstrating, among other matters, that (x) the payment of principal of and interest on the Project Debt (other than interest to be paid from proceeds of the Project Debt), plus the Project Budget amounts for Project Costs, Operating Expenses and Major Maintenance Expenses (other than Project Costs if and to the extent paid from proceeds of the Project Debt), and required deposits into the Junior Operation and Maintenance Fund, any applicable Debt Service Fund, the Operation and Maintenance Reserve Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund and the Rate Stabilization Fund, and after adjustment for amounts scheduled to be available to pay any of such costs or expenses held in the Junior Operation and Maintenance Fund, any applicable Debt Service Fund, the Operation and Maintenance Reserve Fund, the Grand Parkway Enhancement Fund, the Major Maintenance Fund and the Rate Stabilization Fund do not exceed 100% of the projected Revenues in any year and (y) at no time is an advance anticipated to be required under the Toll Equity Loan Commitment.

(c) Insurance Report. On or before the Closing Date, a report prepared by the Insurance Consultant.

(d) Opinions. On or before the Closing Date, legal opinions from general counsel for the Borrower, reliance letters regarding legal opinions from general counsel for the Design-Build Contractor, each in form and substance acceptable to TxDOT, and such additional legal opinions, reliance letters or certificates and other documents as TxDOT may reasonably request.

(e) Authorization and Authority. On or before the Closing Date, an original or a copy certified by an authorized officer of the Borrower to be true, complete and correct of (i) the authorizing resolution of the Borrower's board of directors authorizing the transactions contemplated hereunder and under the Transaction Documents to which the Borrower is or is intended to be a party and designating the Corporation Representative, together with a certificate that no such authorization has been amended or revoked. In relation to the Borrower, on or before the Closing Date (i) an incumbency certificate of the Borrower, and (ii) such financial information regarding the Borrower as determined to be acceptable in the sole discretion of TxDOT.

(f) Governmental Approvals. On or before the Closing Date, TxDOT shall have provided a copy of each Governmental Approval listed in Schedule 3.01(f) attached hereto, together with a certificate by a TxDOT representative certifying as of the Toll Equity Loan Commitment Establishment Date that such schedule of Governmental Approvals sets forth all Governmental Approvals that are necessary for the work that is to be performed under the Design Build Contract and the design-bid-build agreements

related to Segment E and a portion of Segment D as set forth on Schedule 2 hereto, in each case as of the Toll Equity Loan Commitment Establishment Date.

(g) Consultant Reports. On or before the Closing Date, copies of the following, each in form and substance satisfactory to TxDOT:

(i) a final report of the Traffic Consultant with respect to the Project dated not earlier than ninety (90) days before the Pricing Date;

(ii) a final report of the General Engineering Consulting Report dated not earlier than ninety (90) days before the Pricing Date concluding, among other things, that the Project Costs and the time frames to achieve Substantial Completion of Segments F-1, F-2 and G are reasonable, subject to such conditions that are customary for such reports.

Section 3.02 Additional Conditions Precedent. The obligation of TxDOT to establish the Toll Equity Loan Commitment shall be subject to the satisfaction or waiver by TxDOT of the following additional conditions precedent; *provided* that, the Borrower shall be deemed to have satisfied the conditions set forth in this Section 3.02(a) to (d) (and as to (d) only as to the Borrower) to the extent they have been certified in writing by the Corporation Representative in a certificate in the form attached hereto as Appendix E:

(a) Bond Purchase Contract. All conditions precedent to the occurrence of the Closing Date (as defined in the Bond Purchase Contract) under the Bond Purchase Contract shall have been satisfied or waived by the initial purchaser(s), other than any conditions solely requiring the satisfaction of all conditions to the establishment of the Toll Equity Loan Commitment.

(b) Representations and Warranties. The representations and warranties given by the Borrower herein shall be true and correct in all material respects on and as of the Toll Equity Loan Commitment Establishment Date, except to the extent that such representations and warranties specifically refer to an earlier date, in which case they shall be true and correct in all material respects as of such earlier date.

(c) No Default or Event of Default. No Default with respect to the Borrower shall have occurred and be continuing or shall occur as a result of the establishment of the Toll Equity Loan Commitment, and no Event of Default with respect to the Borrower shall have occurred or shall occur as a result of the establishment of the Toll Equity Loan Commitment.

(d) No Material Adverse Effect. No event, development or circumstance shall have occurred or shall have become known to TxDOT or to the Borrower that has had or could reasonably be expected to have a Material Adverse Effect on the Project.

ARTICLE IV.
REPRESENTATIONS AND WARRANTIES

Section 4.01 Representations and Warranties of the Borrower. The Borrower represents and warrants as of the date hereof and as of the Toll Equity Loan Commitment Establishment Date (except to the extent that any representation and warranty set forth below specifically refers to an earlier or specified date, in which case such representation and warranty shall be as of such earlier or specified date) as follows:

(a) The Borrower has the requisite power and authority; has obtained all Governmental Approvals; and has taken all actions necessary to (1) enter into, deliver and perform its obligations under the Project Agreement, each Finance Document to which it is a party and the assignment agreements for those Transaction Documents for which it is an assignee and the transactions contemplated hereby and thereby, and (2) carry out its activities as now conducted and as proposed to be conducted immediately following execution and delivery of this Agreement, the Finance Documents and the other Transaction Documents.

(b) The Borrower has duly authorized the execution and delivery of each Transaction Document to which it is a party (or the assignment agreement for those Transaction Documents for which it is an assignee), the performance of its obligations hereunder and the incurrence of the debt made available to it under each Finance Document. The authorization has not been repealed, revoked, rescinded or amended and is in full force and effect.

(c) The execution and delivery by the Borrower of each Transaction Document to which it is a party (or the assignment agreement for those Transaction Documents for which it is an assignee), and the compliance with the terms and conditions of the Transaction Documents (or any such assignment agreement) will not, in any material respect, (1) violate any existing law applicable to it or (2) result in default under the Trust Agreement, or any mortgage, deed of trust, lien, lease, contract, note, order, judgment, decree or other agreement, instrument or restriction of any kind to which any of its assets are subject.

(d) Except as disclosed, there is no litigation at law or in equity or any proceeding before any Government Authority involving the Borrower pending or, to the best knowledge of the Borrower, threatened, that could reasonably be expected to have a material adverse effect on the operations or financial condition of the Borrower.

(e) The execution and delivery by the Borrower of each Transaction Document to which it is a party (or the assignment agreement for those Transaction Documents for which it is an assignee), the performance by the Borrower of its obligations hereunder and under the Transaction Documents and the consummation of the transactions herein and therein contemplated do not and will not in any material respect conflict with, or constitute a material breach or result in a material violation of the Borrower's statutory authority, any agreement or other instrument to which the Borrower is a party or by which it is bound or any constitutional or statutory provision or order, rule, regulation, decree or ordinance of any court, government or Government Authority

having jurisdiction over the Borrower or its property and will not result in or require the creation or imposition of any security interest in any of the Borrower's property or the Trust Estate other than the security interests created pursuant to the Trust Agreement.

(f) The Borrower has obtained or caused to be obtained all Governmental Approvals that (1) are required to be obtained by the Borrower as a condition precedent to the execution and delivery of the Project Agreement, each Finance Document to which it is a party and the assignment agreements for those Transaction Documents for which it is an assignee, or (2) are required for the operation of the System or the performance by the Borrower of its obligations under the Project Agreement and any Transaction Document to which it is a party or an assignee or for the grant by the Borrower of the security interest under the Trust Agreement and all such Governmental Approvals are in full force and effect.

(g) The Borrower will fully and faithfully perform all the duties and obligations which it has covenanted and agreed in the Trust Agreement.

(h) Each Transaction Document to which it is a party or assignee, assuming due authorization, execution and delivery thereof by the other parties thereto, constitutes the legal, valid and binding obligation of the Borrower, enforceable against the Borrower in accordance with the terms thereof, except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer or other similar laws or judicial action affecting the enforcement of creditors' rights generally and the application of general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law).

(i) No Default or Event of Default with respect to the Borrower has occurred and is continuing, no "Event of Default" (as defined in the Trust Agreement) has occurred and is continuing, no event has occurred that would be (with the expiry of any applicable grace period, the giving of notice or the making of any determination under the Trust Agreement or any combination of them) a default under the Trust Agreement, and no material default on the part of the Borrower under the Project Agreement has occurred and is continuing.

(j) The Borrower does not have any System Debt other than the Project Debt.

(k) To the actual knowledge of the Borrower without inquiry or investigation, all insurance required to be maintained as of the date hereof by the Design-Build Contractor pursuant to the Design-Build Contract has been obtained and is in full force and effect.

(l) The Trust Agreement including the right of the Trustee to retain Revenues is effective to create and perfect a legally valid and enforceable interest in the Borrower's rights in the Revenues.

(m) Each Project Document to which the Borrower is a party or an assignee is in full force and effect and the Borrower is not in default under any of such

agreements or contracts, and to the actual knowledge of the Borrower, no third party to any of such agreements or contracts is in default thereunder, except as, in either case, could not reasonably be expected to have a Material Adverse Effect.

(n) True and complete copies of all Transaction Documents to which the Borrower is a party (and the assignment agreement for those Transaction Documents for which it is an assignee) have been delivered to TxDOT, and the Borrower is not party to any other material Project-related agreements, except for any Project Document to which the Borrower is a party.

(o) None of the information in any agreement, document, certificate, exhibit, financial statement, book, record, material or report or other written information furnished by the Borrower, when taken as a whole, contained any untrue statement of material fact or omitted to state a material fact necessary in order to make the statements contained therein not materially misleading; *provided*, that the Borrower does not represent as to the accuracy of the information provided by TxDOT or the statements made in the reports by the General Engineering Consultant, the Traffic Consultant or any other advisor or consultant providing services to the Project; and *provided further*, that no representation or warranty is made as to any forecasts, projections, opinions or other forward looking statements and the Borrower only makes representations regarding such information to its actual knowledge.

(p) The Borrower has no actual knowledge, without inquiry or investigation, of any builders' liens or analogous claims for payments which are overdue with respect to work or services to be performed or materials supplied in connection with the Project, which claim has not been fully satisfied, and duly discharged or vacated, as applicable, unless there is a bona fide dispute and adequate security as required by law or ruling of a court has been posted.

(q) Since the date of the formation of Borrower, no event, other than transactions contemplated by this Agreement and the Transaction Documents, has occurred that could reasonably be expected to have a Material Adverse Effect or that could reasonably be expected to have a material adverse effect on the operations or financial condition of the Borrower. Since the date of the Project Agreement, there has been no material change to the nature, scope or any other aspect of the Project pursuant to any requirement or instruction of any Government Authority of which the Borrower has received actual notice.

(r) The Borrower has not received any communications from, nor is aware of any proceeding by, any Government Authority that could reasonably be expected to result in (i) termination or revocation of the Borrower's right and authority to operate the System or (ii) a Material Adverse Effect.

(s) To the actual knowledge of the Borrower without inquiry or investigation, no Bankruptcy Event has occurred or is continuing with respect to the Design-Build Contractor or the Capital Maintenance Contractor.

(t) To the actual knowledge of the Borrower without inquiry or investigation, the development and construction of the System is being carried out in compliance in all material respects with all Environmental laws and there are no Environmental Claims with respect to the System, except to the extent that noncompliance with such claims could not reasonably be expected to give rise to a Material Adverse Effect. To the Borrower's actual knowledge without inquiry or investigation, (x) there are no Hazardous Substances on the System, the presence of which Hazardous Substance would cause the Borrower to be in material violation of any applicable laws and (y) it has no current liability on its part, whether contingent or otherwise, arising out of or resulting from the release or discharge on or to the System of any Hazardous Substance, except to the extent such liability could not reasonably be expected to give rise to a Material Adverse Effect.

(u) Any insurance (including through self-insurance) required to be maintained by the Borrower as of the date hereof pursuant to the requirements set forth in this Agreement, the Trust Agreement and the Project Agreement, as applicable, has been obtained and is in full force and effect, as applicable. All premiums due and payable (if any) in connection therewith have been paid and such insurance complies in full with the insurance required to be maintained by the Borrower pursuant to Section 5.05(f) of this Agreement, the Trust Agreement and the Project Agreement, as applicable.

(v) There are no disputes under any Transaction Document that could reasonably be expected to have a Material Adverse Effect.

(w) The Official Statement as of its date and as of the Closing Date, did not contain any untrue or misleading statement of a material fact or omit to state any material fact necessary to make such statements therein, in the light of the circumstances under which they were made, not misleading, in each case to the extent such statements and facts (i) relate to the Borrower, the Project or the System or (ii) are otherwise known, following reasonably diligent inquiry, to the Borrower; *provided*, that (x) this representation does not apply to any information in the Official Statement regarding TxDOT, the Traffic Consultant's initial report and the General Engineering Consulting Report, and (y) this representation does not apply to any extent to the section thereof entitled "Tax Matters".

Section 4.02 Representations and Warranties of TxDOT. TxDOT represents and warrants as of the date hereof, the Toll Equity Loan Commitment Establishment Date and as of each advance under the Toll Equity Loan Commitment (except to the extent that any representation and warranty set forth below specifically refers to an earlier or specified date, in which case such representation and warranty shall be as of such earlier or specified date) as follows:

(a) TxDOT has all requisite power and authority to establish the Toll Equity Loan Commitment, to make advances to the Borrower under the Toll Equity Loan Commitment and to perform any and all of its obligations under the Transaction Documents to which it is a party.

(b) The Transaction Documents to which TxDOT is a party have been duly authorized, executed and delivered by TxDOT, and, assuming due authorization, execution and delivery thereof by the other parties thereto, constitute legal, valid and binding obligations of TxDOT, enforceable against TxDOT in accordance with their terms except as may be limited by applicable bankruptcy, insolvency, reorganization, moratorium, fraudulent transfer or other similar laws or judicial action affecting the enforcement of creditors' rights generally and the application of general principles of equity (regardless of whether enforceability is considered in a proceeding in equity or at law).

(c) TxDOT has obtained or caused to be obtained all Governmental Approvals that are required in connection with TxDOT's execution and delivery of this Agreement or the performance of TxDOT's obligations under the Transaction Documents to which it is a party (and any assignment agreement with respect thereto between TxDOT and the Borrower) or for the development, construction, operation and maintenance of the System by the Borrower.

(d) Except as disclosed, there is no litigation at law or in equity or any proceeding before any Government Authority involving TxDOT pending, or, to the best knowledge of TxDOT, threatened, that could reasonably be expected to materially affect the performance of its obligations under the Transaction Documents to which it is a party (or any assignment agreement with respect thereto between TxDOT and the Borrower).

(e) The officer of TxDOT executing this Agreement and the Transaction Documents to which TxDOT is a party (or any assignment agreement with respect thereto between TxDOT and the Borrower) is duly and properly in office and fully authorized to execute the same on behalf of TxDOT.

(f) None of the information in any agreement, document, certificate, exhibit, financial statement or other information furnished by TxDOT, when taken as a whole, contained any untrue statement of material fact or omitted to state a material fact necessary in order to make the statements contained therein not materially misleading.

(g) The statements describing TxDOT and its activities in Appendix A—"The Texas Department of Transportation and the State Highway Fund" in the Official Statement as of its date and as of the Closing Date, do not contain any untrue or misleading statement of a material fact or omit to state any material fact necessary to make such statements therein, in the light of the circumstances under which they were made, not misleading.

(h) No material default by TxDOT under the Project Agreement has occurred.

(i) TxDOT is not aware of any builders' liens or analogous claims for payments which are overdue with respect to work or services to be performed or materials supplied in connection with the portions of the System for which TxDOT is responsible either under the terms of the Project Agreement or otherwise, which claim has not been fully satisfied, and duly discharged or vacated, as applicable, unless there is

a bona fide dispute and adequate security as required by law or ruling of a court has been posted.

(j) To the best knowledge of TxDOT, all insurance required to be maintained as of the date hereof by the Design-Build Contractor pursuant to the Design-Build Contract has been obtained and is in full force and effect.

(k) Each Transaction Document and Project Document to which TxDOT is a party (and any assignment agreement with respect thereto between TxDOT and the Borrower) is in full force and effect and TxDOT is not in default under any of such agreements or contracts, and to the actual knowledge of TxDOT, no third party to any of such agreements or contracts is in material default thereunder, except as, in either case, could not reasonably be expected to have a material adverse effect on the System.

(l) TxDOT (i) has provided or made available to the Borrower copies of all material environmental due diligence reports or analyses prepared by it or on its behalf and (ii) has obtained all environmental permits required to be obtained by it with respect to the System in accordance with the Project Agreement and all such permits are in full force and effect, except, in each case, for any environmental permits, (x) where the failure to obtain such environmental permits could not reasonably be expected to have a Material Adverse Effect, or (y) which are not required at the current state of development of the System.

(m) To the actual knowledge of TxDOT without inquiry or investigation, no Bankruptcy Event has occurred or is continuing with respect to the Design-Build Contractor or the Capital Maintenance Contractor.

(n) To the best knowledge of TxDOT, the development and construction of the System is being carried out in compliance in all material respects with all Environmental laws and, to the best knowledge of TxDOT, there are no Environmental Claims with respect to the System, except to the extent that noncompliance with such claims could not reasonably be expected to give rise to a Material Adverse Effect. To TxDOT's actual knowledge (x) there are no Hazardous Substances on the System, the presence of which Hazardous Substance would cause TxDOT to be in material violation of any applicable laws and (y) it has no current liability on its part, whether contingent or otherwise, arising out of or resulting from the release or discharge on or to the System of any Hazardous Substance, except to the extent such liability could not reasonably be expected to give rise to a Material Adverse Effect.

(o) TxDOT has obtained or caused to be obtained all Governmental Approvals that (1) are required to be obtained by TxDOT as a condition precedent to the execution and delivery of the Project Documents and the Transaction Documents (and any related assignment agreement) to which it is a party, or (2) are required for the operation of the System or the performance by TxDOT of its obligations under the Project Agreement and any other Transaction Document and Project Document to which it is a party and all such Governmental Approvals are in full force and effect.

ARTICLE V.
COVENANTS OF THE BORROWER

Until the Termination Date, subject to Section 5.08 hereof, the Borrower shall comply with the following:

Section 5.01 Operations.

(a) Operation and Maintenance. The Borrower shall maintain and operate the System in an efficient and economical manner and at all times maintain the same in good repair, working order and in sound operating condition and in accordance with the Project Agreement and any applicable Project Document and in compliance in all material respects with applicable laws and Governmental Approvals and make all necessary repairs, renewals and replacements, in each case, in accordance in all material respects with the Project Agreement and any applicable Project Document and in compliance in all material respects with applicable laws and the terms of the insurance required under Section 5.05(f) hereof.

(b) Quarterly Report of Operating Expenses, Maintenance Costs and Revenues. The Borrower shall deliver to TxDOT a quarterly report with respect to each fiscal quarter of the Borrower at times to be agreed upon by the Borrower and TxDOT, which reports will show (i) the operating data for the System for the previous quarter and for the year to date, including total Revenues, total Operating Expenses, total Junior Operating Expenses and total Senior Operating Expenses incurred, total Major Maintenance Expenses incurred and all other costs and expenses incurred with respect to the System that are payable out of Revenues pursuant to the Trust Agreement, (ii) the variances of 5% or more for such periods between (1) the actual Revenues and the projected Revenues set forth in the Annual Budget; (2) the actual Revenues and the Maximum Available Annual Amount; and (3) the actual Operating Expenses, Junior Operating Expenses and Senior Operating Expenses incurred, Major Maintenance Expenses incurred and all other costs and expenses incurred with respect to the System that are payable out of Revenues and the projected amounts set forth in the Annual Budget and in the Project Budget, together with a brief narrative explanation of the reasons for any such variance, (iii) reports on quarterly traffic and average toll figures, and (iv) if an Event of Default with respect to the Borrower exists, such other operating and traffic information as TxDOT may reasonably request.

(c) Annual Budget. The covenants of the Borrower set forth in Section 505 of the Trust Agreement are incorporated herein as covenants from the Borrower to TxDOT for the sole benefit of TxDOT. TxDOT has relied on such section in executing this Agreement and no amendment to any such covenant in the Trust Agreement shall amend, alter or supplement the covenant set forth in this subsection (c) without prior written approval by TxDOT. The Borrower shall submit to TxDOT for its review and comment a copy of any preliminary budget created by the Borrower and any amendments, supplements or modifications thereto and, promptly upon adoption thereof, the Borrower shall submit to TxDOT the Annual Budget or any amended or supplemented Annual Budget adopted by the Borrower.

(i) At any time during the Fiscal Year TxDOT shall have the right to conduct an audit of the Borrower's compliance with the requirements of this Agreement and the Trust Agreement as they relate to the Annual Budget (or any preliminary budget if an Annual Budget has not been adopted by the Borrower). If the results of the audit conclude that the Borrower is not in compliance with the requirements of this Agreement relating to the operation, maintenance and improvement of the Project, the auditor will provide to TxDOT and Borrower a detailed explanation of why the Borrower is not in compliance and TxDOT shall have a period of forty-five (45) days after receipt of such explanation to notify the Borrower that, in TxDOT's reasonable opinion, the Annual Budget that was the subject of the audit does not substantially comply with the requirements of this Agreement or the Trust Agreement and shall specify in reasonable detail the reasons for such notification; if no such notification in accordance with the foregoing is provided within the time period specified above, then the Annual Budget shall be deemed to substantially comply with the requirements of this Agreement and the Trust Agreement.

(ii) Subject to this Section 5.01(c) and the Trust Agreement, the Borrower shall operate the Project substantially in accordance with the Annual Budget. The Borrower shall have the right to make expenditures in respect of Operating Expenses and Major Maintenance Expenses in accordance with the Trust Agreement without any consent or approval of TxDOT.

Section 5.02 Reporting and Cooperation.

(a) Accounts, Books and Records and Financial Reporting. The covenants of the Borrower set forth in Section 709 of the Trust Agreement are incorporated herein as covenants from the Borrower to TxDOT for the sole benefit of TxDOT. TxDOT has relied on such section in executing this Agreement and no amendment to any such covenant in the Trust Agreement shall amend, alter or supplement the covenant set forth in this subsection (a) without prior written approval by TxDOT.

(i) The Borrower shall provide to TxDOT copies of any reports, financial statements, and any other documents created in accordance with Section 709 of the Trust Agreement and all records maintained pursuant thereto shall be open to inspection by TxDOT. The Borrower further covenants that, upon request, it will provide copies of the current Toll Rate Schedule to TxDOT.

(ii) The Borrower shall provide or cause to be provided to TxDOT copies of any periodic statements regarding Trust Agreement Fund balances and transfers, as well as the investment of any amounts deposited in the Trust Agreement Funds, from the Trustee.

(iii) If required by TxDOT, the Borrower shall employ the Borrower's Accountant to audit its annual financial statements and shall provide copies of any such audited financial statements to TxDOT. In the event that the Borrower's Accountant should at any time cease to be its independent accountant or

auditor for any reason, the Borrower shall as soon as practicable appoint, and thereafter maintain, as its accountants, a nationally recognized firm reasonably acceptable to TxDOT. Concurrent with such appointment, the Borrower shall authorize such accountants to communicate directly with TxDOT and to respond within a reasonable period of time to queries of TxDOT regarding the Borrower's accounts and operations in connection with the exercise by TxDOT of its rights to review the books, records and papers of the Borrower as set forth in Section 5.02(e) below and to receive and review the audited financial statements as set forth in this subclause (iii).

(iv) The Borrower shall retain all work papers and reports for a minimum of 4 years from the date of the audit reports referred to in Sections 5.02(a)(iii) hereof, unless TxDOT notifies the Borrower in writing to extend the retention period for a reasonable additional period. Audit work papers shall be available to TxDOT to the extent available to the Borrower at any time during the retention period. The Borrower shall retain all original System and Project files, records, accounts and supporting documents until the later of the Termination Date or the date all amounts due and payable under the Toll Equity Loan Note and this Agreement have been repaid, or for the period of time required by applicable federal and state law, if longer, unless relieved of this requirement by TxDOT in writing.

(b) Covenants Regarding Toll Rate Schedule, Traffic Consultant, Uniformity of Tolls and Free Passage.

(i) The covenants of the Borrower set forth in Section 501 of the Trust Agreement and in the Toll Rate Agreement are incorporated herein as covenants from the Borrower to TxDOT for the sole benefit of TxDOT. TxDOT has relied on such section and agreement, as applicable, in executing this Agreement and no amendment to any such covenant in the Trust Agreement or the Toll Rate Agreement shall amend, alter or supplement the covenant set forth in this subsection (b) without prior written approval by TxDOT.

(ii) In the event the Traffic Consultant is engaged pursuant to the Toll Rate Agreement or a new traffic and revenue study is delivered for the System, the Borrower shall prepare an updated Financial Model incorporating such updated Revenue projections and indicating the amount, date and use of any expected advances under the Toll Equity Loan Commitment and the dates of payment of principal of and interest on such advances in any Fiscal Year.

(c) Consultant Reports.

(i) The Borrower covenants that it will employ the General Engineering Consultant in accordance with the provisions of Section 704 of the Trust Agreement, and will cause the General Engineering Consultant to do all tasks required to be performed by the General Engineering Consultant pursuant to Sections 504, 407 and 408 of the Trust Agreement.

(ii) The Borrower shall provide or cause to be provided to TxDOT in a timely manner copies of all reports, recommendations, findings or other documents prepared by the General Engineering Consultant in relation to the System.

(d) Cooperation with Consultants. The Borrower shall (i) cooperate in all reasonable respects with all consultants retained by TxDOT in connection with the transactions contemplated by the Transaction Documents, (ii) provide each consultant with all information reasonably requested and reasonably required by such consultant in connection with the performance of its obligations under the Transaction Documents, and (iii) consult with TxDOT regarding the reports of each consultant as reasonably requested by TxDOT.

(e) Access to the System and the Project. The Borrower shall give TxDOT and its consultants and representatives access to the System and the Project and all books, records and accounts related to the Project and the System, at any reasonable time as may be requested, during official business hours and in a manner that cannot reasonably be expected materially to interfere with or disrupt the performance by the Borrower or any other party of its obligations with respect to the construction and operation of the Project or the System, and permit the Trustee and TxDOT and their consultants and representatives to examine and make abstracts from any of its books, accounts and records relating to the Project or the System and to make copies and memoranda thereof, to discuss the Project or the System and the business, accounts, operations, properties and financial and other conditions of the Borrower as, in any case, related to the Project or the System, including, without limitation, the allocation of the costs of the operation, maintenance and improvement of the Project or the System, with officers and employees of the Borrower and with the Borrower's Accountant and to witness the performance and other tests conducted pursuant to any Project Document, as applicable. The Borrower shall have the right to participate in any discussions with the Borrower's Accountant. Notwithstanding anything herein to the contrary, the Borrower shall offer all reasonable assistance to such Persons in connection with any such visit. Upon the occurrence and during the continuance of an Event of Default or a Default with respect to the Borrower, if the Trustee or TxDOT requests that any of its consultants or representatives be permitted to make such visit, the reasonable fees and expenses of the Trustee, TxDOT, and their consultants and representatives in connection with such visit shall be paid for by the Borrower. The Borrower shall not be required to give any of TxDOT's consultants or representatives access to the Project or the System or any books, records or accounts related to the Project or the System unless TxDOT provides to the Borrower a confidentiality and non-disclosure agreement in form and substance reasonably acceptable to the Borrower that is either: (1) executed by such consultant or representative, or (2) is a requirement of the consultant's engagement agreement with TxDOT that is agreed to by the consultant on behalf of all employees and representatives of the consultant, and TxDOT shall not provide to such consultant or representative any such books, records or accounts until such confidentiality and non-disclosure agreement is executed by such consultant or representative. TxDOT shall ensure that each of its employees is bound to keep all of the books, records and accounts related to the Project or the System (as applicable) confidential and shall enforce any such obligation against its employees. TxDOT shall enforce the provisions of any confidentiality and non-

disclosure agreement executed by TxDOT's consultants and representatives in connection with their access to the System or the Project and their inspection of all books and records and other information related to the System or the Project as provided in this Section 5.02(e), and TxDOT and its employees, consultants and representatives shall, except as otherwise permitted under this Section 5.02(e), keep all information obtained through such access and inspection confidential. Nothing contained herein shall preclude TxDOT or one of its employees, consultants or representatives from producing or otherwise disclosing any information obtained through such access and inspection under compulsion of court order or subpoena, as required in connection with a judicial, administrative or regulatory proceeding in which it or an officer, director, employee or affiliate is involved, as required pursuant to inquiry or demand by a regulatory authority having jurisdiction over it or its affiliates or as otherwise required by law, including the Texas Public Information Act, Chapter 552 of the Government Code. TxDOT and/or each consultant or representative shall notify Borrower in the event of receipt of any request, subpoena, court order or other requirement to disclose any part of such information in connection with a legal, regulatory or other proceeding. For purposes of this Section 5.02(e), any information obtained through such access and inspection shall not be considered confidential if such information: (1) is lawfully in the public domain at the time it is transmitted or later becomes part of the public domain without fault of TxDOT or its employees, consultants or representatives; (2) has been independently developed by TxDOT or its employees, consultants or representatives without violation of this Section 5.02(e); (3) is independently known to TxDOT or its employees, consultants or representatives at the time of receipt through no unlawful act of TxDOT or its employees, consultants or representatives; (4) is disclosed by TxDOT or its employees, consultants or representatives with the prior written approval of the Borrower; or (5) becomes known to TxDOT or its employees, consultants or representatives from a source other than the Borrower, which source is (A) not subject to any restriction on disclosure or (B) not known by TxDOT or its employees, consultants or representatives to be bound by a confidentiality obligation directly or indirectly to the Borrower or TxDOT or to otherwise be in breach of any legal or contractual obligation not to disclose such information.

(f) Continuing Disclosure Reports and Notices. The Borrower shall give TxDOT copies of all annual financial reports and reportable events notices submitted by Borrower in connection with its compliance with any continuing disclosure undertaking entered into with respect to the System Debt as may be required under Rule 15c2-12 adopted by the Securities and Exchange Commission.

(g) Replacement of Consultants. If at any time the General Engineering Consultant, the Traffic Consultant, the Insurance Consultant or Borrower's Accountant should resign or the Borrower desires to remove any or all of such consultants, Borrower shall, as soon as practical and in compliance with applicable laws and Borrower's policies, appoint a successor consultant in accordance with this Agreement and the Trust Agreement, as applicable, and TxDOT shall have the right to approve of the successor consultant, which approval shall not be unreasonably withheld.

(h) Biennial Reports. Not less than sixty (60) days prior to each date that is a deadline for submission of any legislative appropriation request for the State (or at such other time as TxDOT may reasonably require), the Borrower shall provide, or cause to be provided, to TxDOT (i) a report indicating for the next fiscal biennium the amount, date and use of any expected advances under the Toll Equity Loan Commitment and the expected dates of payment of principal of and interest on such advances and (ii) an updated traffic and revenue study for the System prepared by the Traffic Consultant.

Section 5.03 Trust Agreement Funds.

(a) Establishment and Maintenance.

(i) The Borrower shall not maintain or permit to be maintained any funds or accounts other than the Trust Agreement Funds and any other funds or accounts permitted under the Trust Agreement.

(ii) The Borrower shall fund, maintain, and make use of the Trust Agreement Funds and any other funds or accounts permitted under the Trust Agreement in accordance with the terms and conditions set forth in the Trust Agreement.

(b) Payment of Revenues to the Revenue Fund. The Borrower at all times shall maintain arrangements satisfactory to TxDOT, subject to the provisions of the Master Custodial Agreement, the Project Agreement and the Trust Agreement, to ensure that all Revenues are collected and deposited to the Revenue Fund daily, to the extent practicable either directly or indirectly through payment mechanisms reasonably satisfactory to TxDOT.

Section 5.04 Reserved.

Section 5.05 Compliance, Insurance and Other Agreements.

(a) Compliance with Law. The Borrower shall comply with all laws (including, without limitation, Environmental laws) relating to the System Debt, the System, the organization and operation of the Borrower and the subject matter of any Finance Document.

(b) Approvals; Governmental Authorizations. At all times, the Borrower shall obtain on a timely basis and thereafter maintain in full force and effect all Governmental Approvals necessary (a) for the use, operation and maintenance of the System, and (b) to comply with its obligations under the Transaction Documents and Project Documents, except in either case (x) where the failure to obtain or maintain any such Governmental Approval could not reasonably be expected to have a Material Adverse Effect or (y) obtaining and maintaining such Government Approvals is TxDOT's obligation, including, without limitation, the Governmental Approvals set forth in Schedule 3.01(f) hereto, and in the Project Agreement.

(c) Transaction Documents; Project Documents.

(i) The Borrower shall (A) perform and observe in all material respects all of its covenants and its other obligations contained in each Transaction Document to which it is a party or an assignee and (B) use reasonable efforts to enforce against any other party thereto each material covenant or obligation of such party in each Transaction Document in accordance with its terms.

(ii) The Borrower shall not terminate, or allow to expire (other than in accordance with its terms), or assign, or amend or modify, or waive timely performance by any other party of material covenants under, any Transaction Document, provided that:

(A) any such termination, amendment, modification or waiver shall be permitted if such termination, amendment, modification or waiver could not reasonably be expected to result in a Material Adverse Effect; and

(B) any such termination, amendment, modification or waiver shall be permitted if it is approved in writing by TxDOT, such approval not to be unreasonably withheld.

(iii) If the Design-Build Contract or any other Project Document, or any counterparty to the Design-Build Contract or a Project Document, is replaced, to the extent that there was a Direct Agreement related to the Design-Build Contract or to such Project Document prior to such replacement, the Borrower shall enter into a new (or amended and restated, as the case may be) Direct Agreement with any third party to such Project Document or Design-Build Contract, as applicable, in form and substance reasonably satisfactory to TxDOT.

(iv) If a Bankruptcy Event with respect to the Design-Build Contractor should occur, Borrower shall take (to the extent such rights are available to it), or shall use its best efforts to cause TxDOT to take, any and all actions provided under the Design-Build Contract and available under the proceedings relating to the Bankruptcy Event that are reasonably required to minimize any suspension or delay in the construction of the Project, including, without limitation, enforcing the Design-Build Contract against the Design-Build Contractor, seeking a replacement design-build contractor that will assume the obligations of the Design-Build Contractor under the Design-Build Contract or entering into a new design-build contract with the consent of TxDOT, which consent shall not be unreasonably withheld. Borrower will give TxDOT copies of any notices received or given by Borrower in connection with such Bankruptcy Event, and TxDOT shall have the opportunity to participate in any meetings, proceedings, settlements, or other activities relating to such Bankruptcy Event.

(d) Use of Proceeds and Amounts Remaining in the Construction Fund After Completion of the Project. The Borrower shall not cause any proceeds of the TELA Project Debt or any Toll Equity Loan to be expended for any purpose other than

pursuant to the Trust Agreement and this Agreement. Any amounts remaining in the Construction Fund held by the Trustee under the Trust Agreement after submission to the Trustee by the Borrower of a completion certificate pursuant to the Trust Agreement with regard to construction of the Segments shall be applied in accordance with the Trust Agreement.

(e) Tolling System. The Borrower shall ensure that, on or prior to the Service Commencement Date for any tolled Segment or portion of a Segment, all electronic tolling system hardware necessary to operate such Segment or portion thereof (if any) in compliance with the requirements of the applicable Project Documents (if any), or any other applicable requirements, will be installed and operational.

(f) Insurance. The covenants of the Borrower set forth in Sections 705 and 706 of the Trust Agreement with respect to insurance and self-insurance for the System are incorporated herein as covenants from the Borrower to TxDOT for the sole benefit of TxDOT. TxDOT has relied on such sections in executing this Agreement and no amendment to any such covenant in the Trust Agreement shall amend, alter or supplement the covenant set forth in this subsection (f) without prior written approval by TxDOT. All records related to such covenants shall be open for inspection by TxDOT and copies of any opinions, certifications, reports, records, filings or other documents prepared by the Insurance Consultant or any other Person in relation to insurance and self-insurance for the System shall be provided to TxDOT in a timely manner.

(g) Further Assurances and Corrective Instruments. The Borrower agrees that it will, from time to time, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such supplements to the Trust Agreement and such further instruments as may reasonably be required for carrying out the expressed intention of the Trust Agreement and this Agreement and as may be necessary or desirable for assuring, conveying, granting, assigning, securing and confirming the security interests (whether now existing or hereafter arising) granted by or on behalf of the Borrower to the Trustee, pursuant to the Trust Agreement, or intended so to be granted pursuant to the Trust Agreement, or which the Borrower may become bound to grant, and the subject of each such security interest is and will be free and clear of any other security interest thereon or with respect thereto prior to, or of equal rank with the security interests created by the Trust Agreement, other than liens entitled to priority as a matter of Law, this Agreement or the Trust Agreement, and all corporate action on the part of the Borrower to that end shall be duly and validly taken at such times. The Borrower shall, at all times, to the extent permitted by Law, defend, preserve and protect the security interests granted pursuant to the Trust Agreement and all the rights of the Trustee under the Trust Agreement against all claims and demands of all Persons whomsoever.

Section 5.06 Project Debt; Refunding of TELA Project Debt; Additional Debt.

(a) Project Debt. The Borrower shall issue all of the initial Project Debt on the Closing Date and in compliance with the terms and conditions of the Trust Agreement. The Borrower shall deposit proceeds of the Project Debt with the Trustee in

an amount sufficient, after taking into account amounts required to be deposited by the Borrower from sources other than Project Debt, to pay for (i) Project Costs as set forth in the Project Budget and (ii) all amounts required to be deposited in Trust Agreement Funds.

(b) Refunding of TELA Project Debt.

(i) All refundings of TELA Project Debt will be subject to the approval of TxDOT, such approval not to be unreasonably withheld, so long as the Toll Equity Loan Commitment will not be terminated in conjunction with such refunding or any amount due and payable under the Toll Equity Loan Note would be outstanding after the issuance of such refunding obligations.

(ii) Unless expressly approved by TxDOT, no refunding transaction involving TELA Project Debt that extends the final maturity of the initial TELA Project Debt beyond its original final Maturity Date shall be permitted so long as the Toll Equity Loan Commitment will not be terminated in conjunction with such refunding or any amount due and payable under the Toll Equity Loan Note would be outstanding after the issuance of the refunding obligations.

(c) Additional Debt. So long as the Toll Equity Loan Commitment will not be terminated in conjunction with, or any amount due and payable under the Toll Equity Loan Note would be outstanding after, the issuance of additional obligations secured by the Trust Agreement or by Revenues (other than Refunding Bonds under the circumstances described in Section 5.06(b) hereof), no such issuance shall be permitted without prior written approval from TxDOT, and all such debt is subject to the requirements set forth in the Trust Agreement.

Section 5.07 Miscellaneous.

(a) Payment of Lawful Claims. The Borrower shall, from moneys available therefor in the Trust Estate or other legally available moneys, pay or cause to be discharged, or make adequate provision to satisfy and discharge, all lawful claims and demands for labor, materials, supplies or other objects which, if unpaid, might by law become a lien upon the Trust Estate; *provided, however*, that nothing in this Section 5.07 shall require the Borrower to pay or cause to be discharged, or make provision for, any such lien or charge the validity of which is being contested in good faith by appropriate legal proceedings.

(b) Corporation Representatives. Whenever under the provisions of this Agreement the approval of the Borrower is required or the Borrower is required to take some action at another party's request, such approval or such request shall be given for the Borrower by a Corporation Representative.

(c) Notices. The Borrower shall promptly, and in any event within ten Business Days after it acquires notice or obtains actual knowledge thereof, give TxDOT notice of any of or, with respect to (vi), (vii), (x) and (xiii) below, copies of, the following, setting forth reasonable details of any event under (i) to (v), (viii), (ix), (xi) or

(xii) below (and the Borrower shall concurrently provide to the General Engineering Consultant a copy of any such notice or copy, to the extent the applicable event occurs during the period that the Project is under construction):

(i) any "Event of Default" as defined in the Trust Agreement or any event which, given notice or the passage of time or both, would constitute an "Event of Default" as defined in the Trust Agreement;

(ii) the filing of any actual litigation, suit or action, or the delivery to the Borrower of any written claim against the Revenues, the Project or the System and which could reasonably be expected to have a Material Adverse Effect;

(iii) any proposal to suspend or abandon the Project by, or on behalf of, the Borrower;

(iv) any material default or event of default under any Transaction Document;

(v) any material default or event of default under any Project Document;

(vi) if at any time commercial insurance is required to be obtained pursuant to the Trust Agreement, thereafter, the unavailability of any required insurance on commercially available terms;

(vii) any material notices given under the Trust Agreement or a Project Document by the Borrower or received by the Borrower under the Trust Agreement or a Project Document from any party thereto;

(viii) copies of construction progress reports to the extent such reports are received by the Borrower pursuant to any Project Document and to the extent such reports are required to be delivered under the applicable Project Document;

(ix) any (A) written notice to the Borrower indicating that any material Governmental Approval with respect to the System will not be granted or renewed, or will not be granted or renewed in time to allow continued operation of the System in compliance with all material laws, or will be granted or renewed on terms materially more burdensome than proposed, or will be terminated, revoked or suspended and (B) casualty, damage or loss to the System, whether or not insured, through fire, theft, other hazard or casualty insurance in excess of \$5,000,000 (as such amount shall be adjusted annually after the Closing Date in proportion to any increase or decrease in the CPI over the Base Price Index) for any one casualty or loss;

(x) any cancellation, notice of threatened or potential cancellation or material change in the terms, coverage or amounts of any insurance (including any self-insurance program) required to be maintained under the Trust

Agreement or any claim in excess of \$5,000,000 under any insurance policy or self-insurance program, as applicable;

(xi) any written notice of the occurrence of any event giving rise (or that could reasonably be expected to give rise) to a material claim under any insurance required to be maintained under the Trust Agreement, with copies of any material documents relating thereto (including copies of any such claim) in the possession or control of the Borrower;

(xii) any notice of any event of default or termination or cancellation given by or received by the Borrower under any Project Document, or any request received by the Borrower for any material amendment of, supplement to or other modification of any Project Document, or any event, circumstance or occurrence actually known to the Borrower that might lead the Borrower or any other party thereto to terminate the Project Document;

(xiii) any event of force majeure (howsoever described) under a Project Document or any other event entitling the contractor under such Project Document to suspend performance of any obligation thereunder, but solely to the extent the Borrower has actual knowledge of any such event; or

(xiv) any notice of the occurrence of Substantial Completion with respect to any Segment.

(d) Calculation of CPI Changes. Annually, within thirty (30) days after each October 1, commencing October 1, 2014, the Borrower shall calculate the increase or decrease in the CPI over the Base Price Index as of such October 1, and shall notify TxDOT of the amount of such increase or decrease. Such calculation shall be binding absent manifest error.

(e) Eligible Costs Obligations of the Borrower. The Borrower hereby agrees and acknowledges that Eligible Costs must be obligations of the Borrower and the Borrower shall, from time to time, execute, acknowledge and deliver, or cause to be executed, acknowledged and delivered, such agreements or other instruments (including amendments or supplements to the Project Agreement) as may reasonably be required for carrying out the expressed intention of this Agreement that the payment of all Eligible Costs be obligations of the Borrower and as may be necessary or desirable for assuring, conveying, granting, assigning, securing and confirming that all obligations to pay Eligible Costs (whether now existing or hereafter arising) will be legal, valid and binding obligations of the Borrower, and all corporate action on the part of the Borrower to that end shall be duly and validly taken at such times.

Section 5.08 Covenants to Remain In Effect. If at the Note Maturity Date of the Toll Equity Loan Note, amounts due thereunder remain unpaid, the provisions of this Article V, as applicable, shall remain in effect until such time as all amounts owing have been paid.

ARTICLE VI.
EVENTS OF DEFAULT BY THE BORROWER

Section 6.01 Events of Default. The occurrence of any of the following events shall be an “Event of Default” hereunder:

(a) Failure by the Borrower to pay, from funds available therefor under the Trust Agreement, when due any amount payable under the Toll Equity Loan Note.

(b) Failure by the Borrower to make (i) any payment, to the extent funds are available under the Trust Agreement, to TxDOT or as otherwise required to be paid from funds available under the Trust Agreement or any other legally available source of funds of the Borrower as required under this Agreement, except as set forth in Section 6.01(a) hereof, within ten Business Days from the date on which it was due, or (ii) any payment required to be paid under any TELA Project Debt of the Borrower; *provided, however*, that any failure pursuant to this subclause (ii) shall not constitute an Event of Default if the failure to make such payment results from a failure by TxDOT to advance funds in accordance with the provisions of this Agreement.

(c) Failure by the Borrower to observe and perform any covenant, condition or agreement on its part to be observed or performed under this Agreement or under any TELA Project Debt, other than as referred to in Section 6.01(a), (b) or (m) hereof, for a period of ninety (90) days after the earlier of (i) the Borrower acquiring actual knowledge of such occurrence or (ii) notice specifying such failure and requesting that it be remedied shall have been given to the Borrower by TxDOT, unless TxDOT shall agree in writing to an extension of such time prior to its expiration; *provided, however*, if the failure stated in the notice is capable of cure but cannot reasonably be cured within the applicable period, the Borrower shall be entitled to a further extension of time reasonably necessary to remedy such failure so long as corrective action is instituted by the Borrower within the applicable period and is diligently pursued until such failure is corrected.

(d) Any of the representations, warranties or certifications of the Borrower made in or delivered pursuant to this Agreement or any other Finance Documents shall prove to have been false or misleading in any material respect when made and, if such misrepresentation is capable of being cured, such misrepresentation has not been cured within ninety (90) days after the earlier of (i) the Borrower acquiring actual knowledge of such failure and (ii) the Borrower receiving notice from TxDOT of such failure.

(e) the Borrower shall fail to perform or observe any material covenant, agreement or obligation under any Project Document to which it is a party or an assignee (unless such failure could not reasonably be expected to have a Material Adverse Effect), and the Borrower shall have failed to cure such failure or to obtain an effective written waiver thereof within the earlier of (A) ninety (90) days after receipt of notice thereof from TxDOT and (B) any applicable grace period relating to such covenant, agreement or obligation; *provided, however*, that with respect to this subsection

(e), if such cure or waiver cannot reasonably be obtained within the applicable period, the Borrower shall be entitled to an extension of such time if corrective action is instituted by the Borrower within the applicable period and diligently pursued until such failure is corrected.

(f) One or more judgments for the payment of money in an aggregate amount in excess of \$10,000,000 (as such amount shall be adjusted annually after the Closing Date in proportion to any increase or decrease in the CPI over the Base Price Index) shall be rendered against (i) the Revenues, the Project or the System and the same shall remain undischarged for a period of ninety (90) consecutive days during which execution shall not be effectively stayed, or any action shall be legally taken by a judgment creditor to attach or levy upon the Revenues, the Project or the System to enforce any such judgment or the amount of such judgment is not adequately covered by insurance or a performance bond, or (ii) the Borrower and the same shall remain undischarged for a period of ninety (90) consecutive days during which execution shall not be effectively stayed, to the extent that it is reasonably likely to have a Material Adverse Effect or any action shall be legally taken by a judgment creditor to attach or levy upon any assets of the Borrower to enforce any such judgment or the amount of such judgment is not adequately covered by insurance or a performance bond, to the extent that it is reasonably likely to have a Material Adverse Effect.

(g) The Project Agreement shall expire or be terminated (whether by reason of a default thereunder or by mutual agreement of the parties thereto or otherwise), or for any reason shall cease to be in full force and effect.

(h) The Borrower fails to obtain, renew, maintain or comply with all material Governmental Approvals, as and when required by it, in connection with the System in accordance with the Project Agreement or the entering into of any Finance Document, any Transaction Document or any Project Document to which the Borrower is a party, and such failure could reasonably be expected to have a Material Adverse Effect; unless such failure is remedied within ninety (90) days after TxDOT gives notice thereof to the Borrower, or such longer period as TxDOT may allow. For the avoidance of doubt, Governmental Approvals as used in this subsection (h) shall not include the Governmental Approvals set forth in Schedule 3.01(f) hereto or any other Governmental Approvals that are TxDOT's obligation hereunder or pursuant to the Project Agreement.

(i) The Trust Agreement ceases, except in accordance with its terms, to be effective to grant a perfected security interest on the collateral described therein (other than on an immaterial portion thereof).

(j) The Borrower fails to operate and maintain the System in accordance with the Project Agreement and such failure could reasonably be expected to have a Material Adverse Effect; unless such failure is remedied within ninety (90) days after TxDOT gives notice thereof to the Borrower, *provided, however*, that if said default is such that it cannot by its nature with due diligence be cured within the said 90-day period but can be cured, it shall not constitute an Event of Default if curative action is

commenced by the Borrower within said 90-day period and diligently pursued until the default is cured.

(k) With respect to any Segment for which Substantial Completion has not occurred as of the Effective Date, Substantial Completion for any of such Segments has not occurred by the date that is twelve months after the Estimated Date of Completion (taking into account force majeure) for such Segment.

(l) Any insurance (including through self-insurance) required under Section 5.05(f) hereof is not, or ceases to be maintained as required or such insurance is avoided or any insurer avoids, suspends or otherwise reduces its liability under any policy (if any) relating to any such insurance or any insurer of any insurance is not bound, or ceases to be bound, to meet its obligations in full under any such insurance, and any such event could reasonably be expected to have a Material Adverse Effect, unless (i) such insurance is (prior to its cessation) replaced by insurance on substantially similar terms (including self-insurance), and in form and substance and with insurers (if applicable) as recommended by the Insurance Consultant, or (ii) the risks covered by such insurance are uninsurable or such insurance is reasonably determined by the Insurance Consultant to be not commercially available in the insurance market at reasonable rates, and the Borrower has agreed to the means by which the risk should be managed as recommended by the Insurance Consultant (including through self-insurance).

(m) After the start of construction and prior to Substantial Completion of a Segment, the construction of that Segment is abandoned, which could reasonably be expected to have a Material Adverse Effect; *provided* that, for the purposes of this Section 6.01(m), abandonment of the construction of a Segment is deemed to have occurred if no significant construction (taking into account the construction schedule and permitted delay as a result of force majeure) is carried out without reasonable cause, for a continuous period of ninety (90) days.

(n) The operation or maintenance of the System or any material part thereof is suspended or abandoned; *provided* that, for the purposes of this Section 6.01(n), suspension or abandonment of the System is deemed to have occurred after the first Service Commencement Date for any Segment, if the Borrower fails, without reasonable cause, to operate the System (taking into account force majeure) for a continuous period of ninety (90) days.

(o) The occurrence of an “Event of Default” under and as defined in the Trust Agreement.

Section 6.02 Remedies upon an Event of Default.

Upon or after the occurrence of an Event of Default under Section 6.01 hereof, TxDOT may, without prior notice, unless otherwise specified in this Section 6.02, demand or presentment, and to the extent permitted by applicable law, do any or all of the following:

(a) have reasonable access to and inspect, examine and make copies of the books and records and any and all accounts, data and income and other records of the

Borrower relating to the Project or the System, including, without limitation, any such accounts, data and income and other records concerning the costs of operating and maintaining the Borrower's system which are allocated to the operation and maintenance of the Project or the System or payable from Revenues or other amounts held in the Trust Agreement Funds, during regular working hours of the Borrower if necessary in the opinion of TxDOT;

(b) by suit, action or proceeding in equity, enjoin any acts or things that are unlawful or the violation of any rights of TxDOT and the Trustee;

(c) seek an action in mandamus against the Borrower and/or seek the appointment of a receiver;

(d) exercise, or cause to be exercised, any and all such remedies as it may have under this Agreement, the other Finance Documents or any other document or at law or in equity.

Section 6.03 Waiver of Event of Default. Subject to Section 6.04 hereof, either party may at any time in its discretion waive any Event of Default by the other party hereunder and its consequences, and in case of any such waiver or in case any proceeding taken by the non-defaulting party on account of any such Event of Default shall have been discontinued or abandoned or determined adversely, then and in every such case the Borrower and TxDOT shall, subject to any determination in such proceeding, be restored to their former positions and rights hereunder respectively, but no such waiver shall extend to any subsequent or other Event of Default, or impair any right consequent thereon.

Section 6.04 Waivers; Consents. No waiver of, or consent with respect to, any provision of this Agreement or the other Finance Documents by TxDOT shall in any event be effective unless the same shall be in writing and signed by TxDOT, and then such waiver or consent shall be effective only in the specific instance and for the specific purpose for which it was given.

Section 6.05 No Waiver; Remedies Cumulative. No failure on the part of TxDOT to exercise, and no delay in exercising, any right hereunder or under the other Finance Documents shall operate as a waiver thereof; and no single or partial exercise by TxDOT of any right hereunder or under the other Finance Documents shall preclude any other or further exercise thereof or the exercise of any other right. To the extent permitted by applicable law, the remedies herein and in the other Finance Documents provided are cumulative and not exclusive of any remedies available under any other document or at law or in equity.

Section 6.06 No Set-Off. Neither party shall set off or apply any balances, credits, deposits (general or special, time or demand, provisional or final), accounts or moneys at any time held against indebtedness at any time owing by the other party.

ARTICLE VII.
COVENANTS AND EVENTS OF DEFAULT BY TXDOT

Section 7.01 Legal Opinions. On or before the Closing Date, TxDOT shall deliver to the Borrower a legal opinion from TxDOT's counsel in form and substance reasonably satisfactory to the initial purchaser(s) under the Bond Purchase Contract.

Section 7.02 Advance Funds. Upon the delivery of a Trustee Request, TxDOT shall, from money appropriated by the Texas State Legislature in a manner that would allow its use for this purpose, advance the funds specified in the Trustee Request within three Business Days of the delivery of such request; *provided, however*, that no such advance shall (i) exceed the Maximum Permitted Amount, (ii) cause the aggregate amount of the advances made for such Draw Period to exceed the Maximum Available Annual Amount, (iii) cause the aggregate amount of all advances to exceed the Maximum Available Aggregate Amount, or (iv) cause the aggregate amount of all advances to exceed the aggregate amount of Eligible Costs. TxDOT covenants that it will submit a request in accordance with applicable law to obtain an appropriation from the Texas Legislature to fulfill its obligation to make advances under the Toll Equity Loan Commitment as provided in this Agreement, but not to exceed the Maximum Available Annual Amount for the Draw Periods included in the legislative request.

Section 7.03 Continuing Disclosure. Prior to or concurrently with the issuance of the Project Debt and any Refunding Bonds, TxDOT shall execute a continuing disclosure undertaking in a form reasonably acceptable to TxDOT, the Borrower and the purchasers of such debt in order to enable the Borrower to comply with its continuing disclosure undertaking relating to such debt as may be required under Rule 15c2-12 of the Securities Exchange Commission.

Section 7.04 Builders' Liens. TxDOT shall use commercially reasonable efforts to cause all contractors to comply with all applicable builders' lien legislation and to pay or cause to be paid when due all claims and demands of contractors, subcontractors, laborers, suppliers of material, builders, workmen and others which, if unpaid, might result in the creation of a builders' lien, prior claim, legal pledge or analogous claim against the Project or any part thereof or on the revenue, income or profits arising therefrom, unless there is a bona fide dispute and adequate security has been posted.

Section 7.05 Remedies Upon An Event of Default by TxDOT. Upon TxDOT's failure (i) to honor a request by the Trustee for an advance under the Toll Equity Loan Commitment which complies with all the requirements of this Agreement if funds have been appropriated to TxDOT by the Texas State Legislature in a manner that would allow its use for such purpose, (ii) to satisfy its obligations under the continuing disclosure undertaking described in Section 7.03 hereof, or (iii) to observe and perform its covenant in Section 7.04 hereof (each of (i), (ii) and (iii) constituting an "Event of Default" with respect to TxDOT), Borrower may, without prior notice, demand or presentment, and to the extent permitted by applicable law, do any or all of the following:

- (a) by suit, action or proceeding in equity, enjoin any acts or things which are unlawful or the violation of any rights of Borrower and the Trustee; and

- (b) seek an action in mandamus against TxDOT.

Section 7.06 Failure to Fund Advances Due to Non-Appropriation.

(a) Failure to honor a request by the Trustee for an advance under the Toll Equity Loan Commitment due solely to the fact that funds have not been appropriated to TxDOT by the Texas State Legislature in a manner that would allow its use for such purpose shall not constitute an Event of Default with respect to TxDOT under this Agreement.

(b) In the event that TxDOT has failed to honor a request by the Trustee for an advance under the Toll Equity Loan Commitment due solely to the fact that funds had not been appropriated to TxDOT by the Texas State Legislature in a manner that would allow its use for such purpose, TxDOT shall have no obligation to fund such request on any date subsequent to such failure.

Section 7.07 Obligations Not a Debt of TxDOT. The obligations of TxDOT under this Agreement do not create a debt of TxDOT, the Commission, the State of Texas, or any other agency or political subdivision of the State of Texas under any provision of the Texas State Constitution.

**ARTICLE VIII.
MISCELLANEOUS**

Section 8.01 Notices. All notices and other communications provided for hereunder shall be in writing and sent by United States certified or registered mail, return receipt requested, private delivery service, or by email or facsimile (provided that the sender receives confirmation of receipt of the email or facsimile by email or facsimile or confirms the email or facsimile by sending an original copy by certified or registered mail or private delivery service within two (2) Business Days after transmission) addressed as follows:

If to the Borrower: Grand Parkway Transportation Corporation
 125 E. 11th Street
 Austin, Texas 78701
 Attn: President
 Email: james.bass@txdot.gov

With a copy to: Grand Parkway Transportation Corporation
 c/o Texas Department of Transportation
 125 E. 11th Street
 Austin, Texas 78701
 Attn: Director of Strategic Projects Division
 Email: ed.pensock@txdot.gov

If to the Trustee: As provided in the Trust Agreement

If to TxDOT: Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483
Attn: Chief Planning and Projects Officer
Email: russell.zapalac@txdot.gov

With a copy to: Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483
Attention: Innovative Finance and Debt Management Officer
Email: benjamin.asher@txdot.gov

Texas Department of Transportation
125 E. 11th Street
Austin, Texas 78701-2483
Attn: General Counsel
Email: rebecca.bronson@txdot.gov

The Borrower, the Trustee or TxDOT may change the address to which notices to it are to be sent by notice given to the other persons listed in this Section 8.01.

All notices shall, when mailed or given by private delivery service, be effective on the date indicated on the return or delivery receipt, respectively, and all notices given by email or facsimile shall be effective when received if confirmation of receipt, by email or facsimile, is received by the sender the same business day. If confirmation of receipt of email or facsimile notices is not received the same business day, the notices shall be effective when confirmation is received, or on the date indicated on the return or delivery receipt if the facsimile or email notices have been confirmed by mailing or private delivery service, whichever is earlier. Whenever in this Agreement the giving of notice is required, the giving of such notice may be waived in writing by the Person entitled to receive such notice and in any such case the giving or receipt of such notice shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

Section 8.02 Binding Effect; Successors and Assigns. This Agreement shall become effective when it shall have been executed by the Borrower and TxDOT and thereafter shall be binding upon and inure to the benefit of the Borrower and TxDOT and their respective successors and assigns. The Borrower shall not have the right to assign its rights hereunder or any interest herein other than to the Trustee, without the prior written consent of TxDOT. TxDOT shall not have the right to assign its rights or obligations hereunder or any interest herein without the prior written consent of the Borrower and confirmation from each rating agency then rating the TELA Project Debt that any such assignment will not negatively affect the then current ratings on the TELA Project Debt.

Section 8.03 Survival of Representations, Warranties and Covenants. All representations, warranties and covenants made by the Borrower herein and in any document delivered pursuant hereto shall survive the delivery of this Agreement and any advances under the Toll Equity Loan Commitment.

Section 8.04 Counterparts. The execution and delivery hereof by the parties hereto shall constitute a contract between them for the uses and purposes herein set forth, and this Agreement may be executed in any number of counterparts, with each executed counterpart constituting an original and all counterparts together constituting one agreement.

Section 8.05 Costs and Expenses.

(a) The Borrower agrees to pay on demand all reasonable, documented out-of-pocket costs and expenses of TxDOT in connection with the enforcement of this Agreement, the other Finance Documents and such other documents; and

(b) Subject to Section 8.11 hereof, all sums due hereunder shall be an obligation of the Borrower, due and payable immediately without demand.

Section 8.06 Amendments.

(a) Subject to TxDOT's rights under Section 2.11 of this Agreement, no amendment to or waiver of any provision of this Agreement, nor consent to any departure by the Borrower therefrom, shall be effective unless the same shall be in writing and signed and delivered by TxDOT and the Borrower, with the prior written consent of the Trustee pursuant to the Trust Agreement.

(b) No amendment to or waiver of any defined term in any other Transaction Document which is incorporated by reference herein shall be effective in the context of this Agreement unless the same shall have been consented to in advance by TxDOT and the Trustee pursuant to the Trust Agreement.

(c) It is understood and agreed by the Parties hereto that any consent, amendment or change to this Agreement (including without limitation any change or amendment to the Maximum Available Annual Amount, the Maximum Permitted Amount or the Project Budget for purposes of increasing the Maximum Available Aggregate Amount hereunder) to be executed and delivered by TxDOT shall be subject to prior approval thereof by the Commission; *provided, however*, that any such change or amendment that merely clarifies or corrects a scrivener's error or other similar defect herein may be executed and delivered by an authorized representative of TxDOT without Commission approval.

Section 8.07 No Waiver. No failure on the part of TxDOT to exercise, and no delay in exercising, any right or power hereunder shall operate as a waiver thereof; nor shall any single or partial exercise of any right or power hereunder preclude any other or further exercise thereof or the exercise of any other right or power. The rights and remedies of TxDOT hereunder are cumulative and are not exclusive of any rights or remedies that they would otherwise have. No waiver of any provision of this Agreement or consent to any departure by the Borrower therefrom shall in any event be effective unless the same shall have been provided in accordance with Section 8.06 hereof, and then such waiver or consent shall be effective only in the specific instance and for the purpose for which given.

Section 8.08 Severability; Interest Limitation. If any provision hereof is found by a court of competent jurisdiction to be prohibited or unenforceable in any jurisdiction, it shall be ineffective as to such jurisdiction only to the extent of such prohibition or unenforceability, and such prohibition or unenforceability shall not invalidate the balance of such provision as to such jurisdiction to the extent it is not prohibited or unenforceable, nor invalidate such provision in any other jurisdiction, nor invalidate the other provisions hereof, all of which shall be liberally construed in order to effect the provisions of this Agreement. Notwithstanding anything to the contrary herein contained, the total liability of the Borrower for payment of interest pursuant hereto shall not exceed the maximum amount, if any, of such interest permitted by applicable law to be contracted for, charged or received, and if any payments by the Borrower to TxDOT include interest in excess of such a maximum amount, TxDOT shall apply such excess to the reduction of the unpaid principal amount or other sums due from the Borrower pursuant hereto, or if none is due, such excess shall be refunded to the Borrower; *provided* that, to the extent permitted by applicable law, in the event the interest is not collected, is applied to principal or is refunded pursuant to this sentence and interest thereafter payable pursuant hereto shall be less than such maximum amount, then such interest thereafter so payable shall be increased up to such maximum amount to the extent necessary to recover the amount of interest, if any, theretofore uncollected, applied to principal or refunded pursuant to this sentence. Any such application or refund shall not cure or waive any Event of Default. In determining whether or not any interest payable under this Agreement exceeds the highest rate permitted by law, any non-principal payment (except payments specifically stated in this Agreement to be “interest”) shall be deemed, to the extent permitted by applicable law, to be an expense, fee, premium or penalty rather than interest.

Section 8.09 Conflicts. Subject to the first paragraph of Section 1.01 hereof, insofar as possible the provisions of this Agreement shall be deemed complementary to the terms of the Trust Agreement, but in the event of conflict the terms hereof shall control to the extent such are enforceable under applicable law; *provided* that if such terms relate to the terms or amount of payment of principal of or interest on the System Debt or the pledge of Revenues or other security provided to the holders of the System Debt, the terms of the Trust Agreement shall control.

Section 8.10 Governing Law; Jurisdiction; Waivers. THIS AGREEMENT SHALL BE GOVERNED BY, AND CONSTRUED IN ACCORDANCE WITH, THE INTERNAL LAWS OF THE STATE OF TEXAS, WITHOUT REFERENCE TO CHOICE OF LAW DOCTRINE. WITH RESPECT TO ANY ACTION OR PROCEEDING ARISING OUT OF OR RELATING TO THIS AGREEMENT OR THE TRANSACTION CONTEMPLATED HEREBY OR THE PERFORMANCE OF ANY OF THE PARTIES HEREUNDER, THE BORROWER AND TXDOT HEREBY IRREVOCABLY (A) SUBMIT TO THE NON-EXCLUSIVE JURISDICTION OF ANY STATE OR FEDERAL COURT SITTING IN TEXAS; (B) AGREE THAT ALL CLAIMS WITH RESPECT TO SUCH ACTION OR PROCEEDING MAY BE HEARD AND DETERMINED IN SUCH TEXAS STATE OR FEDERAL COURT; (C) WAIVE THE DEFENSE OF ANY INCONVENIENT FORUM; (D) AGREE THAT A FINAL JUDGMENT IN ANY SUCH ACTION OR PROCEEDING SHALL BE CONCLUSIVE AND MAY BE ENFORCED IN ANOTHER JURISDICTION BY SUIT ON THE JUDGMENT OR IN ANY OTHER MANNER PROVIDED BY LAW; AND (E) CONSENT TO SERVICE OF PROCESS BY MAILING OR DELIVERING A COPY OF SUCH PROCESS TO THE

BORROWER OR TXDOT, AS APPLICABLE, AT ITS ADDRESS SET FORTH HEREIN AND AGREE THAT SUCH SERVICE SHALL BE EFFECTIVE WHEN SENT OR DELIVERED. THE BORROWER AND TXDOT EACH REPRESENTS AND WARRANTS THAT IT HAS CONSULTED WITH COUNSEL AND UNDERSTANDS THE RAMIFICATIONS OF THE FOREGOING.

Section 8.11 Limited Obligation; No Personal Liability. The obligations and liabilities of the Borrower under the Toll Equity Loan, the Toll Equity Loan Note and this Agreement shall be non-recourse to the Borrower. Subject to the provisions of the following sentence, in no event shall any officer, agent, employee, or director of the Borrower (a “Non-Recourse Party”) be personally liable or obligated for such liabilities and obligations of the Borrower or be subject to any personal liability or accountability by reason of the execution and delivery hereof. Nothing herein contained shall limit or be construed to (i) release any Non-Recourse Party from liability for its fraudulent actions, bad faith or misappropriation of funds or willful misconduct, (ii) limit or impair the exercise of remedies with respect to any collateral, or (iii) require TxDOT to indemnify the Non-Recourse Parties for liabilities or claims that may be independently asserted by third parties against them.

Section 8.12 Offering Documents for Additional Debt. The Borrower and TxDOT agree to work cooperatively in the preparation and distribution of any Future Offering Document which shall be in a form reasonably satisfactory to TxDOT. The Borrower and TxDOT shall be deemed to make, as of the date of the issuance of any Refunding Bonds, the same representations and warranties with respect to any such Future Offering Document as the parties have made hereunder with respect to the Official Statement.

Section 8.13 Benefit. This Agreement is entered into for the benefit of TxDOT, the Borrower, and, pursuant to the Trust Agreement, the Owners of any TELA Project Debt and the Trustee and their respective successors and permitted assigns. TxDOT and the Corporation expressly acknowledge that the Owners of TELA Project Debt and the Trustee, on behalf of such Owners of TELA Project Debt, are intended third party beneficiaries of this Agreement and that the Owners of TELA Project Debt and the Trustee may enforce this Agreement pursuant to the terms of the Trust Agreement. Nothing in this Agreement or in any approval subsequently provided by either party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other persons, firm, corporation or other entity, including, without limitation, the public in general.

(Remainder of page intentionally left blank)

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed and delivered by their respective officers thereunto duly authorized as of the date first above written.

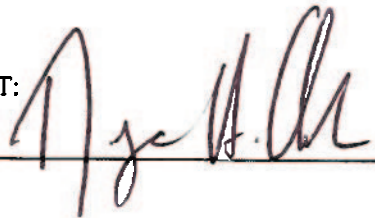
**GRAND PARKWAY TRANSPORTATION
CORPORATION**

By: 
James Bass
President

**TEXAS DEPARTMENT OF
TRANSPORTATION**

By: 
Phil Wilson
Executive Director

ATTEST:



SCHEDULE 1
TO TOLL EQUITY LOAN AGREEMENT

PROJECT DOCUMENTS

- The Project Agreement;
- The Design-Build Contract;
- The Capital Maintenance Agreement;
- Design-bid-build agreements related to Segments D and E as follows:
 - The Proposed Terms and Conditions related to CSJ No. 3510-05-017 for Segment D with Lone Star Road Construction, LTD.;
 - The Proposed Terms and Conditions related to CSJ No. 3510-05-018 for Segment D with William Brothers;
 - The Proposed Terms and Conditions related to CSJ No. 3510-05-019 for Segment E with W.W. Webber
 - The Proposed Terms and Conditions related to CSJ No. 3510-05-022 for Segment E with Hassall Constructing; and
 - The Proposed Terms and Conditions related to CSJ No. 3510-05-023 for Segment E with JP Abrams;

SCHEDULE 2
TO TOLL EQUITY LOAN AGREEMENT
ADDITIONAL TRANSACTION DOCUMENTS

- The Toll Rate Agreement (as defined in the Trust Agreement)

SCHEDULE 3.01(f) TO TOLL EQUITY LOAN AGREEMENT

CERTAIN GOVERNMENTAL APPROVALS

Environmental Approvals

State Environmental Assessment (EA) Re-evaluation FONSI

- Segment D (September 2008)

FHWA – Categorical Exclusion (CE) Concurrence

- Segment D/E Interchange (November 2009)

FHWA – Environmental Impact Statement (EIS) Record of Decision (ROD)

- Segment E (June 2008/June 2009)
- Segment F-1 (November 2008/June 2009)
- Segment F-2 (December 2009)
- Segment G (December 2010)

FHWA – EIS Re-evaluation

- Segment E (June 2009)
- Segment F-1 (May 2012)
- Segment F-2 (May 2012)
- Segment G (May 2012)

USACE Section 404 Individual Permit (IP)

- Segment E (June 2011)
- Segment F-1 (April 2013)
- Segment F-2 (May 2013)
- Segment G (June 2013)

APPENDIX A

FORM OF TOLL EQUITY LOAN NOTE

THIS NOTE MAY NOT BE ASSIGNED OR TRANSFERRED

**UNITED STATES OF AMERICA
STATE OF TEXAS
GRAND PARKWAY TRANSPORTATION CORPORATION
GRAND PARKWAY SYSTEM TELA/OTHER TIER REVENUE NOTE
SERIES 2013
(TOLL EQUITY LOAN AGREEMENT)**

MAXIMUM PRINCIPAL <u>AMOUNT</u>	INTEREST <u>RATE</u>	MATURITY <u>DATE</u>	ISSUANCE <u>DATE</u>
\$9,600,000,000	As Described Below	As Described Below	August 1, 2013

On the maturity date specified below, the Grand Parkway Transportation Corporation (the "Corporation"), a public nonprofit corporation of the State of Texas, hereby promises to pay to the Texas Department of Transportation ("TxDOT") the lesser of (a) principal amount specified above (the "Maximum Principal Amount") and (b) the aggregate unpaid principal amount of any advances made by TxDOT (the "Outstanding Principal Sum") pursuant to the Toll Equity Loan Agreement dated as of July 17, 2013 (as amended and supplemented, the "Toll Equity Loan Agreement") between the Corporation and TxDOT and to pay interest thereon, from the date of such advance, to the maturity date specified for such advance, or the date of prepayment of such advance. The final maturity date for each advance and any accrued and unpaid interest thereon shall be 40 years from the Issuance Date of this note.

Advances made by TxDOT to the Corporation in accordance with the Toll Equity Loan Agreement and each payment made on account of such advance shall be recorded by or on behalf of TxDOT and endorsed on separate grids in the form attached hereto as Appendix A, with a copy to the Corporation and the Trustee.

Advances made pursuant to the Toll Equity Loan Agreement evidenced by this note shall bear interest at a per annum rate of interest equal to the ten year "Aaa (pure)" rate provided by Municipal Market Data and published in The Bond Buyer under the caption "Municipal Market Data General Obligation Yields" plus 100 basis points, provided, however, that if the ten year "Aaa (pure)" rate is no longer provided by Municipal Market Data, the rate to be used in its place shall be that rate which most closely replicates such rate, as agreed to by the Corporation and TxDOT; provided further however, that the rate of interest shall never exceed the Maximum Rate (as defined in the Toll Equity Loan Agreement). Such rate shall be established using the rate most recently published prior to the time of each advance. Interest on this note shall be calculated on the basis of a 365 or 366-day year, as applicable.

All accrued and unpaid interest shall be payable on the first Business Day of each calendar month, but only to the extent that funds are available for such purpose within the TELA/Other Tier Payment Fund established pursuant to the Master Trust Agreement between the Corporation and the designated trustee bank (the "Trustee") (the "Master Trust Agreement").

Interest payments made by the Corporation on account of each advance shall be recorded by or on behalf of TxDOT and endorsed on separate grids in the form attached hereto as Appendix B with a copy to the Corporation and the Trustee.

Accrued but unpaid interest for each advance shall be compounded semiannually on April 1 and October 1 of each year commencing on the first such date after the date of each advance, and such compounded amounts shall bear interest at the same rate applicable to such advance. The amount of compounded interest shall be endorsed on the grids for each such advance.

It is specifically provided, that the above principal and interest are payable solely from the sources and in the manner provided in the Master Trust Agreement, as supplemented. As so supplemented, the Master Trust Agreement is referred to herein as the "Trust Agreement."

This note is issued under and pursuant to a Resolution duly adopted by the Board of Directors of the Corporation (the "Bond Resolution") and pursuant to the Trust Agreement, executed counterparts of which Bond Resolution and Trust Agreement are on file at the designated payment office of the Trustee. Reference is hereby made to the Bond Resolution and the Trust Agreement for provisions thereof relating to this note, including the custody and application of the proceeds of Obligations issued under the Trust Agreement, the collection and disposition of revenues, the funds and accounts charged with and pledged to the payment of the interest on and the principal of this note, the nature and extent of the security, the terms and conditions on which this note is issued, the rights, duties, and obligations of the Corporation, and the Trustee, and the rights of TxDOT, and, by the acceptance of this note, the owner hereof assents to all of the provisions of the Trust Agreement.

The principal of and interest on this note are payable in lawful money of the United States of America, without exchange or collection charges. The payment of principal of and interest on this note shall be made by the Trustee to TxDOT on each payment date by, if requested by TxDOT, wire transfer to an account designated by TxDOT in the United States of America in an institution which has the wire services facilities of the Federal Reserve Bank, or, if not so requested, by check, dated as of such payment date, drawn by the Trustee on, in each case payable solely from, funds of the Corporation on deposit in the TELA/Other Tier Payment Fund created and maintained under the Trust Agreement with the Trustee for such purpose as hereinafter provided. If payment is made by check, such check shall be sent by the Trustee by United States mail, first-class postage prepaid, on each such payment date, to TxDOT.

All advances made that are evidenced by this note are subject to mandatory repayment prior to maturity on the first Business Day of each calendar month, but solely from and to the extent of funds available therefor held in the TELA/Other Tier Payment Fund created and maintained pursuant to the Trust Agreement. This note is subject to optional prepayment, in

whole or in part, by the Corporation on any Business Day at a price of par plus accrued interest to the date of prepayment, upon at least two Business Days' notice to TxDOT specifying the date and amount of repayment. If any such notice is given, the amount specified in such notice shall be due and payable on the date specified therein, unless such notice is revoked by the Corporation on or prior to the prepayment date specified therein.

It is hereby certified, recited, and covenanted that this note has been duly and validly authorized, issued, and delivered; that all acts, conditions, and things required or proper to be performed, exist, and be done precedent to or in the authorization, issuance, and delivery of this note have been performed, existed, and been done in accordance with law; and that this note, is a special TELA/Other Tier Debt Obligation of the Corporation, payable solely from the sources and in the priority as is provided in the Trust Agreement.

TxDOT shall have no right to enforce the provisions of the Bond Resolution or the Trust Agreement or to institute action or enforce the covenants therein, or to take any action with respect to any Event of Default under the Trust Agreement, or to institute, appear in, or defend any suit or other proceeding with respect thereto, except as provided in the Trust Agreement and the Toll Equity Loan Agreement.

Modifications or alterations of the Trust Agreement or of any Supplemental Agreement may be made by the Corporation and the Trustee only to the extent and in the circumstances permitted by the Trust Agreement.

This note is a special limited obligation of the Corporation, payable from and secured by a lien on and pledge of the Trust Estate granted in the Trust Agreement, on a basis subordinate to that securing all First Tier Obligations, Second Tier Obligations and Subordinate Tier Obligations issued under the Trust Agreement, and on an equal and ratable basis with any TELA/Other Tier Obligations issued in accordance with the provisions of the Trust Agreement.

THIS NOTE AND THE INTEREST HEREON ARE SPECIAL OBLIGATIONS OF THE CORPORATION, DO NOT CONSTITUTE A DEBT OF THE STATE OF TEXAS, THE COMMISSION OR TXDOT OR A PLEDGE OF THE FAITH AND CREDIT OF THE STATE OF TEXAS, THE COMMISSION OR TXDOT. NONE OF THE STATE OF TEXAS, THE COMMISSION OR TXDOT IS OBLIGATED TO PAY THIS NOTE OR THE INTEREST ON THIS NOTE. THE CORPORATION IS NOT OBLIGATED TO PAY THIS NOTE OR INTEREST ON THIS NOTE FROM A SOURCE OTHER THAN THE AMOUNT PLEDGED TO PAY THE NOTE AND INTEREST ON THIS NOTE, AND NEITHER THE FAITH AND CREDIT NOR THE TAXING POWER OF THE STATE OF TEXAS, THE COMMISSION OR TXDOT ARE PLEDGED TO THE PAYMENT OF THE PRINCIPAL OF OR THE INTEREST ON THIS NOTE. THIS NOTE IS PAYABLE ONLY FROM THE SOURCES AS PROVIDED IN THE TRUST AGREEMENT.

TxDOT acknowledges all of the terms and provisions of the Bond Resolution and the Trust Agreement, agrees to be bound by such terms and provisions, acknowledges that the Bond Resolution and the Trust Agreement are duly recorded and available for inspection in the official minutes and records of the Board, and on file with the Trustee, and agrees that the terms and

provisions of this note, the Bond Resolution, and the Trust Agreement constitute a contract between TxDOT, the Corporation, and the Trustee.

Pursuant to the requirements set forth in the Toll Equity Loan Agreement and as permitted by law, TxDOT shall have the right, in its sole discretion, to cancel this note by providing written notice thereof to the Borrower and the Trustee, which notice shall set forth the date for such cancellation.

Terms used in this note and not otherwise defined herein have the meanings given them in the Trust Agreement.

In witness whereof, the Corporation has caused this note to be signed with the manual or facsimile signature of the President of the Corporation and countersigned with the manual or facsimile signature of the Secretary of the Corporation and has caused the official seal of the Corporation to be duly impressed or placed in facsimile on this note.

Secretary/Treasurer
Grand Parkway Transportation Corporation

President
Grand Parkway Transportation Corporation

(GPTC SEAL)

FORM OF TRUSTEE'S AUTHENTICATION CERTIFICATE
TRUSTEE'S AUTHENTICATION CERTIFICATE

It is hereby certified that this note has been issued under the provisions of the Bond Resolution and the Trust Agreement described in this note.

U.S. Bank National Association,
Trustee

Dated:

By: _____
Authorized Representative

Appendix A

DISBURSEMENTS AND PAYMENTS OF PRINCIPAL¹
ADVANCE NO. _____

[illegible]

¹ This grid may be extended if the number of payments so requires. Each advance shall be recorded in a separate grid.

Appendix B

INTEREST PAYMENTS¹
ADVANCE NO.

[illegible]

[END OF FORM OF NOTE]

¹ Interest on each advance shall be recorded in a separate grid.

APPENDIX B

SCHEDULE OF MAXIMUM AVAILABLE ANNUAL AMOUNTS

Fiscal Year End (Aug 31)	Toll Equity Loan Maximum Available Annual Amount
2014	\$ 3,109,364.00
2015	324,730,396.00
2016	304,271,960.00
2017	312,140,230.00
2018	299,664,369.00
2019	106,939,416.00
2020	109,926,522.00
2021	112,950,408.00
2022	115,868,115.00
2023	119,156,975.00
2024	136,490,080.00
2025	154,010,218.00
2026	157,441,779.00
2027	160,018,612.00
2028	163,077,072.00
2029	166,406,673.00
2030	171,619,154.00
2031	179,770,636.00
2032	187,955,530.00
2033	196,479,005.00
2034	205,437,189.00
2035	214,970,210.00
2036	224,884,633.00
2037	234,107,079.00
2038	242,891,206.00
2039	250,773,161.00
2040	257,795,956.00
2041	263,097,169.00
2042	267,849,116.00
2043	240,436,456.00
2044	204,382,921.00
2045	283,151,892.00
2046	284,332,730.00
2047	284,597,151.00
2048	284,312,426.00
2049	283,656,256.00
2050	282,229,075.00
2051	474,622,201.00
2052	579,938,633.00
2053	572,444,172.00
2054	182,063,854.00
<u>Total</u>	\$ 9,600,000,000.00

APPENDIX C

CERTIFICATE OF BORROWER RE ADVANCES

The undersigned, a Corporation Representative as such term is defined in that certain Toll Equity Loan Agreement (the “Agreement”) dated as of July 17, 2013, by and between the Texas Department of Transportation (“TxDOT”) and the Grand Parkway Transportation Corporation (“Borrower”), hereby certifies on behalf of the Borrower with respect to the advance requested by the Trustee pursuant to Section 2.03 of the Agreement, as follows:

(a) The Trustee has no amounts or insufficient amounts on deposit that are available for payment of capitalized interest on the [_____] ¹ for the period for which an advance is hereby requested to the extent that any portion of the advance will be used to pay interest on such bonds.

(b) Borrower has accessed and depleted all funds held in the Revenue Fund, the applicable Debt Service Funds, the Junior Operation and Maintenance Fund, the Operation and Maintenance Reserve Fund, the Major Maintenance Fund, the Rate Stabilization Fund and the Grand Parkway Enhancement Fund for the purposes permitted therefor under the Trust Agreement and the Agreement.

(c) The requested advance under the Toll Equity Loan Commitment will not be used to pay (i) the redemption price of any TELA Project Debt due as a result of the Borrower’s election to optionally redeem such TELA Project Debt or (ii) the purchase price of any TELA Project Debt due as a result of any optional or mandatory tender of such TELA Project Debt.

(d) The requested advance under the Toll Equity Loan Commitment is no greater than the Maximum Permitted Amount.

(e) The requested advance under the Toll Equity Loan Commitment when added to other amounts advanced under the Toll Equity Loan Commitment during the current Draw Period will not exceed the Maximum Available Annual Amount for such Draw Period.

(f) The requested advance, when added to the amount of all prior advances under the Toll Equity Loan Commitment will not exceed the aggregate amount of Eligible Costs.

(g) Documentation required by Section 2.03 of the Agreement is attached hereto if the requested advance, when added to the amount of all prior advances under the Toll Equity Loan Commitment, exceeds the aggregate of amounts expended or incurred by the Borrower for Major Maintenance Expenses and Operating Expenses, and for Project Costs (and therefore relates to amounts anticipated to be expended).

[¹ Insert the name of the applicable series of bonds, as applicable.]

(h) The aggregate amount of Major Maintenance Expenses and Operating Expenses expended or incurred, and Project Costs expended or incurred, by the Borrower as of the date of the requested advance under the Toll Equity Loan Commitment is \$_____.

Capitalized terms used herein and not otherwise defined herein shall have the meanings assigned to such terms in the Agreement.

Dated: _____, ____.

GRAND PARKWAY TRANSPORTATION
CORPORATION

By: _____

Its: _____

APPENDIX D

PROJECT BUDGET

Project Budget Summary (in inflated \$)	
Total Construction	\$ 2,449,360,080.55
O&M and Tolling	5,693,686,830.77
Major Maintenance and Rehabilitation	2,269,593,859.60
Total Project Budget	\$10,412,640,770.92

Construction Budget (inflated \$)	
Cost	Total Inflated Costs
ZO Developer Costs	\$ 1,043,553,000.00
GEC Management & Oversight	39,752,416.98
Construction Management	45,431,333.70
Material Testing	8,518,375.07
Contingencies	100,000,000.00
ROW	366,250,050.06
Toll Integrator Costs₁	23,306,446.13
Pre-Development Costs₂	300,000,000.00
Segment D&E Costs₂	354,600,000.00
HCTRA Reimbursement₂	77,000,000.00
TxDOT Reimbursement₂	90,948,458.62
Total Cost including Reimbursements	\$ 2,449,360,080.55

Toll Operations and Maintenance and Routine Maintenance Budget			
FY Year	Toll Operations and Toll Maintenance	Routine Maintenance Costs	Total
2014	\$ 1,312,971.40	\$ 1,796,392.71	\$ 3,109,364.11
2015	3,079,454.64	2,467,045.99	5,546,500.63
2016	8,354,853.41	6,120,259.10	14,475,112.51
2017	14,710,226.21	7,532,726.14	22,242,952.35
2018	18,214,258.65	7,758,707.92	25,972,966.58
2019	21,725,847.46	7,991,469.16	29,717,316.63
2020	24,469,532.73	8,231,213.24	32,700,745.96
2021	27,242,760.62	8,478,149.63	35,720,910.25
2022	29,902,532.24	8,732,494.12	38,635,026.37
2023	32,925,369.33	8,994,468.95	41,919,838.28
2024	36,088,530.38	9,264,303.01	45,352,833.40
2025	39,430,400.32	9,542,232.11	48,972,632.42
2026	42,571,469.89	9,828,499.07	52,399,968.96
2027	44,850,277.07	10,123,354.04	54,973,631.11
2028	47,601,271.59	10,427,054.66	58,028,326.25
2029	50,613,963.71	10,739,866.30	61,353,830.01
2030	53,459,560.46	11,062,062.29	64,521,622.75
2031	56,514,519.49	11,393,924.16	67,908,443.65
2032	59,864,465.28	11,735,741.88	71,600,207.17
2033	63,284,282.13	12,087,814.14	75,372,096.27
2034	67,087,561.07	12,450,448.56	79,538,009.64
2035	71,199,214.20	12,823,962.02	84,023,176.22
2036	75,538,432.84	13,208,680.88	88,747,113.72
2037	79,261,983.72	13,604,941.31	92,866,925.03
2038	83,518,302.11	14,013,089.55	97,531,391.65
2039	87,820,969.15	14,433,482.23	102,254,451.39
2040	92,286,542.21	14,866,486.70	107,153,028.92
2041	95,961,085.72	15,312,481.30	111,273,567.03
2042	100,256,925.87	15,771,855.74	116,028,781.61
2043	104,897,454.47	16,245,011.41	121,142,465.88
2044	109,853,240.92	16,732,361.76	126,585,602.67
2045	114,460,818.38	17,234,332.61	131,695,150.99
2046	119,089,338.16	17,751,362.59	136,840,700.75
2047	123,645,992.77	18,283,903.47	141,929,896.24
2048	128,520,906.93	18,832,420.57	147,353,327.50
2049	133,707,836.95	19,397,393.19	153,105,230.13
2050	138,964,128.92	19,979,314.98	158,943,443.90
2051	143,972,618.44	20,578,694.43	164,551,312.87
2052	149,013,968.13	21,196,055.26	170,210,023.39
2053	153,650,055.36	21,831,936.92	175,481,992.28
2054	159,352,877.29	22,486,895.03	181,839,772.32
2055	164,558,184.42	23,161,501.88	187,719,686.31
2056	170,006,492.38	23,856,346.94	193,862,839.32
2057	174,741,340.95	24,572,037.35	199,313,378.29
2058	179,800,041.80	25,309,198.47	205,109,240.26
2059	185,040,848.52	26,068,474.42	211,109,322.94
2060	190,928,129.96	26,850,528.65	217,778,658.61
2061	196,597,633.00	27,656,044.51	224,253,677.51
2062	203,016,446.42	28,485,725.85	231,502,172.26
2063	209,053,436.13	29,340,297.62	238,393,733.75
2064	214,803,925.20	30,220,506.55	245,024,431.75
Total	\$ 4,896,823,279.37	\$ 796,863,551.39	\$ 5,693,686,830.77

FY Year	Major Maintenance & Rehabilitation Budget
2014	\$ 196,676.91
2015	579,903.80
2016	663,823.01
2017	5,297,664.86
2018	2,275,734.15
2019	9,226,533.37
2020	908,217.94
2021	6,257,731.83
2022	2,611,457.28
2023	13,234,405.92
2024	4,713,544.16
2025	6,976,012.96
2026	8,276,600.35
2027	12,149,582.53
2028	5,115,798.43
2029	8,311,306.98
2030	4,731,763.32
2031	17,643,235.54
2032	3,559,157.63
2033	3,136,291.02
2034	78,997,773.36
2035	8,206,069.31
2036	142,086,603.98
2037	3,684,452.80
2038	11,624,445.44
2039	3,889,225.44
2040	21,754,443.18
2041	93,774,222.18
2042	5,196,248.62
2043	166,247,051.54
2044	6,138,087.70
2045	17,300,817.55
2046	68,074,565.43
2047	30,367,869.29
2048	116,350,165.88
2049	9,634,239.71
2050	208,530,067.25
2051	9,858,256.08
2052	14,983,862.76
2053	6,133,193.69
2054	45,143,658.57
2055	151,298,506.16
2056	31,130,981.45
2057	269,103,191.70
2058	3,356,783.79
2059	28,518,407.84
2060	3,595,870.71
2061	49,762,712.08
2062	187,987,025.03
2063	15,365,987.24
2064	345,633,631.83
Total	\$ 2,269,593,859.60

APPENDIX E

FORM OF CERTIFICATE OF BORROWER **RE SATISFACTION OF SECTION 3.02 CONDITIONS**

The undersigned, a Corporation Representative, as such term is defined in that certain Toll Equity Loan Agreement (the "Agreement") dated as of July 17, 2013, by and between the Texas Department of Transportation and the Grand Parkway Transportation Corporation (the "Borrower"), hereby certifies for and on behalf of the Borrower that (i) the conditions set forth in Section 3.02(a) of the Agreement have been satisfied or waived, (ii) there has been no default or event of default described in Section 3.02(c) of the Agreement such that the condition precedent in such Section is not satisfied, (iii) the representations and warranties given by the Borrower in the Agreement are true and correct in all materials respects on and as of the dates specified in Section 3.02(b) of the Agreement, and (iv) no event, development or circumstance as to the Borrower described in Section 3.02(d) of the Agreement has occurred or become known to the Borrower.

Dated: _____, 20__

GRAND PARKWAY TRANSPORTATION
CORPORATION

By: _____

Its: _____

APPENDIX E

THE DEVELOPMENT AGREEMENT

(excluding all schedules and appendices thereto)

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DEVELOPMENT AGREEMENT
GRAND PARKWAY PROJECT



Between

Texas Department of Transportation

and

Zachry-Odebrecht Parkway Builders

Dated as of: March 22, 2013

DEVELOPMENT AGREEMENT

Grand Parkway Project

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EXHIBIT 20	Disputes Board Agreement
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DEVELOPMENT AGREEMENT

Grand Parkway Project

This Development Agreement ("Agreement") is entered into by and between the Texas Department of Transportation, a public agency of the State of Texas ("TxDOT"), and Zachry-Odebrecht Parkway Builders, a Texas joint venture comprised of Zachry Construction Corporation and Odebrecht Construction, Inc. ("Developer"), effective as of March 22, 2013.

RECITALS

A. The State of Texas desires to facilitate private sector investment and participation in the development of the State's transportation system via Development agreements, and the Texas Legislature has enacted Transportation Code, Chapter 223, Subchapter E (the "Code"), and TxDOT has adopted Sections 27.1-27.9 of Title 43, Texas Administrative Code (the "Rules"), to accomplish that purpose.

B. TxDOT wishes to enter into an agreement with a private sector developer to develop, design and construct improvements along SH 99 Segments F-1, F-2 and G in Harris and Montgomery Counties (the "Project"). In addition, TxDOT wishes to enter into an agreement with the private sector developer to, at TxDOT's sole option, maintain the Project for specified optional terms.

C. Pursuant to the Code and the Rules, TxDOT issued a Request for Qualifications (as amended, the "RFQ") on November 18, 2011.

D. TxDOT received seven qualification statements on February 1, 2012 and subsequently shortlisted five proposers.

E. On May 3, 2012, TxDOT issued to the shortlisted proposers a Request for Proposals (as subsequently amended by addenda, the "RFP") to develop, design, construct and, at TxDOT's sole option, maintain the Project.

F. On August 15, 2012 and August 22, 2012, TxDOT received four responses to the RFP, including the response of Developer (the "Proposal").

G. An RFP evaluation committee comprised of TxDOT personnel determined that Developer was the proposer which best met the selection criteria contained in the RFP and that the Proposal was the one which provided the best value to the State of Texas.

H. On September 27, 2012, the Texas Transportation Commission accepted the recommendation of the Executive Director and the RFP evaluation committee and authorized TxDOT staff to negotiate this Agreement.

I. Concurrently with the execution of this Agreement, TxDOT and Developer are entering into a Capital Maintenance Agreement for Developer to provide, at TxDOT's sole option, capital maintenance for the Project.

J. This Agreement, the Capital Maintenance Agreement and the other Contract Documents collectively constitute a comprehensive development agreement, as contemplated under the Code and the Rules, and are entered into in accordance with the provisions of the RFP.

K. The Executive Director of TxDOT has been authorized to enter into this Agreement pursuant to the Code, the Rules and the Texas Transportation Commission Minute Order 113278.

L. The Parties intend for this Agreement to be a lump sum design-build agreement obligating Developer to perform all work necessary to obtain completion of the Project by the deadlines specified herein for the Price, subject only to certain specified limited exceptions. In order to allow TxDOT to budget for and finance the Project and to reduce the risk of cost overruns, this Agreement includes restrictions affecting Developer's ability to make claims for increases to the Price or extensions of the Completion Deadlines. Developer has agreed in this Agreement to assume such responsibilities and risks and has reflected the assumption of such responsibilities and risks in the Price.

M. If Developer fails to complete the Project in accordance with the Completion Deadlines set forth in the Contract Documents, then TxDOT and the members of the public represented by TxDOT will suffer substantial losses and damages. The Contract Documents provide that Developer shall pay TxDOT substantial Liquidated Damages if such completion is delayed.

N. The Reference Information Documents include a basic preliminary design for the Project (the "Schematic Design"). The Developer may use the Schematic Design as the basis for the design to be furnished by Developer, subject to the terms, conditions and limitations of the Contract Documents. Developer will assume full responsibility and liability with respect to design of the Project.

O. It is anticipated that the comprehensive development agreement will, shortly after the Effective Date and to facilitate the financing for the Project, be assigned by TxDOT to the Grand Parkway Surface Transportation Corporation ("Corporation"), a public transportation corporation created under the Texas Transportation Corporation Act at Transportation Code, Chapter 431.

NOW, THEREFORE, in consideration of the sums to be paid to Developer by TxDOT, the Work to be performed by Developer, the foregoing premises and the covenants and agreements set forth herein, the Parties hereby agree as follows:

SECTION 1. DEFINITIONS; CONTRACT DOCUMENTS; INTERPRETATION OF CONTRACT DOCUMENTS

1.1 Definitions

Exhibit 1 hereto contains the meaning of various terms used in the Contract Documents.

1.2 Contract Documents; Order of Precedence

The term "Contract Documents" shall mean the documents listed in this Section 1.2. Each of the Contract Documents is an essential part of the agreement between the Parties, and a requirement occurring in one is as binding as though occurring in all. The Contract Documents are intended to be complementary and to describe and provide for a complete agreement.

1.2.1 Subject to Sections 1.2.2 through 1.2.5, in the event of any conflict among the Contract Documents, the order of precedence shall be as set forth below:

1. Change Orders and Agreement amendments (excluding amendments to the Technical Provisions which are separately addressed in subparagraphs 3 and 5, below), and all exhibits and attachments thereto;

2. Book 1 (this Agreement including all exhibits and the executed originals of exhibits that are contracts, except Exhibits 2 and 19);

3. Book 2 (Technical Provisions) amendments, and all exhibits and attachments to such amendments;

4. Book 2 (Technical Provisions), and all exhibits and attachments to the Technical Provisions;

5. Developer's Proposal Commitments, ATCs, Schematic ROW Adjustments and Proposal Schematics (as set forth in Exhibit 2); and

6. Final Design Documents to be developed in accordance with the Contract Documents, provided that: (a) specifications contained therein shall have precedence over plans; (b) no conflict shall be deemed to exist between the Final Design Documents and the other Contract Documents with respect to requirements of the Final Design Documents that TxDOT determines are more beneficial than the requirements of the other Contract Documents; and (c) any other Deviations contained in the Final Design Documents shall have priority over conflicting requirements of other Contract Documents only to the extent that the conflicts are specifically identified to TxDOT by Developer and such Deviations are approved by TxDOT in writing.

1.2.2 Notwithstanding the order of precedence among Contract Documents set forth in Section 1.2.1, in the event and to the extent that Exhibit 2 expressly specifies that it

is intended to supersede specific provisions of the Contract Documents, including, without limitation, approved deviations expressly listed in Appendix 2, Exhibit 2 shall control over the specified provisions. Moreover, if the Proposal includes statements, offers, terms, concepts and designs that can reasonably be interpreted as offers to provide higher quality items than otherwise required by the Contract Documents or to perform services or meet standards in addition to or better than those otherwise required, or otherwise contains statements, offers, terms, concepts or designs which TxDOT considers to be more advantageous than the requirements of the other Contract Documents, Developer's obligations hereunder shall include compliance with all such statements, offers, terms, concepts or designs which shall have the priority of Agreement amendments and Technical Provision amendments, as applicable.

1.2.3 Portions of the Reference Information Documents listed in Exhibit 19 are referenced in the Contract Documents for the purpose of defining requirements of the Contract Documents. The Reference Information Documents shall be deemed incorporated in the Contract Documents to the extent that they are so referenced, with the same order of priority as the Contract Document in which the reference occurs.

1.2.4 Additional details contained in a lower priority Contract Document will control except to the extent they irreconcilably conflict with the requirements of the higher level Contract Document.

1.2.5 Notwithstanding the order of precedence among Contract Documents set forth in this Section 1.2, if a Contract Document contains differing provisions on the same subject matter than another Contract Document, the provisions that establish the higher quality, manner or method of performing the Work or use more stringent standards will prevail. Further, in the event of a conflict among any standards, criteria, requirements, conditions, procedures, specifications or other provisions applicable to the Project established by reference to a described manual or publication within a Contract Document or set of Contract Documents, the standard, criterion, requirement, condition, procedure, specification or other provision offering higher quality or better performance will apply, unless TxDOT in its sole discretion, approves otherwise in writing. If either Party becomes aware of any such conflict, it shall promptly notify the other party of the conflict. TxDOT shall issue a written determination respecting which of the conflicting items is to apply promptly after it becomes aware of any such conflict.

1.2.6 In the event of any conflict, ambiguity or inconsistency between the Project Management Plan and any of the Contract Documents, the latter shall take precedence and control.

1.3 Interpretation of Contract Documents

In the Contract Documents, where appropriate: the singular includes the plural and vice versa; references to statutes or regulations include all statutory or regulatory provisions consolidating, amending or replacing the statute or regulation referred to; the words "including," "includes" and "include" shall be deemed to be followed by the words "without limitation"; unless otherwise indicated references to sections, appendices or schedules are to this Agreement; words such as "herein," "hereof" and "hereunder" shall refer to the

entire document in which they are contained and not to any particular provision or section; words not otherwise defined which have well-known technical or construction industry meanings, are used in accordance with such recognized meanings; references to Persons include their respective permitted successors and assigns and, in the case of Governmental Entities, Persons succeeding to their respective functions and capacities; and words of any gender used herein shall include each other gender where appropriate. Unless otherwise specified, lists contained in the Contract Documents defining the Project or the Work shall not be deemed all-inclusive. Developer acknowledges and agrees that it had the opportunity and obligation, prior to the Effective Date, to review the terms and conditions of the Contract Documents (including those Reference Information Documents that are referenced in the Contract Documents, and pursuant to Section 1.2.3 above, are considered Contract Documents) and to bring to the attention of TxDOT any conflicts or ambiguities contained therein. Developer further acknowledges and agrees that it has independently reviewed the Contract Documents with legal counsel, and that it has the requisite experience and sophistication to understand, interpret and agree to the particular language of the provisions of the Contract Documents. Accordingly, in the event of an ambiguity in or dispute regarding the interpretation of the Contract Documents, they shall not be interpreted or construed against the Person which prepared them, and, instead, other rules of interpretation and construction shall be used. TxDOT's interim or final answers to the questions posed during the Proposal process for this Agreement shall in no event be deemed part of the Contract Documents and shall not be relevant in interpreting the Contract Documents except to the extent they may clarify provisions otherwise considered ambiguous. On plans, working drawings, and standard plans, calculated dimensions shall take precedence over scaled dimensions.

1.4 Referenced Standards, Policies and Specifications

1.4.1 Except as otherwise specified in the Contract Documents or otherwise directed by TxDOT, material and workmanship specified by the number, symbol or title of any standard established by reference to a described publication affecting any portion of the Project shall comply with the latest edition or revision thereof and amendments and supplements thereto in effect on the Proposal Due Date.

1.4.2 In interpreting standards, policies and specifications referenced in the Technical Provisions, the following apply:

- (a) References to the project owner shall mean TxDOT.
- (b) References to the Engineer in the context of provider of compliance judgment may mean the Professional Services Quality Control Manager, the Construction Quality Acceptance Firm or it may mean a TxDOT representative, depending on the context, as determined by TxDOT in its sole discretion.
- (c) References to "plan(s)" shall mean the Final Design Documents.
- (d) Cross-references to measurement and payment provisions contained in the referenced standards, policies and specifications shall be deemed to refer to the measurement and payment provisions contained in the Contract Documents.

1.5 Explanations; Omissions and Misdescriptions

Developer shall not take advantage of or benefit from any apparent Error in the Contract Documents. Should it appear that the Work to be done or any matter relative thereto is not sufficiently detailed or explained in the Contract Documents, Developer shall request in writing such further written explanations from TxDOT as may be necessary and shall comply with the explanation provided. Developer shall promptly notify TxDOT in writing of all Errors which it may discover in the Contract Documents (including those Reference Information Documents that are referenced in the Contract Documents, and pursuant to Section 1.2.3 above, are considered Contract Documents), and shall obtain specific instructions in writing from TxDOT regarding any such Error before proceeding with the Work affected thereby. The fact that the Contract Documents omit or misdescribe any details of any Work which are necessary to carry out the intent of the Contract Documents, or which are customarily performed, shall not relieve Developer from performing such omitted Work (no matter how extensive) or misdescribed details of the Work, and they shall be performed as if fully and correctly set forth and described in the Contract Documents, without entitlement to a Change Order hereunder except as specifically allowed under Section 13.

1.6 Computation of Periods

If the date to perform any act or give any notice specified in the Contract Documents (including the last date for performance or provision of notice "within" a specified time period) falls on a non-Business Day, such act or notice may be timely performed on the next succeeding day which is a Business Day. Notwithstanding the foregoing, requirements contained in the Contract Documents relating to actions to be taken in the event of an emergency and other requirements for which it is clear that performance is intended to occur on a non-Business Day, shall be required to be performed as specified, even though the date in question may fall on a non-Business Day.

1.7 Reference Information Documents

1.7.1 TxDOT has provided and disclosed the Reference Information Documents to Developer. Except as provided in Section 1.2.3: (a) the Reference Information Documents are not mandatory or binding on Developer, and (b) Developer is not entitled to rely on the Reference Information Documents as presenting a design, engineering, operating or maintenance solutions or other direction, means or methods for complying with the requirements of the Contract Documents, Governmental Approvals or Law.

1.7.2 TxDOT shall not be responsible or liable in any respect for any causes of action, claims or Losses whatsoever suffered by any Developer-Related Entity by reason of any use of information contained in, or any action or forbearance in reliance on, the Reference Information Documents, except any schedule or monetary relief available hereunder as set forth in Section 13 of this Agreement.

1.7.3 Except as provided in Section 1.2.3, TxDOT does not represent or warrant that the information contained in the Reference Information Documents is complete or accurate or that such information is in conformity with the requirements of the Contract

Documents, Governmental Approvals or Laws. Developer shall have no right to additional compensation or time extension based on any incompleteness or inaccuracy in the Reference Information Documents.

1.8 Professional Services Licensing Requirements

TxDOT does not intend to contract for, pay for, or receive any Professional Services which are in violation of any professional licensing or registration laws, and by execution of this Agreement, Developer acknowledges that TxDOT has no such intent. It is the intent of the Parties that Developer is fully responsible for furnishing the Professional Services of the Project through itself and/or subcontracts with licensed/registered Professional Service firm(s) as provided herein. Any references in the Contract Documents to Developer's responsibilities or obligations to "perform" the Professional Services portions of the Work shall be deemed to mean that Developer shall "furnish" the Professional Services for the Project. The terms and provisions of this Section 1.8 shall control and supersede every other provision of all Contract Documents.

1.9 Federal Requirements

Developer shall comply and require its Subcontractors to comply with all federal requirements applicable to transportation projects that receive federal-aid funding or other federal funds or credit, including those requirements set forth in Exhibit 3. In the event of any conflict between any applicable Federal Requirements and the other requirements of the Contract Documents, the Federal Requirements shall prevail, take precedence and be in force over and against any such conflicting provisions.

1.10 Incorporation of ATCs

1.10.1 If the Contract Documents incorporate any approved ATCs and either: (a) Developer does not comply with one or more TxDOT conditions of pre-approval for the ATC or (b) Developer does not obtain a third party approval required for the ATC, then Developer shall comply with the Contract Document requirements that would have been applicable but for the ATC, without any increase in the Price, extension of the Completion Deadlines or any other Change Order.

1.10.2 ATCs contained in proposals submitted by unsuccessful proposers and, except for those ATCs included in Exhibit 2, Appendix 2, Developer ATCs that were approved by TxDOT for inclusion in the Proposal that were not incorporated into the Proposal may, in TxDOT's sole discretion, be presented to the Developer as a Request for Change Proposal in accordance with Section 13.2.1 of this Agreement.

1.11 TxDOT Monetary Obligations

All TxDOT monetary obligations under the Contract Documents (or in the event the Agreement is assigned to the Corporation, all monetary obligations of the Corporation under the Contract Documents other than those payable from revenue bond proceeds) are subject to appropriation by the Texas Legislature. This Section 1.11 applies to all monetary obligations of TxDOT and the Corporation, as applicable, set forth in the

Contract Documents, notwithstanding any contrary provisions of the Contract Documents.
The Contract Documents do not create a debt under the Texas Constitution.

SECTION 2. OBLIGATIONS OF DEVELOPER; REPRESENTATIONS AND WARRANTIES

2.1 Performance Requirements

2.1.1 Performance of Work; Project Management Plan

2.1.1.1 The Work shall include the design and construction of the Project, conforming to the Basic Configuration as set forth in the Schematic Design and otherwise complying with the requirements of the Contract Documents, except as otherwise approved in writing by TxDOT. All materials, services and efforts necessary to achieve Substantial Completion and Final Acceptance on or before the applicable Completion Deadline shall be Developer's sole responsibility, except as otherwise specifically provided in the Contract Documents. Developer shall plan, schedule, and execute all aspects of the Work and shall coordinate its activities with all Persons who are directly impacted by the Work. Subject to the terms of Section 13, the cost of all Work, including such materials, services and efforts as are necessary for the Work, are included in the Price.

2.1.1.2 Developer is responsible for all quality assurance and quality control activities necessary to manage the Work. Developer shall undertake all aspects of quality assurance and quality control for the Project and Work in accordance with the approved Project Management Plan and Good Industry Practice.

2.1.1.3 Developer shall develop the Project Management Plan and its component parts, plans and other documentation in accordance with the requirements set forth in Section 2 of the Technical Provisions and Good Industry Practice. The Project Management Plan shall include all the parts and other documentation identified in Attachment 2-1 to the Technical Provisions.

2.1.1.4 Developer shall submit to TxDOT for approval in its good faith discretion in accordance with the procedures described in Section 3 of this Agreement and the time line set forth in Attachment 2-1 to the Technical Provisions each component part, plan and other documentation of the Project Management Plan and any proposed changes or additions to or revisions of any such component part, plan or other documentation. TxDOT may propose any change required to comply with Good Industry Practice or to reflect a change in working practice to be implemented by Developer.

2.1.1.5 Developer shall not commence or permit the commencement of any aspect of the Work before the relevant component parts, plans and other documentation of the Project Management Plan applicable to such Work have been submitted to and approved by TxDOT in accordance with the procedures described in Section 3.1 of this Agreement and the time line set forth in Attachment 2-1 to the Technical Provisions. The schedule for submission of each component part, plan and other documentation of the Project Management Plan or any proposed changes or additions thereto is included in Section 2 and Attachment 2-1 to the Technical Provisions.

2.1.1.6 If any part, plan or other documentation of the Project Management Plan refers to, relies on or incorporates any manual, plan, procedure or like document then all such referenced or incorporated materials shall be submitted to TxDOT for approval in its good faith discretion at the time that the relevant part, plan or other documentation of the Project Management Plan or change, addition or revision to the Project Management Plan is submitted to TxDOT.

2.1.1.7 Developer shall ensure that the Project Management Plan meets all requirements set out in ISO standards relating to quality systems, plans and audits, including BS EN ISO 9001: 2000 and BS EN ISO 14001: 2004 as appropriate

2.1.1.8 Developer shall carry out internal audits of the Project Management Plan at the times prescribed in the Project Management Plan.

2.1.1.9 Developer shall cause each of its Subcontractors at every level to comply with the applicable requirements of the approved Project Management Plan.

2.1.1.10 The PSQCM shall, irrespective of his or her other responsibilities, have defined authority for ensuring the establishment and maintenance of the design elements of the Project Management Plan and reporting to TxDOT on the performance of the Project Management Plan with respect to those elements; and the CQAF shall, irrespective of its other responsibilities, have defined authority for ensuring the establishment and maintenance of the construction elements of the Project Management Plan and reporting to TxDOT on the performance of the Project Management Plan with respect to those elements.

(a) Developer shall contract for all CQAF services through an independent firm(s).

(b) The CQAF shall not be owned at any time during the term of the CDA by the Developer or any subsidiary or related company affiliated with Developer or the Design Firm(s) unless agreed to in writing by TxDOT at TxDOT's sole discretion.

(c) Developer shall not terminate its agreement with the CQAF, or permit or suffer any substitution or replacement of the CQAF, except with TxDOT's prior written approval.

2.1.2 Performance Standards; Deviations

2.1.2.1 Developer shall furnish all aspects of the Work and shall construct the Project and/or Utility Adjustments included in the Work as designed, free from defects (except to the extent that such defects are inherent in prescriptive specifications required under the Contract Documents) and in accordance with: (a) Good Industry Practice, (b) the requirements, terms and conditions set forth in the Contract Documents, (c) the Project Schedule, (d) all Laws, (e) the requirements, terms and conditions set forth in all Governmental Approvals, (f) the approved Project Management Plan and all component plans

prepared or to be prepared thereunder, and (g) the Construction Documents, in each case taking into account the Project ROW limits and other constraints affecting the Project.

2.1.2.2 The Project design and construction shall be subject to certification pursuant to the procedure contained in the approved Quality Management Plan.

2.1.2.3 Developer acknowledges that prior to the Effective Date it had the opportunity to identify any provisions of the Technical Provisions that are erroneous or create a potentially unsafe condition, and the opportunity and duty to notify TxDOT in writing of such fact and of the changes to the provision that Developer believed were the minimum necessary to render it correct and safe. If it is reasonable or necessary to adopt changes to the Technical Provisions after the Effective Date to make the provisions correct and safe, such changes shall not be grounds for any adjustment to the Price, Completion Deadline or other Claim, unless: (a) Developer neither knew nor had reason to know prior to the Effective Date that the provision was erroneous or created a potentially unsafe condition or (b) Developer knew of and reported to TxDOT the erroneous or potentially unsafe provision prior to the Effective Date and TxDOT did not adopt reasonable and necessary changes. If Developer commences or continues any Work affected by such a change after the need for the change was discovered or suspected, or should have been discovered or suspected through the exercise of reasonable care, Developer shall bear any additional costs associated with redoing the Work already performed. Inconsistent or conflicting provisions of the Contract Documents shall not be treated as erroneous provisions under this Section 2.1.2.3, but instead shall be governed by Section 1.2.

2.1.2.4 Developer may apply for TxDOT approval of Deviations from applicable Technical Provisions regarding the design or construction of the Project. All applications shall be in writing. Where Developer requests a Deviation as part of the submittal of a component plan of the Project Management Plan, Developer shall specifically identify and label the proposed Deviation. TxDOT shall consider in its sole discretion, but have no obligation to approve, any such application. Developer shall bear the burden of persuading TxDOT that the Deviation sought constitutes sound and safe engineering consistent with Good Industry Practice and achieves TxDOT's applicable safety standards and criteria. No Deviation shall be deemed approved or be effective unless and until stated in writing signed by TxDOT's Authorized Representative. TxDOT's affirmative written approval of a component plan of the Project Management Plan shall constitute: (a) approval of the Deviations expressly identified and labeled as Deviations therein, unless TxDOT takes exception to any such Deviation and (b) disapproval of any Deviations not expressly identified and labeled as Deviations therein. TxDOT's lack of issuance of a written Deviation within 14 days after Developer applies therefor in writing shall be deemed a disapproval of such application. TxDOT's denial or disapproval of a requested Deviation shall be final and not subject to the dispute resolution procedures of this Agreement.

2.1.2.5 References in the Technical Provisions to manuals or other publications governing the Work shall mean the most recent editions in effect as of the Proposal Due Date, unless expressly provided otherwise. Any changes to the Technical Provisions related to the Work shall be subject to the Change Order process for a TxDOT-Directed Change in accordance with Section 13.

2.1.2.6 New or revised statutes or regulations adopted after the Proposal Due Date that change, add to or replace applicable standards, criteria, requirements, conditions, procedures, specifications and other provisions, including Safety Standards, related to the Work, as well as revisions to Technical Provisions to conform to such new or revised statutes or regulations, shall be treated as Changes in Law rather than a TxDOT change to Technical Provisions; however, the foregoing shall not apply to new or revised statutes or regulations that also cause or constitute changes in Adjustment Standards.

2.1.3 Changes in Basic Configuration

2.1.3.1 If a VE results in a material change in Basic Configuration of the Project, any cost savings from such VE shall be shared in accordance with Section 22.

2.1.3.2 Developer shall not make any material change in the Basic Configuration of the Project, except as approved by TxDOT and authorized by a Change Order in accordance with Section 13, and subject to the limitations contained in Section 6.10. A Change Order is required regardless of the reason underlying the change and regardless of whether the change increases, decreases or has no effect on Developer's costs.

2.1.3.3 Developer shall be responsible for any cost increases and/or delays which affect the duration of a Critical Path resulting from changes in requirements and obligations of Developer relating to the Project due to inaccuracies in the Schematic Design. Notwithstanding the foregoing, Developer shall be entitled to a Change Order to account for any additional costs incurred as a result of required modifications to the USACE Individual Permits due to, Hazardous Materials management on and additional Utility Adjustment Work on Additional Properties required due to a Necessary Basic Configuration Change to the extent set forth in Section 13.8.6. Further, any right, title or interest in real property Developer must acquire as a result of such Necessary Basic Configuration Change shall be considered Additional Properties and TxDOT shall be responsible for the purchase price therefor. Any other changes in the Basic Configuration, including Basic Configuration changes due to an Error in the Schematic Design that do not require the acquisition of Additional Properties, shall be the responsibility of Developer with the exception of a TxDOT-Directed Change involving more than \$10,000 in additional direct costs or involving a delay to a Critical Path.

2.1.3.4 No Change Order shall be required for any non-material changes in the Basic Configuration which have been approved by TxDOT in the design approval process, unless Developer claims that it is entitled to an increase in the Price or extension of any Completion Deadline(s) in connection with a proposed change in accordance with Section 13 or unless the proposed change constitutes a VE pursuant to Section 22. Developer acknowledges and agrees that constraints set forth in the TxDOT-Provided Approvals, TxDOT Standards and other Contract Documents, as well as site conditions and the Schematic Design, will impact Developer's ability to make non-material changes in the Basic Configuration.

2.2 General Obligations of Developer

Developer, in addition to performing all other requirements of the Contract Documents, shall:

2.2.1 Furnish all design and other services, provide all materials, equipment and labor and undertake all efforts necessary or appropriate (excluding only those materials, services and efforts which the Contract Documents expressly specify will be undertaken by TxDOT or other Persons) to design, construct the Project and maintain it during construction in accordance with the requirements of the Contract Documents so as to achieve Substantial Completion and Final Acceptance by the applicable Completion Deadlines.

2.2.2 At all times provide a Project Manager approved by TxDOT who: (a) will have full responsibility for the prosecution of the Work, (b) will act as agent and be a single point of contact in all matters on behalf of Developer, (c) will be present (or its approved designee will be present) at the Site at all times that Work is performed, and (d) will be available to respond to TxDOT or its Authorized Representatives.

2.2.3 Comply with, and require that all Subcontractors comply with, all requirements of all applicable Laws, including Environmental Laws and the Americans with Disabilities Act of 1990 (42 U.S.C. § 12101 et seq.), as amended.

2.2.4 Cooperate with TxDOT, the Program Manager, and Governmental Entities with jurisdiction in all matters relating to the Work, including their review, inspection and oversight of the design and construction of the Project and the design and construction of the Utility Adjustments.

2.2.5 Use commercially reasonable efforts to mitigate delay to design and construction of the Project and mitigate damages due to delay in all circumstances, to the extent possible, including by re-sequencing, reallocating, or redeploying Developer's and its Subcontractors' forces to other work, as appropriate.

2.2.6 Obtain and pay the cost of obtaining all Governmental Approvals required in connection with the Project (except to the extent TxDOT has expressly agreed to be responsible therefor under Section 6.10.1.)

2.3 Representations and Warranties

Developer represents and warrants that:

2.3.1 During all periods necessary for the performance of the Work, Developer and its Subcontractors will maintain all required authority, license status, professional ability, skills and capacity to perform the Work in accordance with the requirements contained in the Contract Documents.

2.3.2 As of the Effective Date, Developer has evaluated the constraints affecting design and construction of the Project, including the Schematic ROW limits as well as the conditions of the TxDOT-Provided Approvals, and has reasonable grounds for believing and does believe that the Project can be designed and built within such constraints.

2.3.3 Developer has evaluated the feasibility of performing the Work within the Completion Deadlines and for the Price, accounting for constraints affecting the Project

and has reasonable grounds for believing and does believe that such performance (including achievement of Substantial Completion and Final Acceptance by the applicable Completion Deadlines for the Price) is feasible and practicable.

2.3.4 Except as to parcels that TxDOT lacked title or access to prior to the Proposal Due Date, prior to the Proposal Due Date Developer, in accordance with Good Industry Practice, examined or had the opportunity to examine the Site and surrounding locations, performed or had the opportunity to perform appropriate field studies and geotechnical investigations of the Site, investigated and reviewed available public and private records, and undertook other activities sufficient to familiarize itself with surface conditions and subsurface conditions, including the presence of Utilities, Hazardous Materials, contaminated groundwater, archeological, paleontological and cultural resources, and Threatened or Endangered Species, affecting the Site or surrounding locations; and as a result of such opportunity for review, inspection, examination and other activities Developer is familiar with and accepts the physical requirements of the Work, subject to Developer's rights to seek relief under Section 13.

2.3.5 Developer has familiarized itself with the requirements of any and all applicable Laws and the conditions of any required Governmental Approvals prior to entering into this Agreement. Except as specifically permitted under Section 13, Developer shall be responsible for complying with the foregoing at its sole cost and without any additional compensation or time extension on account of such compliance, regardless of whether such compliance would require additional time for performance or additional labor, equipment and/or materials not expressly provided for in the Contract Documents. As of the Effective Date, Developer has no reason to believe that any Governmental Approval required to be obtained by Developer will not be granted in due course and thereafter remain in effect so as to enable the Work to proceed in accordance with the Contract Documents.

2.3.6 All Work furnished by Developer shall be performed by or under the supervision of Persons who hold all necessary and valid licenses to perform the Work in the State, by personnel who are careful, skilled, experienced and competent in their respective trades or professions, who are professionally qualified to perform the Work in accordance with the Contract Documents and who shall assume professional responsibility for the accuracy and completeness of the Design Documents, Construction Documents and other documents prepared or checked by them.

2.3.7 As of the Effective Date, Developer is a joint venture duly organized and validly existing under the laws of the State of Texas with all requisite power and all required licenses to carry on its present and proposed obligations under the Contract Documents. Developer is composed of Zachry Construction Corporation, a Delaware corporation and Odebrecht Construction, Inc., a Florida corporation. Each member of Developer is duly qualified to do business, and is in good standing, in the State as of the Effective Date, and will remain in good standing throughout the term of this Agreement and for as long thereafter as any obligations remain outstanding under the Contract Documents.

2.3.8 The execution, delivery and performance of the Contract Documents to which Developer is (or will be) a party have been (or will be) duly authorized by all necessary corporate action of Developer; each person executing the Contract Documents on behalf of Developer has been (or at the time of execution will be) duly authorized to execute and deliver each such document on behalf of Developer; and the Contract Documents have been (or will be) duly executed and delivered by Developer.

2.3.9 Neither the execution and delivery by Developer of the Contract Documents to which Developer is (or will be) a party, nor the consummation of the transactions contemplated hereby or thereby, is (or at the time of execution will be) in conflict with or has resulted or will result in a default under or a violation of the governing instruments of Developer.

2.3.10 Each of the Contract Documents to which Developer is (or will be) a party constitutes (or at the time of execution and delivery will constitute) the legal, valid and binding obligation of Developer, enforceable against Developer and, if applicable, each member of Developer, in accordance with its terms, subject only to applicable bankruptcy, insolvency and similar laws affecting the enforceability of the rights of creditors generally and the general principles of equity.

2.3.11 As of the Effective Date, there is no action, suit, proceeding, investigation or litigation pending and served on Developer which challenges Developer's authority to execute, deliver or perform, or the validity or enforceability of, the Contract Documents to which Developer is a party, or which challenges the authority of the Developer official executing the Contract Documents; and Developer has disclosed to TxDOT prior to the Effective Date any pending and un-served or threatened action, suit, proceeding, investigation or litigation with respect to such matters of which Developer is aware.

2.3.12 As of the Proposal Due Date, Developer disclosed to TxDOT in writing all organizational conflicts of interest of Developer and its Contractors of which Developer was actually aware; and between the Proposal Due Date and the Effective Date, Developer has not obtained knowledge of any additional organizational conflict of interest, and there have been no organizational changes to Developer or its Subcontractors identified in its Proposal which have not been approved in writing by TxDOT. For this purpose, organizational conflict of interest has the meaning set forth in the instructions to proposers under which Developer submitted its Proposal.

2.4 Survival of Representations and Warranties

The representations and warranties of Developer contained herein shall survive expiration or earlier termination of this Agreement.

SECTION 3. SUBMITTALS; DESIGN REQUIREMENTS AND DISCLAIMER; ROLES OF PROJECT MANAGEMENT CONSULTANT AND FHWA; GOVERNMENTAL APPROVALS

3.1 Submittal, Review and Approval Terms and Procedures

3.1.1 General

3.1.1.1 This Section 3.1 sets forth uniform terms and procedures that shall govern all Submittals to TxDOT pursuant to the Contract Documents or Project Management Plan and component plans thereunder. In the event of any irreconcilable conflict between the provisions of this Section 3.1 and any other provisions of the Contract Documents or Project Management Plan and component plans thereunder concerning submission, review and approval procedures, this Section 3.1 shall exclusively govern and control, except to the extent that the conflicting provision expressly states that it supersedes this Section 3.1.

3.1.1.2 Wherever in the Contract Documents Developer is obligated to make a Submittal to TxDOT, Developer shall also concurrently submit a duplicate thereof to the organization appointed by TxDOT to act on its behalf.

3.1.2 Time Periods

3.1.2.1 Whenever TxDOT is entitled to review and comment on, or to affirmatively approve, a Submittal, TxDOT shall have a period of 14 days to act after the date it receives an accurate and complete Submittal and all necessary information and documentation concerning the subject matter, except as otherwise provided below.

3.1.2.2 If any provision of the Contract Documents expressly provides a longer or shorter period for TxDOT to act, such period shall control over the foregoing time period.

3.1.2.3 If at any given time TxDOT is in receipt of more than: (a) twenty (20) concurrent Submittals in the aggregate (or other number of aggregate concurrent Submittals mutually agreed in writing by TxDOT and Developer) that are subject to TxDOT's review and comment or approval or (b) the maximum number of concurrent Submittals of any particular type set forth in any other provision of the Contract Documents, TxDOT may extend the applicable period for it to act to that period in which TxDOT can reasonably accommodate the Submittals under the circumstances, or such other period of extension set forth in any other provision of the Contract Documents, and no such extension shall entitle Developer to an adjustment to the Price or Completion Deadline(s) or form the basis of any other Claim. However, if at any time TxDOT is in receipt of some Submittals subject to clause (a) above and some Submittals subject to clause (b) above, then the higher number of Submittals shall be used to determine whether TxDOT may extend the applicable period. Submittals are deemed to be concurrent to the extent the review time periods available to TxDOT under this Section 3.1.2 regarding such Submittals overlap. Whenever TxDOT is in receipt of excess concurrent Submittals, Developer may establish by written notice to TxDOT an order of priority for processing such Submittals; and TxDOT shall comply with such order of priority. Refer to

Sections 6.5.1, 7.2.4, and 7.3.1 of the Technical Provisions for maximum concurrent Utility Adjustment Submittals, Submittals of Acquisition Packages and Submittals of Project ROW maps, and extensions of time in the case of Utility Adjustment Submittals, Acquisition Packages and Project ROW maps in excess of the maximum.

3.1.2.4 All time periods for TxDOT to act shall be extended by the period of any delay caused, in whole or in part, by the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity.

3.1.2.5 TxDOT shall endeavor to reasonably accommodate a written request from Developer for expedited action on a specific Submittal, within the practical limitations on availability of TxDOT personnel appropriate for acting on the types of Submittal in question; provided Developer sets forth in its request specific, abnormal circumstances demonstrating the need for expedited action. This provision shall not apply, however, during any time described in Section 3.1.2.4.

3.1.3 TxDOT Discretionary Approvals

If the Submittal is one where the Contract Documents indicate approval or consent or acceptance is required from TxDOT in its sole discretion, absolute discretion, unfettered discretion or good faith discretion, then TxDOT's lack of approval, determination, decision or other action within the applicable time period under Section 3.1.2 shall be deemed disapproval. If approval is subject to the sole, absolute or unfettered discretion of TxDOT, then its decision shall be final, binding and not subject to dispute resolution, and such decision shall not entitle Developer to an adjustment to the Price or Completion Deadline(s) or form the basis of any other Claim. If the approval is subject to the good faith discretion of TxDOT, then its decision shall be binding unless it is finally determined under the dispute resolution procedures of this Agreement by clear and convincing evidence that such decision was arbitrary or capricious. For avoidance of doubt, if the approval is subject to the good faith discretion of TxDOT and the decision is determined to be arbitrary and capricious and causes delay, it will constitute and be treated as a TxDOT-Caused Delay, and Developer shall be entitled to submit a Claim in accordance with Section 13.

3.1.4 Other TxDOT Approvals

3.1.4.1 Whenever the Contract Documents indicate that a Submittal or other matter is subject to TxDOT's approval or consent and no particular standard therefor is stated, then the standard shall be reasonableness.

3.1.4.2 If the reasonableness standard applies to TxDOT's right of approval of or consent to a Submittal, and TxDOT delivers no approval, consent, determination, decision or other action within the applicable time period under Section 3.1.2, then Developer may deliver to TxDOT a written notice stating the date within which TxDOT was to have decided or acted and that if TxDOT does not decide or act within five Business Days after receipt of the notice, delay thereafter may constitute a TxDOT-Caused Delay for which Developer may be entitled to submit a Claim in accordance with Section 13.3.1.

3.1.5 TxDOT Review and Comment

Whenever the Contract Documents indicate that a Submittal or other matter is subject to TxDOT's review, comment, review and comment, disapproval or similar action not entailing a prior approval and TxDOT delivers no comments, exceptions, objections, rejections or disapprovals within the applicable time period under Section 3.1.2, then Developer may proceed thereafter at its election and risk, without prejudice to TxDOT's rights to later object or disapprove in accordance with Section 3.1.7.1. No such failure or delay by TxDOT in delivering comments, exceptions, objections, rejections or disapprovals within the applicable time period under Section 3.1.2 shall constitute a TxDOT-Caused Delay, entitle Developer to an adjustment to the Price or Completion Deadline(s), or form the basis of any other Claim. When used in the Contract Documents, the phrase "completion of the review and comment process" or similar terminology means either: (a) TxDOT has reviewed, provided comments, exceptions, objections, rejections or disapprovals, and all the same have been resolved, or (b) the applicable time period has passed without TxDOT providing any comments, exceptions, objections, rejections or disapprovals.

3.1.6 Submittals Not Subject to Prior Review, Comment or Approval

Whenever the Contract Documents indicate that Developer is to deliver a Submittal to TxDOT but express no requirement for TxDOT review, comment, disapproval, prior approval or other TxDOT action, then Developer is under no obligation to provide TxDOT any period of time to review the Submittal or obtain approval of it before proceeding with further Work, and TxDOT shall have the right, but is not obligated, to at any time review, comment on, take exception to, object to, reject or disapprove the Submittal in accordance with Section 3.1.7.1. No failure or delay by TxDOT in delivering comments, exceptions, objections, rejections or disapprovals with respect to the Submittal shall constitute a TxDOT-Caused Delay, entitle Developer to an adjustment to the Price or Completion Deadline(s), or form the basis of any other Claim.

3.1.7 Resolution of TxDOT Comments and Objections

3.1.7.1 If the Submittal is one not governed by Section 3.1.3, TxDOT's exception, objection, rejection or disapproval shall be deemed reasonable, valid and binding if and only if based on any of the following grounds:

(a) The Submittal or subject provision thereof fails to comply with any applicable covenant, condition, requirement, term or provision of the Contract Documents or Project Management Plan and component plans thereunder;

(b) The Submittal or subject provision thereof is not to a standard equal to or better than the requirements of Good Industry Practice;

(c) Developer has not provided all content or information required with respect to the Submittal or subject provisions thereof, provided that TxDOT assumes no duty, obligation or liability regarding completeness or correctness of any Submittal, including a Submittal that is to be delivered to another Governmental Entity as a

proposed Governmental Approval, or in order to obtain, modify, amend, supplement, renew, extend, waive or carry out a Governmental Approval;

(d) Adoption of the Submittal or subject provision thereof, or of any proposed course of action thereunder, would result in a conflict with or violation of any Law or Governmental Approval; or

(e) In the case of a Submittal that is to be delivered to another Governmental Entity as a proposed Governmental Approval, or in order to obtain, modify, amend, supplement, renew, extend, waive or carry out a Governmental Approval, it proposes commitments, requirements, actions, terms or conditions that are not usual and customary arrangements that TxDOT offers or accepts for addressing similar circumstances affecting its own projects.

3.1.7.2 Developer shall respond to all of TxDOT's comments and objections to a Submittal and make modifications to the Submittal as necessary to fully reflect and resolve all such comments and objections, in accordance with the review processes set forth in this Section 3.1. Developer acknowledges that TxDOT may provide comments and objections which reflect concerns regarding interpretation or preferences of the commenter or which otherwise do not directly relate to grounds set forth in Section 3.1.7.1. Developer agrees to undertake reasonable efforts to accommodate or otherwise resolve any such comments or objections through the review processes described in this Section 3.1. However, if the Submittal is not governed by Section 3.1.3, the foregoing shall in no way be deemed to obligate Developer to incorporate any comments or resolve objections that are not on any of the grounds set forth in Section 3.1.7.1 and would result in a delay to a critical path on the Project Schedule or, in an increase in Developer's costs, except pursuant to a TxDOT-Directed Change. If, however, Developer does not accommodate or otherwise resolve any comment or objection, Developer shall deliver to TxDOT within a reasonable time period, not to exceed 30 days after receipt of TxDOT's comments or objections, a written explanation why modifications based on such comment or objection are not required. The explanation shall include the facts, analyses and reasons that support the conclusion.

3.1.7.3 The foregoing shall in no way be deemed to obligate Developer to incorporate any comments or resolve objections that Developer believes would render the Submittal erroneous, defective or less than Good Industry Practice, except pursuant to a TxDOT-Directed Change.

3.1.7.4 If Developer fails to notify TxDOT within such time period, TxDOT may deliver to the Developer a written notice stating the date by which the Developer was to have addressed TxDOT's comments and that if the Developer does not address those comments within five Business Days after receipt of this notice, then that failure shall constitute Developer's agreement to make all changes necessary to accommodate and resolve the comment or objection and full acceptance of all responsibility for such changes without right to an adjustment to the Price or Completion Deadline(s) or any other Claim, including any Claim that TxDOT assumes design or other liability.

3.1.7.5 After TxDOT receives Developer's explanation as to why the modifications are not required as provided in Sections 3.1.7.2, 3.1.7.3 and 3.1.7.4, the Parties

shall attempt in good faith to resolve the dispute. If they are unable to resolve the dispute, it shall be resolved according to the dispute resolution procedures of this Agreement, except: (a) as provided otherwise in Section 3.1.7, and (b) if TxDOT elects to issue a Directive Letter pursuant to Section 13.1.1.2 with respect to the disputed matter, Developer shall proceed in accordance with TxDOT's directive while retaining any Claim as to the disputed amount.

3.1.8 Limitations on Developer's Right to Rely

3.1.8.1 No review, comment on, objection, rejection, approval, disapproval, acceptance, certification (including certificates of Substantial Completion and Final Acceptance), concurrence monitoring, testing, inspection, spot checking, auditing or other oversight by or on behalf of TxDOT, and no lack thereof by TxDOT, shall constitute acceptance of materials or Work that fails to comply with the Contract Documents or waiver of any legal or equitable right under the Contract Documents, at law, or in equity, except to the extent Nonconforming Work is expressly accepted by TxDOT in its sole discretion and in accordance with Section 5.6.2. TxDOT shall be entitled to remedies for unapproved Deviations and Nonconforming Work and to identify additional Work which must be done to bring the Work and Project into compliance with requirements of the Contract Documents, regardless of whether previous review, comment on, objection, rejection, approval, disapproval, acceptance, certification, concurrence, monitoring, testing, inspection, spot checking, auditing or other oversight were conducted or given by TxDOT. Regardless of any such activity or failure to conduct any such activity by TxDOT, Developer at all times shall have an independent duty and obligation to fulfill the requirements of the Contract Documents. Developer agrees and acknowledges that any such activity or failure to conduct any such activity by TxDOT:

- (a) Is solely for the benefit and protection of TxDOT;
- (b) Does not relieve Developer of its responsibility for the selection and the competent performance of all Developer-Related Entities;
- (c) Does not create or impose upon TxDOT any duty or obligation toward Developer to cause it to fulfill the requirements of the Contract Documents;
- (d) Shall not be deemed or construed as any kind of warranty, express or implied, by TxDOT;
- (e) May not be relied upon by Developer or used as evidence in determining whether Developer has fulfilled the requirements of the Contract Documents; and
- (f) May not be asserted by Developer against TxDOT as a defense, legal or equitable, to, or as a waiver of or relief from, Developer's obligation to fulfill the requirements of the Contract Documents.

3.1.8.2 Unless expressly permitted under Section 5.6.2, Developer shall not be relieved or entitled to reduction of its obligations to perform the Work in

accordance with the Contract Documents, or any of its other liabilities and obligations, including its indemnity obligations, as the result of any activity identified in Section 3.1.8.1 or failure to conduct any such activity by TxDOT. Such activity by TxDOT shall not relieve Developer from liability for, and responsibility to cure and correct, any unapproved Deviations, Nonconforming Work that is not expressly accepted in accordance with Section 5.6.2 or Developer defaults.

3.1.8.3 To the maximum extent permitted by law, Developer hereby releases and discharges TxDOT from any and all duty and obligation to cause Developer's Work or the Project to satisfy the standards and requirements of the Contract Documents.

3.1.8.4 Notwithstanding the provisions of Sections 3.1.8.1, 3.1.8.2 and 3.1.8.3:

(a) Developer shall be entitled to rely on written approvals and acceptances from TxDOT: (i) for the limited purpose of establishing that the approval or acceptance occurred or (ii) that are within its sole, absolute or unfettered discretion, but only to the extent that Developer is prejudiced by a subsequent decision of TxDOT to rescind such approval or acceptance;

(b) Developer shall be entitled to rely on specific written Deviations TxDOT approves under Section 2.1.2.4;

(c) Developer shall be entitled to rely on the certificates of Substantial Completion and Final Acceptance from TxDOT for the limited purpose of establishing that Substantial Completion and Final Acceptance, as applicable, have occurred, and the respective dates thereof;

(d) TxDOT is not relieved from any liability arising out of a knowing and intentional material misrepresentation under any written statement TxDOT delivers to Developer; and

(e) TxDOT is not relieved from performance of its express responsibilities under the Contract Documents in accordance with all standards applicable thereto.

3.2 Design Requirements

3.2.1 Design Implementation and Submittals

3.2.1.1 Developer, through the appropriately qualified and licensed design professionals identified in Developer's Project Management Plan shall prepare designs, plans and specifications in accordance with the Contract Documents. Developer shall cause the engineer of record for the Project to sign and seal all Final Design Documents.

3.2.1.2 Developer shall deliver to TxDOT accurate and complete duplicates of all interim, revised and final Design Documents (including Final Design Documents), Plans and Construction Documents within seven days after Developer completes

preparation thereof. Developer shall construct the Project in accordance with the Final Design Documents and the Construction Documents. The Final Design Documents may be changed only with prior written approval of TxDOT. Developer may modify the Construction Documents without prior written approval of TxDOT, but must deliver the modifications to TxDOT in advance of performance of the Work.

3.3 Responsibility for Design

3.3.1 Developer Responsibility

Developer agrees that it has full responsibility for the design of the Project and that Developer will furnish the design of the Project, regardless of the fact that aspects of the Schematic Design have been provided to Developer as a preliminary basis for Developer's design. Developer specifically acknowledges and agrees that:

(a) Developer is not entitled to rely on: (i) the Schematic Design except as specified in Section 3.3.2, (ii) the Reference Information Documents, or (iii) any other documents or information provided by TxDOT, except to the extent specifically permitted in the Contract Documents.

(b) Developer is responsible for correcting any Errors in the Schematic Design through the design and/or construction process without any increase in the Price or extension of a Completion Deadline, subject only to the right to a Change Order with respect to Necessary Basic Configuration Changes to the extent permitted by Section 13.8.6.

(c) TxDOT's liability for Errors in the Schematic Design is limited to its obligations relating to Necessary Basic Configuration Changes as set forth in Section 2.1.3.3 and provision of access to parcels within the Schematic ROW limits, and is subject to the requirements and limitations of Section 13.

(d) Developer's warranties and indemnities hereunder cover Errors in the Project even though they may arise from or be related to Errors in the Schematic Design.

(e) Developer is responsible for verifying all calculations and quantity takeoffs contained in the RFP Documents or otherwise provided by TxDOT.

3.3.2 Schematic Design

3.3.2.1 Developer acknowledges and agrees that if Developer wishes to deviate from the Schematic ROW, it must specifically identify such modifications in writing to TxDOT in accordance with Section 2.1.2.4, provide justification for the modification, and obtain specific written approval from TxDOT, in its sole discretion, prior to use of such modifications. Subject to Section 2.1.2.3, Developer must obtain TxDOT's prior written approval to deviate from the Schematic Design unless the proposed modification meets all of the following: (a) is within the Schematic ROW and requires no additional right of way; (b) meets the requirements of the Technical Provisions; (c) requires

no New Environmental Approval; (d) does not constitute a Design Exception or Design Waiver; and (e) is consistent with the design concepts included in the Proposal. Developer acknowledges and agrees that the requirements and constraints set forth in the Contract Documents and in the Governmental Approvals, as well as Site conditions, will impact Developer's ability to revise the concepts contained in the Schematic Design, in addition to the requirement to obtain approval.

3.3.2.2 Developer may rely on the Schematic ROW limits as shown on the Schematic Design and that it is feasible to design and develop the Project within the Schematic ROW limits identified in the Schematic Design provided by TxDOT, and shall have the right to obtain a Change Order for certain increased costs incurred due to Necessary Basic Configuration Changes to the extent provided in Section 13.8.6; provided, however, that Developer acknowledges that "feasible to design and develop the Project" is not intended to mean or be limited to Developer's design approach set forth in its Proposal or Developer's preferred design approach.

3.3.2.3 Developer acknowledges that the Schematic Design is preliminary and subject to refinement through the Final Design process and that Developer is not entitled to any time extensions in connection with any changes in the Schematic Design, and Developer's entitlement to an increase in the Price in connection with any changes in the Schematic Design is limited to certain increased costs incurred as a result of Necessary Basic Configuration Changes to the extent allowed under Section 13.8.6.

3.4 Disclaimer

3.4.1 Developer understands and agrees that TxDOT shall not be responsible or liable in any respect for any Losses whatsoever suffered by any Developer-Related Entity by reason of any use of any information contained in the Schematic Design or Reference Information Documents, or any action or forbearance in reliance thereon, except to the extent that TxDOT has specifically agreed in Section 13 that Developer shall be entitled to an increase in the Price and/or extension of a Completion Deadline with respect to such matter. Developer further acknowledges and agrees that: (a) if and to the extent Developer or anyone on Developer's behalf uses any of said information in any way, such use is made on the basis that Developer, not TxDOT, is responsible for said information, and (b) Developer is capable of conducting and obligated hereunder to conduct any and all studies, analyses and investigations as it deems advisable to verify or supplement said information, and that any use of said information is entirely at Developer's own risk and at its own discretion.

3.4.2 TxDOT DOES NOT REPRESENT OR WARRANT THAT THE INFORMATION CONTAINED IN THE SCHEMATIC DESIGN OR REFERENCE INFORMATION DOCUMENTS IS EITHER COMPLETE OR ACCURATE (INCLUDING WITH RESPECT TO: (i) THE EXISTENCE OR NEED FOR BRIDGES; (ii) BRIDGE LENGTHS, LOCATIONS, TYPES AND VERTICAL PROFILES DEPICTED IN THE SCHEMATIC DESIGN, (iii) THE EXISTENCE, NEED FOR, OR LOCATIONS OF CULVERTS; (iv) THE EXISTENCE OR NEED FOR RETAINING WALLS, (v) RETAINING WALL HEIGHTS, LENGTHS OR SIZES DEPICTED IN THE SCHEMATIC DESIGN OR (vi) ANY FAILURE OR OMISSION TO DEPICT ANY OF THE FOREGOING IN THE

SCHEMATIC DESIGN) OR THAT SUCH INFORMATION IS IN CONFORMITY WITH THE REQUIREMENTS OF TxDOT-PROVIDED APPROVALS, OTHER CONTRACT DOCUMENTS, GOVERNMENTAL APPROVALS OR LAW. TxDOT DOES NOT REPRESENT OR WARRANT THE ACCURACY OR COMPLETENESS OF ANY ITEMIZED LIST SET FORTH IN THE TECHNICAL PROVISIONS. THE FOREGOING SHALL IN NO WAY AFFECT TxDOT'S LIABILITY FOR NECESSARY BASIC CONFIGURATION CHANGES AS SPECIFIED HEREIN OR TO ISSUE CHANGE ORDERS IN ACCORDANCE WITH SECTION 13.

3.5 Role of Program Manager and TxDOT Consultants

CH2M Hill has been designated as TxDOT's Program Manager. The Program Manager will assist TxDOT in the management and oversight of the Project and the Contract Documents. Further, TxDOT may retain other consultants to provide services to TxDOT relating to the Project. Developer shall cooperate with the Program Manager and TxDOT's other consultants in the exercise of their respective duties and responsibilities in connection with the Project.

3.6 Role of and Cooperation with FHWA

Developer acknowledges and agrees that FHWA will have certain approval rights with respect to the Project (including rights to approve the Project design and certain Change Orders), as well as the right to provide certain oversight and technical services with respect to the Project. Developer shall cooperate with FHWA in the reasonable exercise of FHWA's duties and responsibilities in connection with the Project.

3.7 Governmental Approvals and Third Party Agreements

3.7.1 As of the Effective Date, TxDOT has obtained certain of the TxDOT-Provided Approvals based on the Schematic Design. TxDOT retains responsibility for processing all other TxDOT-Provided Approvals (based on the Schematic Design) that it has not already obtained as of the Effective Date. Developer shall obtain all other Governmental Approvals, including any modifications, renewals and extensions of the TxDOT-Provided Approvals, and, except to the extent the Contract Documents expressly provide TxDOT is responsible therefor, all third party approvals and agreements required in connection with the Project, the Project Right of Way or the Work. Prior to submitting to a Governmental Entity any application for a Governmental Approval (or any proposed modification, renewal, extension or waiver of a Governmental Approval or provision thereof), Developer shall submit the same, together with any supporting environmental studies and analyses, to TxDOT: (a) for approval or (b) for review and comment, as specified in the Technical Provisions.

3.7.2 If Developer pursues Additional Properties, or any other modification of or Deviation from any Governmental Approvals, including TxDOT-Provided Approvals, Developer shall first comply with, and obtain any consent or waiver required pursuant to, then-existing agreements between TxDOT and other Governmental Entities. These agreements include the following:

(a) **Memorandum of Understanding** between Office of the Governor, Economic Development and Tourism Division and Texas Department of Transportation, Texas Parks and Wildlife Department, Texas Commission on the Arts, and Texas Historical Commission (April 2004 – current, to promote tourism in Texas);

(b) **Memorandum of Agreement** between TxDOT and Texas Parks and Wildlife Department for Finalization of 1998 MOU, Concerning Habitat Descriptions and Mitigation (August 2, 2001);

(c) **Memorandum of Understanding** between the Texas Department of Transportation and the General Land Office (June 15, 2004);

(d) **Memorandum of Understanding** between the Texas Department of Transportation and the Texas Natural Resource Conservation Commission (applicable to its successor agency the Texas Commission on Environmental Quality) (May 2, 2002);

(e) **First Amended Programmatic Agreement** among the Federal Highway Administration, the Texas Department of Transportation, the Texas State Historic Preservation Officer, and the Advisory Council on Historic Preservation Regarding the Implementation of Transportation Undertakings (December 28, 2005 and renewed in September, 2010);

(f) **Memorandum of Understanding** between the Texas Department of Transportation and the Texas Parks and Wildlife Department Regarding Mitigation Banking (December 7, 2005);

(g) **Program Level Agreement for Biological Evaluations (PAFBE)** for the Development of Further Endangered Species Act Programmatic Agreement among the Texas Department of Transportation, FHWA and U.S. Fish and Wildlife Service (August 26, 2005);

(h) **Memorandum of Agreement** between Texas Department of Transportation and Texas Parks and Wildlife Department for Sharing and maintaining Natural Diversity Database (NDD) Information (April 11, 2007); and

(i) **Programmatic Agreement** for the Review and Approval of NEPA Categorically Excluded Transportation Projects between the Federal Highway Administration and the Texas Department of Transportation, revised 09/30/2011.

Upon Developer's request, TxDOT will cooperate with Developer in updating the foregoing list and providing Developer with copies of the applicable agreements between TxDOT and other Governmental Entities. The Developer will periodically visit and monitor the following website

www.txdot.gov/txdot_library/consultants_contractors/publications/environmental_resources.htm for updates to the above documents.

3.7.3 At Developer's request, TxDOT shall reasonably assist and cooperate with Developer in obtaining from Governmental Entities the Governmental Approvals (including

any modifications, renewals and extensions of existing Governmental Approvals from Governmental Entities) required to be obtained by Developer under the Contract Documents. TxDOT and Developer shall work jointly to establish a scope of work and budget for TxDOT's Recoverable Costs related to the assistance and cooperation TxDOT will provide. Subject to any agreed scope of work and budget and to any rights of Developer under Section 13, Developer shall fully reimburse TxDOT for all costs and expenses, including TxDOT's Recoverable Costs, TxDOT incurs in providing such cooperation and assistance, including those incurred to conduct further or supplemental environmental studies.

3.7.4 Developer shall comply with all conditions imposed by and undertake all actions required by and all actions necessary to maintain in full force and effect all Governmental Approvals, including performance of all environmental mitigation measures required by the Contract Documents or Governmental Approvals, except to the extent that responsibility for performance of such measures is expressly assigned to TxDOT in the Contract Documents.

3.7.5 In the event that any Governmental Approvals required to be obtained by Developer must formally be issued in TxDOT's name, Developer shall undertake necessary efforts to obtain such approvals subject to TxDOT's reasonable cooperation with Developer, at Developer's expense (except in connection with Governmental Approvals required due to a TxDOT-Directed Change), in accordance with Section 3.7.3, including execution and delivery of appropriate applications and other documentation in form approved by TxDOT.

3.7.6 In the event that TxDOT or FHWA must act as the lead agency and directly coordinate with a Governmental Entity in connection with obtaining Governmental Approvals which are the responsibility of Developer, Developer shall provide all necessary support to facilitate the approval, mitigation or compliance process. Such support shall include conducting necessary field investigations, surveys, and preparation of any required reports, documents and applications.

3.7.7 Developer shall be responsible for compliance with all applicable Laws in relation to Project Specific Locations and for obtaining any Environmental Approval or other Governmental Approval required in connection with Project Specific Locations.

3.7.8 Developer shall not enter into any agreement with any Governmental Entity, Utility, railroad, property owner or other third party having regulatory jurisdiction over any aspect of the Project or Work or having any property interest affected by the Project or the Work that in any way purports to obligate TxDOT, or states or implies that TxDOT has an obligation, to the third party to carry out any installation, design, construction, maintenance, repair, operation, control, supervision, regulation or other activity after the expiration or termination of this Agreement, unless TxDOT otherwise approves in writing in its sole discretion. Developer has no power or authority to enter into any such agreement with a third party in the name or on behalf of TxDOT.

3.8 Software Compatibility

Unless otherwise specifically stated in the Contract Documents, Developer is responsible for assuring that all software it uses for any aspect of the Project is compatible with software used by TxDOT. Prior to using any software or version of software not then in use by TxDOT, Developer must obtain written approval from TxDOT. In addition, Developer shall provide to TxDOT staff, at Developer's cost, working electronic copies of the software, any necessary licenses for TxDOT's use of the software, and any training reasonably necessary to assure that TxDOT is able to implement compatible usage of all software utilized by Developer.

SECTION 4. TIME; PROJECT SCHEDULE AND PROGRESS

4.1 Time of Essence; Notices to Proceed

4.1.1 As a material consideration for entering into this Agreement, Developer hereby commits, and TxDOT is relying upon Developer's commitment, to develop the Project in accordance with the time periods set forth in this Agreement. Except where this Agreement expressly provides for an extension of time, the time limitations set forth in the Contract Documents for Developer's performance of its covenants, conditions and obligations are of the essence, and Developer waives any right at law or in equity to tender or complete performance beyond the applicable time period, or to require TxDOT to accept such performance.

4.1.2 Authorization allowing Developer to proceed with Work hereunder shall be provided through TxDOT's issuance of NTP1 and NTP2, and, at TxDOT's election, to proceed with acceleration of certain Work through NTP3 and NTP4. NTP3 and NTP4, if issued, shall authorize the acceleration of Early Completion Work.

4.1.3 TxDOT anticipates issuing NTP1 concurrently with execution and delivery of this Agreement. Issuance of NTP1 authorizes Developer to perform (or, continue performance of) the portion of the Work necessary to obtain TxDOT's approval of the component parts, plans and documentation of the Project Management Plan that are labeled "A" in the column titled "Required By" in Attachment 2-1 to the Technical Provisions. It also authorizes Developer to enter the Project Right of Way TxDOT owns in order to conduct surveys and site investigations, including geotechnical, Hazardous Materials and Utilities investigations. Developer may commence Design Work and ROW acquisition services (other than making offers or contacting property owners in connection with acquisitions) in accordance with the Technical Provisions, at its sole risk, prior to issuance of NTP1 and approval by TxDOT of the portions of the Project Management Plan relevant to such Work; provided however, TxDOT is not obligated to accept or review any design or ROW acquisition Submittals prior to issuance of NTP1 and approval by TxDOT of the relevant portions of the Project Management Plan. To the extent the approval of the Project Management Plan will require revision of these Submittals, Developer shall perform such revisions and submit or re-submit as necessary. Refer to (a) Section 12.1.3 regarding the limitation on payments for Work prior to issuance of NTP2 and (b) Sections 12.1.4 and 15.9 regarding a Price adjustment to be made in certain circumstances if the effective date of the NTP1 is later than 180 days after the Proposal Due Date, and regarding Developer's remedies for certain delays in issuance of NTP1 beyond 365 days after the Effective Date.

4.1.4 TxDOT anticipates issuing NTP2 concurrently with TxDOT's approval of all the foregoing component parts, plans and documentation of the Project Management Plan and the Project Schedule. Issuance of NTP2 authorizes Developer to perform all other Work and activities pertaining to the Project.

4.1.5 Notwithstanding Section 4.1.4, Developer may request that TxDOT issue NTP2 prior to approval of all the component parts, plans and documentation of the Project

Management Plan and the Project Schedule. In such event, TxDOT may, in its sole discretion, elect to issue NTP2 prior to satisfaction by Developer of any particular condition(s) to NTP2. TxDOT may condition such early issuance of NTP2 upon payment by Developer to TxDOT the amount of \$1,000 for each day that NTP2 is issued and any condition to NTP2 remains unsatisfied. Notwithstanding any early issuance of NTP2, Developer shall not be permitted to commence Construction Work on any portion of the Project until all the conditions to the commencement of Construction Work set forth in Section 4.4 have been satisfied.

4.1.6 At TxDOT's sole discretion, TxDOT may issue NTP3 at any time during the period commencing on the date of issuance of NTP2 and ending on the date that is 547 days after issuance of NTP1; provided however, TxDOT will not issue NTP3 unless Developer has access to a majority of the parcels required to perform the NTP3 Work and Developer has entered into PUAAs with CenterPoint and AT&T for Utility Adjustment Work required for the NTP3 Work. NTP3 authorizes Developer to accelerate the NTP3 Work. If TxDOT does not issue NTP3 within 547 days after issuance of NTP1, TxDOT shall have no further right to issue NTP3 under this Section 4.1.6 accelerating the NTP3 Work.

4.1.7 At TxDOT's sole discretion, TxDOT may issue NTP4 at any time during the period commencing on the date of issuance of NTP2 and ending on the date that is 576 days after issuance of NTP1; provided however, TxDOT will not issue NTP4 unless Developer has access to a majority of the parcels required to perform the NTP4 Work and Developer has entered into PUAAs with CenterPoint and Centurylink for Utility Adjustment Work required for the NTP4 Work. Issuance of NTP4 authorizes Developer to accelerate the NTP4 Work. If TxDOT does not issue NTP4 on or before 576 days after issuance of NTP1, TxDOT shall have no further right to issue NTP4 under this Section 4.1.6 accelerating the NTP4 Work.

4.2 Completion Deadlines

4.2.1 Substantial Completion Deadline

4.2.1.1 Developer shall achieve Substantial Completion of each Segment of the Project within the time frame for such Segment established in Exhibit 2. Said dates for achieving Substantial Completion of each Segment, as they may be extended hereunder, are referred to herein as the "Substantial Completion Deadline" for such Segment.

4.2.1.2 If the USACE Individual Permit for a Segment is not obtained within 90 days after NTP1, the applicable Substantial Completion Deadline for such Segment shall be extended by the number of days between (i) the 90th day after issuance of NTP1 and (ii) the date on which TxDOT notifies Developer of the receipt of the USACE Individual Permit.

4.2.2 Final Acceptance Deadline

Developer shall achieve Final Acceptance for each Segment on or before 120 days after Substantial Completion of the applicable Segment and Final Acceptance of the Project on or before 120 days after the latest Substantial Completion of a Segment. Said

deadlines for achieving Final Acceptance, as they may be extended hereunder, are referred to herein as the “Final Acceptance Deadline.”

4.2.3 Deadline for NTP3 Work

If NTP3 is issued on or before 547 days after NTP1, Developer shall immediately commence and diligently perform the NTP3 Work, and Developer shall complete the NTP3 Work in accordance with Section 1.3.2.2 of the Technical Provisions on or before 365 days after issuance of NTP3. If TxDOT does not issue NTP3 on or before 547 days after issuance of NTP1, Developer shall complete the NTP3 Work by the Substantial Completion Deadline for Segment F-2.

4.2.4 Deadline for NTP4 Work

If NTP4 is issued on or before 576 days after issuance of NTP1, Developer shall immediately commence and diligently perform the NTP4 Work. In such event, Developer shall complete the NTP4 Work in accordance with Section 1.3.2.2 of the Technical Provisions on or before 365 days after issuance of NTP4. If TxDOT does not issue NTP4 on or before 576 days after NTP1, Developer shall complete the NTP4 Work by the Substantial Completion Deadline for Segment G.

4.2.5 No Time Extensions

Except as otherwise specifically provided in Section 13, TxDOT shall have no obligation to extend a Completion Deadline and Developer shall not be relieved of its obligation to comply with the Project Schedule and to achieve Substantial Completion and Final Acceptance of the Segments and the Project by the applicable Completion Deadlines for any reason.

4.3 Scheduling of Design, Construction and Payment

4.3.1 Project Schedule

The Work shall be undertaken and completed in accordance with the Project Schedule prepared in conformance with Section 2.1.1 of the Technical Provisions. The Project Schedule shall be used by the Parties for planning and monitoring the progress of the Work and as the basis for determining the amount of monthly progress payments to be made to Developer.

4.3.2 Float

All Float contained in the Project Schedule, as shown in the initial Project Baseline Schedule or as generated thereafter, shall be considered a Project resource available to either Party or both Parties as needed to absorb delays caused by any event, achieve schedule milestones, interim completion dates and/or Completion Deadlines. All Float shall be shown as such in the Project Schedule on each affected schedule path. TxDOT shall have the right to examine the identification of (or failure to identify) Float on the schedule in determining whether to approve the Project Schedule. Once identified,

Developer shall monitor, account for and maintain Float in accordance with critical path methodology.

4.3.3 Maximum Payment Schedule

The Project Schedule shall provide for payment to be made solely on the basis of progress by Developer, subject to a cap on payments shown on the Maximum Payment Schedule established for the Project. The Maximum Payment Schedule shall not limit payment for Change Order Work unless otherwise specified in the Change Order. In other words, at no time shall Developer's cumulative total progress payments (including mobilization payments but exclusive of payments for Change Order Work) exceed the cumulative total expenditure permitted by the Maximum Payment Schedule. The Maximum Payment Schedule shall be calculated based on the monthly expenditure rate set forth in Exhibit 5 for the Project. If Developer and TxDOT mutually agree in writing to a different expenditure rate at any time, then such revised rate shall thereafter be the Maximum Payment Schedule for the Project. The Maximum Payment Schedule shall be revised from time to time thereafter upon request by TxDOT or by Developer on its own initiative, as appropriate to account for any changes in the Price as evidenced by Change Orders and/or amendments and in accordance with Section 13.2.4. The aggregate amount of progress payments to Developer hereunder shall not exceed the amount allowed by the Maximum Payment Schedule at any time, exclusive of payments for Change Order Work, without the prior written approval of TxDOT and the Bond Trustee, which approval may be withheld in its sole discretion.

4.4 Conditions to Commencement of Construction

4.4.1 Construction Work Generally

Except to the extent expressly permitted in writing by TxDOT, in TxDOT's sole discretion, Developer shall not commence or permit or suffer commencement of construction of the Project or applicable portion thereof until TxDOT issues NTP2 and all of the following conditions have been satisfied:

(a) All Governmental Approvals necessary to begin Construction Work in the applicable portion of the Project have been obtained, and Developer has furnished to TxDOT fully executed copies of such Governmental Approvals.

(b) Fee simple title or other property rights acceptable to TxDOT in its sole discretion for the Project ROW necessary for commencement of construction of the applicable portion of the Project and Utility Adjustments included in the Construction Work have been identified, conveyed to and recorded in favor of TxDOT, TxDOT has obtained possession thereof through eminent domain, or all necessary parties have validly executed and delivered a possession and use agreement therefor on terms acceptable to TxDOT.

(c) Developer has satisfied for the applicable portion of the Project all applicable pre-construction requirements contained in the Environmental Approvals and other Governmental Approvals.

(d) Each Performance Bond, Payment Bond, and Retainage Bond, in form and from a surety approved by TxDOT, required under Section 8 has been obtained and is in full force and effect, and Developer has delivered to TxDOT certified and conformed copies of the originals of each such bond, with the original of each such bond delivered to Developer.

(e) The Guarantees, if any, required under Section 8.3 have been obtained and delivered to TxDOT.

(f) All insurance policies required under Section 9 have been obtained and are in full force and effect, and Developer has delivered to TxDOT written binding verifications of coverage from the relevant issuers of such insurance policies.

(g) Developer has caused to be developed and delivered to TxDOT and TxDOT has approved, in accordance with Section 2.1.1 of this Agreement and Section 2 of the Technical Provisions, the component parts, plans and documentation of the Project Management Plan that are labeled "A" and "B" in the column titled "Required By" in Attachment 2-1 to the Technical Provisions.

(h) Developer has delivered to TxDOT all Submittals relating to the Construction Work required by the Project Management Plan or Contract Documents, in the form and content required by the Project Management Plan or Contract Documents.

(i) All representations and warranties of Developer set forth in Section 2.3 shall be and remain true and correct in all material respects.

(j) Developer has adopted written policies establishing ethical standards of conduct for all Developer-Related Entities, including Developer's supervisory and management personnel in dealing with: (a) TxDOT and the Program Manager and (b) employment relations, in accordance with Section 7.8.

(k) There exists no uncured Developer Default for which Developer has received written notice from TxDOT.

(l) Developer has provided to TxDOT at least 10 days advance written notification of the date Developer determines that it will satisfy all of the conditions set forth in this Section 4.4.1.

4.4.2 Utility Adjustments

Developer shall not commence or permit or suffer commencement of construction of a Utility Adjustment included in the Construction Work until TxDOT issues NTP2, all of the conditions set forth in Section 4.4.1 that are applicable to the Utility Adjustment (reading such provisions as if they referred to the Utility Adjustment) have been satisfied, and the following additional requirements have been satisfied:

(a) If applicable, the Alternate Procedure List has been approved by FHWA, and either the affected Utility or the Utility Owner is on the approved Alternate Procedure List, as supplemented.

(b) The Utility Adjustment is covered by an executed Utility Agreement.

(c) The review and comment process has been completed and any required approvals have been obtained for the Utility Assembly covering the Utility Adjustment.

4.5 Recovery Schedule

4.5.1 If at any time, the Work on any Critical Path item is delayed for a period which exceeds the greater of either 30 days in the aggregate or that number of days in the aggregate equal to 5% of the days remaining until a Completion Deadline (including delays to which Developer may be entitled to a time extension under Section 13), then Developer, upon TxDOT's request, shall prepare and submit to TxDOT for review and approval with the next Project Status Schedule Update a Recovery Schedule demonstrating Developer's proposed plan to regain lost schedule progress and to achieve the contractual milestones as they may be extended in accordance with this Agreement, including Substantial Completion of each Segment and the Project, Final Acceptance of each Segment and Project, completion of the Early Completion Work, and completion of the Toll Zone Work by the applicable Completion Deadline.

4.5.2 TxDOT shall notify Developer within 14 days after receipt of each such Recovery Schedule whether the Recovery Schedule is deemed accepted or rejected. Within 7 days after any rejection by TxDOT of the Recovery Schedule, Developer will resubmit a revised Recovery Schedule incorporating TxDOT's comments. When TxDOT accepts Developer's Recovery Schedule, Developer shall, within five days after TxDOT's acceptance, incorporate and fully include such schedule into the Project Schedule, deliver the same to TxDOT and proceed in accordance with the approved Recovery Schedule.

4.5.3 All costs incurred by Developer in preparing, implementing and achieving the Recovery Schedule shall be borne by Developer and shall not result in a change to the Price, except to the extent that the Recovery Schedule is in lieu of a time extension and a change in the Price is permitted for Acceleration Costs in accordance with Sections 13.2.1.3 or 13.3.2.5.

4.5.4 If Developer fails to provide an acceptable Recovery Schedule as required herein and in addition to any other rights and remedies in favor of TxDOT arising out of such failure, Developer shall have no right to receive progress payments until such time as Developer has prepared and TxDOT has approved such Recovery Schedule. Any failure or delay in the submittal or approval of a Recovery Schedule shall not result in any time extension under the Contract Documents.

SECTION 5. CONTROL OF WORK

5.1 Control and Coordination of Work

Developer shall be solely responsible for and have control over the construction means, methods, techniques, sequences, procedures and Site safety, and shall be solely responsible for coordinating all portions of the Work under the Contract Documents, subject, however, to all requirements contained in the Contract Documents.

5.2 Safety

Developer shall take all reasonable precautions and be solely responsible for the safety of, and shall provide protection to prevent damage, injury, or loss to, all persons on the Site or who would reasonably be expected to be affected by the Work, including individuals performing Work, employees of TxDOT and its consultants, visitors to the Site and members of the traveling public who may be affected by the Work. Developer shall at all times comply with all health and safety requirements contained in the Contract Documents and the Developer's Safety Plan and all such requirements under applicable Law.

5.3 Obligations to Minimize Impacts

Developer shall ensure that all of its activities and the activities of Developer-Related Entities are undertaken in a manner that will minimize the effect on surrounding property and the traveling public to the maximum extent practicable.

5.4 Oversight, Inspection and Testing; Meetings

5.4.1 Developer Inspection and Testing

Developer shall perform the inspection, sampling, testing, quality control and quality assurance necessary for Developer to comply with its obligations under the Contract Documents. Without in any way diminishing its obligations under the Contract Documents, Developer may utilize information developed by TxDOT related to acceptance testing for offsite fabricated materials. In the event that Developer elects to utilize such information, TxDOT may recover as TxDOT Recoverable Costs its reasonable expenses related to the development of such information.

5.4.2 Oversight by TxDOT and Others

5.4.2.1 TxDOT and its Authorized Representative shall have the right at all times to monitor, inspect, sample, measure, attend, observe or conduct tests and investigations, and conduct any other oversight respecting any part or aspect of the Project or the Work, to the extent necessary or advisable to: (a) comply with FHWA, U.S. Army Corps of Engineers or other applicable federal agency requirements, and (b) verify Developer's compliance with the Contract Documents and Project Management Plan as provided in Section 21.4. TxDOT shall conduct such activity in accordance with Developer's safety

procedures and manuals, and in a manner that does not unreasonably interfere with normal construction activity or normal operation and maintenance of the Project.

5.4.2.2 TxDOT shall have the right to attend and witness any tests and verifications to be conducted pursuant to the Technical Provisions and applicable Management Plans. Developer shall provide to TxDOT all test results and reports (which may be provided in electronic format in accordance with the Technical Provisions) within ten days after Developer receives them.

5.4.2.3 At all points in performance of the Work at which specific inspections and/or approvals by TxDOT are required by the Contract Documents and/or the Project Management Plan, Developer shall not proceed beyond that point until TxDOT has made such inspection or approval or waived its right in writing to inspect or approve. In addition, when any Utility Owner is to accept or pay for a portion of the cost of the Work, its respective representatives have the right to oversee, inspect and/or test the work. Such oversight, inspection and/or testing does not make such Person a party to this Agreement nor will it change the rights of the Parties. Developer hereby consents to such oversight, inspection and owner verification testing. Upon request from TxDOT, Developer shall furnish information to such Persons as are designated in such request and shall permit such Persons access to the Site and all parts of the Work.

5.4.2.4 Developer at all times shall coordinate and cooperate, and require its Subcontractors to coordinate and cooperate, with TxDOT and its Authorized Representative to facilitate TxDOT's oversight activities. Developer shall cause its representatives to be available at all reasonable times for consultation with TxDOT.

5.4.2.5 Without limiting the foregoing, Developer shall afford TxDOT and its Authorized Representative: (a) safe and unrestricted access to the Project at all times, (b) safe access during normal business hours to Developer's Project offices and operations buildings and (c) unrestricted access to data related to the Work, subject to Section 21.1. Without limiting the foregoing, Developer shall deliver to TxDOT upon request accurate and complete books, records, data and information regarding Work, the Project and the Utility Adjustment Work, in the format required by the Technical Provisions.

5.4.2.6 Nothing in the Contract Documents shall preclude, and Developer shall not interfere with, any review or oversight of Submittals or of Work that the FHWA may desire to conduct.

5.4.3 Obligation to Uncover Finished Work

Developer shall inform TxDOT in writing of any part of the Work which is about to be covered and offer a full and adequate opportunity to TxDOT to inspect and test such part of the Work before it is covered. At all times before Final Acceptance, Developer shall remove or uncover such portions of the finished Work as directed by TxDOT. After examination by TxDOT and any other Persons designated by TxDOT, Developer shall restore the Work to the standard required by the Contract Documents. If the Work exposed or examined is not in conformance with the requirements of the Contract Documents, then uncovering, removing and restoring the Work and recovery of any delay

to any Critical Path occasioned thereby shall be at Developer's cost and Developer shall not be entitled to any adjustment to the Price or any Completion Deadline or any other relief. Furthermore, any Work done or materials used without adequate notice to and opportunity for prior inspection by TxDOT (if applicable) or without inspection in accordance with Contract Documents and/or Project Management Plan may be ordered uncovered, removed or restored at Developer's cost and without an adjustment to the Price or any Completion Deadline or any other relief, even if the Work proves acceptable and conforming after uncovering. Except with respect to Work done or materials used as described in the foregoing sentence, if Work exposed or examined under this Section 5.4.3 is in conformance with the requirements of the Contract Documents, then any delay in any Critical Path from uncovering, removing and restoring Work shall be considered a TxDOT-Caused Delay, and Developer shall be entitled to a Change Order for the cost of such efforts and recovery of any delay to any Critical Path occasioned thereby.

5.4.4 Meetings

Developer shall conduct regular progress meetings with TxDOT at least once a month during the course of the Work. In addition, TxDOT and Developer, through their respective Authorized Representatives, shall meet from time to time at the other Party's request to discuss and resolve matters relating to the Work or Project. Developer shall schedule all meetings with TxDOT at a date, time and place reasonably convenient to both Parties and, except in the case of urgency, shall provide TxDOT with written notice and a meeting agenda at least three Business Days in advance of each meeting.

5.5 Effect of Oversight, Spot Checks, Audits, Tests, Acceptances and Approvals

5.5.1 Oversight and Acceptance

The oversight, spot checks, inspections, verifications, audits, tests, reviews, acceptances and approvals conducted by TxDOT and other Persons do not constitute acceptance of Nonconforming Work (except in limited circumstances as expressly provided in Section 5.6.2) or waiver of any warranty or legal or equitable right with respect thereto. TxDOT may request remedies for Nonconforming Work and/or identify additional Work which must be done to bring the Work into compliance with the requirements of the Contract Documents at any time prior to Final Acceptance, whether or not previous oversight, spot checks, inspections, verifications, audits, tests, reviews, acceptances or approvals were conducted or waived by TxDOT or any such Persons.

5.5.2 No Estoppel

Developer shall not be relieved of obligations to perform the Work in accordance with the Contract Documents, or any of its Warranty or indemnity obligations, as the result of oversight, spot checks, audits, reviews, tests or inspections performed by any Persons, approvals or acceptances made by any Persons, or any failure of any Person to take such action. TxDOT shall not be precluded or estopped, by any measurement, estimate or certificate made either before or after Final Acceptance, or by making any payment, from showing that any such measurement, estimate or certificate is incorrectly made or untrue, or from showing the true amount and character of the Work performed and materials

furnished by Developer, or from showing that the Work or materials do not conform in fact to the requirements of the Contract Documents. Notwithstanding any such measurement, estimate or certificate, or payment made in accordance therewith, TxDOT shall not be precluded or estopped from recovering from Developer and its Guarantor(s) or Surety(ies) such damages as TxDOT may sustain by reason of Developer's failure to comply or to have complied with the terms of the Contract Documents.

5.6 Nonconforming Work

5.6.1 Rejection, Removal and Replacement of Nonconforming Work

Nonconforming Work rejected by TxDOT shall be removed and replaced so as to conform to the requirements of the Contract Documents, at Developer's cost and without any adjustment to the Price or any Completion Deadline or any other relief; and Developer shall promptly take all action necessary to prevent similar Nonconforming Work from occurring in the future. The fact that TxDOT may not have discovered the Nonconforming Work shall not constitute an acceptance of such Nonconforming Work. If Developer fails to correct any Nonconforming Work within ten days of receipt of notice from TxDOT requesting correction, or if such Nonconforming Work cannot be corrected within ten days, and Developer fails to: (a) provide to TxDOT a schedule acceptable to TxDOT for correcting any such Nonconforming Work within such ten-day period, (b) commence such corrective Work within such ten-day period and (c) thereafter diligently prosecute such correction in accordance with such approved schedule to completion, then TxDOT may cause the Nonconforming Work to be remedied or removed and replaced and may deduct the cost of doing so from any moneys due or to become due Developer and/or obtain reimbursement from Developer for such cost.

5.6.2 Agreement to Accept Nonconforming Work

If Developer elects not to fully correct any Nonconforming Work pursuant to Section 5.6.1 and TxDOT agrees to accept such Nonconforming Work without requiring it to be fully corrected, TxDOT shall be entitled to reimbursement of a portion of the Price in an amount equal to the greatest of: (a) the amount deemed appropriate by TxDOT to provide compensation for known impacts to all affected Persons (including TxDOT) such as future maintenance and/or other costs relating to the Nonconforming Work, (b) the amount of the Price allocated to such Work, or (c) 100% of Developer's cost savings associated with its failure to perform the Work in accordance with the requirements of the Contract Documents. Such reimbursement shall be payable to TxDOT within ten days after Developer's receipt of an invoice therefor. Alternatively, TxDOT may deduct the amount of such costs and expenses from any sums owed by TxDOT to Developer pursuant to this Agreement. Developer acknowledges and agrees that subject to Developer's right to correct Nonconforming Work in accordance with Section 5.6.1, including the timelines therein, TxDOT shall have sole discretion regarding acceptance or rejection of Nonconforming Work and shall have sole discretion with regard to the amount payable in connection therewith. Payment, reimbursement or deduction of the amounts owing to TxDOT under this Section 5.6.2 shall be a condition precedent to the acceptance of the applicable Nonconforming Work.

SECTION 6. ACCESS TO SITE; UTILITY ADJUSTMENTS; ENVIRONMENTAL COMPLIANCE

6.1 Acquisition of Project ROW

6.1.1 All Project ROW, including Additional Properties but excluding temporary interests in property for Project Specific Locations, shall be acquired in the name of the State. Developer shall undertake and complete the acquisition of all Project ROW, including Additional Properties, in accordance with Section 7 of the Technical Provisions, the approved Right of Way Acquisition Plan and all applicable Laws relating to such acquisition, including the Uniform Act.

6.1.2 TxDOT shall: (a) provide review and approval or disapproval of Acquisition Packages for Project ROW, and (b) except as provided below, undertake eminent domain proceedings, if necessary, for Project ROW in accordance with the procedures and time frames established in Section 7 of the Technical Provisions and the approved Right of Way Acquisition Plan.

6.1.3 Except as otherwise authorized by Law for temporary Project Specific Locations, (a) TxDOT shall not be obligated to exercise its power of eminent domain in connection with Developer's acquisition of any such temporary right or interest, (b) TxDOT shall have no obligations or responsibilities with respect to the acquisition, maintenance or disposition of such temporary rights or interests, and (c) Developer shall have no obligation to submit Acquisition Packages to TxDOT for, or obtain TxDOT's approval of Developer's acquisition of, any such temporary right or interest.

6.2 Costs of Acquisitions

6.2.1 TxDOT shall be responsible for the purchase price for all parcels within the Schematic ROW. Subject to Sections 6.2.7 Developer shall be responsible for performing and the costs (excluding the purchase price) of all right of way engineering, surveying, appraisals, administration, acquisition, environmental permitting (other than certain mitigation requirements expressly excluded under Section 6.10.1.2) and related services for all such parcels, including all costs and expenses of negotiation and, if necessary, support services for condemnation proceedings described in Section 7 of the Technical Provisions; provided however that Developer's responsibility for such support services shall terminate upon Final Acceptance of the Project. If TxDOT incurs any such costs and expenses on Developer's behalf, TxDOT may submit any invoices for such costs and expenses to Developer, in which case Developer shall pay the invoices prior to delinquency. If TxDOT pays any such costs and expenses on Developer's behalf, Developer shall reimburse TxDOT within ten days of TxDOT's submittal to Developer of an invoice for such TxDOT costs and expenses. Alternatively, TxDOT may deduct the amount of such costs and expenses from any sums owed by TxDOT to Developer pursuant to this Agreement. Notwithstanding the foregoing, TxDOT shall be responsible for the legal costs for the State Attorney General counsel or fees for private counsel retained as directed by the State Attorney General in connection with any condemnation actions, except for such legal fees and costs that arise out of the acts, omissions,

negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of a Developer-Related Entity in the performance of its obligations under the Contract Documents.

6.2.2 TxDOT shall pay the purchase price of any real property outside the Schematic ROW that must be acquired due to a TxDOT-Directed Change, a Necessary Basic Configuration Change or a Force Majeure Event, subject to TxDOT's reasonable determination that the property is necessary, as well as, for Additional Properties that must be acquired due to a TxDOT-Directed Change or a Force Majeure event, any other costs and expenses incurred by Developer to acquire such real property, subject to the limitations in Section 13. Developer shall perform all right of way engineering, surveying, appraisals, administration, acquisition, archeological surveys, environmental and other permitting and related services for such property, including any services related to re-evaluation or modification to any TxDOT-Provided Approval, if necessary. Property outside of the Schematic ROW that is acquired for drainage easements hereunder shall be treated as Developer-Designated ROW.

6.2.3 Developer shall be responsible for and shall pay directly all costs and expenses in connection with acquiring all Developer-Designated ROW, including: (a) the cost of acquisition services and document preparation; (b) the cost of condemnation proceedings required by the Office of the Attorney General, including private attorneys' fees and expert witness fees, and all fees and expenses for exhibits, transcripts, photos and other documents and materials production, other than the Attorney General's direct fees; (c) the purchase prices, court awards or judgments, and special commissioner's awards for all Developer-Designated ROW (to be paid by Developer at the time of closing or final special commissioner's award, as applicable); (d) the cost of permitting; (e) closing costs associated with parcel purchases, in accordance with the Uniform Act and TxDOT policies; (f) relocation assistance payments and costs, in accordance with the Uniform Act; and (g) the cost for separate property survey(s) in addition to the Schematic ROW survey(s) in accordance with Section 7.3.1 of the Technical Provisions. If TxDOT incurs any such costs and expenses on Developer's behalf, TxDOT may submit any invoices for such costs and expenses to Developer, in which case Developer shall pay the invoices prior to delinquency. If TxDOT pays any such costs and expenses on Developer's behalf, Developer shall reimburse TxDOT within ten days of TxDOT's submittal to Developer of an invoice for such TxDOT costs and expenses. Alternatively, TxDOT may deduct the amount of such costs and expenses from any sums owed by TxDOT to Developer pursuant to this Agreement.

6.2.4 All costs and expenses for the acquisition of any temporary right or interest in real property, including Project Specific Locations, that Developer determines necessary or desirable for its convenience in constructing the Project, such as for work space, contractor laydown areas, materials storage areas or temporary Utility Adjustment, or for any permanent interest in real property that Developer may wish to acquire for its convenience which will not be part of the Project ROW, shall be Developer's sole responsibility, to be undertaken at Developer's sole cost and expense. TxDOT shall have no obligations or responsibilities with respect to the acquisition, maintenance or disposition of such rights or interests or the condition of such rights or interests, and shall not be

obligated to use its powers of eminent domain in connection therewith. Developer shall comply with all applicable Governmental Approvals and Laws in acquiring and maintaining or disposing of any such property rights or interests. Developer shall cause the documentation of any such property interest to contain the grantor's express acknowledgment that TxDOT shall have no liability with respect thereto.

6.2.5 Developer shall not be entitled to any increase in the Price or any time extension as a result of: (a) Site conditions associated with any Developer-Designated ROW (including those relating to Hazardous Materials, Differing Site Conditions or Utilities); and (b) any delay, inability or cost associated with the acquisition of any Developer-Designated ROW, including Developer-Designated ROW required to implement any ATCs.

6.2.6 If any Developer-Related Entity holds a real property interest, including a fee, easement or option to purchase, in a parcel located in the Schematic ROW, a mitigation site or a parcel on which a drainage easement shall be located, TxDOT, in its sole discretion, may elect to perform some or all of the real property acquisition services required under the Contract Documents that are associated with such parcel. In such event, TxDOT shall be entitled to deduct its TxDOT's Recoverable Costs incurred in performing such services. Any risk of delay associated with the acquisition of the real property encumbered by the Developer-Related Entity's property interest, including delay caused by condemnation proceedings, shall be borne by Developer and shall not be eligible for time extension. The price paid by the Developer-Related Entity for the real property interest acquired in such parcel may, in TxDOT's discretion, be disregarded as a comparable price for purposes of appraisal and/or condemnation of such parcel.

6.2.7 If a parcel acquired by TxDOT includes: (a) property that TxDOT is responsible for paying the price of acquisition (i.e. Schematic ROW) and (b) property that Developer is responsible for paying the price of acquisition (i.e. Developer-Designated ROW), Developer shall reimburse TxDOT a pro rata share of the parcel's total purchase price and related fees and costs based on the physical area of the property referenced in clause (b) of this Section 6.2.7 as a proportion of the combined physical area of the properties referenced in clauses (a) and (b) of this Section 6.2.7 that is acquired by TxDOT.

6.3 Limiting Acquisition of Certain Additional Properties

Developer's recommendation regarding the acquisition of certain Additional Properties shall be subject to the following:

6.3.1 Developer shall use its best efforts to restrict and limit additional costs to the Project associated with acquisitions related to TxDOT-Directed Changes and Necessary Basic Configuration Changes. To the extent reasonably possible, consideration shall be given to using retaining walls or making other engineering adjustments as an alternative to such acquisition. If it would be possible to use a retaining wall or other engineering adjustment to accommodate a TxDOT-Directed Change as an alternative to such acquisition, Developer shall support its recommendation to acquire such Additional Properties in lieu of constructing a retaining wall or otherwise modifying the

Schematic Design with an analysis demonstrating cost or time savings or other justification.

6.3.2 Developer shall support any requests for Change Orders for acquisitions related to Developer-Designated ROW with such information as may be reasonably required by TxDOT. Any cost savings resulting from such acquisition (including by avoiding use of retaining walls or other engineering modifications) shall be subject to the Value Engineering provisions set forth in Section 22.

6.3.3 In all cases, Developer shall exercise particular care to avoid acquisition of land owned by a public entity and used for a use inconsistent with highway use.

6.4 Representations by Developer

6.4.1 Developer's designated Right of Way Acquisition Manager ("ROW Acquisition Manager") shall be entitled to undertake the right of way acquisition services described in Section 7 of the Technical Provisions on behalf of TxDOT as its agent for such limited purpose, subject to the conditions and limitations of Section 6.2.7 and this Section 6.4.

6.4.2 In performing such activities, ROW Acquisition Manager shall at all times follow the standard of care and conduct and be subject to all Laws applicable to a licensed real estate broker in the State, and shall at all times conform with applicable Law (including, to the extent applicable, the Uniform Act) in all communications and interactions with the owners or occupants of the Project ROW or any other real property in which Developer seeks to obtain any right or interest.

6.4.2.1 Except as provided in Section 6.4.2.2, any individual person or entity identified by Developer to represent the State of Texas ("State") and who is to contact owners of real property interests, to make offers to or negotiate the purchase of such real property interests, or otherwise to perform services as agent for the State of Texas in the acquisition of real property interests, shall be licensed as a real estate broker by the Texas Real Estate Commission ("TREC") prior to and during all times such individual person or entity represents the State of Texas. The individual person or entity so identified by Developer shall be identified as the "Broker." Prior to any contact by the Broker with the owner of any real property interest, Developer shall submit to TxDOT a copy of the current, active license of each person or entity that will perform these tasks.

6.4.2.2 Other individual persons or entities may carry out the obligations of the Broker provided that such individual or entity meets one of the following requirements:

(a) If the individual person is licensed by TREC as a real estate broker, such person shall be either employed by the Broker, or have a written agreement with the Broker which agreement sets out the terms and obligations of such individual person to represent the State of Texas in the performance of services as agent. Prior to any contact with the owner of any real property interest, the Broker shall deliver to TxDOT a copy of the individual person's real estate broker's license and, in the event of an

agreement, a copy of the agreement between the Broker and the individual person licensed as a real estate broker.

(b) If an entity is licensed by the TREC as a real estate broker, such entity shall have a written agreement with the Broker which sets out the terms and obligations of such entity to represent the State of Texas in the performance of services as agent. Prior to any contact with the owner of any real property interest, the Broker shall deliver to TxDOT a copy of the entity's real estate broker's license and a copy of the agreement between the Broker and the entity licensed as a real estate broker.

(c) If an individual person is licensed by TREC as a real estate salesman, such person shall be either sponsored and employed by the Broker, or be employed by and sponsored by a person or entity licensed as a broker by TREC, which broker has a written agreement with the Broker that sets out the terms and obligations of the broker to represent the State of Texas in the performance of services as an agent. Prior to any contact with the owner of any real property interest, the Broker shall deliver to TxDOT a copy of the individual person's real estate salesman's license.

6.4.3 Developer shall not be entitled to a Change Order or Claim as a result of the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by the ROW Acquisition Manager in connection with ROW Acquisition Manager's activities in carrying out the limited agency provided herein.

6.5 Negotiations and Condemnation Proceedings Relative to the Acquisition of Project ROW

6.5.1 Negotiations for any Project ROW shall be undertaken as set forth in the Contract Documents, including Section 7.4.1 of the Technical Provisions. Developer shall obtain TxDOT's written approval of any offer to be extended to an owner of any interest in Project ROW prior to making such offer, in accordance with Section 7.3.6 of the Technical Provisions. Developer shall notify TxDOT in writing, for its concurrence, of the failure of negotiations with respect to the acquisition of any parcel included in the Project ROW and shall submit to TxDOT for approval a condemnation package for the parcel as described in Section 7.4.4 of the Technical Provisions. TxDOT shall have 15 Business Days either to: (a) approve the condemnation package or (b) provide its comments and/or request for additional information to Developer if TxDOT determines that the condemnation package is incomplete or otherwise deficient. Developer shall incorporate any suggested changes and provide any additional information requested by TxDOT and shall resubmit the condemnation package to TxDOT for review and approval. TxDOT shall have 15 Business Days to approve or provide comments to Developer on any resubmittals.

6.5.2 Condemnation proceedings for any Project ROW will be brought by TxDOT within a reasonable time following approval by TxDOT of a complete condemnation package for the parcel as described in Section 7.4.4 of the Technical Provisions. TxDOT will deliver the petition for the parcel to the Developer within 105 days from the date of approval of the condemnation package. TxDOT will provide the payment for the parcel within 45 days from the date that the Special Commissioners' award is filed with the court. At no additional cost to TxDOT, Developer shall cooperate in all respects with TxDOT and

shall cause all expert witnesses, appraisers, surveyors, land planners and other consultants utilized by Developer in connection with the acquisition of the Project ROW subject to condemnation to be available to and assist TxDOT in connection with the condemnation proceedings, including discovery, depositions, pre-hearing preparation and special commissioner's hearing. Counsel engaged for final settlement and/or condemnation proceedings shall be from the State Attorney General representing TxDOT.

6.5.3 Except as provided in Section 6.2.6, Developer shall be entitled to a time extension in accordance with Section 13.8.5 for delays to the Critical Path due to failure of TxDOT to deliver the petition for the parcel to the Developer within 105 days from the date of approval of the condemnation package or provide the payment for the parcel within 45 days in accordance with Section 6.5.2, excluding any delay caused in whole or in part by an act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity in performing the services required under the Contract Documents. Furthermore, except as provided in Section 6.2.6, delays to the Critical Path due to failure of TxDOT to make available the portion of Schematic ROW described in a condemnation packet within 365 days after approval of the condemnation package, excluding any delay caused in whole or in part by an act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity in performing the services required under the Contract Documents, shall be considered a TxDOT-Caused Delay; provided, however, that the risk of delay following the expiration of such 365-day period, on an individual parcel basis, shall be borne equally by each Party for the first 100 days thereafter (i.e., for each parcel, Developer shall be entitled to one day of time extension for every two days of delay). Following the expiration of the first 100 days after the initial 365-day period, Developer shall be entitled to one day of time extension for each day of eligible delay. The term "make available", as used herein, shall mean to make available for: (a) relocation of occupants and personal property, for occupied parcels, (b) demolition, for unoccupied, improved parcels, or (c) construction, for unoccupied, unimproved parcels. The Developer through due diligence shall initiate, cooperate and be responsible for all costs and all efforts necessary for the processing of the administrative portion of the condemnation action, up to and including the deposit of the award of Special Commissioners.

6.6 Physical Possession of Project ROW; Transfer of Title to Improvements

TxDOT shall notify Developer of the availability of Project ROW within ten Business Days after TxDOT has received access to such Project ROW. Developer shall be responsible for being informed of and complying with any access restrictions that may be set forth in any documents granting access to any Project ROW. Upon obtaining knowledge of any anticipated delay in the dates for acquisition of any Project ROW, the Party obtaining knowledge shall promptly notify the other party in writing. In such event, Developer shall immediately determine whether the delay impacts the Critical Path and, if so, to what extent it might be possible to avoid such delay through re-sequencing, reallocation or other alternative construction methods or otherwise. Developer shall promptly meet with TxDOT to determine the best course of action and prepare a written report setting forth its recommendations, which recommendations shall be subject to the written approval of

TxDOT. TxDOT may, in its sole discretion, transfer, without representation or warranty, TxDOT's right, title and interest in and to any improvements within the acquired Project ROW to Developer for purposes of facilitating demolition of such improvements and construction of the Project as soon as feasible after title is acquired by TxDOT. Developer shall accept such transfer of title and shall assume all responsibility associated with such improvements upon transfer to Developer.

6.7 Access to Project ROW

To the extent that Developer has not been provided with access to portions of the Project ROW on or prior to the date set forth on the Project Schedule, Developer shall work around such Project ROW with the goals of minimizing delay to the completion of the Project. Except for delays caused by the type of event described in clause (b) of the definition of "TxDOT-Caused Delay," Developer shall not be entitled to any increase in the Price for delays caused by the failure or inability of TxDOT to provide Project ROW. Except for delays caused by the type of event described in Section 6.5.3, Developer shall not be entitled to any time extension for delays caused by the failure or inability of TxDOT to provide Project ROW. Where Developer makes a written request for access or rights of entry for any Project ROW for which access has not yet been acquired, Developer may, with TxDOT's prior written consent, which may be withheld or withdrawn at any time, in TxDOT's sole discretion, and subject to the provisions of Section 6.6 above and Sections 7.4 and 7.5 of the Technical Provisions, negotiate with property owners or occupants for early access or temporary use of land, provided that any such negotiations shall comply in all respects with applicable Law, including the Uniform Act. Developer's negotiations with property owners or occupants for early rights-of-entry shall occur only under such terms and conditions as are stipulated by TxDOT, in its sole discretion. TxDOT shall not be bound by the terms and conditions agreed upon by Developer and any property owner or occupant until such time as TxDOT has expressly so indicated in writing (and, then, only to the extent expressly set forth therein).

6.8 Utility Adjustments

Developer is responsible for causing, in accordance with the Project Schedule, all Utility Adjustment Work necessary to accommodate the design and construction of the Project. All Utility Adjustment Work performed by Developer shall comply with the Contract Documents. Developer shall coordinate, monitor, and otherwise undertake the necessary efforts to cause Utility Owners performing Utility Adjustment Work to perform such work timely, in coordination with the Work, and in compliance with the standards of design and construction and other applicable requirements specified in the Contract Documents. However, regardless of the arrangements made with the Utility Owners and except as otherwise provided in Section 13, Developer shall continue to be the responsible party to TxDOT for timely performance of all Utility Adjustment Work so that upon completion of the Work, all Utilities that might impact the Project or be impacted by it (whether located within or outside the Project ROW) are compatible with the Project. Developer agrees that: (a) the Price (as it may be modified hereunder) covers all of the Utility Adjustment Work to be furnished, performed or paid for by Developer, (b) it is feasible to obtain and/or perform all necessary Utility Adjustments within the time deadlines of the Contract Documents (as

they may be modified pursuant to Section 13), and (c) the Price includes contingencies deemed adequate by Developer to account for the potential risks of additional costs and delays relating to Utility Adjustments, except to the extent that an adjustment to the Price is permitted under this Section 6.8 and in accordance with Section 13.

6.8.1 New Utilities and Unidentified Utilities

Developer's entitlement to Change Orders for additional compensation or extension of time on account of New Utilities, omissions or inaccuracies in the Utility Strip Map shall be limited as set forth in this Section 6.8.1. Developer shall use its best efforts to minimize costs for which Developer is entitled to compensation pursuant to this Section 6.8.1, and to minimize any delay for which Developer is entitled to an extension in the Completion Deadline pursuant to this Section 6.8.1, subject to Developer's obligation to comply with all applicable requirements of the Contract Documents, including the Utility Accommodation Rules (UAR) and the other requirements described in Section 6 of the Technical Provisions.

6.8.1.1 New Utilities. Developer shall be entitled to a Change Order: (a) increasing the Price to compensate Developer for any increase in Developer's costs incurred in performing the Utility Adjustment Work that is directly attributable to a New Utility (including reimbursements owed to Utility Owners but excluding delay and disruption damages), and (b) extending the applicable Completion Deadline as a result of any delay in the Critical Path directly attributable to performing the Utility Adjustment Work directly attributable to a New Utility. Subject to the foregoing, the amount of such Change Order shall be determined in accordance with Section 13.

6.8.1.2 Unidentified Utilities.

(a) Developer shall be entitled to an increase in the Price in connection with certain increases in the cost of the Work due to Unidentified Utilities within the Schematic ROW. Such increase shall be determined on a facility-by-facility basis, and shall apply for a particular Unidentified Utility facility only if the Basic Costs for the Utility Adjustment for that facility are greater than \$25,000. The amount of the Price increase in any Change Order issued under this Section 6.8.1.2 for each such Unidentified Utility facility shall be equal to the Basic Costs for that facility, less \$25,000 (which amount shall be the Developer's sole responsibility). Notwithstanding the foregoing, an aggregate cap of \$500,000 shall apply to the total amount of such \$25,000 "deductibles" that are Developer's responsibility. In determining whether the aggregate cap has been reached, Utility Adjustments of Unidentified Utilities with Basic Costs of less than \$25,000 shall not be counted towards the aggregate \$500,000 cap and such amounts shall be the Developer's sole responsibility. If the \$500,000 aggregate cap is reached, the amount of the Price increase in any Change Order thereafter issued under this Section 6.8.1.2 for a Utility Adjustment of any Unidentified Utility for which the Basic Costs are in excess of \$25,000 shall be equal to the Basic Costs for that facility. In no event shall Developer be entitled to a Change Order for increased costs due to Utility Adjustments for Unidentified Utilities for which the Basic Costs are \$25,000 or less, regardless of whether the aggregate cap is reached.

(b) All Basic Costs calculations submitted by Developer shall be supported by detailed cost proposals and supporting documentation (for all estimates used in such calculations) meeting the requirements of Section 13.6 of this Agreement. TxDOT shall have the right to require that any or all of the information submitted by Developer in the EPDs be used in evaluating the cost proposals.

6.8.1.3 No Time Extension. Except as otherwise provided in Section 6.8.1 with regard to New Utilities, no time extension will be allowed on account of: (a) any delays attributable to any inaccuracy(ies) in the Utility Strip Map; or (b) the performance of Utility Adjustments for Unidentified Utilities.

6.8.2 Utility Enhancements

Developer shall be responsible for addressing any requests by Utility Owners that Developer design and/or construct a Betterment or Utility Owner Project (collectively, "Utility Enhancements").

6.8.2.1 If a Utility Owner requests that Developer design and/or construct a Betterment, then subject to Section 6.8.3.4, Developer shall use its best efforts to negotiate in good faith an agreement with the Utility Owner providing for Developer to perform such work at the Utility Owner's expense, with payments to be made directly by the Utility Owner to Developer. Any such agreement shall be set forth in the applicable Utility Agreement. Any such Betterment shall be deemed added to the scope of the Work only upon execution by the Utility Owner and Developer and approval by TxDOT of a Utility Agreement identifying and providing for performance of such Betterment. Any change in the scope of the Work pursuant to this Section 6.8.2.1 shall not be treated as a TxDOT-Directed Change or extend the Completion Deadlines.

6.8.2.2 The Price shall not be increased on account of any Betterment added to the Work. Instead, Developer shall have the right to collect payment for such work directly from the Utility Owner, subject to the provisions of the applicable Utility Agreement. The amount of compensation payable by the Utility Owner to Developer for a Betterment shall be determined pursuant to the process set forth in the applicable Utility Agreement. Developer shall submit to TxDOT a copy of each invoice delivered to a Utility Owner pursuant to this Section 6.8.2.2, concurrently with its delivery to the Utility Owner.

6.8.2.3 If a Utility Owner requests that Developer design and/or construct a Utility Owner Project, then subject to Section 6.8.3.4, Developer shall use its best efforts to negotiate in good faith an agreement with the Utility Owner providing for Developer to perform such work at the Utility Owner's expense, with payments to be made directly by the Utility Owner to Developer. Any such agreement shall be a separate contract between Developer and the Utility Owner; and any such Utility Owner Project shall be performed outside of this Agreement and the Work, without any impact on the Price and the Completion Deadlines and shall be subject to Section 6.8.8. The compensation payable by the Utility Owner to Developer for a Utility Owner Project shall be determined in a manner acceptable to both Developer and the Utility Owner.

6.8.2.4 Developer is fully responsible for coordinating its efforts with Utility Owners and for addressing requests by Utility Owners that Developer design and/or construct Utility Enhancements. Any Betterment performed as part of a Utility Adjustment, whether by Developer or by the Utility Owner, shall be subject to the same standards and requirements as if it were a necessary Utility Adjustment, and shall be addressed in the appropriate Utility Agreement. Under no circumstances shall Developer proceed with any Utility Enhancement which is incompatible with the Project or which cannot be performed within the other constraints of applicable Law, the Governmental Approvals and the Contract Documents, including the Completion Deadlines. Under no circumstances will Developer be entitled to any Price increase or time extension hereunder as the result of any Utility Enhancement, whether performed by Developer or by the Utility Owner. Developer may, but is not obligated to, design and construct Utility Enhancements. Developer shall promptly notify TxDOT of any requests by Utility Owners which Developer considers to be Betterments, and shall keep TxDOT informed as to the status of negotiations with Utility Owners concerning such requests. Developer shall provide TxDOT with such information, analyses, and certificates as may be requested by TxDOT in order to determine compliance with this Section 6.8.3.

6.8.3 Utility Agreements

6.8.3.1 As described in Section 6.1.3 of the Technical Provisions, Developer is responsible for preparing and entering into Utility Agreements with the Utility Owners, and TxDOT agrees to cooperate as reasonably requested by Developer in pursuing Utility Agreements, including attendance at negotiation sessions and review of Utility Agreements. TxDOT is not providing any assurances to Developer that the Utility Owners will accept, without modification, the standard Utility Agreement forms specified in Section 6.1.3 of the Technical Provisions. Developer is solely responsible for the terms and conditions of all PUAAs and UAAAs into which it enters (subject to the requirements of the Contract Documents, including Section 6.1.4 of the Technical Provisions). Utility Agreements entered into by Developer shall not be considered Contract Documents. Developer shall not be entitled to any increase in the Price or to any time extension on account of the terms of any Utility Agreement (including those related to any Betterment).

6.8.3.2 TxDOT will not be a party to the Utility Agreements; however, Developer shall cause the Utility Agreements to designate TxDOT as an intended third-party beneficiary thereof and to permit assignment of Developer's right, title and interest thereunder to TxDOT without necessity for Utility Owner consent. Developer shall not enter into any agreement with a Utility Owner that purports to bind TxDOT in any way, unless TxDOT has executed such agreement as a party thereto. However, TxDOT's signature indicating approval or review of an agreement between Developer and a Utility Owner, or its status as a third-party beneficiary, shall not bind TxDOT as a party to such agreement.

6.8.3.3 If a conflict occurs between the terms of a Utility Agreement and those of the Contract Documents, the terms that establish the higher quality, manner or method of performing Utility Adjustment Work, establish better Good Industry Practice, or use more stringent standards shall prevail between Developer and TxDOT.

6.8.3.4 Developer shall comply with and timely perform all obligations imposed on Developer by any Utility Agreement.

6.8.3.5 Each Utility Adjustment (whether performed by Developer or by the Utility Owner) shall comply with the Adjustment Standards in effect as of the Proposal Due Date, together with any subsequent amendments and additions to those standards that: (a) are necessary to conform to applicable Law, or (b) are adopted by the Utility Owner and affect the Utility Adjustment pursuant to the applicable Utility Agreement(s). Developer is solely responsible for negotiating any terms and conditions of its Utility Agreements that might limit a Utility Owner's amendments and additions to its Adjustment Standards after the Proposal Due Date. In addition, all Utility Adjustment Work shall comply with all applicable Laws, the applicable Utility Agreement(s), and all other requirements specified in Section 6 of the Technical Provisions.

6.8.4 Failure of Utility Owners to Cooperate

6.8.4.1 Developer shall use best efforts to obtain the cooperation of each Utility Owner as necessary for the Utility Adjustment. Developer shall notify TxDOT immediately if: (a) Developer is unable (or anticipates that it will be unable), after diligent efforts, to reach agreement with a Utility Owner on a necessary Utility Agreement within a reasonable time, (b) Developer reasonably believes for any other reason that any Utility Owner would not undertake or permit a Utility Adjustment in a manner consistent with the timely completion of the Project, (c) Developer becomes aware that any Utility Owner is not cooperating in a timely manner to provide agreed-upon work or approvals, or (d) any other dispute arises between Developer and a Utility Owner with respect to the Project, despite Developer's diligent efforts to obtain such Utility Owner's cooperation or otherwise resolve such dispute. Such notice may include a request that TxDOT assist in resolving the dispute or in otherwise obtaining the Utility Owner's timely cooperation. Developer shall provide TxDOT with such information as TxDOT requests regarding the Utility Owner's failure to cooperate and the effect of any resulting delay on the Project Schedule. After delivering to TxDOT any notice or request for assistance, Developer shall continue to use diligent efforts to pursue the Utility Owner's cooperation.

6.8.4.2 If Developer requests TxDOT's assistance pursuant to Section 6.8.4.1, Developer shall provide evidence reasonably satisfactory to TxDOT that: (a) the Utility Adjustment is necessary, (b) the time for completion of the Utility Adjustment in the Project Schedule was, in its inception, a reasonable amount of time for completion of such work, (c) Developer has made diligent efforts to obtain the Utility Owner's cooperation, and (d) the Utility Owner is not cooperating (the foregoing items (a) through (d) are referred to herein as the "conditions to assistance"). Following TxDOT's receipt of satisfactory evidence, TxDOT shall take such reasonable steps as may be requested by Developer to obtain the cooperation of the Utility Owner or resolve the dispute; however, TxDOT shall have no obligation to prosecute eminent domain or other legal proceedings, or to exercise any other remedy available to it under applicable Law or existing contract, unless TxDOT elects to do so in its sole discretion. If TxDOT holds contractual rights that might be used to enforce the Utility Owner's obligation to cooperate and TxDOT elects in its sole discretion not to exercise those rights, then TxDOT shall assign those rights to Developer upon Developer's request; however,

such assignment shall be without any representation or warranty as to either the assignability or the enforceability of such rights. Developer shall reimburse TxDOT for TxDOT's Recoverable Costs in connection with providing such assistance to Developer. Any assistance provided by TxDOT shall not relieve Developer of its sole and primary responsibility for the satisfactory compliance with its obligations and timely completion of all Utility Adjustment Work, except as otherwise expressly set forth in this Section 6.8.4.

6.8.4.3 If TxDOT objects in writing to a request for assistance pursuant to Section 6.8.4.1, based on Developer's failure to satisfy one or both of the conditions to assistance described in Sections 6.8.4.2(a) and (b), then Developer shall take such action as is appropriate to satisfy the condition(s) and shall then have the right to submit another request for assistance on the same subject matter. If TxDOT objects in writing to a request for assistance pursuant to Section 6.8.4.1 based on Developer's failure to satisfy one or both of the conditions to assistance described in Sections 6.8.4.2(c) and (d), then Developer shall take such action as Developer deems advisable during the next 30 days to obtain the Utility Owner's cooperation and shall then have the right to submit another request for assistance on the same subject matter. Notwithstanding the foregoing, no resubmittal will be accepted unless all TxDOT objections have been addressed in accordance with the preceding two sentences. This process shall be followed until Developer succeeds in obtaining the Utility Owner's cooperation or in otherwise resolving the dispute or until TxDOT determines, based on evidence Developer presents, that the conditions to assistance have been satisfied. Developer shall have the right to submit the question of the reasonableness of TxDOT's determination through the dispute resolution process described in Section 19.

6.8.5 Delays by Utility Owners

6.8.5.1 Developer shall bear 100% of the risk of Critical Path delays caused by a Utility Owner's failure to timely comply with the requirements of a Utility Agreement which has been executed by Developer and such Utility Owner.

6.8.5.2 The term "Utility Owner Delay" shall mean a delay to a Critical Path that is directly attributable to a Utility Owner's failure to cooperate with Developer in performing Utility Adjustment Work within the time period reasonably scheduled by Developer for performance of such work, where Developer and Utility Owner have not yet executed a Utility Agreement addressing such Utility Adjustment Work. Developer shall bear 100% of the risk of each Utility Owner Delay prior to and during the 90-day period following TxDOT's receipt of evidence required by Section 6.8.4.2 that is reasonably satisfactory to TxDOT. The risk of any Utility Owner Delay after such 90-day period shall be borne equally by each Party (i.e. any affected Completion Deadline shall be extended by one day for every two full days of Utility Owner Delay occurring after expiration of the 90-day period). If a Utility Owner Delay is concurrent with another delay which is Developer's responsibility hereunder, Developer shall not be entitled to a time extension on account of such Utility Owner Delay. If a Utility Owner Delay is concurrent with another Utility Owner Delay by the same Utility Owner or by another Utility Owner, only one of the delays shall be counted. If a Utility Owner Delay is concurrent with any other delay for which Developer is entitled to a time extension under Section 13, the delay shall be deemed a Utility Owner Delay and the provisions of this Section 6.8.5 shall apply.

6.8.5.3 No Change Order for delay to a Critical Path shall be allowable pursuant to Section 6.8.5.2 unless all of the following criteria are met:

(a) the general requirements and conditions for Change Orders set forth in Section 13 have been met,

(b) Developer has provided evidence reasonably satisfactory to TxDOT that: (i) Developer took advantage of Float time available early in the Project Schedule for coordination activities with respect to the affected Utility, and (ii) Developer has made diligent efforts to obtain the Utility Owner's cooperation but has been unable to obtain such cooperation,

(c) if applicable, Developer has provided a reasonable Utility Adjustment plan to the Utility Owner,

(d) Developer or the Utility Owner has obtained, or is in a position to timely obtain, all applicable approvals, authorizations, certifications, consents, exemptions, filings, leases, licenses, permits, registrations, opinions and/or rulings required by or with any Person in order to design and construct such Utility Adjustment,

(e) there exists no other circumstance which would delay the affected Utility Adjustment even if the Utility Owner were cooperative, and

(f) the delay is allowable under Section 13.5.3.

6.8.5.4 Except as set forth in Section 6.8.5.2 with respect to certain Utility Owner Delays, Developer shall not be entitled to an extension of any Completion Deadline on account of any delays caused by a Utility Owner. Developer shall not be entitled to any increase of the Price or reimbursement of any additional costs which it may incur as a result of any delays caused by a Utility Owner, regardless of whether Developer is entitled to an extension of any Completion Deadlines on account of such delays pursuant to Section 6.8.5.2. Any action or inaction by TxDOT as described in Section 6.8.4.2 shall have no bearing on the restriction set forth in this Section 6.8.5.4.

6.8.6 Utility Adjustment Costs

6.8.6.1 Subject to Section 6.8.1, Developer is responsible for all costs of the Utility Adjustment Work, including costs of acquiring Replacement Utility Property Interests and costs with respect to relinquishment or acquisition of Existing Utility Property Interests, but excluding costs attributable to Betterment and any other costs for which the Utility Owner is responsible under applicable Law. Developer shall fulfill this responsibility either by performing the Utility Adjustment Work itself at its own cost (except that any assistance provided by any Developer-Related Entity to the Utility Owner in acquiring Replacement Utility Property Interests shall be provided outside of the Work, in compliance with Section 6.2.4 of the Technical Provisions), or by reimbursing the Utility Owner for its Utility Adjustment Work (however, Developer has no obligation to reimburse Utility Adjustment costs for any Service Line Utility Adjustment for which the affected property owner has been compensated pursuant to Section 6.2). Developer is solely responsible for collecting directly

from the Utility Owner any reimbursement due to Developer for Betterment costs or other costs incurred by Developer for which the Utility Owner is responsible under applicable Law.

6.8.6.2 For each Utility Adjustment, the eligibility of Utility Owner costs (both indirect and direct) for reimbursement by Developer, as well as the determination of any Betterment or other costs due to Developer, shall be established in accordance with applicable Law and the applicable Utility Agreement(s), all of which shall incorporate by reference 23 CFR Part 645 Subpart A.

6.8.6.3 For each Utility Adjustment, Developer shall compensate the Utility Owner for the fair market value of each Existing Utility Property Interest relinquished pursuant to Section 6.2.4 of the Technical Provisions, to the extent TxDOT would be required to do so by applicable Law and provided that TxDOT has approved the Utility Owner's claim. Developer is advised that in some cases reimbursement of the Utility Owner's acquisition costs for a Replacement Utility Property Interest will satisfy this requirement. Developer shall pay any compensation due to the Utility Owner and all costs and expenses associated therewith (including any incurred by TxDOT on Developer's behalf for eminent domain proceedings or otherwise) in accordance with Section 6.2. Developer shall carry out the same duties for acquisition of an Existing Utility Property Interest, as are assigned to Developer in Section 6.2 of the Agreement and Section 6.2.4 of the Technical Provisions for the acquisition of any other necessary real property interests.

6.8.6.4 If for any reason Developer is unable to collect any amounts owed to Developer by any Utility Owner, then: (a) TxDOT shall have no liability for such amounts; (b) Developer shall have no right to collect such amounts from TxDOT or to offset such amounts against amounts otherwise owing to Developer from TxDOT; and (c) Developer shall have no right to stop work or to exercise any other remedies against TxDOT on account of such Utility Owner's failure to pay Developer.

6.8.6.5 If any local Governmental Entity is participating in any portion of Utility Adjustment costs, Developer shall coordinate with TxDOT and such local Governmental Entity regarding accounting for and approval of those costs.

6.8.6.6 Developer shall maintain a complete set of records for the costs of each Utility Adjustment (whether incurred by Developer or by the Utility Owner), in a format compatible with the estimate attached to the applicable Utility Agreement and in sufficient detail for analysis. For both Utility Owner costs and Developer costs, the totals for each cost category shall be shown in such manner as to permit comparison with the categories stated on the estimate. Developer also shall indicate in these records the source of funds used for each Utility Adjustment. All records with respect to Utility Adjustment Work shall comply with the record keeping and audit requirements of the Contract Documents.

6.8.6.7 Developer acknowledges that the Price includes the following cost responsibility for Utility Adjustments (i) where the Utility Owner does not have a compensable property interest in the land occupied by the facility to be relocated, Developer and the Utility Owner shall share equally (50%) the cost of Adjustments for both Owner Managed and Developer Managed Utility Agreements, and (ii) where the Utility Owner has a compensable property interest in the land occupied by the facility to be relocated, Developer is

responsible for 100% of eligible cost of Adjustments for both Owner Managed and Developer Managed Utility Agreements. TxDOT shall be entitled to a Change Order in accordance with Section 13 decreasing the Price in the event of a decrease during the Term in the Developer's share of the costs for the Utility Adjustment Work (due to a Change in Law or expiration of Transportation Code Section 203.092(a-3)); and Developer shall be entitled to a Change Order increasing the Price for any Change in Law that qualifies as a Force Majeure Event.

6.8.7 FHWA Utility Requirements

Unless TxDOT advises Developer otherwise, the following provisions apply to Utility Adjustments.

6.8.7.1 The Project will be subject to 23 CFR Part 645 Subpart A (including its requirements as to plans, specifications, estimates, charges, tracking of costs, credits, billings, records retention, and audit) and FHWA's associated policies. Developer shall comply (and shall require the Utility Owners to comply) with 23 CFR Part 645 Subpart A as necessary for any Utility Adjustment costs to be eligible for FHWA reimbursement (or for any other federal financing or funding). Developer acknowledges, however, that without regard to whether such compliance is required, (a) it is not anticipated that Developer will be eligible for FHWA reimbursement of any Utility Adjustment outlays, and (b) Developer will not have any share in any reimbursement from FHWA or other federal financing or funding that TxDOT may receive on account of Utility Adjustments.

6.8.7.2 Developer shall prepare and deliver to TxDOT the Alternate Procedure List in appropriate format for submittal to FHWA, together with all other documentation required by FHWA for compliance with the FHWA Alternate Procedure. If applicable, TxDOT will submit the Alternate Procedure List and other documentation to FHWA.

6.8.7.3 Promptly upon determining that any Utility Owner not referenced on the Alternate Procedure List is impacted by the Project, Developer shall submit to TxDOT all documentation required by FHWA to add these Utilities to the Alternate Procedure List. If applicable, TxDOT will transmit the additional documentation to FHWA for approval.

6.8.7.4 Promptly upon receiving FHWA's approval of the initial or any amended Alternate Procedure List, TxDOT will forward the approved list to Developer.

6.8.8 Applications for Utility Permits

6.8.8.1 It is anticipated that during the Work, from time to time Utility Owners will apply for utility permits to install new Utilities that would cross or longitudinally occupy the Project ROW, or to modify, upgrade, relocate or expand existing Utilities within the Project ROW for reasons other than accommodation of the Project. The provisions of this Sections 6.8.8 shall apply to all such permit applications. TxDOT shall provide Developer with a copy of each such permit application received after the Effective Date, within 30 days after TxDOT's receipt of such application. Except as otherwise provided in Section 6.8.1, no accommodation of New Utilities or of modifications, upgrades, relocations or expansions of

existing Utilities pursuant hereto shall entitle Developer to additional compensation or time extension hereunder.

6.8.8.2 For all such utility permit applications pending as of or submitted after the Effective Date, Developer shall furnish the most recent Project design information and/or as-built plans, as applicable, to the applicants, and shall assist each applicant with information regarding the location of other proposed and existing Utilities. Developer shall keep records of its costs related to new Utilities separate from other costs.

6.8.8.3 Developer shall assist TxDOT in deciding whether to approve a permit described in Section 6.8.8.1. Within a time period that will enable TxDOT to timely respond to the application, Developer shall analyze each application and provide to TxDOT a recommendation (together with supporting analysis) as to whether the permit should be approved, denied, or approved subject to conditions. As part of the recommendation process, Developer shall furnish to TxDOT Utility No-Conflict Sign-Off Forms, signed by both Developer's Utility Design Coordinator (UDC) and Developer's Utility Manager, using the standard forms included in the Technical Provisions. Developer shall limit the grounds for its recommendation to the grounds (as TxDOT communicates to Developer from time to time) on which TxDOT is legally entitled to approve or deny the application or to impose conditions on its approval. However, TxDOT shall have the right to issue utility permits in its sole discretion.

6.8.9 Security for Utility Adjustment Costs; Insurance

6.8.9.1 Upon request from a Utility Owner entitled to reimbursement of Utility Adjustment costs, Developer shall, at its sole cost, provide security for such reimbursement by way of a payment bond, letter of credit or retention account, in such amount and on such terms as are negotiated in good faith between Developer and the Utility Owner.

6.8.9.2 Developer may satisfy a Utility Owner's requirement that Developer provide liability insurance by naming such Utility Owner as an additional insured on the insurance provided by Developer or any Subcontractor pursuant to Section 9.

6.8.10 Additional Restrictions on Change Orders for Utility Adjustments

In addition to all of the other requirements and limitations contained in this Section 6.8 and in Section 13, the entitlement of Developer to any Change Order under this Section 6.8 shall be subject to the restrictions and limitations set forth in this Section 6.8.10.

6.8.10.1 Developer shall provide documentation satisfactory to TxDOT showing that the required analysis was performed and an appropriate determination made regarding the need for the Utility Adjustment, and shall also bear the burden of proving that the amount of any additional costs and/or time incurred by Developer are both necessary and reasonable.

6.8.10.2 As part of the Work, Developer is responsible for causing all Utility Adjustment Work and Incidental Utility Adjustment Work to occur, for reimbursing the Utility Owners for their costs of performing or furnishing Utility Adjustment Work and Incidental Utility Adjustment Work, and subject to Section 6.8.5.2, for scheduling all Utility Adjustment

Work and Incidental Utility Adjustment Work (whether performed by Developer or the affected Utility Owner) so as to meet the Completion Deadlines herein. Accordingly, if a Utility Owner performs or furnishes Utility Adjustment Work or Incidental Utility Adjustment Work that was initially anticipated to be performed or furnished by Developer, or if Developer performs or furnishes Utility Adjustment Work or Incidental Utility Adjustment Work that was initially anticipated to be performed or furnished by the Utility Owner, there shall be no resulting time extension and no resulting change in the Price. The foregoing shall not affect TxDOT's right to any credit that may be owing under Section 13.

6.8.10.3 Developer shall not be entitled to a Change Order for any costs or delays which it may incur that are attributable to: (a) any errors, omissions, inaccuracies, inconsistencies or other defects in designs furnished by any Utility Owner, including any failure of such designs to comply with the requirements of Section 6.3 of the Technical Provisions, and/or (b) any defect in construction performed by any Utility Owner or other failure of such construction to comply with the requirements of Section 6.4 of the Technical Provisions.

6.8.10.4 Developer shall not be entitled to a Change Order for any costs or delays resulting from the performance of Incidental Utility Adjustment Work by the Developer or any Utility Owner (including with respect to New Utilities for which Developer is otherwise entitled to a Change Order under Section 6.8.1).

6.8.10.5 Any Change Order increasing the Price pursuant to this Section 6.8 shall include only the incremental costs arising from the circumstances giving rise to such Change Order.

6.8.10.6 Developer shall not be entitled to any increase in the Price for any costs of coordinating with Utility Owners (including with respect to New Utilities for which Developer is otherwise entitled to a Change Order under Section 6.8.1).

6.8.10.7 Any information with respect to Utilities provided in the Reference Information Documents is for Developer's reference only, has not been verified, and shall not be relied upon by Developer. Without limiting the generality of the foregoing, Developer acknowledges that such information does not identify most of the Service Lines that may be impacted by the Project and that there may be other facilities impacted by the Project that are not identified in such information. Developer shall verify all information with respect to Utilities included in the Reference Information Documents and shall perform its own investigations as provided in Sections 6.3.1 and 6.4.2 of the Technical Provisions. Accordingly, there shall be no changes in the Price and no time extensions on account of any inaccuracies in the Reference Information Documents with respect to any Utilities. Except as provided in Section 6.8.1 of this Agreement, Developer shall not be entitled to any increase in the Price and/or time extension as a result of any of the following.

(a) any increase in the extent or change in the character of the Utility Adjustment Work necessary to Adjust any Utility from that anticipated by Developer;

(b) any difference in the cost to Adjust a Utility from that anticipated by Developer;

(c) any inaccuracy in the information included in the Reference Information Documents as to the existence, location, ownership, type, and/or any other characteristic of any Utility;

(d) any inaccuracy in the Reference Information Documents as to whether any Utility is located within privately owned property or public right of way; and/or

(e) any inaccuracy in the Reference Information Documents as to the existence or nature of any rights or interest relating to the occupancy of any real property by any Utility.

6.8.10.8 Inasmuch as Developer is both furnishing the design of and constructing the Project, Developer may have opportunities to reduce the costs of certain portions of the Work, which may increase the costs of certain other portions of the Work. In considering each such opportunity, Developer shall consider the impact of design changes on Utility Adjustments to the extent practical. Accordingly, except as otherwise provided in Section 13 with respect to TxDOT-Directed Changes, the following provisions shall apply with respect to any increase or decrease in the cost of the Work and/or delay associated with design changes during the course of the Project which either reduce the nature or extent of or eliminate any Utility Adjustment, or result in unanticipated Utility Adjustments or an increase in the nature or extent of anticipated Utility Adjustments:

(a) Developer shall not be entitled to extension of any Completion Deadline on account of delays resulting from any such design changes.

(b) Developer shall not be entitled to any increase in the Price for any such additional costs which Developer incurs (including both additional costs of Utility Adjustment Work and the costs of any additional Work on other aspects of the Project undertaken in order to avoid or minimize Utility Adjustments).

(c) If TxDOT incurs any such additional costs, then Developer shall reimburse TxDOT for such costs within ten days after receipt of TxDOT's invoice therefor, or in TxDOT's discretion, TxDOT may deduct the amount of reimbursement due from any payment due to Developer under this Agreement.

(d) TxDOT shall not be entitled to a credit on account of reductions in the cost of the Work due to any such avoided or minimized Utility Adjustments.

6.8.10.9 If Developer elects to make payments to Utility Owners or to undertake any other efforts which are not required by the terms of the Contract Documents, Developer shall not be entitled to a Change Order in connection therewith. Developer shall promptly notify TxDOT of the terms of any such arrangements.

6.8.10.10 Except as specified in this Section 6.8 or in Section 13, Developer shall not be entitled to any Change Order with respect to any Utility Adjustments, including any act or omission of any Utility Owner which may result in a delay to the Project Schedule or in Developer's incurring costs not included in the Price.

6.9 Hazardous Materials Management

6.9.1 Procedures and Compensation for Hazardous Materials Management

6.9.1.1 Subject to Section 6.9.1.3, Developer shall manage, treat, handle, store, remediate, remove, transport (where applicable) and dispose of all Hazardous Materials and Recognized Environmental Conditions, including contaminated groundwater, in accordance with applicable Law, Governmental Approvals, the Hazardous Materials Management Plan, and all applicable provisions of the Contract Documents. If during the course of the Work, Developer encounters Hazardous Materials or a Recognized Environmental Condition in connection with the Project, Project ROW or Work, in an amount, type, quality or location that would require reporting or notification to any Governmental Entity or other Person or taking any preventive or remedial action, in each case under applicable Law, Governmental Approvals, the Hazardous Materials Management Plan or any applicable provision of the Contract Documents, Developer shall: (a) promptly notify TxDOT in writing and advise TxDOT of any obligation to notify Governmental Entities under applicable Law; and (b) take reasonable steps, including design modifications and/or construction techniques, to avoid excavation or dewatering in areas with Hazardous Materials or Recognized Environmental Conditions. If during the performance of the Work TxDOT discovers Hazardous Materials or a Recognized Environmental Condition in connection with the Project, Project ROW or Work, TxDOT shall promptly notify Developer in writing of such fact. Where excavation or dewatering of Hazardous Materials or Recognized Environmental Conditions is unavoidable, Developer shall utilize appropriately trained personnel and shall select the most cost-effective approach to Hazardous Materials Management, unless otherwise directed by TxDOT. Wherever feasible and consistent with the Contract Documents, applicable Law and Good Industry Practice, contaminated soil and groundwater shall not be disposed off-site.

6.9.1.2 Except where Developer is required to take immediate action under the Contract Documents or applicable Law, Developer shall afford TxDOT the opportunity to inspect sites containing Hazardous Materials or Recognized Environmental Conditions before any action is taken which would inhibit TxDOT's ability to ascertain the nature and extent of the contamination.

6.9.1.3 Subject to the limitations and exceptions set forth in this Section 6.9 and Section 13, Developer shall be entitled to a Change Order as set forth in Section 13.8.4 with respect to additional costs and/or delays directly attributable to the discovery of (a) Unknown Hazardous Materials within the Schematic ROW, (b) Hazardous Materials other than Developer Releases of Hazardous Materials on any parcels added to the Site by a TxDOT-Directed Change or required due to a Force Majeure Event or Necessary Change in Basic Configuration, and (c) Hazardous Materials falling within the definition for Force Majeure.

6.9.2 Off-Site Disposal and Hazardous Material Generator

6.9.2.1 Off-site disposal of Hazardous Materials other than Developer Release(s) of Hazardous Materials is subject to the following provisions:

(a) As between Developer and TxDOT, TxDOT shall be considered the generator and assume generator responsibility for Hazardous Materials other than Developer Release(s) of Hazardous Materials.

(b) TxDOT has exclusive decision-making authority regarding selection of the destination facility to which Hazardous Materials other than Developer Release(s) of Hazardous Materials will be transported. With regard to Hazardous Materials other than Developer Release(s) of Hazardous Materials, TxDOT shall comply with the applicable standards for generators including those found at 40 CFR, Part 262, including the responsibility to sign manifests for the transport of hazardous wastes. The foregoing shall not preclude or limit any rights, remedies or defenses that TxDOT or Developer may have against any Governmental Entity or other third parties, including prior owners, lessees, licensees and occupants of any parcel of land that is or becomes part of the Project ROW.

(c) To the extent permitted by applicable Law, TxDOT shall indemnify, save, protect and defend Developer from third party claims, causes of action and Losses arising out of or related to generator liability for Hazardous Material for which Developer is not considered the generator pursuant to this Section 6.9.2, specifically excluding generator liability for actual and threatened Developer Releases of Hazardous Materials.

6.9.2.2 As between Developer and TxDOT, Developer shall be considered the generator and assume generator responsibility only for Developer Releases of Hazardous Materials. For such Hazardous Materials, the following provisions shall apply:

(a) Hazardous Materials Management costs, including assessment, containment, and remediation expenses, on, arising from or related to such shall not be compensable to Developer or entitle Developer to an extension of the Completion Deadlines.

(b) To the extent permitted by applicable Law, Developer shall indemnify, save, protect and defend TxDOT from claims, causes of action and Losses arising out of or related to generator liability for such Developer Releases of Hazardous Materials.

6.10 Environmental Compliance

Developer shall be responsible for performance of all environmental mitigation measures and compliance with all other conditions and requirements of the Contract Documents and Environmental Approvals, including TxDOT-Provided Approvals and similar Governmental Approvals for the Project, other than the mitigation requirements which TxDOT has expressly agreed to perform pursuant to Section 6.10.1. The Price includes compensation for Developer's performance of all environmental requirements and conditions, including mitigation measures, except as described in Section 6.10.1 and 6.10.2.

6.10.1 TxDOT's Responsibility for Approvals and Certain Mitigation

6.10.1.1 The following TxDOT-Provided Approvals had not yet been obtained as of the Proposal Due Date: the USACE Individual Permits for Segments F-1, F-2 and G under Section 404 of the Clean Water Act and Section 401 Water Quality Certification. All conditions and requirements, including mitigation requirements, contained in the NEPA Approvals for the Project shall automatically be deemed included in the scope of the Work. In addition, with respect to the USACE Individual Permits and Section 401 Water Quality Certification, Developer shall utilize Best Management Practices and shall be responsible for performance of the general conditions and requirements described in Federal Register Volume 72, No. 47, p. 1191, published March 12, 2007 (the "General Conditions").

6.10.1.2 If the final USACE Individual Permits obtained by TxDOT contain conditions or requirements that differ materially from the general conditions and environmental commitments set forth in the NEPA Approvals, and such conditions or requirements: (a) have a material adverse impact on Developer's obligations hereunder, and (b) were not caused by modifications to the Schematic Design that were initiated by Developer, Developer may request a Force Majeure Change Order pursuant to Section 13.8.3. If the final TxDOT-Provided Approvals incorporate mitigation requirements addressing any modification in the Final Design from the Schematic Design, such additional mitigation requirements shall be Developer's sole responsibility and shall not be considered a TxDOT-Directed Change or Force Majeure Event. TxDOT will be responsible for additional mitigation requirements resulting from TxDOT-Directed Changes, or as a result of modifications to the USACE Individual Permit that are outside of the general conditions and environmental commitments set forth in the NEPA Approvals which do not arise out of modifications to the Schematic Design initiated by Developer.

6.10.1.3 To the extent required by the final USACE Individual Permits based on the Schematic Design, TxDOT will be responsible for (a) paying into an approved in-lieu-fee and/or mitigation bank program for Segments F-1, F-2 and G and (b) purchasing any compensatory credits through permittee-responsible mitigation from an approved stream mitigation bank. TxDOT will be responsible for the coordination and purchase of the in-lieu-fee and/or mitigation bank, and the stream mitigation credits required by the final USACE Individual Permits based on the Schematic Design. Developer shall be responsible for any changes and/or modifications to the USACE Individual Permits required by the Final Design, as well as any additional mitigation requirements (including additional payments into an approved in-lieu-fee and/or mitigation bank and the purchase of compensatory credits from an approved mitigation bank), except to the extent such changes or modifications are required due to a Force Majeure Event, Necessary Basic Configuration Change or TxDOT-Directed Change.

6.10.2 New Environmental Approvals To Be Obtained by Developer

6.10.2.1 If it is necessary to obtain a New Environmental Approval for any reason (including any New Environmental Approval associated with the drainage easements or any right of way outside of the Schematic ROW) other than a Force Majeure Event or a TxDOT-Directed Change, Developer shall be fully responsible, at its sole cost and expense, for obtaining the New Environmental Approval and any other environmental

clearances that may be necessary, and for all requirements resulting therefrom, as well as for any litigation arising in connection therewith. If the New Environmental Approval is associated with a VE, the costs of obtaining and complying with the terms of the New Environmental Approval shall be considered in determining the Price adjustment under Section 22.

6.10.2.2 If any New Environmental Approval is necessitated by a TxDOT-Directed Change or Force Majeure Event, Developer shall be responsible for obtaining such New Environmental Approval and/or performing any additional mitigation requirements of such New Environmental Approval only if directed to do so by a Directive Letter or a Change Order. TxDOT shall cooperate with Developer and support its efforts to obtain any such New Environmental Approval. Any Change Order covering a TxDOT-Directed Change or Force Majeure Event shall include compensation to Developer for additional costs incurred by Developer to obtain the New Environmental Approval and to implement any changes in the Work (including performance of additional mitigation measures which are Developer's responsibility) resulting from such New Environmental Approvals, as well as any time extension necessitated by the TxDOT-Directed Change or Force Majeure Event, subject to the conditions and limitations contained in Section 13. Should new, revised or modified individual Section 404 permits be required for any reason other than TxDOT-Directed Changes, Developer shall be solely responsible for obtaining the individual Section 404 permits and for compliance with all conditions and requirements, including all mitigation requirements, contained therein without entitlement to a Change Order.

SECTION 7. CONTRACTING AND LABOR PRACTICES

7.1 DBE Requirements

7.1.1 TxDOT's Disadvantaged Business Enterprise (DBE) Special Provisions applicable to the Project are set forth in Exhibit 6. The purpose of the DBE Special Provisions is to ensure that DBEs shall have an equal opportunity to participate in the performance of contracts financed in whole or in part with federal funds. Developer shall comply with all applicable requirements set forth in the DBE Special Provisions and TxDOT's Disadvantaged Business Enterprise Program applicable to comprehensive development agreement projects and adopted pursuant to 49 CFR Part 26, and the provisions in Developer's approved DBE Performance Plan, set forth in Exhibit 7. The approved overall DBE participation goal for the Project is established as 6% of the Price.

7.1.2 Developer shall exercise good faith efforts to achieve such DBE participation goal for the Project through implementation of Developer's approved DBE Performance Plan. Developer shall include the DBE Special Provisions and provisions to effectuate the requirements of Section 7.1.1 in every Subcontract (including purchase orders and in every subcontract of any Developer-Related Entity for the Work), and shall require that they be included in all Subcontracts at lower tiers, so that such provisions will be binding upon each Subcontractor.

7.1.3 Developer shall not cancel or terminate any Subcontract with a DBE firm except in accordance with all requirements and provisions applicable to cancellation or termination of Subcontracts with DBE firms set forth in the DBE Special Provisions in Exhibit 6.

7.2 Non-Discrimination; Equal Employment Opportunity

7.2.1 Developer shall not, and shall cause the Subcontractors to not, discriminate on the basis of race, color, national origin or sex in the performance of the Work under the Contract Documents. Developer shall carry out, and shall cause the Subcontractors to carry out, applicable requirements of 49 CFR Part 26. Failure by Developer to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as TxDOT deems appropriate (subject to Developer's rights to notice and opportunity to cure set forth in this Agreement).

7.2.2 Developer shall include Section 7.2.1 in every Subcontract (including purchase orders and in every subcontract of any Developer-Related Entity for the Work), and shall require that they be included in all Subcontracts at lower tiers, so that such provisions will be binding upon each Subcontractor.

7.2.3 Developer confirms for itself and all Subcontractors that Developer and each Subcontractor has an equal employment opportunity policy ensuring equal employment opportunity without regard to race, color, national origin, sex, age, religion or handicap; and that Developer and each Subcontractor maintains no employee facilities

segregated on the basis of race, color, religion or national origin. Developer shall comply with all applicable Laws relating to Equal Employment Opportunity and nondiscrimination, including those set forth in Exhibit 3, and shall require its Subcontractors to comply with such provisions.

7.3 Subcontracts

7.3.1 Developer shall retain or cause to be retained only Subcontractors that are qualified, experienced and capable in the performance of the portion of the Work assigned. Developer shall assure that each Subcontractor has at the time of execution of the Subcontract, and maintains at all times during performance of the assigned Work, all licenses required by applicable Laws.

7.3.2 Developer shall provide TxDOT a monthly report listing: (a) all Subcontracts in effect to which Developer is a party and (b) where Developer is a party to a Subcontract with an Affiliate, all Subcontracts in effect to which such Affiliate is a party and under which all or a substantial portion of the Affiliate's responsibilities or obligations under its Subcontract with Developer are delegated to the Subcontractor. Developer also shall list in the monthly report the Subcontractors under such Subcontracts, guarantees of Subcontracts in effect and the guarantors thereunder. Subject to Section 21.1, Developer shall allow TxDOT ready access to all Subcontracts and records regarding Subcontracts, including amendments and supplements to Subcontracts and guarantees thereof.

7.3.3 The retention of Subcontractors by Developer will not relieve Developer of its responsibility hereunder or for the quality of the Work or materials provided by it. Developer shall supervise and be fully responsible to TxDOT for the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity or by any member or employee of Developer or any Developer-Related Entity, as though Developer directly employed all such individuals. No Subcontract entered into by Developer will impose any obligation or liability upon TxDOT to any such Subcontractor or any of its employees. Nothing in this Agreement will create any contractual relationship between TxDOT and any Subcontractor of Developer.

7.3.4 The following requirements shall apply to Subcontracts:

(a) Developer shall, prior to soliciting any bids for performance of work or labor or rendering of services relating to the design or construction of the Project or for special fabrication and installation of a portion of the Work, submit to TxDOT for its review and approval a procedure for the conduct of the bidding and approval process applicable to Major Subcontracts. Developer may use procedures set forth in the TxDOT Standard Specifications or may submit alternative procedures to TxDOT for approval. Developer shall not enter into any Major Subcontracts except in accordance with the foregoing procedure; provided, however, that this Section 7.3.4(a) shall not apply to Major Subcontracts entered between Developer and a Subcontractor identified in Developer's Proposal.

(b) Developer shall not terminate any Major Subcontract, or permit or suffer any substitution or replacement of a Major Subcontractor, except that, (i) for Major

Subcontracts that are not with Key Subcontractors, Developer may terminate the Major Subcontract in the case of material default by a Major Subcontractor, termination of this Agreement for convenience or with TxDOT's prior written approval; and (ii) for Major Subcontracts that are with Key Subcontractors, Developer may terminate the Major Contract only in accordance with Section 7.3.5.

(c) As soon as Developer identifies a potential Subcontractor for a potential Subcontract described in the first sentence of Section 7.3.2, but in no event later than five days after Subcontract execution, Developer shall notify TxDOT in writing of the name, address, phone number and authorized representative of such Subcontractor.

7.3.5 The following additional requirements shall apply to Key Subcontractors:

(a) Developer shall not terminate any Subcontract with a Key Subcontractor, or permit or suffer any substitution or replacement of a Key Subcontractor, unless the Key Subcontractor:

(i) is no longer in business, is unable to fulfill its legal, financial, or business obligations, or can no longer meet the terms of the teaming agreement with Developer;

(ii) voluntarily removes itself from the Developer's team; or

(iii) fails to provide a sufficient number of qualified personnel to fulfill the duties identified during the Proposal stage.

(b) If Developer makes changes to a Key Subcontractor in violation of Section 7.3.5(a), Developer shall pay to TxDOT 100% of any cost savings resulting from the change.

7.3.6 Each Subcontract shall:

(a) Set forth a standard of professional responsibility or a standard for commercial practice equal to the requirements of the Contract Documents and Good Industry Practice for work of similar scope and scale and shall set forth effective procedures for claims and change orders.

(b) Require the Subcontractor to carry out its scope of work in accordance with the Contract Documents, the Governmental Approvals and applicable Law, including the applicable requirements of the DBE Performance Plan.

(c) Without cost to Developer or TxDOT, expressly permit assignment to TxDOT or its successor, assign or designee of all Developer's rights under the Subcontract, contingent only upon delivery of written request from TxDOT following termination of this Agreement, allowing TxDOT or its successor, assign or designee to assume the benefit of Developer's rights with liability only for those remaining obligations of Developer accruing after the date of assumption, such assignment to include the benefit of all Subcontractor warranties, indemnities, guarantees and professional responsibility.

(d) Expressly state that any acceptance of assignment of the Subcontract to TxDOT or its successor, assign or designee shall not operate to make the assignee responsible or liable for any breach of the Subcontract by Developer or for any amounts due and owing under the Subcontract for work or services rendered prior to assumption (but without restriction on the Subcontractor's rights to suspend work or demobilize due to Developer's breach).

(e) Expressly include a covenant to recognize and attorn to TxDOT upon receipt of written notice from TxDOT that it has exercised its rights under this Agreement, without necessity for consent or approval from Developer or to determine whether TxDOT validly exercised its rights, and Developer's covenant to waive and release any claim or cause of action against the Subcontractor arising out of or relating to its recognition and attornment in reliance on any such written notice.

(f) Not be assignable by the Subcontractor to any Person other than TxDOT (or its assignee) without Developer's prior written consent.

(g) Expressly include requirements that the Subcontractor will: (i) maintain usual and customary books and records for the type and scope of operations of business in which it is engaged (e.g., constructor, equipment Supplier, designer, service provider); (ii) permit audit thereof with respect to the Project or Work by each of Developer and TxDOT pursuant to Section 21.4 and; (iii) provide progress reports to Developer appropriate for the type of work it is performing sufficient to enable Developer to provide the reports it is required to furnish TxDOT under this Agreement.

(h) Include the right of Developer to terminate the Subcontract in whole or in part upon any Termination for Convenience of this Agreement without liability of Developer or TxDOT for the Subcontractor's lost profits or business opportunity.

(i) Expressly require the Subcontractor to participate in meetings between Developer and TxDOT, upon TxDOT's request, concerning matters pertaining to such Subcontract or its work, provided that all direction to such Subcontractor shall be provided by Developer, and provided further that nothing in this clause (i) shall limit the authority of TxDOT to give such direction or take such action which, in its sole opinion, is necessary to remove an immediate and present threat to the safety of life or property.

(j) Include an agreement by the Subcontractor to give evidence in any dispute resolution proceeding pursuant to Section 19, if such participation is requested by either TxDOT or Developer.

(k) Expressly provide that all Liens, claims and charges of the Subcontractor and its subcontractors at any time shall not attach to any interest of TxDOT in the Project or the Project ROW.

(l) With respect to Major Subcontracts, expressly include a covenant, expressly stated to survive termination of the Major Subcontract, to promptly execute and deliver to TxDOT a new contract between the Major Subcontractor and TxDOT on the same terms and conditions as the Major Subcontract, in the event: (i) the Major

Subcontract is rejected by Developer in bankruptcy or otherwise wrongfully terminated by Developer and (b) TxDOT delivers written request for such new contract following termination or expiration of this Agreement.

(m) Be consistent in all other respects with the terms and conditions of the Contract Documents to the extent such terms and conditions are applicable to the scope of work of such Subcontractors, and include all provisions required by this Agreement.

7.3.7 Developer shall not amend any Subcontract with respect to any of the foregoing matters without the prior written consent of TxDOT.

7.3.8 Developer shall not enter into any Subcontracts with any Person then debarred or suspended from submitting bids by any agency of the State.

7.4 Key Personnel; Qualifications of Employees

7.4.1 The Contract Documents identify certain job categories of Key Personnel for the Project. Except as provided in Section 7.4.4, Developer shall not change, or permit any change in, any Key Personnel. Any replacement Key Personnel during the Term shall be subject to approval by TxDOT.

7.4.2 Developer shall designate an Authorized Representative who shall have onsite field and office authority to represent and act for Developer. An Authorized Representative shall be present at the jobsite at all times while Work is actually in progress. Developer shall provide phone, e-mail addresses and mobile telephone numbers for all Key Personnel. TxDOT requires the ability to contact the following Key Personnel 24 hours per day, seven days per week: (a) Project Manager; (b) Deputy Project Manager – Design; (c) Deputy Project Manager – Construction; and (d) Environmental Compliance Manager.

7.4.3 Developer acknowledges and agrees that the award of this Agreement by TxDOT to Developer was based, in large part, on the qualifications and experience of the personnel listed in the Proposal and Developer's commitment that such individuals would be available to undertake and perform the Work. Developer represents, warrants and covenants that such individuals are available for and will fulfill the roles identified for them in the Proposal in connection with the Work. Individuals filling Key Personnel roles shall be available for the Work and shall maintain active involvement in the prosecution and performance of the Work. In addition to the foregoing, TxDOT reserves the right to require a 100% time commitment per position from any Key Personnel if TxDOT, in its sole discretion, determines that such personnel are not devoting sufficient time to the prosecution and performance of the Work.

7.4.4 If an individual filling one or more Key Personnel roles is not available for the Work and does not maintain active involvement in the prosecution and performance of the Work because such individual has been replaced, Developer acknowledges that TxDOT, the Work and the Project will suffer significant and substantial Losses due to the unavailability of the individual identified in the Proposal and that it is impracticable and

extremely difficult to ascertain and determine the actual Losses which would accrue to TxDOT in such event. Therefore, if an individual filling a Key Personnel role is not available or not actively involved in the prosecution and performance of the Work, as determined by TxDOT in its sole discretion, regardless of whether such individual has been replaced by an individual approved by TxDOT, Developer agrees to pay TxDOT a liquidated amount as follows, for each position held by such individual, as deemed compensation to TxDOT for such Losses:

POSITION	LIQUIDATED AMOUNT
Project Manager	\$384,000
Superintendent/Construction Manager	\$377,000
Lead Quality Manager	\$461,000
Environmental Compliance Manager	\$386,000
Design Manager	\$358,000
Lead Roadway Design Engineer	\$152,000
Lead Bridge Design Engineer	\$153,000
Design Quality Manager/ Professional Services Quality Control Manager	\$266,000
Deputy Project Director – Design	\$242,000
Deputy Project Director – Construction	\$242,000
ROW Manager/ROW Acquisition Manager	\$295,000
Utility Manager	\$293,000
Construction Quality Acceptance Manager	\$355,000
Construction Quality Control Manager	\$466,000
Maintenance Manager	\$42,000
Maintenance QC Manager	\$36,000
Public Information Coordinator	\$29,000

7.4.5 In addition, if an individual filling one or more Key Personnel roles is not available for the Work and does not maintain active involvement in the prosecution and performance of the Work and such individual has not been replaced by an individual approved by TxDOT, Developer acknowledges that TxDOT, the Work and the Project will suffer significant and substantial additional Losses due to the unavailability of an approved individual to fill a Key Personnel role and that it is impracticable and extremely difficult to

ascertain and determine the actual Losses which would accrue to TxDOT in such event. Therefore, for each day that a Key Personnel role is not filled by an approved individual, Developer agrees to pay TxDOT a liquidated amount as follows, for each position not filled, as deemed compensation to TxDOT for such Losses:

POSITION	LIQUIDATED AMOUNT
Project Manager	\$25,600
Superintendent/Construction Manager	\$37,700
Lead Quality Manager	\$46,100
Environmental Compliance Manager	\$38,600
Design Manager	\$35,800
Lead Roadway Design Engineer	\$15,200
Lead Bridge Design Engineer	\$15,300
Design Quality Manager	\$26,600
Deputy Project Director – Design	\$24,200
Deputy Project Director – Construction	\$24,200
ROW Manager/ROW Acquisition Manager	\$29,500
Utility Manager	\$29,300
Construction Quality Acceptance Manager	\$35,500
Construction Quality Control Manager	\$46,600
Maintenance Manager	\$4,200
Maintenance QC Manager	\$3,600
Public Information Coordinator	\$2,900

7.4.6 Developer understands and agrees that any damages payable in accordance with this Section 7.4 are in the nature of liquidated damages and not a penalty and that such sums are reasonable under the circumstances existing as of the Effective Date. TxDOT shall have the right to deduct any amount owed by Developer to TxDOT hereunder from any amounts owed by TxDOT to Developer, or to collect from any bond or Guaranty furnished under this Agreement for such liquidated damages. Notwithstanding the foregoing, Developer shall not be liable for liquidated damages under Section 7.4.4 or Section 7.4.5 if: (a) Developer removes or replaces such personnel at the direction of TxDOT; (b) such individual is unavailable due to death, retirement, injury or no longer being employed by the applicable Developer-Related Entity (provided that moving to an affiliated company shall not be considered grounds for avoiding liquidated damages), or (c)

such individual is unavailable due to TxDOT's failure to issue NTP1 within 180 days of the Proposal Due Date for a reason other than the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of any Developer-Related Entity; provided, however, in each such case, Developer shall promptly propose to TxDOT a replacement for such personnel, which individual shall be subject to TxDOT's review and written consent. If NTP1 has not been issued within 180 days after the Proposal Due Date through no act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of any Developer-Related Entity, Developer shall have 30 days after issuance of NTP1 to identify any change in Key Personnel without incurring any liquidated damages. Following any TxDOT-approved substitution or replacement of a Key Personnel pursuant to the terms hereof, the new individual shall be considered a Key Personnel for all purposes under this Agreement, including the provisions of this Section 7.4.4 relative to liquidated damages.

7.4.7 Developer acknowledges and agrees that the Key Personnel positions are of critical importance to TxDOT and the Project. In addition to the approval rights of TxDOT set forth in Section 7.4.1 and the liquidated damages set forth in Section 7.4.4 and Section 7.4.5, if an individual in a Key Personnel position leaves that position for a reason other than as set forth in clauses (a)-(c) of Section 7.4.5, TxDOT shall have the right to terminate this Agreement for default under Section 16, unless Developer provides TxDOT a replacement acceptable to TxDOT within 30 days after the earlier of: (a) the date on which such individual has left his/her position; or (b) Developer or TxDOT becomes aware that such individual intends to leave his/her position.

7.4.8 Any position on the Developer's organizational chart or within the Developer's organization structure that is above that of the designated Key Personnel position for which liquidated damages may apply will be deemed to be a Key Personnel position and, for purposes of liquidated damages under Section 7.4.4 and 7.4.5, shall be at the level which is immediately higher than the Key Personnel immediately below that position (e.g., an individual that reports into the deputy project director level but is higher than the other Key Personnel level would be considered a deputy project director for this purpose).

7.5 Responsibility for Developer-Related Entities

Developer shall supervise and be responsible for the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity, as though Developer directly employed all such Persons.

7.6 Subcontracts with Affiliates

7.6.1 Developer shall have the right to have Work and services performed by Affiliates only under the following terms and conditions:

- (a) Developer shall execute a written Subcontract with the Affiliate;
- (b) The Subcontract shall comply with all applicable provisions of this Section 7, be consistent with Good Industry Practice, and be in form and substance

substantially similar to Subcontracts then being used by Developer or Affiliates for similar Work or services with unaffiliated Subcontractors;

(c) The Subcontract shall set forth the scope of Work and services and all the pricing, terms and conditions respecting the scope of Work and services;

(d) The pricing, scheduling and other terms and conditions of the Subcontract shall be no less favorable to Developer than those that Developer could reasonably obtain in an arms' length, competitive transaction with an unaffiliated Subcontractor. Developer shall bear the burden of proving that the same are no less favorable to Developer; and

(e) No Affiliate shall be engaged to perform any Work or services which any Contract Documents or the Project Management Plan or any component part, plan or other documentation thereunder indicates are to be performed by an independent or unaffiliated party. No Affiliate shall be engaged to perform any Work or services which would be inconsistent with Good Industry Practice.

7.6.2 Before entering into a written Subcontract with an Affiliate or any supplement or amendment thereto, Developer shall submit a true and complete copy of the proposed Subcontract to TxDOT for review and comment. TxDOT shall have 20 days after receipt to deliver its comments to Developer.

7.6.3 Developer shall make no payments to Affiliates for work or services in advance of provision of such work or services, except for reasonable mobilization payments or other payments consistent with arm's length, competitive transactions of similar scope.

7.7 Labor Standards

7.7.1 In the performance of its obligations under the Contract Documents, Developer at all times shall comply, and require by Subcontract that all Subcontractors and Suppliers comply, with all applicable federal and State labor, occupational safety and health standards, rules, regulations and federal and State orders.

7.7.2 All individuals performing Work shall have the skill and experience and any licenses required to perform the Work assigned to them.

7.7.3 If any individual employed by Developer or any Subcontractor is not performing the Work in a proper, safe and skillful manner, then Developer shall, or shall cause such Subcontractor to, remove such individual and such individual shall not be re-employed on the Work. If, after notice and reasonable opportunity to cure, such individual is not removed or if Developer fails to ensure that skilled and experienced personnel are furnished for the proper performance of the Work, then TxDOT may suspend the affected portion of the Work by delivery of written notice of such suspension to Developer. Such suspension shall be considered a suspension for cause and shall in no way relieve Developer of any obligation contained in the Contract Documents or entitle Developer to any additional compensation or time extension hereunder.

7.8 Ethical Standards

7.8.1 Within 90 days after the Effective Date, Developer shall adopt written policies establishing ethical standards of conduct applicable to all Developer-Related Entities, including Developer's supervisory and management personnel, in dealing with: (a) TxDOT and the Program Manager and (b) employment relations. Such policy shall be subject to review and comment by TxDOT prior to adoption. Such policy shall include standards of ethical conduct concerning the following:

(a) Restrictions on gifts and contributions to, and lobbying of, TxDOT, the Texas Transportation Commission, the Program Manager and any of their respective commissioners, directors, officers and employees;

(b) Protection of employees from unethical practices in selection, use, hiring, compensation or other terms and conditions of employment, or in firing, promotion and termination of employees;

(c) Protection of employees from retaliatory actions (including discharge, demotion, suspension, threat, harassment, pay reduction or other discrimination in the terms and conditions of employment) in response to reporting of illegal (including the making of a false claim), unethical or unsafe actions or failures to act by any Developer-Related Entity;

(d) Restrictions on directors, members, officers or supervisory or management personnel of any Developer-Related Entity engaging in any transaction or activity, including receiving or offering a financial incentive, benefit, loan or other financial interest, that is, or to a reasonable person appears to be, in conflict with or incompatible with the proper discharge of duties or independence of judgment or action in the performance of duties, or adverse to the interests of the Project or employees;

(e) Restrictions on use of office or job position for a purpose that is, or would to a reasonable person appear to be, primarily for the private benefit of a director, member, officer or supervisory or management person, rather than primarily for the benefit of Developer or the Project, or primarily to achieve a private gain or an exemption from duty or responsibility for a director, member, officer or supervisory or management person; and

(f) Restrictions on directors, members, officers or employees of any Developer-Related Entity performing any of the Work if the performance of such services would be prohibited under TxDOT's published conflict of interest rules and policies applicable to TxDOT's comprehensive development agreement program, or would be prohibited under Section 572.054, Texas Government Code.

7.8.2 Developer shall cause its directors, members, officers and supervisory and management personnel, and include contract provisions requiring those of all other Developer-Related Entities, to adhere to and enforce the adopted policy on ethical standards of conduct. Developer shall establish reasonable systems and procedures to promote and monitor compliance with the policy.

7.9 Job Training and Small Business Mentoring

7.9.1 Developer's Job Training and Small Business Mentoring Plan applicable to the Project is set forth in Exhibit 8. The purpose of the Job Training and Small Business Mentoring Plan is to ensure that inexperienced and untrained workers have a substantial opportunity to participate in the performance of the Work through apprenticeships, training and similar measures to maintain and grow a diverse, skilled work force. Developer shall perform and comply with all requirements set forth in of the Job Training and Small Business Mentoring Plan.

7.9.2 Developer shall include provisions to effectuate the Job Training and Small Business Mentoring Plan in every Subcontract to which it is a party (including purchase orders and task orders for Work), and shall require that they be included in all Subcontracts at lower tiers (including purchase orders and task orders for Work), except for Subcontracts with TxDOT or Governmental Entities, so that such provisions will be binding upon each Subcontractor. The foregoing shall not apply to Subcontracts at any tier with TxDOT or Governmental Entities.

7.10 Prevailing Wages

7.10.1 Developer shall pay or cause to be paid to all applicable workers employed by it or its Subcontractors to perform the Work not less than the prevailing rates of wages, as provided in the statutes and regulations applicable to public work contracts, including Chapter 2258 of the Texas Government Code and the Davis-Bacon Act, and as provided in Exhibit 3. Developer shall comply and cause its Subcontractors to comply with all Laws pertaining to prevailing wages. For the purpose of applying such Laws, the Project shall be treated as a public work paid for in whole or in part with public funds (regardless of whether public funds are actually used to pay for the Project). The foregoing shall not apply to Subcontracts at any tier with TxDOT or Governmental Entities.

7.10.2 It is Developer's sole responsibility to determine the wage rates required to be paid. In the event rates of wages and benefits change while this Agreement is in effect, Developer shall bear the cost of such changes and shall have no Claim against TxDOT on account of such changes. Without limiting the foregoing, no Claim will be allowed which is based upon Developer's lack of knowledge or a misunderstanding of any such requirements or Developer's failure to include in the Price adequate increases in such wages over the duration of this Agreement.

7.10.3 Any issue between Developer or a Subcontractor, and any affected worker relating to any alleged violation of Section 2258.023 of the Texas Government Code that is not resolved before the 15th day after the date TxDOT makes its initial determination under Section 2258.052 of the Texas Government Code (as to whether good cause exists to believe that a violation occurred) shall be submitted to binding arbitration in accordance with the Texas General Arbitration Act, Chapter 171 of the Civil Practice and Remedies Code.

7.10.4 Developer shall comply and cause its Subcontractors to comply with all Laws regarding notice and posting of intent to pay prevailing wages, of prevailing wage requirements and of prevailing wage rates.

7.11 Uniforms

Any uniforms, badges, logos and other identification worn by personnel of Developer-Related Entities shall bear colors, lettering, design or other features to assure clear differentiation from those of TxDOT and its employees.

SECTION 8. PERFORMANCE, PAYMENT, RETAINAGE AND WARRANTY BONDS; GUARANTEES

8.1 Provision of Bonds

Developer shall provide payment, performance, retainage and warranty bonds to TxDOT securing Developer's obligations hereunder, and shall maintain such bonds in full force and effect as described below.

8.1.1 On or before the issuance by TxDOT of NTP1, Developer shall deliver to TxDOT a performance bond in the initial amount of \$50,000,000 (the "NTP1 Performance Bond Amount") and in the form attached hereto as Exhibit 9.

8.1.2 On or before the issuance by TxDOT of NTP1, Developer shall deliver to TxDOT a payment bond in the initial amount of \$50,000,000 (the "NTP1 Payment Bond Amount") and in the form attached hereto as Exhibit 10.

8.1.3 Upon the issuance by TxDOT of NTP2, the amount of the Performance Bond shall increase to \$788,900,000 ("NTP2 Performance Bond Amount"), in accordance with the Performance Bond rider included in Exhibit 9 effecting such increase. After Final Acceptance of each Segment, TxDOT shall provide a written release of the NTP2 Performance Bond with respect to such Segment, provided that (and upon such date after Final Acceptance of such Segment that) all of the following have occurred: (a) Developer is not in default under this Agreement, (b) no event has occurred that with the giving of notice or passage of time would constitute a default by Developer hereunder or under the Contract Documents; and (c) TxDOT has received the Warranty Bond in accordance with Section 8.1.7.

8.1.4 Upon the issuance by TxDOT of NTP2, the amount of the Payment Bond shall increase to \$788,900,000 ("NTP2 Payment Bond Amount") in accordance with the Payment Bond rider included in Exhibit 10 effecting such increase. TxDOT will release the Payment Bond upon: (a) receipt of (i) evidence satisfactory to TxDOT that all Persons eligible to file a claim against the Payment Bond have been fully paid and (ii) unconditional releases of Liens and stop notices from all Subcontractors who filed preliminary notice of a claim against the Payment Bond, or (b) expiration of the statutory period for Subcontractors to file a claim against the Payment Bond if no claims have been filed.

8.1.5 On or before the issuance by TxDOT of NTP2, Developer shall deliver to TxDOT a Retainage Bond in the form attached hereto as Exhibit 11. The Retainage Bond shall be in the amount of 4% of the Price, and is to be used as a guaranty for the protection of any claimants and TxDOT for overpayments, Liquidated Damages, and other deductions or damages owed by the Developer in connection with this Agreement.

8.1.6 Developer shall not commence or permit or suffer commencement of any Construction Work until Developer obtains from its Sureties and provides to TxDOT written confirmation that the Performance Bond and Payment Bond amounts have been

increased to equal the NTP2 Performance Bond Amount and NTP2 Payment Bond Amount, respectively, in accordance with this Section 8.

8.1.7 After Final Acceptance of each Segment and subject to the requirements herein, Developer may obtain a release of the Performance and Payment Bonds for such Segment by providing a warranty bond which shall guarantee performance of the Development Work required to be performed during the Warranty period for each Segment and which shall also constitute a payment bond guaranteeing payment to Persons performing such Development Work ("Warranty Bond"). The Warranty Bond shall be in an amount equal to 10% of the Price and shall be in the form attached hereto as Exhibit 12. Initially, the Warranty Bond shall apply to the first Segment to reach Final Acceptance. Upon Final Acceptance of each subsequent Segment, Developer may provide a rider to the Warranty Bond adding the remaining Development Work for such Segment to the scope of the Warranty Bond, provided that the penal sum shall not change. The Warranty Bond shall be released upon expiration of the Warranty Term and: (a) receipt of (i) evidence satisfactory to TxDOT that all Persons eligible to file a claim against the Warranty Bond have been fully paid and (ii) unconditional releases of Liens and stop notices from all Subcontractors who filed preliminary notice of a claim against the Warranty Bond, and (b) expiration of the statutory period for Subcontractors to file a claim against the Warranty Bond if no claims have been filed.

8.1.8 Each bond required hereunder shall be issued by a Surety authorized to do business in the State with a rating of at least A minus (A-) or better and Class VIII or better by A.M. Best Company or rated in the top two categories by two nationally recognized rating agencies, or as otherwise approved by TxDOT in its sole discretion. If any bond previously provided becomes ineffective, or if the Surety that provided the bond no longer meets the requirements hereof, Developer shall provide a replacement bond in the same form issued by a surety meeting the foregoing requirements, or other assurance satisfactory to TxDOT in its sole discretion. If the Price is increased in connection with a Change Order, TxDOT may, in its sole discretion, require a corresponding proportionate increase in the amount of each bond or alternative security.

8.2 No Relief of Liability

Notwithstanding any other provision set forth in the Contract Documents, performance by a Surety or Guarantor of any of the obligations of Developer shall not relieve Developer of any of its obligations hereunder.

8.3 Guaranty

8.3.1 Developer shall report the Tangible Net Worth of Developer, its equity members and Guarantors, if any, to TxDOT, on or before May 15th of each year during the term by means of audited financial statements of Developer and its equity members, and on a quarterly basis during the term by means of certifications by the CFOs of the Developer, its equity members and any Guarantors. The information provided under this Section shall be placed in the same locked cabinet with the key held by Developer in which the Escrowed Proposal Documents are placed pursuant to Section 4.3.2 of the ITP and Section 21.1 of this Agreement and, except as required by law, shall be treated as

confidential and proprietary. The information provided under this Section shall remain the property of Developer.

8.3.2 If at any time during the course of this Agreement the total combined Tangible Net Worth of Developer, its equity members and any Guarantors, is less than \$200,000,000, Developer shall provide one or more guarantees from a Guarantor acceptable to TxDOT so that the combined Tangible Net Worth of the Developer, its equity members and any Guarantors is at least \$200,000,000. Each such guaranty shall be in the form attached as Exhibit 13, together with appropriate evidence of authorization, execution, delivery and validity thereof, and shall guarantee the Guaranteed Obligations.

SECTION 9. INSURANCE

Developer shall procure and keep in effect, or cause to be procured and kept in effect, the insurance policies in accordance with the requirements in this Section 9 and Exhibit 14.

9.1 General Insurance Requirements

9.1.1 Qualified Insurers

Each of the insurance policies required hereunder shall be procured from an insurance carrier or company that, at the time coverage under the applicable policy commences is:

(a) Authorized to do business in the State and has a current policyholder's management and financial size category rating of not less than "A – VII" according to A.M. Best's Insurance Reports Key Rating Guide; or

(b) Otherwise approved in writing by TxDOT.

9.1.2 Premiums, Deductibles and Self-Insured Retentions.

Developer shall timely pay the premiums for all insurance required under this Agreement. Subject to Section 13, TxDOT shall have no liability for any deductibles, self-insured retentions and amounts in excess of the coverage provided. In the event that any required coverage is provided under a self-insured retention, the entity responsible for the self-insured retention shall have an authorized representative issue a letter to TxDOT, at the same time the insurance policy is to be procured, stating that it shall protect and defend TxDOT to the same extent as if a commercial insurer provided coverage for TxDOT.

9.1.3 Primary Coverage and Project Specific Insurance

9.1.3.1 Each insurance policy shall provide that the coverage is primary and noncontributory coverage with respect to all named or additional insureds, except for coverage that by its nature cannot be written as primary. Any insurance or self-insurance beyond that specified in this Agreement that is maintained by an insured or any such additional insured shall be excess of such insurance and shall not contribute with it.

9.1.3.2 Professional Liability Insurance shall be purchased specifically and exclusively for the Project with coverage limits devoted solely to the Project.

9.1.4 Verification of Coverage

9.1.4.1 At each time Developer is required to initially obtain or cause to be obtained each insurance policy, including insurance coverage required of Subcontractors, and thereafter prior to the expiration date of each insurance policy, Developer shall deliver to TxDOT a certificate of insurance. Each required certificate must meet the requirements of Texas Insurance Code Chapter 1811 and, to the extent permitted under

applicable Laws, state the identity of all carriers, named insureds and additional insureds, state the type and limits of coverage, deductibles and termination provisions of the policy, include as attachments all additional insured endorsements, and be signed by an authorized representative of the insurance company shown on the certificate or its agent or broker. Each required evidence must be personally and manually signed by a representative or agent of the insurance company shown on the evidence with proof that the signer is an authorized representative or agent of such insurance company and is authorized to bind it to the coverage, limits and termination provisions shown on the evidence. The evidence must be original, state the signer's company affiliation, title and phone number, state the identity of all carriers, named insureds and additional insureds, state the type and limits of coverage, deductibles, subrogation waiver, termination provisions of the policy and other essential policy terms, list and describe all endorsements, include as attachments all additional insured endorsements, and otherwise be in form reasonably satisfactory to TxDOT.

9.1.4.2 In addition, within a reasonable time after availability (but not to exceed 15 days), Developer shall deliver to TxDOT: (a) a complete certified copy of each such insurance policy or modification, or renewal or replacement insurance policy and all endorsements thereto and (b) satisfactory evidence of payment of the premium therefor.

9.1.4.3 If Developer has not provided TxDOT with the foregoing proof of coverage and payment within five days after TxDOT delivers to Developer written notice of an Event of Default under Section 16.1.2 and demand for the foregoing proof of coverage, TxDOT may, in addition to any other available remedy, without obligation or liability and without further inquiry as to whether such insurance is actually in force: (a) obtain such an insurance policy; and Developer shall reimburse TxDOT for the cost thereof upon demand, and (b) suspend all or any portion of Work for cause and close the Project until TxDOT receives from Developer such proofs of coverage in compliance with this Section 9.1 (or until TxDOT obtains an insurance policy, if it elects to do so).

9.1.5 Subcontractor Insurance Requirements

9.1.5.1 Developer's obligations regarding Subcontractor's insurance are set forth in Exhibit 14. Developer shall cause each Subcontractor to provide such insurance in the manner and in the form consistent with the requirements contained in this Agreement.

9.1.5.2 If any Subcontractor fails to procure and keep in effect the insurance required of it under Exhibit 14 and TxDOT asserts the same as an Event of Default hereunder, Developer may, within the applicable cure period, cure such Event of Default by: (a) causing such Subcontractor to obtain the requisite insurance and providing to TxDOT proof of insurance; (b) procuring the requisite insurance for such Subcontractor and providing to TxDOT proof of insurance; or (c) terminating the Subcontractor and removing its personnel from the Site.

9.1.6 Policies with Insureds in Addition to Developer

All insurance policies that are required to insure Persons (whether as named or additional insureds) in addition to Developer shall comply or be endorsed to comply with the following provisions.

9.1.6.1 The insurance policy shall be written or endorsed so that no acts or omissions of an insured shall vitiate coverage of the other insureds. Without limiting the foregoing, any failure on the part of a named insured to comply with reporting provisions or other conditions of the insurance policies, any breach of warranty, any action or inaction of a named insured or others, or any change in ownership of all or any portion of the Project shall not affect coverage provided to the other named insureds or additional insureds (and their respective members, directors, officers, employees, agents and Project consultants).

9.1.6.2 The insurance shall apply separately to each named insured and additional insured against whom a claim is made or suit is brought, except with respect to the limits of the insurer's liability.

9.1.6.3 All endorsements adding additional insureds to required insurance policies shall contain no limitations, conditions, restrictions or exceptions to coverage in addition to those that apply under the insurance policy generally, and shall state that the interests and protections of each additional insured shall not be affected by any misrepresentation, act or omission of a named insured or any breach by a named insured of any provision in the policy which would otherwise result in forfeiture or reduction of coverage. To the fullest extent of coverage allowed under Chapter 151 of the Texas Insurance Code, Developer (if applicable) and TxDOT shall be included as additional insureds under the CGL policy, using ISO Additional Insured Endorsements CG 20 10 10 01 and CG 20 37 10 01, or endorsements providing equivalent coverage, including products-completed operations. The commercial general liability and any builder's third party liability insurance policy (if furnished by Developer in lieu of commercial general liability insurance) shall include completed operations liability coverage.

9.1.7 Additional Terms and Conditions

9.1.7.1 Each insurance policy shall be endorsed to state that coverage cannot be canceled, voided, suspended, adversely modified, or reduced in coverage or in limits (including for non-payment of premium) except after 30 days' prior written notice (or ten days in the case of cancellation for non-payment of premium) by registered or certified mail, return receipt requested, has been given to TxDOT and each other insured or additional insured party; provided that Developer may obtain as comparable an endorsement as possible if it establishes unavailability of this endorsement as set forth in Section 9.1.11. Such endorsement shall not include any limitation of liability of the insurer for failure to provide such notice. Further, prior to an insurance policy being canceled, voided, suspended, adversely modified, or reduced in coverage or in limits (including for non-payment of premium), Developer shall require its insurance broker to furnish 30 days' prior written notice (or ten days in the case of cancellation for non-payment of premium) to TxDOT and each other insured or additional insured party by registered or certified mail, return receipt requested, has been given.

9.1.7.2 The commercial general liability insurance policy and any builder's third party liability insurance policy (if furnished by Developer in lieu of commercial general liability insurance) shall cover liability arising out of the acts or omissions of Developer's employees engaged in the Work and employees of Subcontractors.

9.1.7.3 If Developer's or any Subcontractor's activities involve transportation of Hazardous Materials, the automobile liability insurance policy for Developer or such Subcontractor shall be endorsed to include for private, non-commercial vehicles Motor Carrier Act Endorsement-Hazardous Materials Clean up (MCS-90).

9.1.7.4 Each insurance policy shall provide coverage on an "occurrence" basis and not a "claims made" basis (with the exception of any professional liability and pollution liability insurance policies).

9.1.8 Waivers of Subrogation

TxDOT waives all rights against the Developer-Related Entities, and Developer waives all rights against the Indemnified Parties, for any claims to the extent covered by insurance obtained pursuant to this Section 9, except such rights as they may have to the proceeds of such insurance. If Developer is deemed to self-insure a claim or loss under Section 9.2.3, then Developer's waiver shall apply as if it carried the required insurance. Developer shall require all Subcontractors to provide similar waivers in writing each in favor of all other Persons enumerated above. Subject to Section 9.1.11, each policy, including workers' compensation if permitted under the applicable worker's compensation insurance laws, shall include a waiver of any right of subrogation against the Indemnified Parties or the insurers consent to the insured's waiver of recovery in advance of loss. However, no waiver of subrogation rights under any policy providing professional liability coverage to the insureds shall be required of any party.

9.1.9 No Recourse

There shall be no recourse against TxDOT for payment of premiums or other amounts with respect to the insurance required to be provided by Developer hereunder, except to the extent such costs are recoverable under Section 13.

9.1.10 Support of Indemnifications

The insurance coverage provided hereunder by Developer is not intended to limit Developer's indemnification obligations under the Contract Documents.

9.1.11 Inadequacy or Unavailability of Required Coverages

9.1.11.1 TxDOT makes no representation that the limits of liability specified for any insurance policy to be carried pursuant to this Agreement or approved variances therefrom are adequate to protect Developer against its undertakings under the Contract Documents, to TxDOT, or any other Person. No such limits of liability or approved variances therefrom shall preclude TxDOT from taking any actions as are available to it under the Contract Documents or otherwise at Law.

9.1.11.2 If Developer demonstrates to TxDOT's reasonable satisfaction that it has used diligent efforts in the global insurance and reinsurance markets to maintain the insurance coverages it is required to provide hereunder, and if, despite such diligent efforts and through no fault of Developer, any of such coverages (or any of the required terms of such coverages, including insurance policy limits) become unavailable during the Term on commercially reasonable terms, TxDOT will grant Developer an interim written variance from such requirements under which Developer shall obtain and maintain or cause to be obtained and maintained alternative insurance packages and programs that provide risk coverage as comparable to that contemplated in this Section 9 as is commercially reasonable under then-existing insurance market conditions.

9.1.11.3 Developer shall not be excused from satisfying the insurance requirements of this Section 9.1 merely because premiums for such insurance are higher than anticipated. To establish that the required coverages (or required terms of such coverages, including insurance policy limits) are not commercially available, Developer shall bear the burden of proving either that: (a) the same is not available at all in the global insurance and reinsurance markets or (b) the premiums for the same have so materially increased over those previously paid for the same coverage that no reasonable and prudent risk manager for a Person seeking to insure comparable risks would conclude that such increased premiums are justified by the risk protection afforded. For the purpose of clause (b), the only increases in premiums that may be considered are those caused by changes in general market conditions in the insurance industry affecting insurance for highway facilities, and Developer shall bear the burden of proving that premium increases are the result of such changes in general market conditions. For the avoidance of doubt, no increase in insurance premiums attributable to particular conditions of the Project, or to claims or loss experience of any Developer-Related Entity or Affiliate, whether under an insurance policy required by this Section 9 or in connection with any unrelated work or activity of Developer-Related Entities or Affiliate, shall be considered in determining whether required insurance is commercially unavailable.

9.1.11.4 Developer shall not be entitled to any increase in the Price for increased costs or any time extension to the Completion Deadlines resulting from the unavailability of coverage and the requirement to provide acceptable alternatives. TxDOT shall be entitled to a reduction in the Price if it agrees to accept alternative policies providing less than equivalent coverage, with the amount to be determined by extrapolation using the insurance quotes included in the EPDs (or based on other evidence of insurance premiums as of the Proposal Due Date if the EPDs do not provide adequate information).

9.1.12 Defense Costs

No defense costs shall be included within or erode the limits of coverage of any of the insurance policies, except that litigation and mediation defense costs may be included within the limits of coverage of professional and pollution liability policies.

9.1.13 Contesting Denial of Coverage

If any insurance carrier under an insurance policy denies coverage with respect to any claims reported to such carrier, upon Developer's request, TxDOT and, to the extent necessary, the other Indemnified Parties shall cooperate in good faith to establish whether

and to what extent to contest, and how to fund the cost of contesting, the denial of coverage; provided that if the reported claim is a matter covered by an indemnity in favor of an Indemnified Party, then Developer shall bear all costs of contesting the denial of coverage.

9.1.14 Umbrella and Excess Policies

Developer shall have the right to satisfy the requisite insurance coverage amounts for liability insurance through a combination of primary policies and umbrella or excess policies. Umbrella and excess policies shall comply with all insurance requirements, terms and provisions set forth in this Agreement for the applicable type of coverage.

9.1.15 Additional Insurance Policies

If Developer carries insurance coverage in addition to that required under this Agreement, then Developer shall include TxDOT and its members, directors, officers, employees, agents and Project consultants as additional insureds thereunder, if and to the extent they have an insurable interest. The additional insured endorsements shall be as described in Section 9.1.6.3; and Developer shall provide to TxDOT the proofs of coverage and copy of the policy described in Section 9.1.4. If, however, Developer demonstrates to TxDOT that inclusion of such Persons as additional insureds will increase the premium, TxDOT shall elect either to pay the increase in premium or forego additional insured coverage. The provisions of Sections 9.1.4, 9.1.6, 9.1.8, 9.1.9, 9.1.13 and 9.2 shall apply to all such policies of insurance coverage.

9.2 Prosecution of Claims

9.2.1 Unless otherwise directed by TxDOT in writing with respect to TxDOT's insurance claims, Developer shall be responsible for reporting and processing all potential claims by TxDOT or Developer against the insurance policies required hereunder. Developer agrees to report timely to the insurer(s) under such insurance policies any and all matters which may give rise to an insurance claim by Developer or TxDOT or another Indemnified Party and to promptly and diligently pursue such insurance claims in accordance with the claims procedures specified in such insurance policies, whether for defense or indemnity or both. Developer shall enforce all legal rights against the insurer under the applicable insurance policies and applicable Laws in order to collect thereon, including pursuing necessary litigation and enforcement of judgments, provided that Developer shall be deemed to have satisfied this obligation if a judgment is not collectible through the exercise of lawful and diligent means.

9.2.2 TxDOT agrees to promptly notify Developer of TxDOT's incidents, potential claims against TxDOT, and matters which may give rise to an insurance claim against TxDOT, to tender to the insurer TxDOT's defense of the claim under such insurance policies, and to cooperate with Developer as necessary for Developer to fulfill its duties hereunder.

9.2.3 If in any instance Developer has not performed its obligations respecting insurance coverage set forth in this Agreement or is unable to enforce and collect any such

insurance for failure to assert claims in accordance with the terms of the insurance policies or to prosecute claims diligently, then for purposes of determining Developer's liability and the limits thereon or determining reductions in compensation due from TxDOT to Developer on account of available insurance, Developer shall be treated as if it has elected to self-insure up to the full amount of insurance coverage which would have been available had Developer performed such obligations and not committed such failure. Nothing in the Contract Documents shall be construed to treat Developer as electing to self-insure where Developer is unable to collect due to the bankruptcy or insolvency of any insurer which at the time the insurance policy is written meets the rating qualifications set forth in this Section 9.

9.2.4 If in any instance Developer has not promptly performed its obligation to report to applicable insurers and process any potential insurance claim tendered by TxDOT or another Indemnified Party, then TxDOT or the other Indemnified Party may, but is not obligated to: (a) notify Developer in writing of TxDOT's intent to report the claim directly with the insurer and thereafter process the claim; and (b) proceed with reporting and processing the claim if TxDOT or the other Indemnified Party does not receive from Developer, within ten days after so notifying Developer, written proof that Developer has reported the claim directly to the insurer. TxDOT or the other Indemnified Party may dispense with such notice to Developer if TxDOT or the other Indemnified Party has a good faith belief that more rapid reporting is needed to preserve the claim.

9.2.5 All insurance proceeds received by Developer for any insured loss under the insurance policies required by this Agreement shall be paid into a separate insurance proceeds account and shall be held in trust for the purposes of, and to be applied in accordance with, this Agreement.

9.3 Disclaimer

Developer and each Subcontractor have the responsibility to make sure that their insurance programs fit their particular needs, and it is their responsibility to arrange for and secure any insurance coverage which they deem advisable, whether or not specified herein.

SECTION 10. TITLE; SITE SECURITY; MAINTENANCE DURING AND AFTER CONSTRUCTION

10.1 Title

Developer warrants that it owns, or will own, and has, or will have, good and marketable title to all materials, equipment, tools and supplies furnished, or to be furnished, by it and its Subcontractors that become part of the Project or are purchased for TxDOT for the operation, maintenance or repair thereof, free and clear of all Liens. Title to all of such materials, equipment, tools and supplies which are delivered to the Site shall pass to TxDOT, free and clear of all Liens, upon the sooner of: (a) incorporation into the Project, or (b) payment by TxDOT to Developer of invoiced amounts pertaining thereto. Notwithstanding any such passage of title, Developer shall retain sole care, custody and control of such materials, equipment, tools and supplies and shall exercise due care with respect thereto until Final Acceptance or until Developer is terminated from the Project pursuant to Sections 15 or 16.

10.2 Site Security

Developer shall provide appropriate security for the Site, and shall take all reasonable precautions and provide protection to prevent damage, injury, or loss to the Work and materials and equipment to be incorporated therein, as well as all other property at or on the Site, whether owned by Developer, TxDOT, or any other Person.

10.3 Risk of Loss or Damage; Maintenance and Repair of Work

10.3.1 Developer shall be responsible for maintenance of the Work and the Project Site in accordance with Section 19 of the Technical Provisions. Upon Substantial Completion of each Segment, TxDOT shall assume the maintenance obligations (except for landscape maintenance during the establishment period) in accordance with Good Industry Practice; provided, however, (i) effective as of the date on which the Project or any portion thereof is opened to traffic, Developer shall be relieved of maintenance liability and responsibility for repair of damage caused by the traveling public to the opened portions of the Project, and (ii) the Maintenance Contractor shall be responsible for the Maintenance Services pursuant to the terms of the Maintenance Agreement Documents. Developer shall be relieved from responsibility for maintenance of all other portions of the Project completed and accepted at each Substantial Completion, except that Developer shall be responsible for: (a) maintenance of improvements owned by third parties until control of and maintenance responsibility for such improvements has been formally transferred to the third parties, and (b) maintenance of mitigation sites in accordance with the Environmental Compliance and Mitigation Plan required by Section 4.3.2 of the Technical Provisions and any other extended maintenance responsibilities set forth in the Technical Provisions, including landscape maintenance during the establishment period in accordance with Good Industry Practice. This Section 10.3.1 shall not apply to, or limit Developer's obligations, under the Maintenance Agreement.

10.3.2 Developer shall maintain, rebuild, repair, restore or replace all Work, including Design Documents, Construction Documents, materials, equipment, supplies and maintenance equipment which are purchased for permanent installation in, or for use during construction of the Project that is injured or damaged prior to the date that Developer's maintenance responsibility ends as set forth in Section 10.3.1, regardless of who has title thereto under the Contract Documents and regardless of the cause of the damage or injury, at no additional cost to TxDOT, except to the extent that TxDOT is responsible for such costs in accordance with the express terms of this Agreement. Developer, at its cost, shall also have sole responsibility during such periods for rebuilding, repairing and restoring all other property within the Project ROW whether owned by Developer, TxDOT or any other Person.

10.3.3 If insurance proceeds with respect to any loss or damage for which Developer is responsible for the rebuilding, repair or restoration thereof are paid to TxDOT, then TxDOT shall arrange for such proceeds to reimburse Developer as repair or replacement work is performed by Developer to the extent that TxDOT has not previously paid for such repair or replacement work; provided, however, that release of such proceeds to Developer shall not be a condition precedent to Developer's obligation to perform such replacement or repair work or indicate that such replacement or repair work has been approved and accepted by TxDOT.

SECTION 11. WARRANTIES

11.1 Warranties

11.1.1 Warranty

Developer warrants that: (a) all Work furnished pursuant to the Contract Documents shall conform to Good Industry Practice, (b) the Project shall be free of defects, including design Errors, (c) the Project shall be fit for use for the intended function, (d) materials and equipment furnished under the Contract Documents shall be of good quality and new, and (e) the Work shall meet all of the requirements of the Contract Documents (collectively, the “Warranty” or “Warranties”).

11.1.2 Warranty Term

The Warranty Term for each Segment of the Project shall commence upon Substantial Completion thereof and remain in effect until one year after Final Acceptance of the Segment. Subject to extension under Section 11.2, the Warranties regarding all elements of the Project that will be owned by TxDOT shall remain in effect until one year after Final Acceptance of the applicable Segment or, for elements not associated with a particular Segment, until Project Final Acceptance. The Warranty Term for elements of the Project that will be owned by Persons other than TxDOT (such as Utility Owners) shall commence as of the date of acceptance thereof by such Persons and shall end one year thereafter. If TxDOT determines that any of the Work has not met the standards set forth in this Section 11.1 at any time within the applicable Warranty Term, then Developer shall correct such Work as specified in this Section 11, even if the performance of such corrective Work extends beyond the applicable Warranty Term. TxDOT and Developer shall conduct a walkthrough of the Site prior to expiration of the applicable Warranty Term and shall produce a punch list of those items requiring corrective Work.

11.1.3 Remedy

Within seven days of receipt by Developer of notice from TxDOT specifying a failure of any of the Work to satisfy the Warranties, or of the failure of any Subcontractor representation, warranty, guarantee or obligation which Developer is responsible to enforce, Developer and TxDOT shall mutually agree when and how Developer shall remedy such failure; provided, however, that in case of an emergency requiring immediate curative action or a situation which poses a significant safety risk, Developer shall implement such action as it deems necessary and shall notify TxDOT in writing of the urgency of a decision. Developer and TxDOT shall promptly meet in order to agree on a remedy. If Developer does not use its best efforts to proceed to effectuate such remedy within the agreed time, or should Developer and TxDOT fail to reach such an agreement within such seven-day period (or immediately in the case of emergency conditions), TxDOT shall have the right, but not the obligation, to perform or have performed by third parties the necessary remedy, and the costs thereof shall be borne by Developer. Reimbursement therefor shall be payable to TxDOT within ten days after Developer's receipt of an invoice therefor. Alternatively, TxDOT may deduct the amount of such costs

and expenses from any sums owed by TxDOT to Developer pursuant to this Agreement. TxDOT may agree to accept Nonconforming Work in accordance with Section 5.6.2.

11.1.4 Permits and Costs

Developer shall be responsible for obtaining any required encroachment permits and required consents from any other Persons in connection with the performance of Work addressed under this Section 11.1. Developer shall bear all costs of such Work, including additional testing and inspections, Developer shall reimburse TxDOT or pay TxDOT's expenses made necessary thereby including any costs incurred by TxDOT for independent quality assurance and/or quality control with respect to such Work within ten days after Developer's receipt of invoices therefor (including, subject to the limitations in Section 17.5, any Liquidated Damages for Lane Closures arising from or relating to such Work). Alternatively, TxDOT may deduct the amount of such costs and expenses from any sums owed by TxDOT to Developer pursuant to this Agreement.

11.2 Applicability of Warranties to Re-Done Work

The Warranties shall apply to all Work re-done, repaired, corrected or replaced pursuant to the terms of this Agreement. Following acceptance by TxDOT of re-done, repaired, corrected or replaced Work, the Warranties as to each re-done, repaired, corrected or replaced element of the Work shall extend beyond the original Warranty Term in order that each element of the Project shall have at least a one-year warranty period (but not to exceed two years from Project Final Acceptance).

11.3 Subcontractor Warranties

11.3.1 Warranty Requirements

11.3.1.1 Without in any way derogating the Warranties and Developer's own representations and warranties and other obligations with respect to all of the Work, Developer shall obtain from all Subcontractors for periods at least coterminous with the Warranties, appropriate representations, warranties, guarantees and obligations with respect to design, materials, workmanship, equipment, tools and supplies furnished by such Subcontractors to effectuate the provisions in this Section 11.

11.3.1.2 Developer shall cause Subcontractor warranties to be extended to TxDOT and any third parties for whom Work is being performed or equipment, tools, supplies or software is being supplied by such Subcontractor; provided that the foregoing requirement shall not apply to standard, pre-specified manufacturer warranties of mass-marketed materials, products (including software products), equipment or supplies where the warranty cannot be extended to TxDOT using commercially reasonable efforts. TxDOT agrees to forebear from exercising remedies under any such warranty so long as Developer is diligently pursuing remedies thereunder.

11.3.1.3 All representations, warranties, guarantees and obligations of Subcontractors shall be written so as to survive all TxDOT inspections, tests and approvals. Developer hereby assigns to TxDOT all of Developer's rights and interest in all extended

warranties for periods exceeding the applicable Warranty Term which are received by Developer from any of its Subcontractors. To the extent that any Subcontractor warranty would be voided by reason of Developer's negligence or failure to comply with the Contract Documents in incorporating material or equipment into the Work, Developer shall be responsible for correcting such defect.

11.3.2 Enforcement

Upon receipt from TxDOT of notice of a failure of any of the Work to satisfy any Subcontractor warranty, representation, guarantee or obligation, Developer shall enforce or perform any such representation, warranty, guarantee or obligation, in addition to Developer's other obligations hereunder. TxDOT's rights under this Section 11.3.2 shall commence at the time such representation, warranty, guarantee or obligation is furnished and shall continue until the expiration of Developer's relevant Warranty Term (including extensions thereof under Section 11.2). Until such expiration, the cost of any equipment, material, labor (including re-engineering) or shipping shall be for the account of Developer if such cost is covered by such a representation, warranty, guarantee or obligation and Developer shall be required to replace or repair defective equipment, material or workmanship furnished by Subcontractors.

11.4 Effect of TxDOT or Maintenance Contractor Activities on Warranties

Developer acknowledges and agrees that TxDOT and the Maintenance Contractor and their respective agents may perform certain maintenance work during the period in which the Warranties are in effect and agrees that the Warranties shall apply notwithstanding such activities; provided however that Developer does not hereby waive any rights, claims or remedies to which it may be entitled as a result of such activities.

11.5 No Limitation of Liability

Subject to Section 17.5, the Warranties and Subcontractor warranties are in addition to all rights and remedies available under the Contract Documents or applicable Law or in equity, and shall not limit Developer's liability or responsibility imposed by the Contract Documents or applicable Law or in equity with respect to the Work, including liability for design defects, latent construction defects, strict liability, breach, negligence, intentional misconduct or fraud.

11.6 Damages for Breach of Warranty

Subject to Section 17.5 and in addition to TxDOT's other rights and remedies hereunder, at law or in equity, Developer shall be liable for actual damages resulting from any breach of an express or implied warranty or any defect in the Work, including the cost of performance of such obligations by others.

SECTION 12. PAYMENT FOR SERVICES

12.1 Price

12.1.1 Amount

As full compensation for the Work and all other obligations to be performed by Developer under the Contract Documents, TxDOT shall pay to Developer the lump sum "Price". The term "Price" as used herein shall mean the lump sum amount set forth in this Section 12.1.1, subject to adjustment from time to time to account for Change Orders. The Price shall be increased or decreased only by a Change Order issued in accordance with Section 13, a Value Engineering adjustment made in accordance with Section 22. The Price shall be paid in accordance with Section 12.2. The Price shall be the lump sum amount of \$1,007,053,000.

12.1.2 Items Included in Price

Developer acknowledges and agrees that, subject only to Developer's rights under Section 13, the Price includes: (a) all designs, equipment, materials, labor, insurance and bond premiums, home office, jobsite and other overhead, profit and services relating to Developer's performance of its obligations under the Contract Documents (including all Work, equipment, materials, labor and services provided by Subcontractors and intellectual property rights necessary to perform the Work); (b) performance of each and every portion of the Work; (c) the cost of obtaining all Governmental Approvals (except as specified in Section 2.2.6); (d) all costs of compliance with and maintenance of the Governmental Approvals and compliance with Laws, except to the extent compliance with or maintenance of Governmental Approvals is the responsibility of Utility Owners pursuant to Section 6 of the Technical Provisions; (e) payment of any taxes, duties, permit and other fees and/or royalties imposed with respect to the Work and any equipment, materials, labor or services included therein; and (f) compensation for all risks and contingencies assigned to Developer under the Contract Documents.

12.1.3 NTP Work Payments

Developer acknowledges and agrees that the amount of funds available to pay for Work prior to issuance of NTP2 is limited to \$50,000,000. TxDOT has no obligation to make any payments to Developer in excess of \$50,000,000 until such time (if any) as NTP2 is issued.

12.1.4 Delay in NTP1

12.1.4.1 TxDOT anticipates that it will issue the NTP1 concurrently with or shortly after execution and delivery of this Agreement, but shall have the right in its sole discretion to defer issuance. If the effective date of the NTP1 is more than 180 days after the Proposal Due Date and such delay in issuing the NTP1 was not caused in whole or in part by the acts, omissions, negligence, intentional misconduct, or breach of applicable Law,

contract or Governmental Approval of any Developer-Related Entity, the Price will be adjusted by adding the following to the Price:

$$\Delta = N * (\text{Price}) * (([A-B]/B)/T)$$

where:

"Δ" is the adjustment amount;

"N" is the number of days in the period starting 180 days after the Proposal Due Date and ending on the effective date of NTP1;

"A" is the ENR Construction Cost Index (CCI) value published for the effective date of NTP1;

"B" is the CCI published for the month which contains the day which is N +15 days prior to the 15th day of the month which contains the effective date of the NTP1; and

"T" is the number of days between the 15th of the month for which the CCI value for "A" was taken and the 15th of the month for which the CCI value for "B" was taken.

12.1.4.2 If a Change Order is issued during the period starting 180 days after the Proposal Due Date and ending on the effective date of NTP1, the price of the Change Order, if any, shall be adjusted based on the date that the Change Order is approved to the effective date of NTP1 using the formula set forth in Section 12.1.4.1 above, with "B" being the CCI for the month in which the Change Order is approved.

12.1.4.3 If NTP1 has not been issued on or before 365 days after the Effective Date, the Parties may mutually agree to terms allowing an extension in time for issuance of NTP1 and adjustment of the Price. Developer shall provide evidence satisfactory to TxDOT, meeting the requirements of Section 13.4, justifying the amount of any Price increase. If the delay in issuance of NTP1 was not caused in whole or in part by the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of any Developer-Related Entity and Developer does not wish to negotiate an extension or if the Parties fail to reach agreement in accordance with this Section 12.1.4.3, then Developer's sole remedy shall be to terminate this Agreement in accordance with Section 15.9.

12.1.5 Additional Provisions Relating to Delays in NTP1

12.1.5.1 Notwithstanding anything to the contrary contained herein, Developer shall not be entitled to an increase in the Price or extension of the Completion Deadlines, nor shall Developer have a right to terminate this Agreement in accordance with Section 15.9 with respect to any delay in issuance of NTP1 due to the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of any Developer-Related Entity.

12.1.5.2 Any Price increase under this Section 12.1 shall be amortized proportionally over all Work at issue.

12.1.6 Landscaping Allowance

The Price includes a landscaping allowance in the amount of \$4,500,000 which shall be used to cover the costs of landscaping elements in accordance with Section 15 of the Technical Provisions and the Landscaping Plan approved by TxDOT pursuant to Section 15 of the Technical Provisions. The landscaping allowance shall not be used to cover the costs of any aesthetics elements of the Project which are otherwise included in the Price. The aesthetics elements for the Project shall be consistent with the Houston District Green Ribbon Guidelines included in the Reference Information Documents. TxDOT shall have the right at any time to reduce the Price by an amount equal to that portion of the landscaping allowance that TxDOT has determined it will not use, and in no event shall less than the full amount of the allowance be used without TxDOT's prior written approval. If funds remain available in such allowance following achievement of Final Acceptance, the Price shall be reduced by an amount equal to such remaining allowance amount.

12.1.7 Price Adjustment Due to Delay in NTP2

12.1.7.1 If TxDOT does not receive one or more of the USACE Individual Permits by the later of 270 days after the Proposal Due Date or 90 days following issuance of NTP1, TxDOT, in its sole discretion, may issue a modified NTP2 that allows the Work to proceed with respect to those Segments for which USACE Individual Permits have been received. If TxDOT issues a modified NTP2 that excludes Work for a Segment and an NTP2 for such Segment is not issued before the later of the 271st day after the Proposal Due Date or the 91st day following the issuance of NTP1, solely due to a delay in issuance of the applicable USACE Individual Permit, the Segment Price shall be subject to adjustment, as described in this Section 12.1.7.1.

12.1.7.1.1 The Segment Price adjustment shall apply to the period beginning on the date of issuance of NTP2. For purposes of this Section 12.1.7.1, the Segment Price for Segment F-1 is \$251,100,000, the Segment Price for Segment F-2 is \$296,753,000, and the Segment Price for Segment G is \$459,200,000.

12.1.7.1.2 The Segment Price for Work performed on and after the date of issuance of NTP2 will be adjusted by adding the product of the following to the Segment Price:

$$\Delta = N * (\text{Segment Price} - C) * (([A-B]/B)/T)$$

where:

“Δ” is the adjustment amount distributed on a *pro rata* basis over the remaining payments on Exhibit 5;

“C” is 1/3 of the amount paid or owing for Work performed prior to issuance of NTP2;

"N" is the number of days in the period starting on the later of the 270th day after the Proposal Due Date or the 91st day after issuance of NTP1 and ending on the effective date of NTP2;

"A" is the ENR Construction Cost Index (CCI) value published for the effective date of NTP2;

"B" is the CCI published for the month which contains the day which is N +15 days prior to the 15th day of the month which contains the effective date of NTP2; and

"T" is the number of days between the 15th of the month for which the CCI value for "A" was taken and the 15th of the month for which the CCI value for "B" was taken.

12.1.7.2 If NTP2 (or a modified NTP2 issued in accordance with Section 12.1.7.2) has not been issued by the later of 270 days after the Proposal Due Date or 90 days following issuance of NTP1, and this delay is not caused in whole or in part by an act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity (including Developer's failure to satisfy any particular condition(s) to NTP2), the Price shall be subject to adjustment, as described in this Section 12.1.7.2.

12.1.7.2.1 The Price adjustment shall apply to the period beginning on the date of issuance of NTP2.

12.1.7.2.2 The Price for Work performed on and after the date of issuance of NTP2 will be adjusted by adding the product of the following to the Price:

$$\Delta = N * (\text{Price} - C) * (([A-B]/B)/T)$$

where:

"Δ" is the adjustment amount distributed on a *pro rata* basis over the remaining payments on Exhibit 5;

"C" is 1/3 of the amount paid or owing for Work performed prior to issuance of NTP2;

"N" is the number of days in the period starting on the later of the 270th day after the Proposal Due Date or the 91st day after issuance of NTP1 and ending on the effective date of NTP2;

"A" is the ENR Construction Cost Index (CCI) value published for the effective date of NTP2;

"B" is the CCI published for the month which contains the day which is N +15 days prior to the 15th day of the month which contains the effective date of NTP2; and

“T” is the number of days between the 15th of the month for which the CCI value for “A” was taken and the 15th of the month for which the CCI value for “B” was taken.

12.2 Invoicing and Payment

The following process shall apply to invoicing and payment:

12.2.1 Delivery of Draw Request

On or about the fifth Business Day of each month following NTP1 and continuing through the last date of the Maximum Payment Schedule shown on Exhibit 5, Developer shall deliver to TxDOT five copies of a Draw Request in the form attached hereto as Exhibit 15 and meeting all requirements specified herein except as otherwise approved in writing by TxDOT. Each Draw Request shall be executed by Developer’s Authorized Representative. Developer acknowledges that TxDOT will obtain funding for portions of the Work from the federal government, local agencies and other third parties, and Developer agrees to segregate Draw Requests for all such Work in a format reasonably requested by TxDOT and with detail and information as reasonably requested by TxDOT. Each Draw Request shall be organized to account for applicable reimbursement requirements and to facilitate the reimbursement process.

12.2.2 Contents of Draw Request

Each Draw Request must contain the following items:

- (a) Draw Request cover sheet;
- (b) An approved Monthly Project Status Schedule Update as described in Section 2.1.1.3 of the Technical Provisions;
- (c) Certification by the Developer that all Work which is the subject of the Draw Request fully complies with the requirements of the Contract Documents subject to any exceptions identified in the certification;
- (d) Monthly report of personnel hours;
- (e) Draw Request data sheet(s) and supporting documents, as required by TxDOT to support and substantiate the amount requested (based on quantities and unit prices for unit priced Work, based on time and materials for Time and Materials Change Orders, based on actual costs as evidenced by invoices for items to be paid from an allowance, and based on the Project Schedule for all other Work) and showing the maximum amount payable based on the Maximum Payment Schedule;
- (f) DBE utilization report in a format reasonably satisfactory to TxDOT;
- (g) Traffic incident reports;

(h) Cash flow curves and comparison to the Maximum Payment Schedule;

and

(i) Such other items as TxDOT reasonably requests.

In addition, no Draw Request shall be considered complete unless it: (i) describes in detail the status of completion as it relates to the Project Schedule; (ii) sets forth separately and in detail the related payments which are then due in accordance with the Project Schedule and the payments which are then due in accordance with Maximum Payment Schedule, as of the end of the prior month; (iii) in the case of amounts to be paid on a unit price basis, includes invoices, receipts or other evidence establishing the number of units delivered; (iv) in the case of amounts invoiced on a time and materials basis, includes all supporting documentation described in Section 13.7; (v) sets forth in detail the amounts paid to Subcontractors (including Suppliers and Subcontractors at lower tiers) from the payments made by TxDOT to Developer with respect to the Draw Request submitted two months prior; and (vi) includes affidavits of payment and unconditional waivers of Liens and claims executed by Developer and each Subcontractor with respect to all amounts paid in connection with the Draw Request submitted two months prior.

12.2.3 Draw Request Cover Sheet Contents

The Draw Request cover sheet shall include the following:

- (a) Project number and title;
- (b) Request number (numbered consecutively starting with “1”);
- (c) Total amount earned to date for the Project; and
- (d) Authorized signature, title of signer, and date of signature.

12.2.4 Certification by Professional Services Quality Control Manager and Construction Quality Acceptance Firm

Each Draw Request shall include a certificate signed and sealed by the Professional Services Quality Control Manager or the Construction Quality Acceptance Firm, as appropriate, in a form included in Exhibit 15 or otherwise acceptable to TxDOT, certifying that:

(a) Except as specifically noted in the certification, all Work, including that of designers, Subcontractors, and Suppliers, which is the subject of the Draw Request has been checked and/or inspected by the Professional Services Quality Control Manager with respect to Professional Services and the Construction Quality Acceptance Firm with respect to the Construction Work;

(b) Except as specifically noted in the certification, all Work which is the subject of the Draw Request conforms to the requirements of the Contract Documents;

(c) The Professional Services Quality Program and the Construction Quality Program and all of the measures and procedures provided therein are functioning properly and are being followed;

(d) The Professional Services percentages and construction percentages indicated are accurate and correct; and

(e) All quantities for which payment is requested on a unit price basis are accurate.

12.2.5 Draw Request Data Sheets

Draw Request data sheets shall be subdivided into Developer-designated Project segments and shall be attached to a Project-wide report and Draw Request data sheet. It is TxDOT's intent to base payments on a mutually agreed estimate of percentage of Work completed, not on measured quantities (except as expressly set forth in this Agreement), except that cost plus or unit price Change Order work or items to be paid from an allowance may be paid based upon measured quantities. Developer's designation of activities, phases and Project segments and their representation on the final approved Project Schedule and the corrected monthly progress reports shall facilitate this basis of determining periodic payments. Where progress is measured by percentage complete and days remaining, the percentage shall be calculated using Primavera P3. Developer shall present the format of the Draw Request data sheets for TxDOT approval at least 20 Business Days prior to the submittal of the first Draw Request. Once the Draw Request format has been approved by TxDOT, the format shall not change without TxDOT's prior written approval.

12.2.6 Payment by TxDOT

Within ten Business Days after TxDOT's receipt of a complete Draw Request, TxDOT will review the Draw Request and all attachments and certificates thereto for conformity with the requirements of the Contract Documents, and shall notify Developer of the amount approved for payment and the reason for disapproval of any remaining invoiced amounts or of any other information set forth in the Draw Request. Developer may include such disapproved amounts in the next month's Draw Request after correction of the deficiencies noted by TxDOT and satisfaction of the requirements of the Contract Documents related thereto. Within five Business Days after TxDOT's approval of a Draw Request, TxDOT shall pay Developer the amount of the Draw Request approved for payment less any amounts which TxDOT is entitled to withhold or deduct. In no event shall Developer be entitled to: (a) payment for any activity in excess of the value of the activity times the completion percentage of such activity (for non-unit priced Work), or (b) aggregate payments hereunder in excess of: (i) the overall completion percentage for the Project times the Price (for non-unit-priced Work) or (ii) the Maximum Payment Schedule for the month to which the Draw Request applies, plus amounts allowed by Change Orders.

12.2.7 Certification Regarding Payment

TxDOT acknowledges that Developer may satisfactorily perform Work which entitles it to payment amounts in excess of the cumulative monthly amounts allowed under the Maximum Payment Schedule prior to the final payment. Upon Developer's request, TxDOT will provide reasonable certification of such amounts. Such amounts may not be subject to deductions available to TxDOT under the Agreement or a right of offset by TxDOT, provided that Developer and TxDOT have agreed upon reasonable safeguards for issuance of the certifications; and provided further that nothing herein shall prevent TxDOT from exercising its right of offset or to deductions against sums that otherwise would be payable to Developer under the Maximum Payment Schedule or from exercising its rights under the Retainage Bond, Performance Bond, Payment Bond or Guaranty. Notwithstanding any other provision in this Agreement, Developer may assign all or any portion of its rights, title and interests in and to payment of such amounts certified by TxDOT, or to any other payment made or owed by TxDOT under this Agreement, to any Person from which Developer obtains financing to complete any portion of the Work.

12.3 Deductions, Exclusions and Limitations on Payment

12.3.1 Withholding for Maintenance Security

TxDOT shall retain from the Final Payment, and if it reasonably appears there will be insufficient at Final Payment, from progress payments, \$10 million as security for the provision of the bonds required under Section 7.1 of the CMA. Developer shall have the option at any time to deliver an irrevocable letter of credit in the amount of \$10 million in lieu of the retained sums in a form and on terms acceptable to TxDOT in its sole discretion. TxDOT shall release the \$10 million or letter of credit, as applicable, to Developer upon (a) the provision of the bonds required under Section 7.1 of the CMA within 60 days after TxDOT's issuance of Maintenance NTP1, or (b) the election of TxDOT not to issue Maintenance NTP1 within 365 days after Final Acceptance. Developer shall forfeit as liquidated damages and not a penalty such sums, or if a letter of credit is provided in lieu of retained amounts, TxDOT shall have the right to draw on the letter of credit in the event TxDOT does not receive the bonds required under Section 7.1 of the CMA by the deadline set forth therein.

12.3.2 Deductions

TxDOT may deduct from each progress payment and the Final Payment the following:

(a) Any TxDOT or third party Losses for which Developer is responsible hereunder or any Liquidated Damages which have accrued as of the date of the application for payment or which are anticipated to accrue based on the Substantial Completion and Final Acceptance dates shown in the current Project Schedule;

(b) If a notice to stop payment, claim or Lien is filed with TxDOT, due to Developer's failure to pay for labor or materials used in the Work, money due for such labor or materials will be withheld from payment to the Developer;

(c) Any sums expended by or owing to TxDOT as a result of Developer's failure to maintain the Record Drawings,

(d) Any sums expended by TxDOT in performing any of Developer's obligations under the Contract Documents which Developer has failed to perform, and

(e) Any other sums which TxDOT is entitled to recover from Developer under the terms of this Agreement.

The failure by TxDOT to deduct any of these sums from a progress payment shall not constitute a waiver of TxDOT's right to such sums.

12.3.3 Unincorporated Materials

TxDOT will not pay for materials not yet incorporated in the Work unless all of the following conditions are met:

12.3.3.1 Material shall be: (a) delivered to the Site, (b) delivered to Developer and promptly stored by Developer in bonded storage at a location approved by TxDOT in its sole discretion, or (c) stored at a Supplier's fabrication site, which must be a bonded commercial location approved by TxDOT, in its sole discretion. Developer shall submit certified bills for such materials with the Draw Request, as a condition to payment for such materials. TxDOT shall allow only such portion of the amount represented by these bills as, in its sole opinion, is consistent with the reasonable cost of such materials. If such materials are stored at any site not approved by TxDOT, Developer shall accept responsibility for and pay all personal and property taxes that may be levied against TxDOT by any state or subdivision thereof on account of such storage of such material.

12.3.3.2 All such materials that meet the requirements of the Contract Documents shall be and become the property of TxDOT. Developer at its own cost shall promptly execute, acknowledge and deliver to TxDOT proper bills of sale or other instruments in writing in a form acceptable to TxDOT conveying and assuring to TxDOT title to such material included in any Draw Request, free and clear of all Liens. Developer, at its own cost, shall conspicuously mark such material as the property of TxDOT, shall not permit such materials to become commingled with non-TxDOT-owned property or with materials that do not conform with the Contract Documents, and shall take such other steps, if any, as TxDOT may require or regard as necessary to vest title to such material in TxDOT free and clear of Liens.

12.3.3.3 The cost and charges for material included in a Draw Request but which is subsequently lost, damaged or unsatisfactory may be deducted from succeeding Draw Requests if TxDOT, in its sole discretion, determines that is appropriate after considering the availability of insurance coverage and Developer's actions to replace the lost, damaged or unsatisfactory items.

12.3.3.4 Payment for material furnished and delivered as indicated in this Section 12.3.3 will not exceed the amount paid by Developer as evidenced by a bill of sale supported by paid invoice.

12.3.4 Payments for Mobilization, Bond and Insurance Premiums and Record Drawings

12.3.4.1 Developer shall be entitled to payment for mobilization in installments, in an amount equal to the bid item price for mobilization, not to exceed 10% of the Price. The first payment for mobilization shall be in an amount not to exceed 5% of the bid item price for mobilization, payable as part of the first Draw Request following NTP1. The second payment for mobilization shall be in an amount not to exceed 20% of the bid item price for mobilization, payable as part of the first Draw Request following NTP2. The third payment for mobilization shall be in an amount not to exceed 50% of the bid item price for mobilization, payable when at least 10% of the Price (less mobilization) is earned. The fourth payment for mobilization shall be in the remaining amount of the bid item price for mobilization, payable when at least 25% of the Price (less mobilization) is earned. The amounts paid under this Section 12.3.4.1 shall be taken into account in assessing the maximum amount payable under a Draw Request through application of the Maximum Payment Schedule.

12.3.4.2 The portion of the Price allocable to bond and insurance premiums, as set forth in the Proposal, shall be payable to reimburse Developer for bond and insurance premiums actually paid, without markup, not to exceed the line item for such premiums in the Proposal, as part of the first Draw Request following NTP2. Any excess portion of the line item for such premiums set forth in the Proposal shall be payable following Substantial Completion of the Project. The amounts paid under this Section 12.3.4.2 shall be taken into account in assessing the maximum amount payable under a Draw Request through application of the Maximum Payment Schedule.

12.3.4.3 The amount payable for Record Drawings acceptable to TxDOT shall equal 1% of the Price, which shall be withheld from each payment of the Price. Developer shall not be entitled to payment for the last 1% of the Price until acceptable Record Drawings have been delivered to TxDOT.

12.3.5 Equipment

TxDOT shall not pay for direct costs of equipment. Costs of equipment, whether new, used or rented, and to the extent not included in the mobilization payments under Section 12.3.4, shall be allocated to and paid for as part of the activities with which the equipment is associated, in a manner which is consistent with the requirements of Section 13.7.3.

12.4 Final Payment

Final Reconciliation of amounts owing for all Work will be made as follows:

12.4.1 On or about the date of Project Final Acceptance, Developer shall prepare and submit a proposed Final Reconciliation to TxDOT showing the proposed total amount due Developer as of the date of Project Final Acceptance, including any amounts owing from Change Orders. In addition to meeting all other requirements for Draw Requests hereunder, the Final Reconciliation shall propose a schedule of monthly payments that do not exceed the amounts set forth on the Maximum Payment Schedule. The Final

Reconciliation shall list all outstanding PCO Notices, stating the amount at issue associated with each such notice. The Final Reconciliation shall also be accompanied by: (a) evidence regarding the status of all existing or threatened claims, Liens and stop notices of Subcontractors, Suppliers, laborers, Utility Owners and or other third parties against Developer, TxDOT or the Project, (b) consent of any Guarantors and Surety to the proposed monthly payment schedule, (c) such other documentation as TxDOT may reasonably require; and (d) the release described in Section 12.4.4, executed by Developer. Prior applications and payments shall be subject to correction in the Final Reconciliation. PCO Notices filed concurrently with the Final Reconciliation must be otherwise timely and meet all requirements under Sections 13 and 19.

12.4.2 If the Final Reconciliation shows no existing or threatened claims, Liens and stop notices of Subcontractors, Suppliers, laborers, Utility Owners or other third parties against Developer, TxDOT or the Project, and provided TxDOT has approved the Final Reconciliation, TxDOT, in exchange for an executed release meeting the requirements of Section 12.4.4 and otherwise satisfactory in form and content to TxDOT, will pay in accordance with the monthly payment schedule described in Section 12.4.6 the entire sum found due on the approved Final Reconciliation, less the amount of any Losses that have accrued as of the date of Project Final Acceptance, any other deductions permitted under Section 12.3.2 above, and any withholding permitted under Section 12.3.1 above.

12.4.3 If the Final Reconciliation lists any existing or threatened claims, Liens and stop notices of Subcontractors, Suppliers, laborers, Utility Owners or other third parties against Developer, TxDOT or the Project, or if any is thereafter filed, TxDOT may withhold from payment such amount as TxDOT deems advisable to cover any amounts owing or which may become owing to TxDOT by Developer, including costs to complete or remediate uncompleted Work or Nonconforming Work, and the amount of any existing or threatened claims, Liens and stop notices of Subcontractors, Suppliers, laborers, Utility Owners and other third parties against Developer, TxDOT or the Project.

12.4.4 The executed release from Developer shall be from any and all claims arising from the Work, and shall release and waive any claims against the Indemnified Parties, excluding only those matters identified in any PCO Notices listed as outstanding in the Final Reconciliation. The release shall be accompanied by an affidavit from Developer certifying:

(a) that all Work has been performed in strict accordance with the requirements of the Contract Documents;

(b) that Developer has resolved any claims made by Subcontractors, Suppliers, Utility Owners, laborers, or other third parties against Developer, TxDOT or the Project (except those listed by Developer in accordance with Section 12.4.3);

(c) that Developer has no reason to believe that any Person has a valid claim against Developer, TxDOT or the Project which has not been communicated in writing by Developer to TxDOT as of the date of the certificate; and

(d) that all guarantees, Warranties and the Payment Bond, the Performance Bond, Retainage Bond and Warranty Bond are in full force and effect.

12.4.5 All prior Draw Requests shall be subject to correction in the Final Reconciliation.

12.4.6 TxDOT will review Developer's proposed Final Reconciliation, and any changes or corrections, including deductions and withholdings described in Section 12.4.2, will be forwarded to Developer for correction within 20 Business Days. Any changes or corrections made pursuant to this Section 12.4.6 will be reflected in an updated monthly payment schedule showing the net amount owed to Developer by month.

12.4.7 TxDOT shall fulfill its payment obligations under this Agreement by paying the amounts identified in Section 12.4.6, in accordance with the schedule described in Section 12.4.6.

12.5 Payment to Subcontractors

12.5.1 Developer shall pay each Subcontractor for Work performed within ten days after receiving payment from TxDOT for the Work performed by the Subcontractor, and shall pay any retainage on a Subcontractor's Work within ten days after satisfactory completion of all of the Subcontractor's Work. Completed Subcontractor Work includes vegetative establishment, test, maintenance, performance, and other similar periods that are the responsibility of the Subcontractor.

12.5.2 For the purpose of this Section 12.5, satisfactory completion shall have been accomplished when:

(a) the Subcontractor has fulfilled the Subcontract requirements and the requirements under the Contract Documents for the subcontracted Work, including the submission of all submittals required by the Subcontract and Contract Documents; and

(b) the Work done by the Subcontractor has been inspected and approved by Developer and the final quantities of the Subcontractor's Work have been determined and agreed upon.

12.5.3 The foregoing payment requirements apply to all tiers of Subcontractors and shall be incorporated into all Subcontracts.

12.6 Disputes

Failure by TxDOT to pay any amount in dispute shall not alleviate, diminish or modify in any respect Developer's obligation to perform under the Contract Documents, including Developer's obligation to achieve the Completion Deadlines and perform all Work in accordance with the Contract Documents, and Developer shall not cease or slow down its performance under the Contract Documents on account of any such amount in dispute. Any Claim or Dispute regarding such payment shall be resolved pursuant to Section 19. Developer shall proceed as directed by TxDOT pending resolution of the Claim or Dispute.

Upon resolution of any such Claim or Dispute, each Party shall promptly pay to the other any amount owing.

12.7 Progress Payment Certificate

(a) Upon receipt of TxDOT's response under Section 12.4.6, Developer may request TxDOT to execute and deliver to Developer, within ten business days, a Progress Payment Certificate in a form substantially similar to Exhibit 21, identifying a total undisputed amount owing to Developer, acknowledging its obligation to pay that amount to Developer and committing to make payments to satisfy that obligation in accordance with the schedule described in Section 12.4.6.

(b) Notwithstanding any other provision in this Agreement, Developer may assign all or any portion of its rights, title and interests in and to the Progress Payment Certificate described in Section 12.7(a), or to any other payment made or owed by TxDOT under this Agreement, to any Person from which Developer obtains financing to complete any portion of the Work.

(c) At Developer's request, TxDOT will provide subsequent certificates to the extent appropriate to reflect additional undisputed amounts determined after issuance of the initial certificate to be owing to Developer.

SECTION 13. CHANGES IN THE WORK

This Section 13 sets forth the requirements for obtaining all Change Orders under this Agreement. Developer hereby acknowledges and agrees that the Price constitutes full compensation for performance of all of the Work, subject only to those exceptions specified in this Section 13 and Developer's right to collect certain payments from Utility Owners for Betterments as specified in Section 6.8.2, and that TxDOT is subject to constraints limiting its ability to increase the Price or extend the Completion Deadlines. Developer unconditionally and irrevocably waives the right to any Claim for a time extension or for any monetary compensation in addition to the Price and other compensation specified in this Agreement, except in accordance with this Section 13. To the extent that any other provision of this Agreement expressly provides for a Change Order to be issued, such provision is incorporated into and subject to this Section 13.

13.1 Circumstances Under Which Change Orders May Be Issued

13.1.1 Definition of and Requirements Relating to Change Orders

13.1.1.1 Definition of Change Order

The term "Change Order" shall mean a written amendment to the terms and conditions of the Contract Documents issued in accordance with this Section 13. TxDOT may issue unilateral Change Orders as specified in Section 13.2.2. Change Orders may be requested by Developer only pursuant to Section 13.3. A Change Order shall not be effective for any purpose unless executed by TxDOT. Change Orders may be issued for the following purposes (or combination thereof):

- (a) to modify the scope of the Work;
- (b) to revise a Completion Deadline;
- (c) to revise the Price;
- (d) to revise other terms and conditions of the Contract

Documents.

Upon TxDOT's approval of the matters set forth in the Change Order form (whether it is initiated by TxDOT or requested by Developer), TxDOT shall sign such Change Order form indicating approval thereof. A Change Order may, at the sole discretion of TxDOT, direct Developer to proceed with the Work with the amount of any adjustment of any Completion Deadline or Price to be determined in the future. All additions, deductions or changes to the Work as directed by Change Orders shall be executed under the conditions of the original Contract Documents.

13.1.1.2 Issuance of Directive Letter

TxDOT may at any time issue a Directive Letter to Developer regarding any matter for which a Change Order can be issued or in the event of any Claim or Dispute

regarding the scope of the Work or whether Developer has performed in accordance with the requirements of the Contract Documents. The Directive Letter will state that it is issued under this Section 13.1.1.2, will describe the Work in question and will state the basis for determining compensation, if any. Subject to Section 13.2.1.5, Developer shall proceed immediately as directed in the Directive Letter, pending the execution of a formal Change Order (or, if the Directive Letter states that the Work is within Developer's original scope of Work, Developer shall proceed with the Work as directed but shall have the right pursuant to Section 13.3 to request that TxDOT issue a Change Order with respect thereto).

13.1.1.3 Directive Letter as Condition Precedent to Claim that TxDOT-Directed Change Has Occurred

Developer shall not be entitled to additional compensation or time extension for any such work performed prior to receipt of a Directive Letter or Change Order, except to the extent that Section 13.3.2.2 preserves Developer's right to compensation for work performed following delivery of a Request for Partnering. Developer acknowledges that it will be at risk if it elects to proceed with any such work, since TxDOT may later decide not to provide direction with regard to such work. In addition to provision of a PCO Notice and subsequent Change Order request pursuant to Section 13.3.2, receipt of a Directive Letter from TxDOT shall be a condition precedent to Developer's right to make a Claim that a TxDOT-Directed Change has occurred.

The fact that a Directive Letter was issued by TxDOT shall not be considered evidence that in fact a TxDOT-Directed Change occurred. The determination whether a TxDOT-Directed Change in fact occurred shall be based on an analysis of the original requirements of the Contract Documents and a determination whether the Directive Letter in fact constituted a change in those requirements.

13.1.2 TxDOT Right to Issue Change Orders

TxDOT may, at any time and from time to time, without notice to any Surety, authorize and/or require, pursuant to a Change Order, changes in the Work or in terms and conditions of the Technical Provisions (including changes in the standards applicable to the Work); except TxDOT has no right to require any change that:

- (a) Is not in compliance with applicable Laws;
- (b) Would contravene an existing Governmental Approval and such contravention could not be corrected by the issuance of a further or revised Governmental Approval;
- (c) Constitutes a fundamental change in the nature or scope of the Project;
- (d) Would cause an insured risk to become uninsurable;

- (e) Would materially adversely affect the health or safety of users of the Project;
- (f) Is fundamentally incompatible with the Project design; or
- (g) Is not technically feasible to construct.

Developer shall have no obligation to perform any work within any such exception unless on terms mutually acceptable to TxDOT and Developer.

13.2 TxDOT-Initiated Change Orders

13.2.1 Request for Change Proposal

13.2.1.1 If TxDOT desires to issue a TxDOT-Directed Change or to evaluate whether to initiate such a change, then TxDOT may, at its discretion, issue a Request for Change Proposal. The Request for Change Proposal shall set forth the nature, extent and details of the proposed TxDOT-Directed Change.

13.2.1.2 Within five Business Days after Developer receives a Request for Change Proposal, or such longer period to which the Parties mutually agree, TxDOT and Developer shall consult to define the proposed scope of the change. Within five Business Days after the initial consultation, or such longer period to which the Parties may mutually agree, TxDOT and Developer shall consult concerning the estimated cost and time impacts.

13.2.1.3 Within five Business Days after the second consultation and provision of any data described in Section 13.2.1.2, TxDOT shall notify Developer whether TxDOT: (a) wishes to issue a Change Order, (b) wishes to request Developer to provide a Cost and Schedule Proposal as discussed at the meeting, (c) wishes to request Developer to prepare a modified work plan for the change and a Cost and Schedule Proposal based on the modified plan, or (d) no longer wishes to issue a Change Order. TxDOT may at any time, in its sole discretion, require Developer to provide two alternative Cost and Schedule Proposals, one of which shall provide for a time extension and any additional costs permitted hereunder, and the other of which shall show all Acceleration Costs associated with meeting the non-extended Completion Deadlines, as well as any additional costs permitted hereunder.

13.2.1.4 If so requested, Developer shall, within ten Business Days after receipt of the notification described in Section 13.2.1.3, or such longer period as may be mutually agreed to by TxDOT and Developer, prepare and submit to TxDOT for review and approval by TxDOT a Cost and Schedule Proposal (in the format provided by TxDOT) for the requested change, complying with all applicable requirements of Section 13.4, and incorporating and fully reflecting all requests made by TxDOT. Developer shall bear the cost of developing the Cost and Schedule Proposal, including any modifications thereto requested by TxDOT, except that costs of design and engineering work required for preparation of plans or exhibits necessary to the Cost and Schedule Proposal, as pre-authorized by TxDOT, may be included in the Change Order as reimbursable items. If the Change Order is approved,

such design and engineering costs will be included within the Change Order, otherwise, they shall be separately reimbursed through a separate Change Order.

13.2.1.5 If Developer and TxDOT are unable to reach agreement on a Change Order, TxDOT may, in its sole discretion, order Developer to proceed with the performance of the Work in question notwithstanding such disagreement. Such order may, at TxDOT's option, be in the form of: (a) a Time and Materials Change Order as provided in Section 13.7 or (b) a Directive Letter under Section 13.1.1.2. Upon receipt of a Time and Materials Change Order or Directive Letter, as the case may be, pending final resolution of the relevant Change Order according to the dispute resolution procedures of this Agreement, (a) Developer shall implement and perform the Work in question as directed by TxDOT and (b) TxDOT will make interim payment(s) to Developer on a monthly basis for the reasonable documented costs of the Work in question, subject to subsequent adjustment through the dispute resolution procedures of this Agreement.

13.2.1.6 If it is not practicable, due to the nature and/or timing of the event giving rise to a proposed Change Order, for Developer to provide a complete Cost and Schedule Proposal meeting all of the requirements of Section 13.4, Developer shall provide an incomplete proposal which includes all information capable of being ascertained. Said incomplete proposal shall: (a) include a list of those Change Order requirements which are not fulfilled together with an explanation reasonably satisfactory to TxDOT stating why such requirements cannot be met, (b) provide such information regarding projected impact on a critical path as is requested by TxDOT, and (c) in all events include sufficient detail to ascertain the basis for the proposed Change Order and for any price increase associated therewith, to the extent such amount is then ascertainable. Developer shall provide monthly updates to any incomplete Cost and Schedule Proposals in the same manner as updates to incomplete Requests for Change Order under Section 13.3.2.6.

13.2.2 Unilateral Change Orders

TxDOT may issue a unilateral Time and Materials Change Order at any time, regardless of whether it has issued a Request for Change Proposal. Developer shall be entitled to compensation in accordance with Section 13.7 for additional Work which is required to be performed as the result of any such unilateral Change Order, and shall have the right to submit the issue of entitlement to an extension of the Completion Deadlines to dispute resolution in accordance with Section 19. For deductive unilateral Change Orders, the Change Order may contain a Price deduction deemed appropriate by TxDOT, and Developer shall have the right to submit the amount of such Price deduction to dispute resolution in accordance with Section 19.

13.2.3 TxDOT-Directed Changes Under \$10,000

Developer shall not be entitled to an increase in the Price for any TxDOT-Directed Changes involving less than \$10,000 in additional direct costs incurred by Developer.

13.2.4 Options

13.2.4.1 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option A Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before 90 days after issuance of NTP1. If TxDOT exercises such option, the Option A Work shall be included in the Work and the Price shall be increased by \$10,000,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-1 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.2 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option B Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before 90 days after issuance of NTP1. If TxDOT exercises such option, the Option B Work shall be included in the Work and the Price shall be increased by \$10,318,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-2 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.3 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option C Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before 90 days after issuance of NTP1. If TxDOT exercises such option, the Option C Work shall be included in the Work and the Price shall be increased by \$8,882,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-3 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.4 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option D Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before the date of issuance of NTP1. If TxDOT exercises such option, the Option D Work shall be included in the Work and the Price shall be increased by \$1,300,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-4 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.5 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option E Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before the date of issuance of NTP1. If TxDOT exercises such option, the Option E Work shall be included in the Work and the Price shall be increased by \$2,000,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-5 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.6 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option F Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before the date of issuance of NTP1. If TxDOT exercises such option, the Option F Work shall be included in the Work and the Price shall be increased by \$2,000,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-6 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.7 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option G Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before the date of issuance of NTP1. If TxDOT exercises such option, the Option G Work shall be included in the Work and the Price shall be increased by \$1,000,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-7 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.4.8 TxDOT may, at its sole discretion, exercise its option to have the Work include the Option H Work by indicating its intent to exercise such option in NTP1 or by providing other written notice to Developer of such intent on or before the date of issuance of NTP1. If TxDOT exercises such option, the Option H Work shall be included in the Work and the Price shall be increased by \$1,000,000. In addition, the Maximum Payment Schedule shall be increased by adding the amounts on Exhibit 5-8 to the Maximum Payment Schedule set forth in Exhibit 5.

13.2.5 Utility Change in Law Deduction

If, during the Term, there occurs a decrease in the Developer's share of eligible costs as set forth in Section 6.8.6.7 in connection with Utility Adjustments (due to a Change in Law or expiration of Transportation Code Section 203.092(a-3)), TxDOT shall have the right to issue a unilateral Change Order to decrease the Price. The Change Order may be issued at any time after the effective date of the Change in Law or expiration of Transportation Code Section 203.092(a-3). In determining the amount of the Price deduction, TxDOT may consider the amount allocated to Utility Adjustment Work in the Proposal, as well as Utility Adjustment Work performed and for which payment has been made. Developer shall have the right to submit the amount of such Price deduction to dispute resolution in accordance with Section 19.

13.3 Developer-Requested Change Orders

13.3.1 Eligible Changes

13.3.1.1 Developer may request a Change Order to extend a Completion Deadline only for delays directly attributable to one or more of the following events or circumstances which change the duration of a Critical Path:

- (a) Force Majeure Events;
- (b) TxDOT-Caused Delays;
- (c) delays relating to Utilities, to the extent permitted by Sections 6.8.1, 6.8.5 and 13.8.2;
- (d) delays relating to Differing Site Conditions or discovery of Hazardous Materials, to the extent permitted by Section 13.8; or

(e) delays relating to access to ROW, to the extent permitted by Section 13.8.5.

13.3.1.2 Developer may request a Change Order to increase the Price only for increased costs of performance of the Work as follows:

(a) subject to Section 13.2.3, additional costs directly attributable to additional Work resulting from TxDOT-Directed Changes and TxDOT-Caused Delays for which TxDOT has not submitted a Change Order or a Request for Change Proposal;

(b) additional costs relating to Differing Site Conditions, Hazardous Materials, and Force Majeure Events, to the extent provided in Section 13.8;

(c) certain additional costs relating to Utility Adjustment Work, as described in Section 6.8 and Section 13.8.2, to the extent provided therein;

(d) additional costs directly attributable to uncovering, removing and restoring Work, to the extent provided in Section 5.4.3;

(e) Price adjustments as specified in Section 12.1; or

(f) additional costs for Utility Adjustment Work directly attributable to Necessary Basic Configuration Changes, to the extent provided in Section 13.8.

13.3.1.3 Developer's entitlement to a Change Order for eligible changes is subject to the restrictions and limitations contained in this Section 13 and elsewhere in the Contract Documents, and furthermore is subject to Developer's compliance with all notification and other requirements identified herein. Developer shall initiate the Change Order process by delivery of a PCO Notice as described in Section 13.3.2, followed by submittal of a Request for Change Order and supporting documentation to TxDOT.

13.3.2 Procedures

The requirements set forth in this Section 13.3.2 constitute conditions precedent to Developer's entitlement to request and receive a Change Order except those involving: (a) a Request for Change Proposal or (b) a Price increase under Section 12.1.4. Developer understands that it shall be forever barred from recovering against TxDOT under this Section 13 if it fails to give notice of any act, or omission, by TxDOT or any of its representatives or the happening of any event, thing or occurrence pursuant to a proper PCO Notice, or fails to comply with the remaining requirements of this Section 13.3.

13.3.2.1 Delivery of Requests for Partnering and PCO Notices

Developer acknowledges the importance of providing prompt notification to TxDOT upon occurrence of any event or thing entitling Developer to a Change Order under Section 13.3.1. Among other things, such notification serves the purpose of

allowing TxDOT to take action to mitigate adverse impacts. Such notification must be delivered as promptly as possible after the occurrence of such event or situation, through either: (a) a PCO Notice as described in Section 13.3.2.3 or (b) if permitted by Section 13.3.2.2, a Request for Partnering followed by a PCO Notice if appropriate.

13.3.2.2 Requests for Partnering

The term “Request for Partnering” shall mean a notice delivered by Developer requesting that TxDOT enter into partnering discussions with Developer with regard to an event or situation that has occurred within the scope of Section 13.3.1.2. The Request for Partnering shall reference this Section 13.3.2.2 and shall describe the event or situation as well as action which Developer would like to take with respect thereto. The Parties shall promptly meet and confer for the purpose of determining what action should be taken and also to determine whether the Parties are in agreement as to entitlement to a Change Order. Either Party may at any time terminate partnering discussions by delivery of written notice to the other, and partnering discussions shall automatically terminate 60 days after delivery of the Request for Partnering unless both Parties agree in writing to an extension. Within five Business Days after termination of partnering discussions, if TxDOT has not issued either a Directive Letter or Change Order, Developer must submit a PCO Notice in order to preserve its right to pursue a Change Order. The foregoing process is not available for events or situations involving a delay to the Critical Path. With regard to any such events or situations, Developer must submit a PCO Notice as provided in Section 13.3.2.3.

13.3.2.3 PCO Notices

The term “PCO Notice” shall mean a notice delivered by Developer, meeting the requirements set forth below, stating that an event or situation has occurred within the scope of Section 13.3.1 and stating which subsection thereof is applicable. The first notice shall be labeled “PCO Notice No. 1” and subsequent notices shall be numbered sequentially.

The PCO Notice shall: (a) state in detail the facts underlying the anticipated Request for Change Order, the reasons why Developer believes additional compensation or time will or may be due and the date of occurrence, (b) state the name, title, and activity of each Program Manager and TxDOT representative knowledgeable of the facts underlying the anticipated Request for Change Order, (c) identify any documents and the substance of any oral communication involved in the facts underlying the anticipated Request for Change Order, (d) state in detail the basis for necessary accelerated schedule performance, if applicable, (e) state in detail the basis that the work is not required by this Agreement, if applicable, (f) identify particular elements of performance for which additional compensation may be sought under this Section 13.3.2, (g) identify any potential critical path impacts, and (h) provide an estimate of the time within which a response to the notice is required to minimize cost, delay or disruption of performance.

If the Request for Change Order relates to a decision which this Agreement leaves to the discretion of a Person or as to which this Agreement provides

that such Person's decision is final, the PCO Notice shall set out in detail all facts supporting Developer's objection to the decision, including all facts supporting any contention that the decision was capricious or arbitrary or is not supported by substantial evidence.

Written notification provided in accordance with Section 13.8.1.3 or 13.8.4.1 may also serve as a PCO Notice provided it meets the requirements for PCO Notices.

Any adjustments made to this Agreement shall not include increased costs or time extensions for delay resulting from Developer's failure to timely provide requested additional information under this Section 13.3.2.3.

13.3.2.4 Waiver

Each PCO Notice shall be delivered as promptly as possible after the occurrence of such event or situation. If any PCO Notice is delivered later than ten days after Developer first discovered (or should have discovered in the exercise of reasonable prudence) the occurrence described therein, Developer shall be deemed to have waived: (a) the right to collect any costs incurred prior to the date of delivery of the Request for Partnering (if applicable) or PCO Notice (if no Request for Partnering was submitted or if the PCO Notice was not timely submitted following termination of partnering discussions), and (b) the right to seek an extension of any Completion Deadline with respect to any delay in a critical path which accrued prior to the date of delivery of the written notice. Furthermore, if any PCO Notice concerns any condition or material described in Section 13.8.4.1, Developer shall be deemed to have waived the right to collect any and all costs incurred in connection therewith to the extent that TxDOT is not afforded the opportunity to inspect such material or condition before it is disturbed.

In addition to the limitations set forth in Section 13.3.2.4, Developer's failure to provide a PCO Notice within 60 days after Developer first discovered (or should have discovered in the exercise of reasonable prudence) the occurrence of a given event or situation shall preclude Developer from any relief, unless Developer can show, based on a preponderance of the evidence, that: (a) TxDOT was not materially prejudiced by the lack of notice, or (b) TxDOT's Authorized Representative specified in accordance with Section 24.6.1 had actual knowledge, prior to the expiration of the 60-day period, of the event or situation and that Developer believed it was entitled to a Change Order with respect thereto. For situations involving Requests for Partnering, the 60-day period shall be extended until two Business Days following termination of the partnering period. In other words, if the requirements of clause (a) or clause (b) above are satisfied, Developer shall retain the right to receive a Change Order, but shall be deemed to have waived the right to collect any and all costs incurred prior to the date of delivery of the PCO Notice or Request for Partnering, as applicable, and shall be deemed to have waived the right to seek a time extension with respect to any delay in any Critical Path which accrued prior to the date of delivery of the PCO Notice.

13.3.2.5 Delivery of Request for Change Order

Developer shall deliver a Request for Change Order under this Section 13.3.2.5 to TxDOT within 30 days after delivery of the PCO Notice, or such longer period of time as may be allowed in writing by TxDOT. TxDOT may require design and construction costs to be covered by separate Requests for Change Order. If Developer requests a time extension, then TxDOT, in its sole discretion, may require Developer to provide two alternative Requests for Change Order, one of which shall provide for a time extension and any additional costs permitted hereunder, and the other of which shall show all Acceleration Costs associated with meeting the non-extended Completion Deadlines, as well as any additional costs permitted hereunder. If it is not feasible to recover to the non-extended Completion Deadline or if Developer believes that the costs associated with such a recovery are prohibitive, then Developer shall recommend a date to be shown in the alternative Change Order form. If Developer fails to deliver a complete Request for Change Order or incomplete Request for Change Order meeting all of the requirements of Section 13.3.2.6 within the appropriate time period, Developer shall be required to provide a new PCO Notice before it may submit a Request for Change Order.

13.3.2.6 Incomplete Requests for Change Order

Each Request for Change Order provided under Section 13.3.2.5 shall meet all requirements set forth in Section 13.4; provided that if any such requirements cannot be met due to the nature and/or timing of the occurrence, Developer shall provide an incomplete Request for Change Order which fills in all information capable of being ascertained. Said incomplete Request shall: (a) include a list of those Change Order requirements which are not fulfilled together with an explanation reasonably satisfactory to TxDOT stating why such requirements cannot be met, (b) provide such information regarding projected impact on a critical path as is requested by TxDOT, and (c) in all events include sufficient detail to ascertain the basis for the proposed Change Order and for any price increase associated therewith, to the extent such amount is then ascertainable.

Developer shall furnish, when requested by TxDOT or its designee, such further information and details as may be required to determine the facts or contentions involved. Developer agrees that it shall give TxDOT or its designee access to any and all of Developer's books, records and other materials relating to the Work, and shall cause its Subcontractors to do the same, so that TxDOT or its designee can investigate the basis for such proposed Change Order. Developer shall provide TxDOT with a monthly update to all outstanding Requests for Change Order describing the status of all previously unfulfilled requirements and stating any changes in projections previously delivered to TxDOT, expenditures to date and time anticipated for completion of the activities for which the time extension is claimed. TxDOT may reject the Request for Change Order at any point in the process. TxDOT's failure to respond to a complete Request for Change Order within 15 Business Days of delivery of the request shall not be deemed an acceptance of such request, and the Developer shall have the burden of following up with TxDOT on the status of any such Request for Change Order.

13.3.2.7 Importance of Timely Response

Developer acknowledges and agrees that, due to limitations on funding for the Project, timely delivery of PCO Notices and Requests for Change Orders and updates thereto are of vital importance to TxDOT. TxDOT is relying on Developer to evaluate promptly upon the occurrence of any event or situation whether the event or situation will affect the Project Schedule or Price and, if so, whether Developer believes a time extension and/or Price increase is required hereunder. If an event or situation occurs which may affect the Price or a Completion Deadline, TxDOT will evaluate the situation and determine whether it wishes to make any changes to the definition of the Project so as to bring it within TxDOT's funding and time restraints. The following matters (among others) shall be considered in determining whether TxDOT has been prejudiced by Developer's failure to provide timely notice: (a) the effect of the delay on alternatives available to TxDOT (that is, a comparison of alternatives which are available at the time notice was actually given and alternatives which would have been available had notice been given within ten days after occurrence of the event or when such occurrence should have been discovered in the exercise of reasonable prudence); and (b) the impact of the delay on TxDOT's ability to obtain and review objective information contemporaneously with the event.

13.3.2.8 Review of Subcontractor Claims

Prior to submission by Developer of any Request for Change Order which is based in whole or in part on a request by a Subcontractor to Developer for a price increase or time extension under its Subcontract, Developer shall have reviewed all claims by the Subcontractor which constitute the basis for the Request for Change Order and determined in good faith that each such claim is justified hereunder and that Developer is justified in requesting an increase in the Price and change in Completion Deadlines in the amounts specified in the Request for Change Order. Each Request for Change Order involving Subcontractor Work, and each update to an incomplete Change Order request involving such Work shall include a summary of Developer's analysis of all Subcontractor claims components and shall include a certification signed by Developer's Project Manager stating that Developer has investigated the basis for the Subcontractor's claims and has determined that all such claims are justified as to entitlement and amount of money and/or time requested, has reviewed and verified the adequacy of all back-up documentation to be placed in escrow pursuant to Section 21.1, and has no reason to believe and does not believe that the factual basis for the Subcontractor's claim is falsely represented. Any Request for Change Order involving Subcontractor Work which is not accompanied by such analysis and certification shall be considered incomplete.

13.3.3 Performance of Disputed Work

If TxDOT refuses to issue a Change Order based on Developer's request, Developer shall nevertheless perform all work as specified by Directive Letter, and shall have the right to submit the issue to dispute resolution pursuant to Section 19. Developer shall maintain and deliver to TxDOT, upon request, contemporaneous records, meeting the requirements of Section 13.9, for all work performed which Developer believes constitutes extra work (including non-construction work), until all Claims and Disputes regarding entitlement or cost of such work are resolved.

13.4 Contents of Change Orders

13.4.1 Form of Change Order

Each Cost and Schedule Proposal and Request for Change Order shall be prepared in a form acceptable to TxDOT, and shall meet all applicable requirements of this Section 13.

13.4.2 Scope of Work, Cost Estimate, Delay Analysis and Other Supporting Documentation

Developer shall prepare a scope of work, cost estimate, delay analysis and other information as required by this Section 13.4.2 for each Cost and Schedule Proposal and Request for Change Order.

13.4.2.1 Scope of Work

The scope of work shall describe in detail satisfactory to TxDOT all activities associated with the Change Order, including a description of additions, deletions and modifications to the existing requirements of the Contract Documents.

13.4.2.2 Cost Estimate

The cost estimate shall set out the estimated costs in such a way that a fair evaluation can be made. It shall include a breakdown for labor, materials, equipment and markups for overhead and profit, unless TxDOT agrees otherwise. The estimate shall include costs allowable under Section 13.5.2, if any. If the work is to be performed by Subcontractors and if the work is sufficiently defined to obtain Subcontractor quotes, Developer shall obtain quotes (with breakdowns showing cost of labor, materials, equipment and markups for overhead and profit) on the Subcontractor's stationery and shall include such quotes as back-up for Developer's estimate. No markup shall be allowed in excess of the amounts allowed under Sections 13.5.2 and 13.7. Developer shall identify all conditions with respect to prices or other aspects of the cost estimate, such as pricing contingent on firm orders being made by a certain date or the occurrence or non-occurrence of an event.

13.4.2.3 Delay Analysis

If Developer claims that such event, situation or change affects a Critical Path, it shall provide an impacted delay analysis indicating all activities represented or affected by the change, with activity numbers, durations, predecessor and successor activities, resources and cost, and with a narrative report, in form satisfactory to TxDOT, which compares the proposed new schedule to the current approved Project Schedule.

13.4.2.4 Other Supporting Documentation

Developer shall provide such other supporting documentation as may be required by TxDOT.

13.4.3 Justification

All Requests for Change Orders shall include an attachment containing a detailed narrative justification therefor, describing the circumstances underlying the proposed change, identifying the specific provision(s) of Section 13 which permit a Change Order to be issued, and describing the data and documents (including all data and reports required under Section 13.9) which establish the necessity and amount of such proposed change.

13.4.4 Developer Representation

Each Change Order shall be accompanied by a certification under penalty of perjury, in a form acceptable to TxDOT, executed by Developer and stating that: (a) the amount of time and/or compensation requested is justified as to entitlement and amount, (b) the amount of time and/or compensation requested includes all known and anticipated impacts or amounts which may be incurred as a result of the event or matter giving rise to such proposed change, and (c) the cost and pricing data forming the basis for the Change Order is complete, accurate and current. Each Change Order involving Work by a Subcontractor for which pricing data is required to be provided under Section 21.1 shall include a statement that the Subcontractor pricing data has been provided and shall include a copy of the certification required to be provided by the Subcontractor under Section 21.1.

13.4.5 Change Order Affecting Maintenance Agreement

Each Change Order shall be signed by Developer in its capacity as both the Developer under this Agreement and the Maintenance Contractor under the Maintenance Agreement. Each Change Order shall state whether a change order will also be required under the Maintenance Agreement as a result of the change in the Work, and the reasons for such change order. Developer's failure to notify TxDOT that a change order will be required under the Maintenance Agreement shall waive Developer's right to seek such a change order.

13.5 Certain Limitations

13.5.1 Limitation on Price Increases

Any increase in the Price allowed hereunder shall exclude: (a) costs caused by the acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any Developer-Related Entity; (b) costs to the extent that they are unnecessary or could reasonably be avoided by Developer, including by re-sequencing, reallocating or redeploying its forces to other portions of the Work or to other activities unrelated to the Work; and (c) costs for remediation of any Nonconforming Work. Costs incurred for the purpose of mitigating damages as described in clause (b) above, and not otherwise disallowed hereunder, would be reimbursable.

13.5.2 Limitation on Delay and Disruption Damages

13.5.2.1 Acceleration Costs; Delay and Disruption Damages

Acceleration Costs shall be compensable hereunder only with respect to Change Orders issued by TxDOT as an alternative to allowing an extension of a Completion Deadline as contemplated by Sections 13.2.1.3 and 13.3.2.5. Other delay and disruption damages shall be compensable hereunder only in the case of delays which entitle Developer to an extension of a Completion Deadline and qualify as a TxDOT-Caused Delays. Without limiting the generality of the foregoing, costs of re-sequencing or rearranging Developer's work plan to accommodate TxDOT-Directed Changes not associated with an extension of a Completion Deadline shall not be compensable hereunder.

13.5.2.2 Other Limitations

Delay and disruption damages shall be limited to direct costs directly attributable to the delays described in Section 13.5.2.1 and markups thereon in accordance with Section 13.7.7 and any additional field office and jobsite overhead costs directly attributable to such delays. In addition, before Developer may obtain any increase in the Price to compensate for additional or extended overhead, Acceleration Costs or other damages relating to delay, Developer shall have demonstrated to TxDOT's satisfaction that:

(a) its schedule which defines the affected Critical Path in fact sets forth a reasonable method for completion of the Work; and

(b) the change in the Work or other event or situation which is the subject of the requested Change Order has caused or will result in an identifiable and measurable disruption of the Work which impacted the Critical Path activity (i.e. consumed all available Float and extended the time required to achieve any Substantial Completion or Final Acceptance beyond the applicable Completion Deadline); and

(c) the delay or damage was not due to an act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of any Developer-Related Entity, and could not reasonably have been avoided by Developer, including by re-sequencing, reallocating or redeploying its forces to other portions of the Work or other activities unrelated to the Work (provided that TxDOT has agreed to reimburse Developer for additional costs reasonably incurred in connection with such re-sequencing, reallocation or redeployment); and

(d) the delay for which compensation is sought is not concurrent with any delay for which any Developer-Related Entity is responsible hereunder; and

(e) Developer has suffered or will suffer actual costs due to such delay, each of which costs shall be documented in a manner satisfactory to TxDOT.

13.5.3 Limitation on Time Extensions

Any extension of a Completion Deadline allowed hereunder shall exclude any delay to the extent that it: (a) did not impact a Critical Path, (b) was due to the fault or negligence, or act or failure to act of any Developer-Related Entity, (c) is concurrent with

any other unrelated delay to a Critical Path that is Developer's responsibility hereunder, or (d) could reasonably have been avoided by Developer, including by re-sequencing, reallocating or redeploying its forces to other portions of the Work (provided that if the request for extension involves a TxDOT-Caused Delay, Developer shall be entitled to a time extension unless TxDOT shall have agreed, if requested to do so, to reimburse Developer for its costs incurred, if any, in re-sequencing, reallocating or redeploying its forces). Developer shall be required to demonstrate to TxDOT's satisfaction that the change in the Work or other event or situation which is the subject of the Request for Change Order seeking a change in a Completion Deadline has caused or will result in an identifiable and measurable disruption of the Work which has impacted the Critical Path activity (i.e. consumed all available Float and extended the time required to achieve any Substantial Completion or Final Acceptance beyond the applicable Completion Deadline).

13.5.4 Work Performed Without Direction

To the extent that Developer undertakes any efforts outside of the scope of the Work, unless Developer has received a Directive Letter or Change Order signed by TxDOT to undertake such efforts, Developer shall be deemed to have undertaken the extra work voluntarily and shall not be entitled to a Change Order in connection therewith. In addition, TxDOT may require Developer to remove or otherwise undo any such work, at Developer's sole cost.

13.6 Change Order Pricing

The price of a Change Order under this Section 13.6 shall be a negotiated lump sum price or unit prices as provided below. Lump sum price or unit prices shall be based on the original allocations of the Price to comparable activities, whenever possible. If reference to price allocations is inappropriate and if requested by TxDOT or Developer, negotiation for lump sum or unit price Change Orders shall be on an Open Book Basis and may be based on the pricing contained in the EPDs as well as Subcontractors' bid prices.

13.6.1 Detailed Cost Proposal

Developer may be required to submit a detailed cost proposal identifying all categories of costs in accordance with the requirements of Section 13.7: (a) showing all impacts on the Contract Documents from Work additions, deletions and modifications shown in the Change Order being priced; and (b) setting out the proposed costs in such a way that a fair evaluation can be made. When the Change Order adds Work to Developer's scope, the increase in the Price shall be negotiated based on estimates or actual costs of labor, material and equipment. When the Change Order deletes Work from Developer's scope, the amount of the reduction in the Price shall be based upon an estimate including a bill of material, a breakdown of labor and equipment costs. Markup for profit and overhead consistent with Section 13.7.7 shall apply to Work added and deleted by Change Orders.

13.6.2 Identification of Conditions

Developer shall identify all conditions with respect to prices or other aspects of the cost proposal, such as pricing contingent on firm orders being made by a certain date or the occurrence or nonoccurrence of an event.

13.6.3 Contents

A negotiated Change Order shall specify costs, scheduling requirements, time extensions and all costs of any nature arising out of the Work covered by the Change Order. Notwithstanding the foregoing, the Parties may mutually agree to use a multiple-step process involving issuance of a Change Order which includes an estimated construction cost and which provides for a revised Change Order to be issued after a certain design level has been reached, thus allowing a refinement and further definition of the estimated construction cost.

13.6.4 Added Work

When the Change Order adds Work to Developer's scope, the increase in the Price shall be negotiated based on estimated costs of labor, material and equipment, or shall be based on actual costs in accordance with Section 13.7. For negotiated Change Orders, markups for profit and overhead shall be consistent with Sections 13.5.2 and 13.7.7. Risk associated with the Work described in the Change Order shall be addressed through the assumptions contained therein regarding the scope of such Work.

13.6.5 Deleted Work

When the Change Order deletes Work from Developer's scope, the amount of the reduction in the Price shall be based upon Developer's estimated price for such work included in the Proposal, including a bill of material and a breakdown of labor and equipment costs, plus variable overhead and profit associated with the deleted Work. Estimated costs that the Developer applied to develop the original Price, as well as markup for profit and variable overhead at the rates the Developer applied to develop the Price, as reflected in the EPDs, shall apply for determining the amount of the Price reduction for deleted Work Change Orders. The amount of risk associated with such Work as of the Effective Date by Developer shall be an additional factor in determining the amount of the Price reduction for deleted Work Change Orders. When a deduction is involved, documented cancellation and restocking charges may be included in costs and subtracted from the Price deduction. In addition, the following shall be deducted from the Price reduction or reimbursed by TxDOT: (1) reasonable demobilization costs of Developer associated with the deleted Work; (2) reasonable costs associated with terminating related Subcontracts; (3) sums due and payable to Developer in accordance with approved Draw Requests for subsequently deleted Work submitted prior to the date of the Directive Letter requiring that such work be deleted; and (4) the cost of actual work performed and costs incurred for the deleted Work after the period covered by the most recent Draw Request and prior to the date of the Directive Letter or other notification by TxDOT eliminating the work.

13.6.6 Change Order Both Adding and Deleting Work

When the Change Order includes both added and deleted Work, Developer shall prepare a statement of the cost of labor, material and equipment for both added and deleted Work. If the cost of labor, material and equipment for the Work added and deleted results in a:

(a) Net increase in cost, the change shall be treated as Work added and the provisions of Section 13.6.4 shall be used to determine markups for overhead and profit. Markups for overhead and profit will be allowed only for the net increase in cost in order to establish the amount to be added to the Price.

(b) Net decrease in cost, the change shall be treated as Work deleted and the provisions of Section 13.6.5 shall be used on the net decrease in cost in order to establish the amount deduct from the Price.

(c) Net change of zero, there will be no change in the Price.

13.6.7 Unit Priced Change Orders

Unit prices shall be deemed to include all costs for labor, material, overhead and profit, and shall not be subject to change regardless of any change in the estimated quantities. Unit-priced Change Orders shall initially include an estimated increase in the Price based on estimated quantities. Upon final determination of the quantities, TxDOT will issue a modified Change Order setting forth the final adjustment to the Price.

13.6.8 All-Inclusive Change Orders

All Change Orders submitted by Developer shall be all-inclusive, comprehensive and complete and shall not include any conditions with respect to pricing or schedule.

13.7 Time and Materials Change Orders

TxDOT may at its discretion issue a Time and Materials Change Order whenever TxDOT determines that a Time and Materials Change Order is advisable. The Time and Materials Change Order shall instruct Developer to perform the Work, indicating expressly the intention to treat the items as changes in the Work, and setting forth the kind, character, and limits of the Work as far as they can be ascertained, the terms under which changes to the Price will be determined and the estimated total change in the Price anticipated thereunder. Upon final determination of the allowable costs, TxDOT shall issue a modified Change Order setting forth the final adjustment to the Price.

13.7.1 Labor Costs

The cost of labor for workers used in the actual and direct performance of the Change Order work, whether provided by Developer or a Subcontractor, will equal the sum of the following:

(a) For construction-related labor, (1) the actual cost for direct labor; plus (2) the actual cost of workers' compensation and liability insurance required under this

Agreement, health, welfare and pension benefits and Social Security deductions or 55% of the actual direct labor cost, whichever is less; plus (3) 25% of the total of the amounts set forth in clauses (1) and (2) for profit and overhead.

(b) For non-construction-related work (professional services), (1) the actual wages (i.e. the base wage paid to the employee exclusive of any fringe benefits); plus (2) a labor surcharge in the amount of 145%, which shall constitute full compensation for all profit, overhead and all State and federal payroll, unemployment and other taxes, insurance, fringe benefits and all other payments made to, or on behalf of, the workers, in excess of actual wages.

13.7.2 Material Costs

Material costs for Change Order work shall be the actual cost of all materials to be used in the performance of the Construction Work including normal wastage allowance as per industry standards, less salvage value, plus 15% for profit and overhead. The material prices shall be supported by valid quotes and invoices from Suppliers. The cost shall include applicable sales taxes, freight and delivery charges and any allowable discounts.

13.7.3 Equipment

13.7.3.1 Costs for Developer-owned machinery, trucks, power tools or other similar equipment that are required for Change Order work will be allowed based on the following methodology:

(a) The direct cost of fuel, lubricants, repairs, parts, and depreciation will be considered without any additional compensation percentage for overhead and profit being added; and

(b) The equipment rental rates shall be those tabulated in the most recent version of the *Rental Rate Blue Book*. The rental rates to be used shall be the published monthly rate divided by 176 to yield an hourly rate, which hourly rate shall be further adjusted by multiplying it by the *Rental Rate Blue Book* adjustment rate for the year the equipment was manufactured and by the regional factor contained in the *Rental Rate Blue Book* estimated hourly operating cost rate.

Developer shall be considered to own such items if an ownership interest therein is held by: (i) Developer, (ii) any equity participant in Developer, (iii) any Subcontractor performing the Construction Work, or (iv) any Affiliate of Developer, any equity participant in Developer or any such Subcontractor. If the publication of the *Rental Rate Blue Book* should be discontinued for any reason, TxDOT may select a different publication from which to make the described calculations.

13.7.3.2 Costs for machinery, trucks, power tools or other similar equipment that are required for Change Order work rented from any commercial enterprises routinely offering equipment and tools for rent or lease to the public will be allowed in an amount equal to the direct rental rate for the equipment plus a 5% markup for overhead and profit.

13.7.3.3 The time to be paid for use of equipment on the Site shall be the time the equipment is in operation on the Change Order work being performed. The time shall include the reasonable time required to move the equipment to the location of the Change Order work and return it to the original location or to another location requiring no more time than that required to return it to its original location. Moving time will not be paid for if the equipment is also used at the Site other than for Change Order work. Loading and transporting costs will be allowed, in lieu of moving time, when the equipment is moved by means other than its own power. Payment for loading and transporting will be made only if the equipment is used for Change Order work and cannot be used to perform other Work. Time will be computed in half and full hours. In computing the time for use of equipment, less than 30 minutes shall be considered one-half hour.

13.7.4 Subcontracted Work

To the extent that any Change Order is intended to compensate Developer for the cost of work performed by Subcontractors, the Change Order shall provide for compensation equal to: (a) the actual cost to Developer of such work (which shall be charged by the Subcontractor on a time and materials basis in accordance with this Section 13.7, unless otherwise approved in writing by TxDOT), plus (b) 5% of such cost. The 5% markup for subcontracted work shall not apply to: (i) Subcontracts with Affiliates; or (ii) Subcontracts with Suppliers.

13.7.5 Work Performed by Utility Owners

To the extent that any Change Order is intended to compensate Developer for the cost of work performed by Utility Owners entitled to receive reimbursement for their costs from Developer, the Change Order shall provide for compensation to Developer equal to: (a) the actual and reasonable amount paid by Developer to the Utility Owner for such work (but not greater than the amount allowed pursuant to the applicable Utility Agreements), plus (b) 5% of such allowed actual amount. Back-up documentation supporting each cost item for this category shall be provided by Developer and approved by TxDOT in writing prior to any payment authorization being granted.

13.7.6 Other Direct Costs

For any justified direct cost incurred for Change Order work not covered by the categories of costs contained in Sections 13.7.1 through 13.7.5, Developer shall accept as full payment therefor an amount equal to the actual cost to Developer for such direct cost item without additional mark-up. Back-up documentation supporting each cost item for this category shall be provided by Developer and approved by TxDOT in writing prior to any payment authorization being granted.

13.7.7 Overhead Items

The mark-ups specified herein constitute full and complete compensation for all overhead, tools or equipment having an individual replacement value of \$1,000 or less, consumables (items which are consumed in the performance of the Work which are not a part of the finished product) and other indirect costs of the added or changed Work, as well

as for profit thereon, including any and all costs and expenses incurred due to any delay in connection with the added or changed Work. Developer's mark-up percentages shall be considered to include:

- (a) Supervisory expenses of all types, including salary and expenses of executive officers, supervising officers or supervising employees, excluding only direct supervision of force account work;
- (b) Clerical or stenographic employees;
- (c) Any and all field, jobsite and general home office overhead and operating expenses whatsoever;
- (d) Subsistence and travel expenses for all personnel, other incidental job burdens, and bonuses not otherwise covered;
- (e) Quality assurance and quality control; and
- (f) Bond and insurance premiums.

With respect to non-construction related labor costs, overhead is covered by the labor surcharge, and includes accessories such as computer assisted drafting and design (CADD) systems, software and computers, facsimile machines, scanners, plotters, etc.

13.7.8 Change Order Data

Developer shall contemporaneously collect, record in writing, segregate and preserve: (a) all data necessary to determine the costs described in this Section 13.7 with respect to all Work which is the subject of a Change Order or a requested Change Order (excluding negotiated Change Orders previously executed and delivered), specifically including costs associated with design work as well as Developer's costs for Utility Adjustment Work, and (b) all data necessary to show the actual impact (if any) on the Critical Path, the Project Schedule, and Completion Deadlines with respect to all Work which is the subject of a Change Order or a proposed Change Order. Such data shall be provided to TxDOT and any authorized representative of TxDOT reviewing any Claim or Dispute regarding compensation for such Work. Developer hereby waives the right to obtain compensation for any Work for which cost data is required to be provided hereunder, if Developer fails to maintain and timely provide to TxDOT cost data meeting the requirements of this Agreement.

13.7.8.1 Developer shall maintain its records in such a manner as to provide a clear distinction between: (a) the direct cost of Work for which it is entitled (or for which it believes it is entitled) to an increase in the Price and (b) the costs of other operations. Developer shall furnish daily, on forms approved by TxDOT, reports of all costs described in the foregoing clause (a). The reports shall itemize all costs for labor, materials, and equipment rental and give total of costs through the date of the report. For workers, the reports shall include hours worked, rates of pay, names and classifications. For equipment, the reports shall include size, type, identification number, rental rate and actual working hours

of operation. All such records and reports shall be made immediately available to TxDOT upon its request. The cost of furnishing such reports are deemed to be included in Developer's overhead and fee percentages.

13.7.8.2 All reports shall be signed by Developer. TxDOT will compare its records with Developer's reports, make the necessary adjustments and compile the costs of Work completed under a Time and Materials Change Order. When such reports are agreed upon and signed by both Parties, they will become the basis of payment.

13.8 Change Orders for Differing Site Conditions, Utilities, Force Majeure Events, Hazardous Materials, Access to ROW and Necessary Basic Configuration Changes

13.8.1 Differing Site Conditions

Subject to the restrictions and limitations set forth in this Section 13, Developer shall be entitled to a Change Order for certain additional costs which are directly attributable to any Differing Site Conditions to the extent permitted in this Section 13.8.1. No time extension shall be available with respect to Differing Site Conditions, and no delay or disruption damages shall be recovered. To the extent that additional costs are incurred in connection with the Project due to changes in Developer's obligations relating to the Work resulting from the existence of Differing Site Conditions and which are not reimbursed by insurance proceeds, TxDOT and Developer shall share the risk as follows:

13.8.1.1 Developer shall be fully responsible for, and thus shall not receive a Change Order with respect to, the first \$150,000 in additional costs incurred directly attributable to changes in Developer's obligations hereunder resulting from each separate occurrence of Differing Site Conditions, subject to an aggregate cap of \$2,100,000 for such additional costs resulting from the \$150,000 "deductible" amounts borne by Developer.

13.8.1.2 TxDOT shall be fully responsible for any additional costs incurred in excess of (1) \$150,000 directly attributable to changes in Developer's obligations hereunder resulting from each separate occurrence of Differing Site Conditions, and (2) the \$2,100,000 cap described in Section 13.8.1.1, and a Change Order shall be issued to compensate Developer for such additional costs.

13.8.1.3 During progress of the Work, if Differing Site Conditions are encountered, Developer shall immediately notify TxDOT thereof telephonically or in person, to be followed immediately by written notification. Developer shall be responsible for determining the appropriate action to be undertaken, subject to concurrence by TxDOT. In the event that any Governmental Approvals specify a procedure to be followed, Developer shall follow the procedure set forth in the Governmental Approvals.

13.8.1.4 Developer hereby acknowledges and agrees that it has assumed all risks with respect to the need to work around locations impacted by Differing Site Conditions. Developer shall bear the burden of proving that a Differing Site Condition exists and that it could not reasonably have worked around the Differing Site Condition so as to avoid additional cost. Developer shall track the first \$150,000 in costs associated with a

Differing Site Condition in accordance with the requirements and limitations in Section 13.7 and shall track the costs incurred in excess of \$150,000 in accordance with the requirements and limitations in Section 13.6.

13.8.1.5 Each request for a Change Order relating to a Differing Site Condition shall be accompanied by a statement signed by a qualified professional setting forth all relevant assumptions made by Developer with respect to the condition of the Site, justifying the basis for such assumptions, explaining exactly how the existing conditions differ from those assumptions, and stating the efforts undertaken by Developer to find alternative design or construction solutions to eliminate or minimize the problem and the associated costs. No time extension or costs will be allowed in connection with any work stoppage in affected areas during the investigation period described above.

13.8.2 Utilities

Developer shall be entitled to a Change Order with respect to certain additional costs and/or delays relating to Utility Adjustments, as specified in Section 6.8 and subject to the restrictions and limitations set forth in Section 6.8 and in this Section 13. In all other respects, Developer is fully responsible for, and thus shall not receive a Change Order with respect to, any additional or unanticipated costs and delays due to changes in Developer's obligations relating to the Work resulting from the existence of any Utilities on the Site.

13.8.3 Force Majeure Events

Subject to the limitations contained in, and upon Developer's fulfillment of all applicable requirements of, this Section 13, TxDOT shall issue Change Orders: (a) to compensate Developer for additional costs incurred directly attributable to Force Majeure Events, and (b) to extend the applicable Completion Deadlines as the result of any delay in a Critical Path directly caused by a Force Majeure Event, to the extent that it is not possible to work around such event. Developer's rights to recover additional costs incurred arising directly from Force Majeure Events shall not include delay and disruption damages.

13.8.4 Hazardous Materials Management

If compensation is payable to Developer pursuant to Section 6.9 with respect to Hazardous Materials Management, the amount of the Change Order shall either be a negotiated amount acceptable to the Parties, or 100% of the Reimbursable Hazardous Materials Costs for the work in question, subject to the limitations set forth in this Section 13.8.4, including the cost sharing provisions set forth in Section 13.8.4.1.

13.8.4.1 Determination of Reimbursable Amount

Developer shall be deemed to have waived the right to collect any and all costs incurred in connection with any Hazardous Materials Management and any right to obtain an extension of a Completion Deadline if TxDOT is not provided written notice of the discovery of Hazardous Materials and afforded the opportunity to inspect sites containing Hazardous Materials before any action is taken which would inhibit TxDOT's ability to

ascertain, based on a site inspection, the nature and extent of the materials. In the event of an emergency involving Hazardous Materials, Developer may take such limited actions as are required by Law without advance notice to TxDOT, but shall provide such notice immediately thereafter (which in no event shall be more than 2 hours after the incident by phone and 24 hours after the incident by written notice).

In cases involving reimbursement for Hazardous Materials Management under this Section 13.8.4, allowable costs shall be limited to the incremental costs incurred in performing Hazardous Materials Management after completion of the testing process to determine whether Hazardous Materials are present (deducting any avoided costs such as the cost of disposal that would have been incurred had Hazardous Materials not been present). Investigating and characterizing, including Phase 1 Investigations and Phase 2 Investigations, are included in the Price and Developer shall not be entitled to additional compensation therefor.

Except as otherwise provided and subject to the limitations in this Section 13.8, TxDOT shall compensate Developer for (i) 50% of Developer's reasonable, out-of-pocket costs and expenses directly attributable to the handling, transport, removal and disposal of Unknown Hazardous Materials encountered by Developer that exceed \$3,000,000 but do not exceed \$4,500,000, (ii) 100% of the such total chargeable Unknown Hazardous Materials costs that exceed \$4,500,000, and (iii) 100% of such total chargeable Hazardous Materials Management costs for Hazardous Materials encountered on Additional Properties acquired as a result of a Necessary Basic Configuration Change or TxDOT-Directed Change. Developer shall be responsible for all other costs related to Unknown Hazardous Materials.

Except as otherwise provided and subject to the limitations in this Section 13, Developer shall be entitled to a Change Order in accordance with Section 13.8.3 to compensate Developer for Developer's reasonable, out-of-pocket costs and expenses directly attributable to the handling, transport, removal and disposal of Hazardous Materials falling within the definition for Force Majeure Event. Such costs shall be handled in accordance with Section 13.8.3.

Developer shall take all reasonable steps to minimize any such costs. Compensation shall be allowed only to the extent that Developer demonstrates to TxDOT's satisfaction that: (a) the Hazardous Materials Management could not have been avoided by reasonable design modifications or construction techniques and (b) Developer's plan for the Hazardous Materials Management represents the approach which is most beneficial to the Project and the public. Developer shall provide TxDOT with such information, analyses and certificates as may be requested by TxDOT in order to enable a determination regarding eligibility for payment.

13.8.4.2 Time Extensions

Developer shall not be entitled to an extension of any Completion Deadline with regard to any need to investigate or characterize any Hazardous Materials, regardless of the total quantities. If Developer encounters Hazardous Materials for which Developer is entitled to compensation, and Hazardous Materials Management of such

Hazardous Materials results in delays to the Critical Path ("Hazardous Materials Delay"), then Developer shall bear 100% of the risk of such Hazardous Materials Delay up to an amount of 30 days per location and up to an aggregate amount of 120 days for all locations in each Segment. If a Hazardous Materials Delay exceeds 30 days in any location, then the risk of such Hazardous Materials Delay in excess of 30 days for that location shall be borne by TxDOT. If aggregate Hazardous Materials Delays in any Segment exceed 120 days, then the risk of Hazardous Materials Delay in excess of 120 days for that Segment shall be borne by TxDOT. If a Hazardous Materials Delay is concurrent with another delay which is Developer's responsibility hereunder, then such Hazardous Materials Delay shall be borne 100% by Developer. If a Hazardous Materials Delay at one location is concurrent with another Hazardous Materials Delay at another location, the 30-day period of Developer's responsibility for the delays shall run concurrently. The foregoing shall not preclude Developer from obtaining a time extension with respect to any Hazardous Material which qualifies as a Force Majeure Event. Notwithstanding anything to the contrary contained in this Section 13.8.4, if Developer is prohibited from working at a particular location on a Segment due to the discovery of Hazardous Materials for which Developer is entitled to a Change Order during the last 12 months prior to the Completion Deadline for such Segment, then Developer shall be entitled to an extension of the applicable Completion Deadline for any Critical Path delays resulting from such discovery of Hazardous Materials.

13.8.4.3 Limitations on Change Orders

Entitlement to compensation or a time extension shall be limited to work performed pursuant to Developer's Hazardous Materials Management Plan, Investigative Work Plan and Site Investigative Report for such Unknown Hazardous Materials as approved by TxDOT, in writing. No compensation or time extension shall be allowed with respect to: (a) immaterial quantities of Unknown Hazardous Materials, (b) any Hazardous Materials that could have been avoided by reasonable design modifications or construction techniques, (c) any costs that could have been avoided, (d) Hazardous Materials on any Additional Properties not expressly described in Section 6.9.1.3, (e) any Hazardous Materials encountered during or in connection with the demolition of buildings, fixtures or other improvements on any parcels within the Site, or (f) any Hazardous Materials that do not fall within the definition for Unknown Hazardous Materials, clause (g) of the definition for Force Majeure Event or the definition for Developer Release(s) of Hazardous Materials. Utilities (other than Service Lines) shall not be considered "buildings, fixtures or other improvements" for purposes of this Section 13.8.4.

13.8.4.4 Insurance Proceeds

If the cost of any Hazardous Materials Management is covered by the insurance described in Section 9, Developer shall be entitled to reimbursement of its costs from proceeds of insurance and self-insurance, up to the limits of the applicable policy, less any deductibles which shall be Developer's responsibility. To the extent that such proceeds are available, Developer shall not be entitled to payment hereunder on any other basis for such Hazardous Materials Management.

13.8.5 Access to ROW

Subject to the restrictions and limitations set forth in this Section 13, Developer shall be entitled to a Change Order to extend the applicable Completion Deadlines as the result of any delay in a Critical Path directly caused by failure or inability of TxDOT to (a) deliver the petition for the parcel to the Developer within 105 days from the date of the approved condemnation package, or (b) provide the payment for the parcel within 45 days from the date that the Special Commissioners' award is filed with the Court, either in accordance with Section 6.5.2. Developer shall be entitled to a Change Order only to the extent the delay (i) materially adversely affects a Critical Path, (ii) is not mitigated by or susceptible to handling by a work around or consumption of Project Float, and (iii) is not due to an act, omission, negligence, recklessness, intentional misconduct, breach of contract or violation of Law or a Governmental Approval of or by any of the Developer-Related Entities. Developer shall not be entitled to an increase in the Price or reimbursement of any costs incurred as a result of such delays, including any delay or disruption damages.

Except as otherwise provided and subject to the limitations in this Section 13 and Section 6.5.3, Developer shall be entitled to a Change Order for certain additional costs which are directly attributable to delays to the Critical Path and a time extension for certain delays to the Critical Path described in Section 6.5.3 and clause (b) of the definition for TxDOT-Caused Delay. Such events shall be handled in accordance with the procedures in Section 13.3.

13.8.6 Necessary Basic Configuration Changes

13.8.6.1 Notwithstanding the fact that this Agreement generally obligates Developer to undertake all work necessary to complete the Project without an increase in the Price, this Section 13.8.6 provides for an increase in the Price to be made in the amount of the increased costs for additional Utility Adjustment Work required on Additional Properties acquired as a result of a Necessary Basic Configuration Change and any costs incurred under Section 6.10.1 in connection with modifications to the USACE Individual Permits directly attributable to a Necessary Basic Configuration Change.

13.8.6.2 If Developer commenced any Utility Adjustment Work affected by such modification prior to delivery of an appropriate PCO Notice, the Change Order shall allow TxDOT a credit for the cost of any unnecessary work performed and/or shall exclude any additional costs associated with redoing the work already performed.

13.8.6.3 Developer shall be responsible for any delays (including those that affect the duration of a Critical Path) and, except as set forth in this Section 13.8.6 and Section 13.8.4, any cost increases resulting from changes in requirements and obligations of Developer relating to the Project due to Errors in the Schematic Design.

13.9 Change Order Records

Developer shall maintain its records in such a manner as to provide a clear distinction between the direct costs of Work for which it is entitled (or for which it believes it is entitled) to an increase in the Price and the costs of other operations. Developer shall contemporaneously collect, record in writing, segregate and preserve: (a) all data

necessary to determine the costs of all Work which is the subject of a Change Order or a requested Change Order, specifically including costs associated with design Work as well as Utility Adjustments, and (b) all data necessary to show the actual impact (if any) of the change on each Critical Path with respect to all Work which is the subject of a Change Order or a proposed Change Order, if the impact on the Project Schedule is in dispute. Such data shall be provided to any dispute resolvers, TxDOT and its authorized representatives as directed by TxDOT, on forms approved by TxDOT. The cost of furnishing such reports is included in Developer's predetermined overhead and profit markups.

13.9.1 Daily Work Reports and Data Collection

Developer shall furnish TxDOT completed daily work reports for each day's Work which is to be paid for on a time and material basis. The daily time and material Work reports shall be detailed as follows:

(a) Name, classification, date, daily hours, total hours, rate, and extension for each worker (including both construction and non-construction personnel) for whom reimbursement is requested.

(b) Designation, dates, daily hours, total hours, rental rate, and extension for each unit of machinery and equipment.

(c) Quantities of materials, prices, and extensions.

(d) Transportation of materials.

The reports shall also state the total costs to date for the Time and Materials Change Order Work.

13.9.2 Supplier's Invoices

Materials charges shall be substantiated by valid copies of Supplier's invoices. Such invoices shall be submitted with the daily time and material Work reports, or if not available, they shall be submitted with subsequent daily time and material Work reports. Should said Supplier's invoices not be submitted within 60 days after the date of delivery of the materials, TxDOT shall have the right to establish the cost of such materials at the lowest current wholesale prices at which such materials are available, in the quantities concerned, delivered to the location of Work, less any discounts available.

13.9.3 Execution of Reports

All Time and Materials Change Order reports shall be signed by Developer's Project Manager.

13.9.4 Adjustment

TxDOT will compare its records with the completed daily time and material Work reports furnished by Developer and make any necessary adjustments. When these daily

time and material Work reports are agreed upon and signed by both Parties, said reports shall become the basis of payment for the Work performed, but shall not preclude subsequent adjustment based on a later audit. Developer's cost records pertaining to Work paid for on a time and material basis shall be open, during all regular business hours, to inspection or audit by representatives of TxDOT during the life of this Agreement and for a period of not less than five years after the date of Final Acceptance, and Developer shall retain such records for that period. Where payment for materials or labor is based on the cost thereof to any Person other than Developer, Developer shall make every reasonable effort to insure that the cost records of each such other Person will be open to inspection and audit by representatives of TxDOT on the same terms and conditions as the cost records of Developer. Payment for such costs may be deleted if the records of such third parties are not made available to TxDOT's representatives. If an audit is to be commenced more than 60 days after the date of Final Acceptance, Developer will be given a reasonable notice of the time when such audit is to begin.

13.10 Matters Not Eligible for Change Orders and Waiver

Developer acknowledges and agrees that no increase in the Price or extension of a Completion Deadline is available except in circumstances expressly provided for herein, that such Price increase and time extension shall be available only as provided in this Section 13 and that Developer shall bear full responsibility for the consequences of all other events and circumstances. Matters which are Developer's exclusive responsibility include the following:

(a) Errors in the Design Documents and Construction Documents (including Errors therein traceable to Errors in the Schematic Design, subject only to the right to a Change Order to the extent permitted by Section 13.8);

(b) any design changes requested by TxDOT as part of the process of approving the Design Documents for consistency with the requirements of the Contract Documents, the Governmental Approvals and/or applicable Laws;

(c) defective or incorrect schedules of Work or changes in the planned sequence of performance of the Work (unless arising from causes which otherwise give rise to a right to a Change Order);

(d) action or inaction of any Developer-Related Entity (unless arising from causes which otherwise give rise to a right to a Change Order);

(e) action or inaction of adjoining property owners or TxDOT's other contractors (unless arising from causes which otherwise give rise to a right to a Change Order);

(f) groundwater levels or subsurface moisture content;

(g) untimely delivery of equipment or material, or unavailability or defectiveness or increases in costs of material, equipment or products specified by the Contract Documents;

(h) any costs covered by insurance proceeds received by (or on behalf of) Developer;

(i) correction of Nonconforming Work and review and acceptance thereof by TxDOT (including rejected design submittals);

(j) failure by any Developer-Related Entity to comply with the requirements of the Contract Documents, Governmental Approvals or Laws;

(k) delays not on a Critical Path;

(l) any suspensions, terminations, interruptions, denials, non-renewals of, or delays in issuance of a Governmental Approval that is required to be obtained by Developer, any failure to obtain such Governmental Approval, and compliance with the terms and conditions of all Governmental Approvals ;

(m) delays caused by untimely provision of access to Project ROW, except to the extent TxDOT has agreed in this Section 13 to be responsible for any such delays;

(n) any increased costs or delays related to any Utility Adjustment Work or failure to timely obtain any approval, work or other action from a Utility Owner, except as allowed by Section 13.8.2;

(o) any situations (other than Force Majeure Events) which, while not within one of the categories delineated above, were or should have been anticipated because such situations are referred to elsewhere in this Agreement or arise out of the nature of the Work; and

(p) all other events beyond the control of TxDOT for which TxDOT has not expressly agreed to assume liability hereunder.

Developer hereby assumes responsibility for all such matters, and acknowledges and agrees that assumption by Developer of responsibility for such risks, and the consequences and costs and delays resulting therefrom, is reasonable under the circumstances of this Agreement and that contingencies included in the Price in Developer's sole judgment, constitute sufficient consideration for its acceptance and assumption of said risks and responsibilities.

DEVELOPER HEREBY EXPRESSLY WAIVES ALL RIGHTS TO ASSERT ANY AND ALL CLAIMS BASED ON ANY CHANGE IN THE WORK, DELAY, DISRUPTION, SUSPENSION OR ACCELERATION (INCLUDING ANY CONSTRUCTIVE CHANGE, DELAY, DISRUPTION, SUSPENSION OR ACCELERATION) FOR WHICH DEVELOPER FAILED TO PROVIDE PROPER AND TIMELY NOTICE OR FAILED TO PROVIDE A TIMELY REQUEST FOR CHANGE ORDER, AND AGREES THAT IT SHALL BE ENTITLED TO NO COMPENSATION, DAMAGES OR TIME EXTENSION WHATSOEVER IN CONNECTION WITH THE WORK EXCEPT TO THE EXTENT THAT THE CONTRACT DOCUMENTS EXPRESSLY SPECIFY THAT DEVELOPER IS ENTITLED TO A CHANGE ORDER OR OTHER COMPENSATION, DAMAGES OR TIME EXTENSION.

13.11 Disputes

If TxDOT and Developer agree that a request to increase the Price and/or extend any Completion Deadline by Developer has merit, but are unable to agree as to the amount of such Price increase and/or time extension, TxDOT agrees to mark up the Request for Change Order or Cost and Schedule Proposal, as applicable, provided by Developer to reduce the amount of the Price increase or time extension as deemed appropriate by TxDOT. In such event, TxDOT will execute and deliver the marked-up Change Order to Developer within a reasonable period after receipt of a request by Developer to do so, and thereafter will make payment and/or grant a time extension based on such marked-up Change Order. The failure of TxDOT and Developer to agree to any Change Order under this Section 13 (including agreement as to the amount of compensation allowed under a Time and Materials Change Order and the disputed amount of the increase in the Price and/or extension of a Completion Deadline in connection with a Change Order as described above) shall be a Dispute to be resolved pursuant to Section 19. Except as otherwise specified in the Change Order, execution of a Change Order by both Parties shall be deemed accord and satisfaction of all claims by Developer of any nature arising from or relating to the Work covered by the Change Order. Developer's Claim and any award by the dispute resolver shall be limited to the incremental costs incurred by Developer with respect to the Dispute (crediting TxDOT for any corresponding reduction in Developer's other costs) and shall in no event exceed the amounts allowed by Section 13.7 with respect thereto.

13.12 Changes Not Requiring Change Order

Changes in the Work or requirements in the Contract Documents which have no net cost effect on the Price or impact to the Completion Deadlines may be approved in writing by TxDOT as a Deviation, and in such event shall not require a Change Order. Any other change in the requirements of the Contract Documents shall require either a Directive Letter or a Change Order.

13.13 No Release or Waiver

13.13.1 No extension of time granted hereunder shall release Developer's Surety from its obligations. Work shall continue and be carried out in accordance with all the provisions of the Contract Documents and this Agreement shall be and shall remain in full force and effect, unless formally suspended or terminated by TxDOT in accordance with the terms hereof. Permitting Developer to finish the Work or any part thereof after a Completion Deadline, or the making of payments to Developer after such date, shall not constitute a waiver on the part of TxDOT of any rights under this Agreement.

13.13.2 Neither the grant of an extension of time beyond the date fixed for the completion of any part of the Work, nor the performance and acceptance of any part of the Work or materials specified by this Agreement after a Completion Deadline, shall be deemed to be a waiver by TxDOT of its right to terminate this Agreement for abandonment or failure to complete within the time specified (as it may have been extended) or to impose and deduct damages as may be provided.

13.13.3 No course of conduct or dealings between the Parties nor express or implied acceptance of alterations or additions to the Work, and no claim that TxDOT has been unjustly enriched shall be the basis for any claim, request for additional compensation or extension of a Completion Deadline. Further, Developer shall undertake, at its risk, work included in any request, order or other authorization issued by a Person in excess of that Person's authority as provided herein, or included in any oral request. Developer shall be deemed to have performed such work as a volunteer and at its sole risk and cost. In addition, TxDOT may require Developer to remove or otherwise undo any such work, at Developer's sole risk and cost.

SECTION 14. SUSPENSION

14.1 Suspensions for Convenience

TxDOT may, at any time and for any reason, by written notice, order Developer to suspend all or any part of the Work required under the Contract Documents for the period of time that TxDOT deems appropriate for the convenience of TxDOT. Developer shall promptly comply with any such written suspension order. Developer shall promptly recommence the Work upon receipt of written notice from TxDOT directing Developer to resume work. Any such suspension for convenience shall be considered a TxDOT-Directed Change; provided that TxDOT shall have the right to direct suspensions for convenience not exceeding 48 hours each up to a total of 96 hours, which shall not be considered a TxDOT-Directed Change. Adjustments of the Price and the Completion Deadlines shall be available for any such TxDOT-Directed Change, subject to Developer's compliance with the terms and conditions set forth in Section 13.

14.2 Suspensions for Cause

14.2.1 Upon TxDOT's delivery of notice of a Developer Default for any of the following breaches or failures to perform and Developer's failure to fully cure and correct, within the applicable cure period, if any, TxDOT shall have the right and authority to suspend for cause any affected portion of the Work by written order to Developer:

- (a) The existence of conditions unsafe for workers, other Project personnel or the general public;
- (b) Failure to comply with any Law or Governmental Approval (including failure to handle, preserve and protect archeological, paleontological or historic resources, or failure to handle Hazardous Materials, in accordance with applicable Laws and Governmental Approvals);
- (c) Performance of Nonconforming Work;
- (d) Failure to carry out and comply with Directive Letters;
- (e) Certain failures to remove and replace personnel as set forth in Section 7.7.3; or
- (f) Failure to provide proof of required insurance coverage as set forth in Section 9.1.4.3.

14.2.2 Developer shall promptly comply with any such written suspension order, even if Developer disputes the grounds for suspension. Developer shall promptly recommence the Work upon receipt of written notice from TxDOT directing Developer to resume work. TxDOT shall have no liability to Developer, and Developer shall have no right to any adjustment in the Price or Completion Deadline(s) in connection with any suspension of Work properly founded on any of the grounds set forth in Section 14.2.1. If

TxDOT orders suspension of Work on one of the foregoing grounds but it is finally determined under the dispute resolution procedures of this Agreement that such grounds did not exist, it shall be treated as a suspension for TxDOT's convenience under Section 14.1.

14.3 Responsibilities of Developer During Suspension Periods

During periods that Work is suspended, Developer shall continue to be responsible for the Work and shall prevent damage or injury to the Project, provide for drainage and shall erect necessary temporary structures, signs or other facilities required to maintain the Project. During any suspension period, Developer shall maintain in a growing condition all newly established plantings, seedings and soddings furnished under the Contract Documents and shall protect new tree growth and other vegetative growth against injury, replacing all dead plants requiring replacement during the suspension period. Additionally, Developer shall continue other Work that has been or can be performed at the Site or offsite during the period that Work is suspended.

SECTION 15. TERMINATION FOR CONVENIENCE; TERMINATION BASED ON DELAY IN NTP1

15.1 Termination for Convenience

15.1.1 TxDOT may, at any time, terminate this Agreement and the performance of the Work by Developer, in whole or in part, if TxDOT determines, in its sole discretion, that a termination is in TxDOT's best interest ("Termination for Convenience"). TxDOT shall terminate by delivering to Developer a written Notice of Termination for Convenience or Notice of Partial Termination for Convenience specifying the extent of termination and its effective date. Termination (or partial termination) of this Agreement under this Section 15 shall not relieve Developer or any Surety or Guarantor of its obligation for any claims arising prior to termination.

15.1.2 Within three days after receipt of a Notice of Termination for Convenience or Notice of Partial Termination for Convenience, Developer shall meet and confer with TxDOT for the purpose of developing an interim transition plan for the orderly transition of the terminated Work, demobilization and transfer of the Project to TxDOT. The Parties shall use diligent efforts to complete preparation of the interim transition plan within 15 days after the date Developer receives such notice of termination. The Parties shall use diligent efforts to complete a final transition plan within 30 days after such date. The transition plan shall be in form and substance acceptable to TxDOT in its good faith discretion and shall include and be consistent with the other provisions and procedures set forth in Section 15.2, all of which provisions and procedures Developer shall immediately follow, regardless of any delay in preparation or acceptance of the transition plan.

15.1.3 Developer acknowledges and agrees that TxDOT has no obligation to issue NTP1 hereunder, and further agrees that unless and until NTP1 is issued, TxDOT shall have no liability to Developer hereunder, except as provided under Section 15.9.

15.2 Developer's Responsibilities After Receipt of Notice of Termination

After receipt of a Notice of Termination for Convenience or Notice of Partial Termination for Convenience, and except as otherwise directed by TxDOT, Developer shall timely comply with the following obligations independent of, and without regard to, the timing for determining, adjusting, settling and paying any amounts due Developer under this Agreement:

15.2.1 Stop the Work as specified in the notice.

15.2.2 Notify all affected Subcontractors and Suppliers that this Agreement is being terminated and that their Subcontracts (including orders for materials, services or facilities) are not to be further performed unless otherwise authorized in writing by TxDOT.

15.2.3 Enter into no further Subcontracts (including orders for materials, services or facilities), except as necessary to complete the continued portion of the Work.

15.2.4 Unless instructed otherwise by TxDOT, terminate all Subcontracts and Utility Agreements to the extent they relate to the Work terminated.

15.2.5 To the extent directed by TxDOT, execute and deliver to TxDOT written assignments, in form and substance acceptable to TxDOT, acting reasonably, of all of Developer's right, title, and interest in and to: (a) Subcontracts and Utility Agreements that relate to the terminated Work, provided TxDOT assumes in writing all of Developer's obligations thereunder that arise after the effective date of the termination and (b) all assignable warranties, claims and causes of action held by Developer against Subcontractors and other third parties in connection with the terminated Work, to the extent such Work is adversely affected by any Subcontractor or other third party breach of warranty, contract or other legal obligation.

15.2.6 Subject to the prior written approval of TxDOT, settle all outstanding liabilities and claims arising from termination of Subcontracts and Utility Agreements that are required to be terminated hereunder.

15.2.7 Within 30 days after notice of termination is delivered, Developer shall provide TxDOT with a true and complete list of all materials, goods, machinery, equipment, parts, supplies and other property in inventory or storage (whether held by Developer or any person or entity on behalf of or for the account of Developer) for use in or respecting the terminated Work, or on order or previously completed but not yet delivered from Suppliers for use in or respecting such Work. In addition, if requested by TxDOT, on or about the effective date of termination, Developer shall transfer title and deliver to TxDOT or TxDOT's Authorized Representative, through bills of sale or other documents of title, as directed by TxDOT, all such materials, goods, machinery, equipment, parts, supplies and other property, provided TxDOT assumes in writing all of Developer's obligations under any contracts relating to the foregoing that arise after the effective date of termination.

15.2.8 On or about the effective date of termination, Developer shall execute and deliver to TxDOT the following, together with an executed bill of sale or other written instrument, in form and substance acceptable to TxDOT, acting reasonably, assigning and transferring to TxDOT all of Developer's right, title and interest in and to the following: (a) all completed or partially completed drawings (including plans, elevations, sections, details and diagrams), specifications, designs, design documents, Record Drawings, surveys, and other documents and information pertaining to the design or construction of the terminated Work; (b) all samples, borings, boring logs, geotechnical data and similar data and information relating to the terminated Work; (c) all books, records, reports, test reports, studies and other documents of a similar nature relating to the terminated Work; and (d) All other work product used or owned by Developer or any Affiliate relating to the terminated Work.

15.2.9 Complete performance in accordance with the Contract Documents of all Work not terminated, except to the extent performance of the remaining Work is rendered impossible due to the scope of the Partial Termination for Convenience.

15.2.10 Take all action that may be necessary, or that TxDOT may direct, for the safety, protection and preservation of: (a) the public, including public and private

vehicular movement, (b) the Work and (c) equipment, machinery, materials and property related to the Project that is in the possession of Developer and in which TxDOT has or may acquire an interest.

15.2.11 As authorized by TxDOT in writing, use its best efforts to sell, at reasonable prices, any property of the types referred to in Section 15.2.7; provided, however, that Developer: (a) is not required to extend credit to any purchaser, and (b) may acquire the property under the conditions prescribed and at prices approved by TxDOT. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by TxDOT under the Contract Documents or paid in any other manner directed by TxDOT.

15.2.12 Immediately safely demobilize and secure construction, staging, lay down and storage areas for the Project and Utility Adjustments included in the Work in a manner satisfactory to TxDOT, and remove all debris and waste materials, except as otherwise approved by TxDOT in writing.

15.2.13 Assist TxDOT in such manner as TxDOT may require prior to and for a reasonable period following the effective date of termination to ensure the orderly transition of the terminated Work and its management to TxDOT, and shall, if appropriate and if requested by TxDOT, take all steps as may be necessary to enforce the provisions of Subcontracts pertaining to the surrender of the terminated Work.

15.2.14 Carry out such other directions as TxDOT may give for the termination of the Work.

15.2.15 Take such other actions as are necessary or appropriate to mitigate further cost.

15.3 Settlement Proposal

After receipt of a Notice of Termination for Convenience or Notice of Partial Termination for Convenience, Developer shall submit a final termination settlement proposal to TxDOT in the form and with the certification prescribed by TxDOT. Developer shall submit the proposal promptly, but no later than 90 days from the effective date of termination unless Developer has requested a time extension in writing within such 90-day period and TxDOT has agreed in writing to allow such an extension. Developer's termination settlement proposal shall then be reviewed by TxDOT and acted upon, returned with comments, or rejected. If Developer fails to submit the proposal within the time allowed, TxDOT may determine, on the basis of information available, the amount, if any, due Developer because of the termination, shall pay Developer the amount so determined and shall be bound by TxDOT's determination.

15.4 Amount of Negotiated Termination Settlement

Developer and TxDOT may agree, as provided in Section 15.3, upon the whole or any part of the amount or amounts to be paid to Developer by reason of the total or partial termination of the Work for convenience pursuant to Section 15.1. Such agreed amount

or amounts, exclusive of settlement costs, shall not exceed the total Price as reduced by the amount of payments otherwise made and the Price of Work not terminated. Upon determination of the settlement amount, this Agreement will be amended accordingly, and Developer will be paid the agreed amount as described in this Section 15.4. Nothing in Section 15.5, prescribing the amount to be paid to Developer in the event that Developer and TxDOT fail to agree upon the whole amount to be paid to Developer by reason of the termination of Work pursuant to Section 15.1, shall be deemed to limit, restrict or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to Developer pursuant to this Section 15.4. TxDOT's execution and delivery of any settlement agreement shall not affect any of its rights under the Contract Documents with respect to completed Work, relieve Developer from its obligations with respect thereto, including Warranties, or affect Developer's obligations under the Performance Bond, Payment Bond, Warranty Bond and/or Guaranty as to such completed or non-terminated Work.

15.5 No Agreement as to Amount of Termination Settlement

If Developer and TxDOT fail to agree upon either all or some portion of the amount to be paid Developer by reason of a Termination for Convenience pursuant to Section 15.1, the amount payable (exclusive of interest charges) shall be determined by TxDOT in accordance with the following, but without duplication of any items or of any amounts agreed upon in accordance with Section 15.4:

15.5.1 TxDOT will pay Developer the sum of the following amounts for Work performed prior to the effective date of the Notice of Termination for Convenience or Notice of Partial Termination for Convenience:

(a) Developer's actual reasonable out-of-pocket cost, without profit, and including equipment costs only to the extent permitted by Section 13.7.3 for all Work performed, including mobilization, demobilization, work in progress and work done to secure the applicable portion of the Project for termination, including reasonable overhead and accounting for any refunds payable with respect to insurance premiums, deposits or similar items, as established to TxDOT's satisfaction. In determining the reasonable cost, deductions will be made for the cost of materials, supplies and equipment to be retained by Developer, amounts realized by the sale of such items, and for other appropriate credits against the cost of the Work, including those deductions that would be permitted in connection with Final Payment. When, in the opinion of TxDOT's Authorized Representative, the cost of a contract item of Work is excessively high due to costs incurred to remedy or replace Nonconforming Work, the reasonable cost to be allowed will be the estimated reasonable cost of performing that Work in compliance with the requirements of the Contract Documents and the excessive actual cost shall be disallowed.

(b) A sum, as profit on clause (a) above, determined by TxDOT to be fair and reasonable; provided Developer establishes to TxDOT's satisfaction that it is reasonably probable that Developer would have made a profit had the Agreement been completed and provided further, that the profit allowed shall in no event exceed 4 percent of the cost;

(c) The cost of settling and paying claims arising out of the termination of Work under Subcontracts as provided in Section 15.2.6, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the Subcontractor prior to the effective date of the Notice of Termination for Convenience or Notice of Partial Termination for Convenience of Work under this Agreement, which amounts shall be included in the cost on account of which payment is made under clause (a) above.

(d) The reasonable out-of-pocket cost (including reasonable overhead) of the preservation and protection of property incurred pursuant to Section 15.2.10 and any other reasonable out-of-pocket cost (including overhead) incidental to termination of Work under this Agreement, including the reasonable cost to Developer of handling material returned to the Supplier, delivered to TxDOT or otherwise disposed of as directed by TxDOT, and including a reasonable allowance for Developer's administrative costs in determining the amount payable due to termination of this Agreement.

15.5.2 Developer acknowledges and agrees that it shall not be entitled to any compensation in excess of the value of the Work performed (determined as provided in Section 15.5.1) plus its settlement costs, and that items such as lost or anticipated profits, unabsorbed overhead and opportunity costs shall not be recoverable by it upon termination of this Agreement. The total amount to be paid to Developer, exclusive of costs described in Sections 15.5.1(c) and (d), may not exceed the total Price less the amount of payments previously made. Furthermore, in the event that any refund is payable with respect to insurance or bond premiums, deposits or other items which were previously passed through to TxDOT by Developer, such refund shall be paid directly to TxDOT or otherwise credited to TxDOT. Except for normal spoilage, and except to the extent that TxDOT will have otherwise expressly assumed the risk of loss, there will be excluded from the amounts payable to Developer under Section 15.5.1, the fair value, as determined by TxDOT, of equipment, machinery, materials, supplies and property which is destroyed, lost, stolen, or damaged so as to become undeliverable to TxDOT, or sold pursuant to Section 15.2.11. Information contained in the EPDs may be a factor in determining the value of the Work terminated. Upon determination of the amount of the termination payment, this Agreement shall be amended to reflect the agreed termination payment, Developer shall be paid the agreed amount, and the Price shall be reduced to reflect the reduced scope of Work.

15.5.3 If a termination hereunder is partial, Developer may file a proposal with TxDOT for an equitable adjustment of the Price for the continued portion of this Agreement. Any proposal by Developer for an equitable adjustment under this Section 15.5.3 shall be requested within 90 days from the effective date of termination unless extended in writing by the TxDOT. The amount of any such adjustment as may be agreed upon shall be set forth in an amendment to this Agreement.

15.6 Reduction in Amount of Claim

The amount otherwise due Developer under this Section 15 shall be reduced by: (a) the amount of any claim which TxDOT may have against any Developer-Related Entity in

connection with this Agreement, (b) the agreed price for, or the proceeds of sale, of property, materials, supplies, equipment or other things acquired by Developer or sold, pursuant to the provisions of this Section 15, and not otherwise recovered by or credited to TxDOT, (c) all unliquidated advance or other payments made to or on behalf of Developer applicable to the terminated portion of the Work or Agreement, (d) amounts that TxDOT deems advisable, in its sole discretion, to retain to cover any existing or threatened claims, Liens and stop notices relating to the Project, including claims by Utility Owners, (e) the cost of repairing any Nonconforming Work (or, in TxDOT's sole discretion, the amount of the credit to which TxDOT is entitled under Section 5.6.2); and (f) any amounts due or payable by Developer to TxDOT.

15.7 Payment

TxDOT may from time to time, under such terms and conditions as it may prescribe and in its sole discretion, make partial payments for costs incurred by Developer in connection with the terminated portion of this Agreement, whenever in the opinion of TxDOT the aggregate of such payments shall be within the amount to which Developer will be entitled hereunder. If the total of such payments is in excess of the amount finally agreed or determined to be due under this Section 15, such excess shall be payable by Developer to TxDOT upon demand.

15.8 Subcontracts

15.8.1 Provisions shall be included in each Subcontract (at all tiers) regarding terminations for convenience, allowing such termination rights and obligations to be passed through to the Subcontractors and establishing terms and conditions relating thereto, including procedures for determining the amount payable to the Subcontractor upon a termination, consistent with this Section 15.

15.8.2 Each Subcontract shall provide that, in the event of a termination for convenience by TxDOT, the Subcontractor will not be entitled to any anticipatory or unearned profit on Work terminated or partly terminated, or to any payment which constitutes consequential damages on account of the termination or partial termination.

15.9 Termination Based on Delay to Issuance of NTPs

(a) If NTP1 has not been issued within 365 days after the Effective Date due to no act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval of any Developer-Related Entity, Developer, as its sole remedy, shall have the right to terminate this Agreement, which right shall be exercised by delivery of notice of termination to TxDOT. In such event, TxDOT's sole liability to Developer is to pay Developer the same payment for work product as provided to unsuccessful Proposers pursuant to Section 6.3 of the ITP, provided that all other conditions for such payment are met.

(b) If NTP2 has not been issued within 270 days after the issuance of NTP1 and this delay is not caused in whole or in part by an act, omission, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval by any

Developer-Related Entity (including Developer's failure to satisfy any particular condition(s) to NTP2), Developer, as its sole remedy, may conditionally elect to terminate this Agreement by providing TxDOT with written notice of such conditional election. If Developer delivers a written notice of its conditional election to terminate, TxDOT shall have the choice of either accepting such notice of termination or continuing this Agreement in effect by delivering to Developer written notice of TxDOT's choice not later than 30 days after receipt of Developer's notice. If TxDOT does not deliver written notice of its choice within such 30-day period, then it will be deemed to have accepted Developer's election to terminate the Agreement. In such event, the termination shall be deemed a termination for convenience and handled in accordance with this Section 15; provided, however, the maximum amount of liability by TxDOT shall be \$50,000,000. In no event, shall Developer be entitled to payment of more than \$50,000,000, including for Work performed, if NTP2 is not issued. If TxDOT delivers timely written notice choosing to continue this Agreement in effect, then the Price adjustment provisions described in Section 12.1.7 shall be extended and continue in effect for the duration of the delay in issuance of NTP2, or until earlier termination of this Agreement.

15.10 No Consequential Damages

Under no circumstances shall Developer be entitled to anticipatory or unearned profits or consequential or other damages as a result of any termination under this Section 15. The payment to Developer determined in accordance with this Section 15 constitutes Developer's exclusive remedy for a termination hereunder.

15.11 No Waiver; Release

15.11.1 Notwithstanding anything contained in this Agreement to the contrary, a termination under this Section 15 shall not waive any right or claim to damages which TxDOT may have and TxDOT may pursue any cause of action which it may have at Law, in equity or under the Contract Documents.

15.11.2 Subject to Section 15.12 below, TxDOT's payment to Developer of the amounts required under this Section 15 shall constitute full and final satisfaction of, and upon payment TxDOT shall be forever released and discharged from, any and all Claims, causes of action, suits, demands and Losses, known or unknown, suspected or unsuspected, that Developer may have against TxDOT arising out of or relating to the terminated Work. Upon such payment, Developer shall execute and deliver to TxDOT all such releases and discharges as TxDOT may reasonably require to confirm the foregoing, but no such written release and discharge shall be necessary to give effect to the foregoing satisfaction and release.

15.12 Dispute Resolution

The failure of the Parties to agree on amounts due under this Section 15 shall be a Dispute to be resolved in accordance with Section 19.

15.13 Allowability of Costs

All costs claimed by Developer under this Section 15 must be allowable, allocable and reasonable in accordance with the cost principles and procedures of 48 CFR Part 31.

SECTION 16. DEFAULT; REMEDIES

16.1 Default of Developer

16.1.1 Events and Conditions Constituting Default

Developer shall be in breach under this Agreement upon the occurrence of any one or more of the following events or conditions (each a “Developer Default”):

(a) Developer: (i) fails to begin Work within 30 days following issuance of NTP1 or NTP2, or (ii) fails to satisfy all conditions to commencement of the Construction Work, and commence the Construction Work with diligence and continuity;

(b) Developer fails to complete the Work by the applicable Completion Deadline, as the same may be extended pursuant to this Agreement;

(c) Developer fails to perform the Work in accordance with the Contract Documents, including conforming to applicable standards set forth therein in design and construction of the Project, or refuses to correct, remove and replace Nonconforming Work;

(d) Developer suspends, ceases, stops or abandons the Work or fails to continuously and diligently prosecute the Work (exclusive of work stoppage: (i) due to termination by TxDOT, or (ii) due to and during the continuance of a Force Majeure Event or suspension by TxDOT, or (iii) due to and during the continuance of any work stoppage under Section 16.4);

(e) Developer fails to obtain, provide and maintain any insurance, bonds, guarantees, letters of credit or other performance security as and when required under this Agreement for the benefit of relevant parties, or fails to comply with any requirement of this Agreement pertaining to the amount, terms or coverage of the same;

(f) Developer makes or attempts to make or suffers a voluntary or involuntary assignment or transfer of all or any portion of this Agreement in violation of Section 24.4;

(g) Developer fails, absent a valid dispute, to make payment when due for labor, equipment or materials in accordance with its agreements with Subcontractors and Suppliers and in accordance with applicable Laws, or fails to make payment to TxDOT when due of any amounts owing to TxDOT under this Agreement;

(h) Developer materially fails to timely observe or perform or cause to be observed or performed any other material covenant, agreement, obligation, term or condition required to be observed or performed by Developer under the Contract Documents;

(i) Any representation or warranty in the Contract Documents made by Developer, or any certificate, schedule, report, instrument or other document delivered

by or on behalf of Developer to TxDOT pursuant to the Contract Documents is false or materially misleading or inaccurate when made or omits material information when made;

(j) Developer commences a voluntary case seeking liquidation, reorganization or other relief with respect to itself or its debts under any U.S. or foreign bankruptcy, insolvency or other similar Law now or hereafter in effect, seeks the appointment of a trustee, receiver, liquidator, custodian or other similar official of it or any substantial part of its assets; becomes insolvent, or generally does not pay its debts as they become due; admits in writing its inability to pay its debts; makes an assignment for the benefit of creditors; or takes any action to authorize any of the foregoing;

(k) An involuntary case is commenced against Developer seeking liquidation, reorganization, dissolution, winding up, a composition or arrangement with creditors, a readjustment of debts or other relief with respect to Developer or Developer's debts under any U.S. or foreign bankruptcy, insolvency or other similar Law now or hereafter in effect; seeking the appointment of a trustee, receiver, liquidator, custodian or other similar official of Developer or any substantial part of Developer's assets; seeking the issuance of a writ of attachment, execution, or similar process; or seeking like relief, and such involuntary case shall not be contested by Developer in good faith or shall remain undismissed and unstayed for a period of 60 days;

(l) A voluntary or involuntary case or other act or event described in clauses (j) and (k) of this Section 16.1.1 shall occur (and in the case of an involuntary case shall not be contested in good faith or shall remain undismissed and unstayed for a period of 60 days) with respect to: (i) any member of Developer with a material financial obligation owing to Developer for equity or shareholder loan contributions, or (ii) any Guarantor of Developer; or

(m) an Event of Default under the Capital Maintenance Agreement.

16.1.2 Notice and Opportunity to Cure

For the purpose of TxDOT's exercise of other remedies and subject to remedies that this Section 16 expressly states may be exercised before lapse of a cure period, Developer shall have the following cure periods with respect to the following Developer Defaults:

(a) Respecting a Developer Default under clauses (a), and (c) through (g) of Section 16.1.1, a period of 15 days after TxDOT delivers to Developer written notice of the Developer Default; provided that TxDOT shall have the right, but not the obligation, to effect cure, at Developer's expense, if a Developer Default under clause (e) of Section 16.1.1 continues beyond five days after such notice is delivered.

(b) Respecting a Developer Default under clauses (h) and (i) of Section 16.1.1, a period of 30 days after TxDOT delivers to Developer written notice of the Developer Default; provided that: (i) if the Developer Default is of such a nature that the cure cannot with diligence be completed within such time period and Developer has commenced meaningful steps to cure immediately after receiving the default notice,

Developer shall have such additional period of time, up to a maximum cure period of 60 days, as is reasonably necessary to diligently effect cure, and (ii) as to clause (i), cure will be regarded as complete when the adverse effects of the breach are cured.

(c) Respecting a Developer Default under clauses (b), (j) and (k) of Section 16.1.1, no cure period, and there shall be no right to notice of a Developer Default under clauses (b), (j) and (k) of Section 16.1.1.

(d) Respecting a Developer Default under clauses (l) of Section 16.1.1, a period of ten days from the date of the Developer Default to commence diligent efforts to cure, and 30 days to effect cure of such default by providing a letter of credit or payment to TxDOT for the benefit of the Project, in the amount of, as applicable: (i) the member's financial obligation for equity or shareholder loan contributions to or for the benefit of Developer or (ii) the Guarantor's specified sum or specified maximum liability under its guaranty, or if none is specified, the reasonably estimated maximum liability of the Guarantor.

16.1.3 Declaration of Event of Default

If any event or condition described in Section 16.1.1 is not subject to cure or is not cured within the period (if any) specified in Section 16.1.2, TxDOT may declare that an "Event of Default" has occurred. The declaration of an Event of Default shall be in writing and given to Developer and the Surety.

16.2 TxDOT Remedies for Developer Default

16.2.1 Termination for Default

16.2.1.1 In the event of any Developer Default that is or becomes an Event of Default, TxDOT may terminate this Agreement or a portion thereof for default, including Developer's rights of entry upon, possession, control and operation of the Project, in which case, the procedures set forth in Section 15.2 shall apply. If this Agreement or a portion thereof is terminated for default, TxDOT shall have the following rights without further notice and without waiving or releasing Developer from any obligations and Developer shall have the following obligations (as applicable):

(a) TxDOT may deduct from any amounts (including interest thereon as permitted under this Agreement) payable by TxDOT to Developer such amounts payable by Developer to TxDOT, including reimbursements owing, Liquidated Damages, amounts TxDOT deems advisable to cover any existing or threatened claims, Liens and stop notices of Subcontractors, laborers or other Persons, amounts of any Losses that have accrued, the cost to complete or remediate uncompleted Work or Nonconforming Work or other damages or amounts that TxDOT has determined are or may be payable to TxDOT under the Contract Documents.

(b) TxDOT shall have the right, but not the obligation, to pay such amount and/or perform such act as may then be required from Developer under the Contract Documents or Subcontracts.

(c) TxDOT may appropriate any or all materials, supplies and equipment on the Site as may be suitable and acceptable and may direct the Surety to complete this Agreement or may enter into an agreement for the completion of this Agreement according to the terms and provisions hereof with another contractor or the Surety, or use such other methods as may be required for the completion of the Work and the requirements of the Contract Documents, including completion of the Work by TxDOT.

(d) If TxDOT exercises any right to perform any obligations of Developer, in the exercise of such right TxDOT may, but is not obligated to, among other things: (i) perform or attempt to perform, or cause to be performed, such Work; (ii) spend such sums as TxDOT deems necessary and reasonable to employ and pay such architects, engineers, consultants and contractors and obtain materials and equipment as may be required for the purpose of completing such Work; (iii) execute all applications, certificates and other documents as may be required for completing the Work; (iv) modify or terminate any contractual arrangements; (v) take any and all other actions which it may in its sole discretion consider necessary to complete the Work; and (vi) prosecute and defend any action or proceeding incident to the Work.

16.2.1.2 Developer and each Guarantor shall be jointly and severally liable to TxDOT for all costs reasonably incurred by TxDOT or any Person acting on TxDOT's behalf in completing the Work or having the Work completed by another Person (including any re-procurement costs, throw away costs for unused portions of the completed Work, and increased financing costs). TxDOT shall be entitled to withhold all or any portion of further payments to Developer until Final Acceptance or the date on which TxDOT otherwise accepts the Project as complete or determines that it will not proceed with completion, at which time TxDOT will determine whether and to what extent Developer is entitled to further payments. Promptly following Final Acceptance or the date on which TxDOT otherwise accepts the Project as complete or determines that it will not proceed with completion, the total cost of all completed Work shall be determined, and TxDOT shall notify Developer and each Guarantor in writing of the amount, if any, that Developer and each Guarantor shall pay TxDOT or TxDOT shall pay Developer or its Surety with respect thereto. TxDOT's Recoverable Costs will be deducted from any moneys due or which may become due Developer or its Surety. If such expense exceeds the sum which would have been payable to Developer under this Agreement, then Developer and each Guarantor shall be liable and shall pay to TxDOT the amount of such excess.

16.2.1.3 In lieu of the provisions of this Section 16.2.1 for terminating this Agreement for default and completing the Work, TxDOT may, in its sole discretion, pay Developer for the parts already done according to the provisions of the Contract Documents and may treat the parts remaining undone as if they had never been included or contemplated by this Agreement. No Claim under this Section 16.2.1.3 will be allowed for prospective profits on, or any other compensation relating to, Work uncompleted by Developer.

16.2.1.4 If this Agreement is terminated for grounds which are later determined not to justify a termination for default, such termination shall be deemed to constitute a Termination for Convenience pursuant to Section 15.

16.2.2 Developer Defaults Related to Safety

Notwithstanding anything to the contrary in this Agreement, if in the good faith judgment of TxDOT a Developer Default results in an emergency or danger to persons or property, and if Developer is not then diligently taking all necessary steps to rectify or deal with such emergency or danger, TxDOT may, without notice and without awaiting lapse of the period to cure any breach, and in addition and without prejudice to its other remedies, (but is not obligated to): (a) immediately take such action as may be reasonably necessary to rectify the emergency or danger, in which event Developer shall pay to TxDOT on demand the cost of such action, including TxDOT's Recoverable Costs, or (b) suspend the Work and/or close or cause to be closed any and all portions of the Project affected by the emergency or danger. So long as TxDOT undertakes such action in good faith, even if under a mistaken belief in the occurrence of such failure or existence of an emergency or danger as a result thereof, such action shall not be deemed unlawful or a breach of this Agreement, shall not expose TxDOT to any liability to Developer and shall not entitle Developer to any other remedy, it being acknowledged that TxDOT has a high priority, paramount public interest in protecting public and worker safety at the Project and adjacent and connecting areas. TxDOT's good faith determination of the existence of such a failure, emergency or danger shall be deemed conclusive in the absence of clear and convincing evidence to the contrary. Immediately following rectification of such emergency or danger, as determined by TxDOT, acting reasonably, TxDOT shall allow the Work to continue or such portions of the Project to reopen, as the case may be.

16.2.3 Damages

16.2.3.1 Subject to Section 17, TxDOT shall be entitled to recover any and all damages available at Law (subject to the duty at Law to mitigate damages) on account of the occurrence of a Developer Default. Developer shall owe any such damages that accrue after the occurrence of the Developer Default and the delivery of notice thereof, if any, required by this Agreement regardless of whether the Developer Default is subsequently cured.

16.2.3.2 If TxDOT suffers damages as a result of a Developer Default due to a Developer-Related Entity's acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval, then, subject to Section 17, TxDOT shall be entitled to recovery of such damages from Developer regardless of whether such acts, omissions, negligence, intentional misconduct, or breach of applicable Law, contract or Governmental Approval ripens into an Event of Default.

16.2.3.3 Developer, the Surety and Guarantor shall not be relieved of liability for continuing Liquidated Damages on account of a Developer Default or by TxDOT's declaration of an Event of Default, or by actions taken by TxDOT under this Section 16.2.

16.2.3.4 TxDOT's remedies with respect to Nonconforming Work shall include the right to accept such Work and receive payment as provided in Section 5.6.2 in lieu of the remedies specified in this Section 16.2.

16.2.4 Performance Security

Upon the occurrence of an Event of Default and without waiving or releasing Developer from any obligations, TxDOT shall be entitled to make demand upon and enforce any bond, and make demand upon, draw on and enforce and collect any letter of credit, guaranty or other performance security available to TxDOT under this Agreement with respect to the Event of Default in question. Where access to a bond, letter of credit or other performance security is to satisfy damages owing, TxDOT shall be entitled to make demand, draw, enforce and collect, regardless of whether the Event of Default is subsequently cured. TxDOT will apply the proceeds of any such action to the satisfaction of Developer's obligations under this Agreement, including payment of amounts due TxDOT. The foregoing does not limit or affect TxDOT's right to give notice to or make demand upon and enforce any bond, and make demand upon, draw on and enforce and collect any letter of credit, guaranty or other performance security, immediately after TxDOT is entitled to do so under the bond, letter of credit, guaranty or other performance security.

16.2.5 Other Rights and Remedies; Cumulative Remedies

Subject to Sections 17.5 and 17.6, TxDOT shall also be entitled to exercise any other rights and remedies available under this Agreement, or available at law or in equity, and each right and remedy of TxDOT hereunder shall be cumulative and shall be in addition to every other right or remedy provided herein or now or hereafter existing at law or in equity or by statute or otherwise, and the exercise or beginning of the exercise by TxDOT of any one or more of any of such rights or remedies shall not preclude the simultaneous or later exercise by TxDOT of any or all other such rights or remedies.

16.3 Event of Default Due Solely to Developer's Failure to Achieve Completion Deadlines and Toll Zone Deadlines

16.3.1 If an Event of Default consists solely of Developer's failure to achieve Substantial Completion or Final Acceptance of a Segment or the Project by the applicable Completion Deadline, TxDOT's sole remedy for such Event of Default shall be the right to assess Liquidated Damages, provided that: (a) such Event of Default does not delay such Substantial Completion or Final Acceptance beyond 180 days of the applicable Completion Deadline; and (b) Developer continues to diligently perform the Work despite such Event of Default. The fact that TxDOT has agreed to accept Liquidated Damages as compensation for its damages associated with any delay in meeting a Completion Deadline shall not preclude TxDOT from exercising its other rights and remedies respecting the delay set forth in Section 16.2 other than the right to collect other damages due to the delay, except that TxDOT agrees not to exercise such other rights and remedies respecting the delay so long as (a) the approved Project Schedule demonstrates that Developer is capable of meeting such Completion Deadline within 180 days after the Completion Deadline and (b) the Developer diligently performs the Work in accordance with said schedule. Nothing in this Section 16.3 shall prejudice any other rights or remedies that TxDOT may have due to any other Event of Default during such 180-day period.

16.3.2 If Substantial Completion or Final Acceptance of any Segment or the Project has not occurred within 180 days of the applicable Completion Deadline, TxDOT shall have the right to: (a) terminate this Agreement; (b) continue to assess Liquidated

Damages subject only to the limitations set forth in Section 17.1; and/or (c) exercise any other right or remedy under this Agreement, at law or in equity.

16.3.3 If an Event of Default consists solely of Developer's failure to complete the Toll Zone-related Work within the applicable deadline set forth in Section 20.1.2, TxDOT's sole remedy for such Event of Default shall be the right to assess Liquidated Damages, provided that completion of such Work is not delayed beyond 180 days after the deadline for completion of such Work.

16.4 Right to Stop Work for Failure by TxDOT to Make Undisputed Payment

Developer shall have the right to stop Work if TxDOT fails to make an undisputed payment due hereunder within 15 Business Days after TxDOT's receipt of written notice of nonpayment from Developer. Any such work stoppage shall be considered a suspension for convenience under Section 14.1 and shall be considered a TxDOT-Directed Change. Developer shall not have the right to terminate this Agreement for default as the result of any failure by TxDOT to make an undisputed payment due hereunder. However, if such nonpayment continues for more than 180 days, upon written notice from Developer to TxDOT, the nonpayment may be deemed a Termination for Convenience pursuant to Section 15. Upon such termination, the Parties' rights and obligations shall be as set forth in Section 15.

SECTION 17. LIQUIDATED DAMAGES AND LIMITATION OF LIABILITY

17.1 Liquidated Damages Respecting Delays

17.1.1 Developer shall be liable for and pay to TxDOT liquidated damages with respect to any failure to achieve Substantial Completion and Final Acceptance of any Segment or the Project by the applicable Completion Deadline, as the same may be extended pursuant to this Agreement. The amounts of such liquidated damages are as follows:

(a) For Segment F-1, \$39,000 for each day after the applicable Substantial Completion Deadline, for Segment F-2 \$54,000 for each day after the applicable Substantial Completion Deadline, and for Segment G, \$54,000 for each day after the applicable Substantial Completion Deadline and through the date of Substantial Completion for the applicable Segment, but, for all Segments, not to exceed 365 days per Segment; and

(b) For each Segment, \$1,400 per day for each day after the applicable Final Acceptance Deadline and through the date of the applicable Final Acceptance.

Liquidated damages shall commence on the applicable Completion Deadline, as the same may be extended pursuant to this Agreement, and shall continue to accrue until the date of the applicable Substantial Completion or Final Acceptance or until termination of this Agreement. Liquidated damages shall constitute TxDOT's sole right to damages for such delay.

17.1.2 Developer shall be liable for and pay to TxDOT liquidated damages with respect to any failure to complete the Toll Zone Work by the deadline therefor set forth in Section 20.1.2, as the same may be extended pursuant to this Agreement. Such liability shall apply even though: (a) a cure period remains available to Developer or (b) cure occurs. The amounts of such liquidated damages shall be \$5,850 per day for Segment F-1 delays, \$5,734 per day for Segment F-2 delays and \$5,528 per day for Segment G delays for each day after the completion deadline (180 days prior to the Substantial Completion Deadline for the applicable Segment) and through the date completion of the Toll Zone Work actually occurs or until termination of this Agreement. Liquidated damages shall constitute TxDOT's sole right to damages for such delay.

17.1.3 Developer shall be liable for and pay to TxDOT liquidated damages with respect to any failure to complete the NTP3 Work by the deadline therefor set forth in Section 4.2.3, as the same may be extended pursuant to this Agreement. Such liability shall apply even though: (a) a cure period remains available to Developer or (b) cure occurs. The amounts of such liquidated damages shall be \$3600 for each day after the Completion Deadline and through the date completion of the NTP3 Work actually occurs in accordance with Section 1.3.2.2 of the Technical Provisions or until termination of this Agreement. Liquidated damages shall constitute TxDOT's sole right to damages for such delay.

17.1.4 Developer shall be liable for and pay to TxDOT liquidated damages with respect to any failure to complete the NTP4 Work by the deadline therefor set forth in Section 4.2.4, as the same may be extended pursuant to this Agreement. Such liability shall apply even though: (a) a cure period remains available to Developer or (b) cure occurs. The amounts of such liquidated damages shall be \$3600 for each day after the Completion Deadline and through the date completion of the NTP4 Work actually occurs in accordance with Section 1.3.2.2 of the Technical Provisions or until termination of this Agreement. Liquidated damages shall constitute TxDOT's sole right to damages for such delay.

17.1.5 Developer acknowledges that the liquidated damages described in this Section 17.1 are reasonable in order to compensate TxDOT for damages it will incur as a result of late completion of the Early Completion Work, the Project or portions thereof as set forth in this Section 17.1. Such damages include loss of potential revenue for TxDOT due to late Substantial Completion, loss of use, enjoyment and benefit of the Segment or Project, as applicable, and connecting TxDOT transportation facilities by the general public, injury to the credibility and reputation of TxDOT's transportation improvement program with policy makers and with the general public who depend on and expect availability of service by the Substantial Completion Deadline, which injury to credibility and reputation may directly result in loss of ridership on the Project and connecting TxDOT transportation facilities and further loss of TxDOT's revenue, and additional costs of administering this Agreement (including engineering, legal, accounting, overhead and other administrative costs). Developer further acknowledges that these damages are incapable of accurate measurement because of, among other things, the unique nature of the Project and the unavailability of a substitute for it.

17.2 Liquidated Damages Respecting Lane Closures

17.2.1 Developer shall be liable for and pay to TxDOT Liquidated Damages for Lane Closures assessed against Developer as described in Section 18.3.1.2 of the Technical Provisions and in the amounts set forth in Exhibit 17.

17.2.2 Developer acknowledges that such liquidated damages are reasonable in order to compensate TxDOT for damages it will incur by reason of the matters that result in Liquidated Damages for Lane Closures. Such damages include loss of potential revenue for TxDOT, loss of use, enjoyment and benefit of the Project and connection TxDOT transportation facilities by the general public, injury to the credibility and reputation of TxDOT's transportation improvement program with policy makers and with the general public who depend on and expect availability of service, which injury to credibility and reputation may directly result in loss of ridership on the Project and connecting TxDOT transportation facilities and loss of toll revenues, and additional costs of administering this Agreement (including engineering, legal, accounting, overhead and other administrative costs.) Developer further acknowledges that these damages are incapable of accurate measurement because of, among other things, the unique nature of the Project and the unavailability of a substitute for it.

17.3 Acknowledgements Regarding Liquidated Damages

Developer further agrees and acknowledges that:

17.3.1 In the event that Developer fails to achieve Substantial Completion or Final Acceptance of a Segment or the Project by the applicable Completion Deadline, TxDOT will incur substantial damages.

17.3.2 Such damages are incapable of accurate measurement and difficult to prove for the reasons stated in Section 17.1.5.

17.3.3 As of the Effective Date, the amounts of Liquidated Damages represent good faith estimates and evaluations by the Parties as to the actual potential damages that TxDOT would incur as a result of late Substantial Completion or late Final Acceptance of a Segment or the Project, and do not constitute a penalty.

17.3.4 The Parties have agreed to Liquidated Damages in order to fix and limit Developer's costs and to avoid later Disputes over what amounts of damages are properly chargeable to Developer.

17.3.5 Such sums are reasonable in light of the anticipated or actual harm caused by delayed Substantial Completion or delayed Final Acceptance of a Segment or the Project, the difficulties of the proof of loss, and the inconvenience or infeasibility of otherwise obtaining an adequate remedy.

17.3.6 Liquidated Damages are not intended to, and do not, liquidate Developer's liability under the indemnification provisions of Section 18.1, even though third party claims against Indemnified Parties may arise out of the same event, breach or failure that gives rise to the Liquidated Damages.

17.4 Payment; Satisfaction; Waiver; Non-Exclusive Remedy

17.4.1 Developer shall pay any liquidated damages owing under this Section 17 within 20 days after TxDOT delivers to Developer TxDOT's invoice or demand therefor, such invoice or demand to be issued not more often than monthly.

17.4.2 TxDOT shall have the right to deduct and offset liquidated damages from any amounts owing Developer. TxDOT also shall have the right to draw on any bond, certificate of deposit, letter of credit or other security provided by Developer pursuant to this Agreement to satisfy liquidated damages not paid when due.

17.4.3 Permitting or requiring Developer to continue and finish the Work or any part thereof after a Completion Deadline as applicable, shall not act as a waiver of TxDOT's right to receive Liquidated Damages hereunder or any rights or remedies otherwise available to TxDOT.

17.4.4 Subject to Section 16.3, TxDOT's right to, and imposition of, Liquidated Damages are in addition, and without prejudice, to any other rights and remedies available to TxDOT under this Agreement, at law or in equity respecting the breach, failure to perform or Developer Default that is the basis for the Liquidated Damages or any other

breach, failure to perform or Developer Default, except for recovery of the monetary damage that the Liquidated Damages are intended to compensate.

17.5 Limitation of Developer's Liability

Notwithstanding any other provision of the Contract Documents, to the extent permitted by applicable Law, TxDOT will not seek indemnification and defense under Section 18 or to recover damages from Developer resulting from breach of this Agreement (whether arising in contract, negligence or other tort, or any other theory of law) in excess of the sum of: (a) all those costs reasonably incurred by TxDOT or any Person acting on TxDOT's behalf in completing or correcting the Work or having the Work completed or corrected by another Person, including the cost of the work required or arising under the Warranties; (b) an amount equal to \$100,000,000 (which amount shall specifically include any Liquidated Damages paid pursuant to this Section 17); (c) any amounts paid by or on behalf of Developer which are covered by insurance proceeds; and (d) all Losses incurred by any Indemnified Party relating to or arising out of any illegal activities, fraud, criminal conduct, gross negligence or intentional misconduct on the part of any Developer-Related Entity.

17.6 Limitation on Consequential Damages

17.6.1 Notwithstanding any other provision of the Contract Documents and except as set forth in this Section 17.6.1 and in Section 17.6.2, to the extent permitted by applicable Law, neither party shall be liable to the other for punitive damages or indirect, incidental or consequential damages, whether arising out of breach of this Agreement, tort (including negligence) or any other theory of liability, and each party hereby releases the other party from any such liability.

17.6.2 The foregoing limitations on Developer's liability for punitive, indirect, incidental or consequential damages shall not apply to or limit any right of recovery TxDOT may have respecting the following:

(a) Losses (including defense costs) to the extent (i) covered by the proceeds of insurance required to be carried pursuant to Section 9, and (ii) covered by the proceeds of insurance actually carried by or insuring Developer under policies solely with respect to the Project and the Work, regardless of whether required to be carried pursuant to Section 9, or (iii) Developer is deemed to have self-insured the Loss pursuant to Section 9.2.3;

(b) Losses arising out of fraud, criminal conduct, intentional misconduct (which does not include any intentional Event of Default), recklessness, bad faith or gross negligence on the part of any Developer-Related Entity;

(c) Developer's indemnities set forth in Section 18.1 or elsewhere in the Contract Documents;

(d) Developer's obligation to pay liquidated damages in accordance with Section 17.1 or any other provision of the Contract Documents and Liquidated Damages for Lane Closures;

and (e) Losses arising out of Developer Releases of Hazardous Materials;

(f) Any other consequential damages arising from a breach of this Agreement by Developer that occurs prior to Final Acceptance, subject to a cap in the amount of \$1,000,000.

SECTION 18. INDEMNIFICATION

18.1 Indemnity by Developer

18.1.1 SUBJECT TO SECTION 18.1.2, DEVELOPER SHALL RELEASE, PROTECT, DEFEND, INDEMNIFY AND HOLD HARMLESS THE INDEMNIFIED PARTIES FROM AND AGAINST ANY AND ALL CLAIMS, CAUSES OF ACTION, SUITS, JUDGMENTS, INVESTIGATIONS, LEGAL OR ADMINISTRATIVE PROCEEDINGS, DEMANDS AND LOSSES, IN EACH CASE IF ASSERTED OR INCURRED BY OR AWARDED TO ANY THIRD PARTY, ARISING OUT OF, RELATING TO OR RESULTING FROM:

(a) THE BREACH OR ALLEGED BREACH OF ANY OF THE CONTRACT DOCUMENTS BY ANY DEVELOPER-RELATED ENTITY;

(b) THE FAILURE OR ALLEGED FAILURE BY ANY DEVELOPER-RELATED ENTITY TO COMPLY WITH THE GOVERNMENTAL APPROVALS, ANY APPLICABLE ENVIRONMENTAL LAWS OR OTHER LAWS (INCLUDING LAWS REGARDING HAZARDOUS MATERIALS MANAGEMENT);

(c) ANY ALLEGED PATENT OR COPYRIGHT INFRINGEMENT OR OTHER ALLEGEDLY IMPROPER APPROPRIATION OR USE OF TRADE SECRETS, PATENTS, PROPRIETARY INFORMATION, KNOW-HOW, COPYRIGHT RIGHTS OR INVENTIONS IN PERFORMANCE OF THE WORK, OR ARISING OUT OF ANY USE IN CONNECTION WITH THE PROJECT OF METHODS, PROCESSES, DESIGNS, INFORMATION, OR OTHER ITEMS FURNISHED OR COMMUNICATED TO TXDOT OR ANOTHER INDEMNIFIED PARTY PURSUANT TO THIS AGREEMENT; PROVIDED THAT THIS INDEMNITY SHALL NOT APPLY TO ANY INFRINGEMENT TO THE EXTENT RESULTING FROM TXDOT'S FAILURE TO COMPLY WITH SPECIFIC WRITTEN INSTRUCTIONS REGARDING USE PROVIDED TO TXDOT BY DEVELOPER;

(d) THE ACTUAL OR ALLEGED CULPABLE ACT, ERROR, OMISSION, NEGLIGENCE, BREACH OR MISCONDUCT OF ANY DEVELOPER-RELATED ENTITY IN OR ASSOCIATED WITH PERFORMANCE OF THE WORK;

(e) ANY AND ALL CLAIMS BY ANY GOVERNMENTAL OR TAXING AUTHORITY CLAIMING TAXES BASED ON GROSS RECEIPTS, PURCHASES OR SALES, THE USE OF ANY PROPERTY OR INCOME OF ANY DEVELOPER-RELATED ENTITY WITH RESPECT TO ANY PAYMENT FOR THE WORK MADE TO OR EARNED BY ANY DEVELOPER-RELATED ENTITY;

(f) ANY AND ALL STOP NOTICES AND/OR LIENS FILED IN CONNECTION WITH THE WORK, INCLUDING ALL EXPENSES AND ATTORNEYS', ACCOUNTANTS' AND EXPERT WITNESS FEES AND COSTS INCURRED IN DISCHARGING ANY STOP NOTICE OR LIEN, AND ANY OTHER LIABILITY TO SUBCONTRACTORS FOR FAILURE TO PAY SUMS DUE FOR THEIR WORK OR

SERVICES, PROVIDED THAT TXDOT HAS PAID ALL UNDISPUTED AMOUNTS OWING TO DEVELOPER WITH RESPECT TO SUCH WORK;

(g) ANY ACTUAL OR THREATENED DEVELOPER RELEASE OF HAZARDOUS MATERIALS;

(h) THE CLAIM OR ASSERTION BY ANY OTHER (i) TXDOT CONTRACTOR OR DEVELOPER THAT ANY DEVELOPER-RELATED ENTITY INTERFERED WITH OR HINDERED THE PROGRESS OR COMPLETION OF WORK BEING PERFORMED BY SUCH OTHER CONTRACTOR OR DEVELOPER, OR FAILED TO COOPERATE REASONABLY WITH SUCH OTHER CONTRACTOR OR DEVELOPER, SO AS TO CAUSE INCONVENIENCE, DISRUPTION, DELAY OR LOSS, EXCEPT WHERE THE DEVELOPER-RELATED ENTITY WAS NOT IN ANY MANNER ENGAGED IN PERFORMANCE OF THE WORK OR (ii) CONTRACTOR OR DEVELOPER THAT ANY DEVELOPER-RELATED ENTITY INTERFERED WITH OR HINDERED THE PROGRESS OR COMPLETION OF WORK BEING PERFORMED BY SUCH OTHER CONTRACTOR OR DEVELOPER, SO AS TO CAUSE INCONVENIENCE, DISRUPTION, DELAY OR LOSS, TO THE EXTENT SUCH CLAIM ARISES OUT OF THE ACTUAL OR ALLEGED CULPABLE ACT, ERROR, OMISSION, NEGLIGENCE, BREACH OR MISCONDUCT OF ANY DEVELOPER-RELATED ENTITY ;

(i) DEVELOPER'S PERFORMANCE OF, OR FAILURE TO PERFORM, THE OBLIGATIONS UNDER ANY UTILITY AGREEMENT, OR ANY DISPUTE BETWEEN DEVELOPER AND A UTILITY OWNER AS TO WHETHER WORK RELATING TO A UTILITY ADJUSTMENT CONSTITUTES A BETTERMENT;

(j) (i) ANY DEVELOPER-RELATED ENTITY'S BREACH OF OR FAILURE TO PERFORM AN OBLIGATION THAT TXDOT OWES TO A THIRD PERSON, INCLUDING GOVERNMENTAL ENTITIES, UNDER LAW OR UNDER ANY AGREEMENT BETWEEN TXDOT AND A THIRD PERSON, WHERE TXDOT HAS DELEGATED PERFORMANCE OF THE OBLIGATION TO DEVELOPER UNDER THE CONTRACT DOCUMENTS OR (ii) THE ACTS OR OMISSIONS OF ANY DEVELOPER-RELATED ENTITY WHICH RENDER TXDOT UNABLE TO PERFORM OR ABIDE BY AN OBLIGATION THAT TXDOT OWES TO A THIRD PERSON, INCLUDING GOVERNMENTAL ENTITIES, UNDER ANY AGREEMENT BETWEEN TXDOT AND A THIRD PERSON, WHERE THE AGREEMENT WAS EXPRESSLY DISCLOSED TO DEVELOPER;

(k) THE FRAUD, BAD FAITH, ARBITRARY OR CAPRICIOUS ACTS, OR VIOLATION OF LAW BY ANY DEVELOPER-RELATED ENTITY IN OR ASSOCIATED WITH THE PERFORMANCE OF THE WORK;

(l) INVERSE CONDEMNATION, TRESPASS, NUISANCE OR SIMILAR TAKING OF OR HARM TO REAL PROPERTY BY REASON OF: (i) THE FAILURE OF ANY DEVELOPER-RELATED ENTITY TO COMPLY WITH GOOD INDUSTRY PRACTICES, REQUIREMENTS OF THE CONTRACT DOCUMENTS, PROJECT MANAGEMENT PLAN OR GOVERNMENTAL APPROVALS RESPECTING CONTROL AND MITIGATION OF CONSTRUCTION ACTIVITIES AND CONSTRUCTION

IMPACTS, (ii) THE INTENTIONAL MISCONDUCT OR NEGLIGENCE OF ANY DEVELOPER-RELATED ENTITY, OR (iii) THE ACTUAL PHYSICAL ENTRY ONTO OR ENCROACHMENT UPON ANOTHER'S PROPERTY BY ANY DEVELOPER-RELATED ENTITY; AND

(m) ERRORS, INCONSISTENCIES OR OTHER DEFECTS IN THE DESIGN OR CONSTRUCTION OF THE PROJECT AND/OR OF UTILITY ADJUSTMENTS INCLUDED IN THE WORK.

18.1.2 Subject to the releases and disclaimers herein, including all the provisions set forth in Section 3.1.8 of this Agreement, Developer's indemnity obligation shall not extend to any third party Loss to the extent caused by:

(a) the negligence, reckless or intentional misconduct, bad faith or fraud of such Indemnified Party,

(b) TxDOT's material breach of any of its obligations under the Contract Documents;

(c) An Indemnified Party's material violation of any Laws or Governmental Approvals; or

(d) An unsafe requirement inherent in prescriptive design or prescriptive construction specifications of the Technical Provisions, but only where prior to occurrence of the third party Loss: (i) Developer complied with such specifications and did not actually know, or would not have known, while exercising reasonable diligence, that the requirement created a potentially unsafe condition or (ii) Developer knew of and reported to TxDOT the potentially unsafe requirement.

18.1.3 In claims by an employee of Developer, a Subcontractor, anyone directly or indirectly employed by them or anyone for whose acts they may be liable, the indemnification obligation under this Section 18.1 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for Developer or a Subcontractor under workers' compensation, disability benefit or other employee benefits laws.

18.1.4 For purposes of this Section 18.1, "third party" means any person or entity other than an Indemnified Party and Developer, except that a "third party" includes any Indemnified Party's employee, agent or contractor who asserts a claim against an Indemnified Party which is within the scope of the indemnities and which is not covered by the Indemnified Party's worker's compensation program.

18.2 Defense and Indemnification Procedures

18.2.1 If any of the Indemnified Parties receives notice of a claim or otherwise has actual knowledge of a claim that it believes is within the scope of the indemnities under Section 18.1, TxDOT shall by writing as soon as practicable after receipt of the claim: (a) inform Developer of the claim, (b) send to Developer a copy of all written materials TXDOT

has received asserting such claim and (c) notify Developer that should no insurer accept defense of the claim, the Indemnified Party will conduct its own defense unless Developer accepts the tender of the claim in accordance with Section 18.2.3. As soon as practicable after Developer receives notice of a claim or otherwise has actual knowledge of a claim, it shall tender the claim in writing to the insurers under all potentially applicable insurance policies. TxDOT and other Indemnified Parties also shall have the right to tender such claims to such insurers.

18.2.2 If the insurer under any applicable insurance policy accepts the tender of defense, TXDOT and Developer shall cooperate in the defense as required by the insurance policy. If no insurer under potentially applicable insurance policies provides defense, then Section 18.2.3 shall apply.

18.2.3 If the defense is tendered to Developer, then within 30 days after receipt of the tender it shall notify the Indemnified Party whether it has tendered the matter to an insurer and (if not tendered to an insurer or if the insurer has rejected the tender) shall deliver a written notice stating that Developer:

(a) Accepts the tender of defense and confirms that the claim is subject to full indemnification hereunder without any "reservation of rights" to deny or disclaim full indemnification thereafter;

(b) Accepts the tender of defense but with a "reservation of rights" in whole or in part; or

(c) Rejects the tender of defense based on a determination that it is not required to indemnify against the claim under the terms of this Agreement.

18.2.4 If Developer accepts the tender of defense under Section 18.2.3(a), Developer shall have the right to select legal counsel for the Indemnified Party, subject to reasonable approval by the Indemnified Party, and Developer shall otherwise control the defense of such claim, including settlement, and bear the fees and costs of defending and settling such claim. During such defense:

(a) Developer shall fully and regularly inform the Indemnified Party of the progress of the defense and of any settlement discussions; and

(b) The Indemnified Party shall fully cooperate in said defense, provide to Developer all materials and access to personnel it requests as necessary for defense, preparation and trial and which or who are under the control of or reasonably available to the Indemnified Party, and maintain the confidentiality of all communications between it and Developer concerning such defense.

18.2.5 If Developer responds to the tender of defense as specified in Section 18.2.3(b) or 18.2.3(c), the Indemnified Party shall be entitled to select its own legal counsel and otherwise control the defense of such claim, including settlement.

18.2.6 The Indemnified Party may assume its own defense by delivering to Developer written notice of such election and the reasons therefor, if the Indemnified Party, at the time it gives notice of the claim or at any time thereafter, reasonably determines that:

(a) A conflict exists between it and Developer which prevents or potentially prevents Developer from presenting a full and effective defense;

(b) Developer is otherwise not providing an effective defense in connection with the claim; or

(c) Developer lacks the financial capacity to satisfy potential liability or to provide an effective defense.

18.2.7 If the Indemnified Party is entitled and elects to conduct its own defense pursuant hereto of a claim for which it is entitled to indemnification, Developer shall reimburse on a current basis all reasonable costs and expenses the Indemnified Party incurs in investigating and defending, except to the extent the Indemnified Party conducts its own defense as a result of Developer's denial of such defense pursuant Section 18.2.3(c). In the event the Indemnified Party is entitled to and elects to conduct its own defense, then:

(a) In the case of a defense conducted under Section 18.2.3(a), it shall have the right to settle or compromise the claim with Developer's prior written consent, which shall not be unreasonably withheld or delayed;

(b) In the case of a defense conducted under Section 18.2.3(b), it shall have the right to settle or compromise the claim with Developer's prior written consent, which shall not be unreasonably withheld or delayed, or with approval of the court or arbitrator following reasonable notice to Developer and opportunity to be heard and without prejudice to the Indemnified Party's rights to be indemnified by Developer; and

(c) In the case of a defense conducted under Section 18.2.3(c), it shall have the right to settle or compromise the claim without Developer's prior written consent and without prejudice to its rights to be indemnified by Developer. If a dispute resolver determines that Developer wrongfully denied the defense of the Indemnified Party, the Indemnified Party shall be entitled to reimbursement of the costs of defense, including reimbursement of reasonable attorneys' fees and other litigation and defense costs, and indemnification of costs to settle or compromise the claim, in addition to interest at the rate calculated in accordance with Section 24.13 payable on such defense and settlement amounts from the date such costs and expenses are incurred by the Indemnified Party.

18.2.8 The Parties acknowledge that while Section 18.1 contemplates that Developer will have responsibility for certain claims and liabilities arising out of its obligations to indemnify, circumstances may arise in which there may be shared liability of the Parties with respect to such claims and liabilities. In such case, where either Party believes a claim or liability may entail shared responsibility and that principles of comparative negligence and indemnity are applicable, it shall confer with the other Party on management of the claim or liability in question. If the Parties cannot agree on an

approach to representation in the matter in question, each shall arrange to represent itself and to bear its own costs in connection therewith pending the outcome of such matter. Within 30 days subsequent to the final, non-appealable resolution of the matter in question, whether by arbitration or by judicial proceedings, the Parties shall adjust the costs of defense, including reimbursement of reasonable attorneys' fees and other litigation and defense costs, in accordance with the indemnification arrangements of Section 18.2, and consistent with the outcome of such proceedings concerning the respective liabilities of the Parties on the third party claim.

18.2.9 In determining responsibilities and obligations for defending suits pursuant to this Section 18.2, specific consideration shall be given to the following factors: (a) the party performing the activity in question; (b) the location of the activity and incident; (c) contractual arrangements then governing the performance of the activity; and (d) allegations of respective fault contained in the claim.

SECTION 19. PARTNERING AND DISPUTE RESOLUTION

19.1 General Dispute Resolution Provisions

Partnering will be encouraged in preference to formal dispute resolution mechanisms. Partnering in this context is intended to be a voluntary, non-binding procedure available for use by the Parties to resolve any issues that may arise during performance of the Work.

19.2 Partnering

19.2.1 Schedule; Participation

As soon as possible after execution of this Agreement, TxDOT and Developer shall jointly select a third-party facilitator to conduct the partnering meetings. The cost of the facilitator shall be shared equally by TxDOT and Developer. Partnering meetings shall be conducted at the office of TxDOT or at such location as otherwise agreed upon by the Parties. Persons who should attend the partnering meetings include Key Personnel and executives of the Parties.

19.2.2 Confidentiality

Subject to the requirements of the Public Information Act, any statements made or materials prepared during or relating to partnering meetings, including any statements made or documents prepared by the facilitator, shall not be admissible or discoverable in any judicial or other dispute resolution proceeding, unless such statements or materials are admissible or discoverable under applicable Law.

19.3 Dispute Resolution Procedures

19.3.1 Disputes Governed by These Procedures

(a) The Parties agree, in accordance with 43 TEX. ADMIN. CODE. Section 9.6, to be bound by and subject to the procedures established in this Section 19.3 as an agreement regarding dispute resolution procedures that shall survive expiration or earlier termination of the Term and thereafter for so long as either Party has any obligation originating under the Contract Documents.

(b) The provisions of this Section 19.3 are intended to accord with Section 201.112 of the Code and the DRP Rules promulgated thereunder.

(c) As used in this Section 19.3, the phrase "the procedures established in this Section 19.3" includes the procedures established in this Section 19.3, the Disputes Board Agreement, the DRP Rules, the Code, and the Texas Government Code.

(d) All Disputes arising under the Contract Documents shall be resolved pursuant to the Informal Resolution Procedures and, if not resolved thereby, the Dispute Resolution Procedures, except the following:

(i) Any equitable relief sought in Travis County, Texas District Court that TxDOT is permitted to bring against Developer under Section 19.3.1.1; and

(ii) Ineligible Matters.

(e) Any disagreement between the Parties as to whether the Informal Resolution Procedures and/or the Dispute Resolution Procedures apply to a particular Dispute shall be treated as a Dispute for resolution in accordance with this Section 19.3.

(f) With respect to any Dispute for resolution in accordance with the procedures established in this Section 19.3, the Parties agree that (i) such Dispute must be asserted in writing to the other Party prior to the running of the applicable statute of limitations and (ii) provided that this is done, the applicable statute of limitations shall be tolled until the 30th day after conclusion of the last such procedure applicable to such Dispute.

19.3.1.1 Jurisdiction of Travis County, Texas District Courts

TxDOT may invoke the jurisdiction of the district courts of Travis County, Texas to petition for equitable relief against Developer, including temporary restraining orders, injunctions, other interim or final declaratory relief or the appointment of a receiver, to the extent allowed by Law

19.3.1.2 Matters Ineligible for Dispute Resolution Procedures

The Dispute Resolution Procedures shall not apply to the following (collectively, "Ineligible Matters"):

(a) Any matters that the Contract Documents expressly state are final, binding or not subject to dispute resolution;

(b) Any claim or dispute that does not arise under the Contract Documents;

(c) Any claim that is not actionable against TxDOT by Developer on its own behalf or on behalf of its Subcontractors in accordance with Section 19.4;

(d) Any claim for indemnity under Section 18;

(e) Any claim for injunctive relief;

(f) Any claim against an insurance company, including any Subcontractor Dispute that is covered by insurance;

(g) Any claim arising solely in tort or that is covered by the Texas Tort Claims Act;

(h) Any claim arising out of or relating to any Utility Adjustment where the Utility Owner is a necessary party (unless, and only to the extent that, the applicable Utility Agreement provides for resolution of claims as set forth in this Section 19);

(i) Any claim or dispute that is the subject of litigation in a lawsuit filed in court to which the procedures established in this Section 19.3 do not apply, including any effort to interplead a Party into such a lawsuit in order to make the procedures established in this Section 19.3 applicable;

(j) Any claim for, or dispute based on, remedies expressly created by statute; and

(k) Any Dispute that is actionable only against a Surety.

19.3.2 Informal Resolution As Condition Precedent

As a condition precedent to the right to have any Dispute resolved pursuant to the Dispute Resolution Procedures or by a district court, the claiming Party must first attempt to resolve the Dispute directly with the responding Party through the informal resolution procedures described in Section 19.3.3 other than Section 19.3.3.3 (collectively, the "Informal Resolution Procedures"). Time limitations set forth for the Informal Resolution Procedures may be changed by mutual written agreement of the Parties. Changes to the time limitations for the Informal Resolution Procedures agreed upon by the Parties shall pertain to the particular Dispute only and shall not affect the time limitations for the Informal Resolution Procedures applicable to any subsequently arising Disputes.

19.3.3 Informal Resolution Procedures

19.3.3.1 Notice of Dispute to Designated Agent

(a) A Party desiring to pursue a Dispute against the other Party shall initiate the Informal Resolution Procedures by serving a written notice on the responding Party's designated agent. Unless otherwise indicated by written notice from one Party to the other Party, each Party's designated agent shall be its Authorized Representative. The notice shall contain a concise statement describing:

(i) If the Parties have mutually agreed that the Dispute is a Fast-Track Dispute;

(ii) The date of the act, inaction or omission giving rise to the Dispute;

(iii) An explanation of the Dispute, including a description of its nature, circumstances and cause;

(iv) A reference to any pertinent provision(s) from the Contract Documents;

(v) If applicable and then known, the estimated dollar amount of the Dispute, and how that estimate was determined (including any cost and revenue element that has been or may be affected);

(vi) If applicable, an analysis of the Project Schedule and Completion Deadlines showing any changes or disruptions (including an impacted delay analysis reflecting the disruption in the manner and sequence of performance that has been or will be caused, delivery schedules, staging, and adjusted Completion Deadlines);

(vii) If applicable, the claiming Party's plan for mitigating the amount claimed and the delay claimed;

(viii) The claiming Party's desired resolution of the Dispute; and

(ix) Any other information the claiming Party considers relevant.

(b) The notice shall be signed by the designated representative of the Party asserting the Dispute, and shall constitute a certification by the Party asserting the Dispute that:

(i) The notice of Dispute is served in good faith; and

(ii) To the then current knowledge of such Party, except as to matters stated in the notice of Dispute as being unknown or subject to discovery, (1) all supporting information is reasonably believed by the Party asserting the Dispute to be accurate and complete and (2) the Dispute accurately reflects the amount of money or other right, remedy or relief to which the Party asserting the Dispute reasonably believes it is entitled; and

(iii) The designated representative is duly authorized to execute and deliver the notice and such certification on behalf of the claiming Party.

(c) If the responding Party agrees with the claiming Party's position and desired resolution of the Dispute, it shall so state in a written response. The notice of the Dispute and such response shall suffice to evidence the Parties' resolution of the subject Dispute unless either Party requests further documentation. Upon either Party's request, within five Business Days after the claiming Party's receipt of the responding Party's response in agreement, the Parties' designated representatives shall state the resolution of the Dispute in writing as appropriate, including execution of Change Orders or other documentation as needed, and thereafter each Party shall then promptly perform its respective obligations in accordance with the agreed resolution of the Dispute.

(d) The Party asserting the Dispute shall not be prejudiced by its initial statement of the Dispute and shall have the ability at any time during the Informal Resolution Procedures and Dispute Resolution Procedures to modify its

statement of the Dispute and/or the amount of money or other right, remedy or relief sought.

19.3.3.2 Fast-Track Disputes

With respect to any Dispute that the Parties mutually designate as a Fast-Track Dispute, the Informal Resolution Procedures shall be abbreviated in that the procedure contemplated in Section 19.3.3.3 shall not be required.

19.3.3.3 CEO / Executive Director Meetings

Commencing within 10 Business Days after the notice of Dispute is served and concluding 10 Business Days thereafter, the Chief Executive Officer of Developer and the Executive Director or the assistant Executive Director, shall meet and confer, in good faith, to seek to resolve the Dispute raised in the claiming Party's notice of Dispute. If they succeed in resolving the Dispute, Developer and TxDOT shall memorialize the resolution in writing, including execution of Change Orders or other documentation as appropriate, and thereafter each Party shall then promptly perform its respective obligations in accordance with the agreed resolution of the Dispute.

19.3.3.4 Failure to Resolve Dispute With Informal Resolution Procedures

If a Dispute is not timely resolved under the Informal Resolution Procedures, then within 15 days (seven days for Fast-Track Disputes) after the conclusion of the time periods for Informal Resolution Procedures, if such Dispute was not resolved to the Parties' satisfaction:

(i) The Parties may mutually agree to initiate mediation or other alternative dispute resolution process in accordance with Section 19.3.7; or

(ii) Either Party may refer the Dispute to the Disputes Board for resolution pursuant to Section 19.3.4.2.

19.3.4 Disputes Board; Finality of Disputes Board Decision

19.3.4.1 Disputes Board Agreement

(a) The Parties executed the Disputes Board Agreement on even date herewith. The Disputes Board Agreement governs all aspects of the Disputes Board, as well as all rights and responsibilities of the Parties with respect to the Disputes Board, that are not otherwise addressed in this Section 19.3, the DRP Rules and the Code.

(b) If the composition of either Party's Disputes Board Member Candidates' List has not been finalized prior to the Effective Date, that Party shall promptly appoint the members in accordance with the requirements and procedures of the Disputes Board Agreement.

(c) The Disputes Board shall conduct proceedings and, upon completion of its proceedings, issue written findings of fact, written conclusions of law, and a written decision to TxDOT and Developer.

(d) The Disputes Board shall have the authority to resolve any Dispute other than Ineligible Matters and any actions for equitable relief in district court that TxDOT is permitted to bring against Developer under Section 19.3.1.1.

(e) The Disputes Board shall not have the authority to order that one Party compensate the other Party for attorneys' fees and expenses.

(f) If a Disputes Board Decision awards an amount payable by one Party to the other, such amount became or shall become due and payable on the date required for payment in accordance with the applicable DRP governed agreement. If the date of payment is not specified in a DRP governed agreement, the payment shall be due ten days after the date the Final Order Implementing Decision for such decision becomes final under Section 19.3.6 (or, if the tenth day is not a Business Day, the next Business Day).

(g) Except for those matters subject to Section 19.8, interest at LIBOR on an amount payable by one Party to the other shall accrue beginning on the date such amount was due and continuing until the date such amount is paid.

(h) If the notice of Dispute fails to meet the certification requirements under Section 19.3.3.1(b), on motion of the responding Party the Disputes Board shall suspend proceedings on the Dispute until a correct and complete written certification is delivered, and shall have the discretionary authority to dismiss the Dispute for lack of a correct certification if it is not delivered within a reasonable time as set by the Disputes Board. Prior to the entry by the Disputes Board of a final decision on a Dispute, the Disputes Board shall require a defective certification to be corrected.

19.3.4.2 Submission of Dispute to Disputes Board

(a) Within 15 days (seven days for Fast-Track Disputes) after the end of the last time period under the Informal Resolution Proceedings, either Party may refer a Dispute to the Disputes Board for resolution by serving written notice on the other Party. The notice shall include the same information as a notice of Dispute issued under Section 19.3.3.1(a). Within 15 days (seven days for Fast-Track Disputes) after a Party refers a Dispute to the Disputes Board, the responding Party shall serve a written response upon the claiming Party's designated agent. The response shall include the same information as the notice of Dispute issued under Section 19.3.3.1(a), to the extent applicable; shall be signed by the designated representative of the responding Party; and shall constitute a certification by the responding Party that:

(i) The response to the claiming Party's notice of Dispute is served in good faith;

(ii) All supporting information is reasonably believed by the responding Party to be accurate and, except as otherwise reasonably explained in the response, complete; and

(iii) The responding Party disputes the amount of money or other right, remedy or relief to which the claiming Party believes it is entitled.

(b) Neither Party may attempt to seek resolution of a Dispute by the Disputes Board or litigate the merits of any Dispute in court if such Dispute is not timely referred to the Disputes Board within the 15 day time period under Section 19.3.4.2(a) above, except for Ineligible Matters and Disputes for which TxDOT is entitled to seek relief in court.

(c) The responding Party shall also assert in its response any challenge it may then have to the Dispute Board's authority to resolve the Dispute if the responding Party then believes in good faith that the Dispute is an Ineligible Matter.

19.3.4.3 Finality of Disputes Board Decision

Upon completion of the remainder of the procedures required under the Code and the DRP Rules, each Disputes Board Decision shall be final, conclusive, binding upon and enforceable against the Parties.

19.3.5 SOAH Administrative Hearings and Final Orders

19.3.5.1 Appeal of Disputes Board Decision

(a) If, within 20 days after the Disputes Board's issuance of the Disputes Board Decision to TxDOT and Developer (the "Appeal Period"), either Party is dissatisfied with the Disputes Board Decision due to a good faith belief that Disputes Board Error occurred, (i) Developer may request the Executive Director to seek and/or (ii) TxDOT may seek a formal administrative hearing before SOAH pursuant to Texas Government Code, Chapter 2001, and Section 201.112 of the Code, solely on the grounds that Disputes Board Error occurred. Upon receipt of Developer's request for a formal administrative hearing before SOAH, the Executive Director shall, as a purely ministerial act, refer the matter to SOAH within ten Business Days after receipt of Developer's request.

(b) If Developer does not request, and TxDOT does not seek for itself, a formal administrative hearing before SOAH under Section 19.3.5.1(a) within the Appeal Period, then within ten Business Days after the expiration of the Appeal Period, the Executive Director shall issue the Final Order Implementing Decision as a purely ministerial act. If the Executive Director fails to issue the Final Order Implementing Decision within this ten Business Day time period, the Disputes Board Decision shall become effective as the Final Order Implementing Decision for all purposes on the next Business Day.

(c) Neither Party may attempt to:

(i) Seek an administrative hearing before SOAH on any Dispute after the Appeal Period has expired without either Party seeking an administrative hearing before SOAH;

(ii) Seek rehearing in any forum of a Dispute that is the subject of a Disputes Board Decision after the Appeal Period has expired without either Party seeking an administrative hearing before SOAH; or

(iii) Resubmit to the Disputes Board or litigate in court any Dispute that was the subject of and resolved by a prior final Disputes Board Decision.

19.3.5.2 Appeal of Disputes Board Error to SOAH

"Disputes Board Error" means one or more of the following:

(a) The Disputes Board failed, in any material respect, to properly follow or apply the procedures for handling, hearing and deciding on the Dispute established under this Section 19.3 and such failure prejudiced the rights of a Party; or

(b) The Disputes Board Decision was procured by, or there was evident partiality among the Disputes Board Members due to, a Conflict of Interest, Misconduct, corruption or fraud.

19.3.5.3 SOAH Proceeding and ALJ Proposal For Decision

(a) Upon referral to SOAH of the question of whether Disputes Board Error occurred, the ALJ shall conduct a hearing solely on the question of whether Disputes Board Error occurred. The Disputes Board's written findings of fact, conclusions of law and Disputes Board Decision; any written dissenting findings, recommendations or opinions of a minority Disputes Board Member; and all submissions to the Disputes Board by the Parties shall be admissible in the SOAH proceeding, along with all other evidence the ALJ determines to be relevant. After timely closing of the record of the SOAH proceeding, the ALJ shall timely issue to the Executive Director and Developer the ALJ's written proposal for decision as to whether Disputes Board Error occurred.

(b) Each Party may file exceptions to the proposal for decision with the ALJ no later than seven days after issuance of the ALJ's proposal for decision and, in response to a Party's exceptions, the other Party may file a reply to the excepting Party's exceptions with the ALJ no later than 14 days after issuance of the proposal for decision. The ALJ shall review all exceptions and replies and notify TxDOT and Developer no later than 21 days after issuance of the proposal for decision whether the ALJ recommends any changes to the proposal for decision, amends the proposal for decision in response to exceptions and replies to exceptions, and/or corrects any clerical errors in the proposal for decision. The ALJ shall reissue its written proposal for decision to the Executive Director and TxDOT, together with written findings of fact and conclusions of law, if revised from those previously furnished to the Parties.

(c) Unless a Party in good faith challenges the Disputes Board's authority to resolve the Dispute because the Dispute is an Ineligible Matter (1) in the proceedings before the Disputes Board, (2) as a Disputes Board Error during the Appeal Period, (3) in the SOAH proceeding or (4) in exceptions to the ALJ's proposal for decision timely filed under Section 19.3.5.3(b) above, any objection to the Disputes Board's authority to resolve the applicable Dispute shall be deemed waived by such Party.

19.3.5.4 Final Orders of Executive Director

(a) Within 28 days after receipt of the ALJ's proposal for decision:

(i) If, upon review of the ALJ's proposal for decision, the Executive Director concludes that Disputes Board Error occurred, the Executive Director shall issue a Final Order Vacating Decision. A "Final Order Vacating Decision" means an order of the Executive Director either adopting or rejecting the ALJ's proposal for decision, as applicable (and if the Executive Director rejects the ALJ's proposal for decision, accompanied by the written explanatory statement required under Section 201.112(c) of the Code); ruling that the Disputes Board Decision is invalid, void and of no force and effect; and remanding the Dispute to the Disputes Board for reconsideration. If the nature of the Disputes Board Error was a Conflict of Interest, Misconduct fraud or corruption of a Disputes Board Member, the remanded Dispute will be reconsidered by a reconstituted Disputes Board after removal of such Disputes Board Member; or

(ii) If, upon review of the ALJ's proposal for decision, the Executive Director concludes that no Disputes Board Error occurred, the Executive Director shall issue a Final Order Implementing Decision. A "Final Order Implementing Decision" means an order of the Executive Director either adopting or rejecting the ALJ's proposal for decision, as applicable (and if the Executive Director rejects the ALJ's proposal for decision, accompanied by the written explanatory statement required under Section 201.112(c) of the Code), and approving and fully implementing the Disputes Board Decision.

(b) The Parties agree and acknowledge that the Executive Director's issuance of either type of Final Order is a purely ministerial function of the Executive Director. If the Executive Director fails to issue one or the other type of Final Order within the foregoing 28 Day time period, then on the next Business Day:

(i) If the ALJ determined that Disputes Board Error occurred, a Final Order Vacating Decision shall be deemed to have been issued for all purposes by the Executive Director which (1) adopted the ALJ's proposal for decision; (2) ruled that the Disputes Board Decision is invalid, void and of no force and effect; and (3) remanded the Dispute to the Disputes Board for reconsideration (or, if the nature of the Disputes Board Error was a Conflict of Interest or Misconduct of a Disputes Board Member, a reconstituted Disputes Board after removal of such Disputes Board Member) without Disputes Board Error; or

(ii) If the ALJ determined that no Disputes Board Error occurred, a Final Order Implementing Decision shall be deemed to have been issued for

all purposes by the Executive Director which adopted the ALJ's proposal for decision and fully implemented the Disputes Board Decision.

19.3.6 Judicial Appeal of Final Orders Under Substantial Evidence Rule

Each issued or deemed issue Final Order Implementing Decision and Final Order Vacating Decisions shall be considered a final order for purposes of Developer's ability to seek judicial appeal thereof under Section 201.112(d) of the Code under the substantial evidence rule. TxDOT and Developer hereby agree that (a) pursuant to Section 2001.144(a)(4) of the Texas Government Code, each Final Order Implementing Decision and Final Order Vacating Decision shall be final (and therefore eligible for appeal under Section 201.112(d) of the Code) on the date such final order is issued or deemed issued by the Executed Director and (b) pursuant to Section 2001.145 of the Texas Government Code, TxDOT and Developer hereby agree that the filing of a motion for rehearing shall not be a prerequisite for appeal of such final orders under Section 201.112(d) of the Code.

19.3.7 Mediation or Other Alternative Dispute Resolution

Developer and TxDOT, by mutual agreement, may refer a Dispute (as well as any dispute with a Utility Owner relating to any Utility Adjustment) to mediation or other alternative dispute resolution process for resolution. The Parties shall use diligent efforts to convene and conclude mediation proceedings within 30 days after they agree to refer the Dispute to mediation or other alternative dispute resolution process. Developer and TxDOT shall share equally the expenses of the mediation or other alternative dispute resolution process. If any Dispute has been referred to mediation or other alternative dispute resolution process for resolution by mutual agreement of the Parties, but the Dispute is not resolved within the foregoing 30 day period, then either Party can, on or after the 31st day, cease participating in such mediation or other alternative dispute resolution process. A Party shall give written notice to the other Party that it will no longer participate. The deadlines in this Section 19.3 for processing a Dispute are tolled, day for day, during mediation or other alternative dispute resolution.

19.3.8 Confidential Information

19.3.8.1 All discussions, negotiations, and Informal Resolution Procedures between the Parties to resolve a Dispute, and all documents and other written materials furnished to a Party or exchanged between the Parties during any such discussions, negotiations, or Informal Resolution Procedures, shall, to the extent allowed by law, be considered confidential and not subject to disclosure by either Party.

19.3.8.2 With respect to all discussions, negotiations, testimony and evidence between the Parties and/or in a proceeding before the Disputes Board, an administrative hearing before an ALJ or a judicial proceeding in court:

(a) All information that has been deposited into Escrow pursuant to Section 4.3.2 of the ITP shall be treated as confidential to the extent allowed by law by the Parties and the Disputes Board, the ALJ and the court, as applicable, and, further, shall be

subject to a protective order issued by the Disputes Board, the ALJ or the court, as applicable, to protect such information from disclosure to third Persons.

(b) Either or both Parties may also request a protective order in any Disputes Board proceeding, SOAH administrative hearing or judicial proceeding to prohibit disclosure to third Persons of any other information that such Party or Parties believe(s) is confidential. Whether such a protective order will be issued by the Disputes Board, the ALJ or the court, as applicable, shall be determined under the standards set forth in the Texas Rules of Evidence, the Texas Rules of Civil Procedure, Section 223.204 of the Code and the Public Information Act.

19.4 Dispute Resolution: Additional Requirements for Subcontractor Disputes

For purposes of this Section 19, a "Subcontractor Dispute" shall include any Dispute by a Subcontractor, including also any pass-through claims by a lower tier Subcontractor, against Developer that is actionable by Developer against TxDOT and arises from Work, materials or other services provided or to be provided under the Contract Documents. If Developer determines to pursue a Dispute against TxDOT that includes a Subcontractor Dispute, the following additional conditions shall apply:

(a) Developer shall identify clearly in all submissions pursuant to this Section 19, that portion of the Dispute that involves a Subcontractor Dispute.

(b) Failure of Developer to assert a Subcontractor Dispute on behalf of any Subcontractor at the time of submission of a related demand by Developer, as provided hereunder, shall constitute a release and discharge of TxDOT by Developer on account of, and with respect to, such Subcontractor Dispute.

(c) Developer shall require in all Subcontracts that all Subcontractors of any tier: (i) agree to submit Subcontractor Disputes to Developer in a proper form and in sufficient time to allow processing by Developer in accordance with this Section 19; (ii) agree to be bound by the terms of this Section 19 to the extent applicable to Subcontractor Disputes; (iii) agree that, to the extent a Subcontractor Dispute is involved, completion of all steps required under this Section 19 shall be a condition precedent to pursuit by the Subcontractor of any other remedies permitted by Law, including institution of a lawsuit against Developer; (iv) agree that any Subcontractor Dispute brought against a Surety, that also is actionable against TxDOT through Developer, shall be stayed until completion of all steps required under this clause (c); and (v) agree that the existence of a dispute resolution process for Disputes involving Subcontractor Disputes shall not be deemed to create any claim, right or cause of action by any Subcontractor against TxDOT. Subcontractors shall, at all times, have rights and remedies only against Developer.

19.5 Subsequent Proceedings

19.5.1 Exclusive Jurisdiction and Venue

The Parties agree that the exclusive jurisdiction and venue for any legal action or proceeding, at law or in equity, that is permitted to be brought by a Party in court arising out of the Contract Documents shall be the district courts of Travis County, Texas.

19.5.2 Admissibility of Disputes Resolution Proceedings

The admissibility, in any administrative or judicial proceeding subsequent to this dispute resolution process, of the Parties' submittals and any TxDOT determinations shall be in the discretion of the appropriate administrative officer or the court in accordance with applicable Law.

19.6 Continuation of Disputed Work

At all times during the dispute resolution procedures set forth in this Agreement, Developer and all Subcontractors shall continue with the performance of the Work and their obligations, including any disputed Work or obligations, diligently and without delay, in accordance with this Agreement, except to the extent enjoined by order of a court or otherwise approved by TxDOT in its sole discretion. Developer acknowledges that it shall be solely responsible for the results of any delaying actions or inactions taken during the pendency of resolution of a Dispute relating to the Work even if Developer's position in connection with the Dispute ultimately prevails. In addition, during the pendency of resolution of a Dispute relating to the Work, the Parties shall continue to comply with all provisions of the Contract Documents, the Project Management Plan, the Governmental Approvals and applicable Law.

19.7 Records Related to Claims and Disputes

Throughout the course of any Work that is the subject of any Dispute that is the subject of dispute resolution procedures of this Agreement, Developer shall keep separate and complete records of any extra costs, expenses, and/or other monetary effects relating to the disputed Work, and shall permit TxDOT access to these and any other records needed for evaluating the Dispute. These records shall be retained for a period of not less than one year after the date of resolution of the Dispute pertaining to such disputed Work (or for any longer period required under any other applicable provision of the Contract Documents).

19.8 Interest

This Section 19.8 applies only to claims that are subject to the Texas Prompt Payment Act, Government Code, Chapter 2251.

In the event a Developer elects to pursue a formal Dispute with TxDOT under this Section 19, TxDOT shall notify Developer whether it will dispute the claim not later than the 21st day after the date TxDOT receives the claim. Except as provided in this paragraph, a payment becomes overdue and begins to accrue interest on the 31st day after the later of: (1) the date TxDOT provides notice of Final Acceptance of the Project under Section 20.3.5; or (2) the date TxDOT receives a contract claim pursuant to Texas Transportation Code, Section 201.112 and the dispute resolution procedures established thereunder. If

the resolution of a disputed claim results in the award of an amount which is less than the amount requested in the original claim, then the Developer shall submit a corrected invoice. The unpaid balance of the corrected invoice becomes overdue and begins to accrue interest on the 31st day after TxDOT receives the corrected invoice.

19.9 Attorney Fees

This Section 19.9 applies only to claims that are subject to the Texas Prompt Payment Act, Government Code, Chapter 2251.

A party shall pay the attorneys fees of the other party for Disputes brought pursuant to this Section 19 only if such payment is required pursuant to the Texas Prompt Payment Act and the payment of attorney's fees is ordered in a TxDOT administrative order or in a judicial order.

SECTION 20. COMPLETION AND ACCEPTANCE; EARLY OPENING

20.1 Substantial Completion

20.1.1 Requirements

20.1.1.1 TxDOT will issue a written Certificate of Substantial Completion at such time as Substantial Completion occurs for each Segment of the Project. Developer shall achieve Substantial Completion of Segment G on or before the date of Substantial Completion of Segment F-1 or F-2, whichever is earlier.

20.1.1.2 In determining whether Substantial Completion of a Segment or the Project, as applicable, has occurred, TxDOT may consider and require satisfaction of the following criteria:

(a) Whether all major safety features are installed and functional, such major safety features to include shoulders, guard rails, striping and delineations, concrete traffic barriers, bridge railings, cable safety systems, metal beam guard fences, safety end treatments, terminal anchor sections and crash attenuators;

(b) Whether required illumination is installed and functional;

(c) Whether required signs and signals are installed and functional;

(d) Whether the need for temporary traffic controls or for lane closures at any time has ceased (except for any then required for routine maintenance, and except for temporary lane closures during hours of low traffic volume in accordance with and as permitted by the Traffic Management Plan solely in order to complete Punch List items);

(e) Whether all lanes of traffic (including ramps, interchanges, overpasses, underpasses, other crossings and frontage roads) set forth in the Design Documents are in their final configuration and available for public use;

(f) Whether required ITS systems (excluding elements to be installed by the Systems Integrator) are installed and functional;

(g) Whether Developer has otherwise completed the Work, including all Work required under Section 20.1.2, in accordance with the Contract Documents and Design Documents, including the construction of noise/sound walls, such that the Project (excluding elements of the Project that are to be installed by the Systems Integrator) is in a condition that it can be used for normal and safe vehicular travel in all lanes and at all points of entry and exit, subject only to Punch List items and other items of work that do not affect the ability to safely open for such normal use by the traveling public and for normal tolling operation.

20.1.1.3 The Parties shall disregard the status of the vegetative ground cover landscaping and aesthetic features, except noise/sound walls, included in the Design Documents in determining whether Substantial Completion has occurred, except to the extent that its later completion will affect public safety or satisfaction of the criterion in Section 20.1.1.2(d).

20.1.2 Notification and Completion of Toll Zone Work

Developer shall complete all Work necessary (excluding work to be performed by the Systems Integrator as detailed in Chapter 21 of the Technical Provisions) to allow TxDOT to open each Segment of the Project for revenue operations by the applicable Substantial Completion Deadline. Further, Developer acknowledges and agrees that it is responsible for coordinating the performance of the Work with the work to be performed by the Systems Integrator and allowing such contractor(s) sufficient time in advance of the Substantial Completion Deadline to install such facilities. Developer shall provide written notice to TxDOT no later than 270 days prior to the scheduled date of Substantial Completion for each Segment based on and consistent with the most current Project Status Schedule Update so that the Systems Integrator can coordinate its work. Toll Zone Work by Developer shall be complete no later than 180 days prior to the applicable Substantial Completion Deadline, and Developer shall provide written notice to TxDOT upon completion of such Toll Zone Work. Work to be completed by the Systems Integrator during this 180 day period shall consist of placement of loops in the pavement and testing of toll systems for each Toll Zone. Systems Integrator shall perform civil construction and installation of toll system components prior to this 180-day period.

20.1.3 Notification of Substantial Completion

20.1.3.1 In addition to the notice required under Section 20.1.2, Developer shall provide TxDOT with not less than 20 days' prior written notification of the date Developer determines it will achieve Substantial Completion of each Segment. During such 20-day period, Developer and TxDOT shall meet and confer and exchange information on a regular cooperative basis with the goal being TxDOT's orderly, timely inspection and review of the Segment and the applicable Final Design Documents and Construction Documents, and TxDOT's issuance of a Certificate of Substantial Completion of the applicable Segment.

20.1.3.2 During such 20-day period, TxDOT shall conduct an inspection of the Segment and its components, a review of the applicable Final Design Documents and Construction Documents and such other investigation as may be necessary to evaluate whether Substantial Completion of the applicable Segment is achieved.

20.1.3.3 Developer shall provide TxDOT a second written notification when Developer determines it has achieved Substantial Completion of a Segment. Within five days after expiration of the 20-day period and TxDOT's receipt of the second notification, TxDOT shall either: (a) issue the Certificate of Substantial Completion or (b) notify Developer in writing setting forth, as applicable, why the Segment has not reached Substantial Completion. If TxDOT and Developer cannot agree as to the date of Substantial Completion of a Segment, such Dispute shall be resolved according to the dispute resolution procedures set forth in this Agreement.

20.2 Punch List

20.2.1 The Project Management Plan shall establish procedures and schedules for preparing a Punch List and completing Punch List work. Such procedures and schedules shall conform to the following provisions.

20.2.2 The schedule for preparation of the Punch List either shall be consistent and coordinated with the inspections regarding Substantial Completion of a Segment, or shall follow such inspections.

20.2.3 Developer shall prepare and maintain the Punch List. Developer shall deliver to TxDOT not less than five days' prior written notice stating the date when Developer will commence Punch List field inspections and Punch List preparation. TxDOT may, but is not obligated to, participate in the development of the Punch List. Each participant shall have the right to add items to the Punch List and none shall remove any item added by any other without such other's express permission. If Developer objects to the addition of an item by TxDOT, the item shall be noted as included under protest, and if the Parties thereafter are unable to reconcile the protest, the Dispute shall be resolved according to the dispute resolution procedures set forth in this Agreement. Developer shall deliver to TxDOT a true and complete copy of the Punch List, and each modification thereto, as soon as it is prepared.

20.2.4 Developer shall immediately commence work on the Punch List items and diligently prosecute such work to completion, consistent with the Contract Documents, within the time period to be set forth in the Project Management Plan and in any case by the Final Acceptance Deadline.

20.3 Final Acceptance

20.3.1 Promptly after achieving Substantial Completion of a Segment, Developer shall perform all remaining Work for such Segment, including completion of all Punch List items, all landscaping other than vegetative ground cover, and aesthetic features other than noise/sound walls. Developer shall prepare and adhere to a timetable for planting and establishing the vegetative ground cover landscaping for the Project, taking into account weather conditions necessary for successful planting and growth, which timetable shall in any event provide for vegetative ground cover landscaping to be planted and established by 12 months after Substantial Completion of the applicable Segment.

20.3.2 TxDOT will issue a Certificate of Final Acceptance for a Segment or the Project, as applicable, at such time as all of the following conditions have been satisfied:

(a) TxDOT has issued a Certificate of Substantial Completion for such portion of the Project;

(b) All Punch List items shall have been completed and delivered to the reasonable satisfaction of TxDOT;

(c) All aesthetic and landscaping features (other than vegetative ground cover landscaping) for the Project have been completed in accordance with Section 15 of the Technical Provisions, Attachment 15-1 to the Technical Provisions and the plans and designs prepared in accordance therewith;

(d) TxDOT has received a complete set of the Record Drawings in form and content required by Section 2.2.7.2 of the Technical Provisions;

(e) All Utility Adjustment Work and other work that Developer is obligated to perform for or on behalf of third parties with respect to the Project has been accepted by such third parties, and Developer has paid for all work by third parties that Developer is obligated to pay for, other than disputed amounts;

(f) All component parts, plans and documentation of the Project Management Plan required to be prepared, submitted and approved prior to Final Acceptance have been so prepared, submitted and approved;

(g) All Submittals required by the Project Management Plan or Contract Documents to be submitted to and approved by TxDOT prior to Final Acceptance have been submitted to and approved by TxDOT, in the form and content required by the Project Management Plan or Contract Documents;

(h) All personnel, supplies, equipment, waste materials, rubbish and temporary facilities of each Developer-Related Entity shall have been removed from the Project ROW, Developer shall restore and repair all damage or injury arising from such removal to the satisfaction of TxDOT, and the Site shall be in good working order and condition;

(i) Developer shall have delivered to TxDOT a certification representing that there are no outstanding claims of Developer or claims, Liens or stop notices of any Subcontractor, Supplier, laborer, Utility Owner or other Persons with respect to the Work, other than any previously submitted unresolved claims of Developer and any claims, Liens or stop notices of a Subcontractor, Supplier, laborer, Utility Owner or other Persons being contested by Developer (in which event the certification shall include a list of all such matters with such detail as is requested by TxDOT and, with respect to all claims, Liens or stop notices of a Subcontractor, Supplier, laborer, Utility Owner and other Person, shall include a representation by Developer that it is diligently and in good faith contesting such matters by appropriate legal proceedings which shall operate to prevent the enforcement or collection of the same). For purposes of such certificate, the term "claim" shall include all matters or facts which may give rise to a claim;

(j) Developer has paid in full all liquidated damages that are owing to TxDOT pursuant to this Agreement and are not in Dispute, and has provided to TxDOT reasonable security for the full amount of liquidated damages that may then be the subject of an unresolved Dispute.

(k) There exists no uncured Developer Defaults; and

(l) All of Developer's other obligations under the Contract Documents (other than obligations which by their nature are required to be performed after Final Acceptance) shall have been satisfied in full or waived.

20.3.3 Developer shall provide TxDOT with written notification when Developer determines it has achieved Final Acceptance. During the 15-day period following receipt of such notification, Developer and TxDOT shall meet and confer and exchange information on a regular cooperative basis with the goal being TxDOT's and the orderly, timely inspection and review of the Project and the Record Drawings, and TxDOT's issuance of a Certificate of Final Acceptance for the Project.

20.3.4 During such 15-day period, TxDOT shall conduct an inspection of the Punch List items, a review of the Record Drawings and such other investigation as may be necessary to evaluate whether the conditions to Final Acceptance are satisfied.

20.3.5 Within five days after expiration of such 15-day period, TxDOT shall either: (a) issue a Certificate of Final Acceptance for the Project or (b) notify Developer in writing setting forth, as applicable, why Final Acceptance has not been achieved. If TxDOT and Developer cannot agree as to the date of Final Acceptance, such Dispute shall be resolved according to the dispute resolution procedures set forth in this Agreement.

20.4 Early Opening

Prior to Substantial Completion of a Segment, TxDOT shall have the right to open to traffic portions of the Segment, to the extent such portions are safe and necessary or advisable, in TxDOT's sole determination, for traffic circulation. In such event Developer shall be relieved of maintenance liability and liability for repair of damage caused by the traveling public to the extent set forth in Section 10.3. No early openings shall constitute Substantial Completion or Final Acceptance or waive the requirements thereof.

20.5 Clayton Act Assignment

Developer shall assign to TxDOT all right, title and interest in and to all claims and causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Sec. 15), arising from purchases of goods, services or materials pursuant to the Contract Documents or any Subcontract. This assignment shall be made and become effective at the time TxDOT tenders Final Payment to Developer, without further acknowledgment by the Parties.

SECTION 21. RECORDS AND AUDITS; OWNERSHIP OF DOCUMENTS AND INTELLECTUAL PROPERTY

21.1 Escrowed Proposal Documents

Prior to execution of this Agreement, Developer delivered to TxDOT one copy of all cost, unit pricing, price quote and other documentary information used in preparation of the Price (the "EPDs"). Upon execution of this Agreement, the EPDs shall be held in locked fireproof cabinet(s) supplied by Developer and located in TxDOT's project office with the key held only by Developer. Concurrently with approval of each Change Order or amendment to any Contract Document, one copy of all documentary information used in preparation of the Change Order or amendment shall be added to the cabinet to be held with the other EPDs. The EPDs will be held in such cabinet or otherwise maintained until all of the following have occurred: (a) 180 days have elapsed from the later of Final Acceptance or termination of this Agreement, as applicable; (b) all Claims or Disputes regarding the Work have been settled; and (c) Final Payment has been made and accepted.

21.1.1 Availability for Review

The EPDs shall be available during business hours for joint review by Developer, TxDOT and any dispute resolver in accordance with Section 19, in connection with approval of the Project Schedule, negotiation of Change Orders and resolution of Claims or Disputes under the Contract Documents, and also as described in Section 21.1.6. TxDOT shall be entitled to review all or any part of the EPDs in order to satisfy itself regarding the applicability of the individual documents to the matter at issue.

21.1.2 Proprietary Information

The EPDs are, and shall always remain, the property of Developer and shall be considered to be in Developer's possession, subject to TxDOT's right to review the EPDs as provided in this Section 21.1. Developer will have and control the keys to the filing cabinet containing the EPDs. TxDOT acknowledges that Developer may consider that the EPDs constitute trade secrets or proprietary information. TxDOT shall have the right to copy the EPDs for the purposes set forth in this Section 21.1, provided that the Parties execute a mutually agreeable confidentiality agreement with respect to EPDs that constitute trade secrets or proprietary information.

21.1.3 Representation

Developer represents and warrants that the EPDs constitute all documentary information used in the preparation of its Price. Developer agrees that no other price proposal preparation information will be considered in resolving Disputes or Claims. Developer further agrees that the EPDs are not part of the Contract Documents and that nothing in the EPDs shall change or modify any Contract Document.

21.1.4 Contents of EPDs

The EPDs shall, inter alia, clearly detail how each cost or price included in the Proposal has been determined and shall show cost or price elements in sufficient detail as is adequate to enable TxDOT to understand how Developer calculated the Price. The EPDs provided in connection with quotations and Change Orders shall, inter alia, clearly detail how the total cost or price and individual components of that cost or price were determined. The EPDs shall itemize the estimated costs or price of performing the required work separated into usual and customary items and cost or price categories to present a detailed estimate of costs and price, such as direct labor, repair labor, equipment ownership and operation, expendable materials, permanent materials, supplies, Subcontract costs, plant and equipment, indirect costs, contingencies, mark-up, overhead and profit. The EPDs shall itemize the estimated annual costs of insurance premiums for each coverage required to be provided by Developer under Section 9. The EPDs shall include all assumptions, detailed quantity takeoffs, price reductions and discounts, rates of production and progress calculations, and quotes from Subcontractors used by Developer to arrive at the Price, and any adjustments to the Price under this Agreement.

21.1.5 Form of EPDs

Except as otherwise provided in the RFP, Developer shall submit the EPDs in such format as is used by Developer in connection with its Proposal. Developer represents and warrants that the EPDs provided with the Proposal were personally examined by an authorized officer of Developer prior to delivery, and that the EPDs meet the requirements of Section 21.1.4. Developer further represents and warrants that all EPDs provided were or will be personally examined prior to delivery by an authorized officer of Developer, and that they shall meet the requirements of Section 21.1.4.

21.1.6 Review by TxDOT to Confirm Completeness

TxDOT may at any time conduct a review of the EPDs to determine whether they are complete. If TxDOT determines that any data is missing from an EPD, Developer shall provide such data within three Business Days after delivery of TxDOT's request for such data. At that time of its submission to TxDOT, such data will be date stamped, labeled to identify it as supplementary EPD information and added to the EPD. Developer shall have no right to add documents to the EPDs except upon TxDOT's request. The EPDs associated with any Change Order or Price adjustment under this Agreement shall be reviewed, organized and indexed in the same manner described in Section 4.3 of the ITP.

21.2 Financial Reporting Requirements

21.2.1 Developer shall deliver to TxDOT financial and narrative reports, statements, certifications, budgets and information as and when required under the Contract Documents.

21.2.2 Developer shall furnish, or cause to be furnished, to TxDOT such information and statements as TxDOT may reasonably request from time to time for any purpose related to the Project, the Work or the Contract Documents. In addition,

Developer shall deliver to TxDOT the following financial statements for each Guarantor, at the times specified below:

21.2.2.1 Within 60 days after the end of each fiscal quarter, duplicate copies of the balance sheet and a consolidated statement of earnings of the Guarantor and its consolidated subsidiaries for such quarter and for the period from the beginning of the then current fiscal year to the end of such quarter, setting forth in comparative form the figures for the corresponding periods during the previous fiscal year, all in reasonable detail and certified as complete and correct, subject to changes resulting from year-end adjustments, by the chief financial officer of the Guarantor;

21.2.2.2 Within 120 days after the end of each fiscal year, duplicate copies of the financial statements (which shall include a balance sheet and a consolidated statement of financial condition of the Guarantor and its consolidated subsidiaries at the end of such year, and statements of earnings, changes in financial position of the Guarantor and its consolidated subsidiaries for such year, and all related notes to the financial statements, setting forth in each case in comparative form the figures for the previous fiscal year), all in reasonable detail and accompanied by an opinion thereon of an independent public accountant of recognized national standing selected by the Guarantor, which opinion shall state that such financial statements have been prepared in accordance with Generally Accepted Accounting Principles consistently applied, and that the examination of such accountants in connection with such financial statements has been made in accordance with generally accepted auditing standards, and accordingly, included such tests of the accounting records and such other auditing procedures as were considered necessary in the circumstances. If financial statements are prepared in accordance with principles other than U.S. GAAP, a letter from the certified public accountant of the applicable entity, discussing the areas of the financial statements that would be affected by a conversion to U.S. GAAP is required; and

21.2.2.3 Upon request of TxDOT for particular fiscal quarters, copies of all other financial statements and information reported by the Guarantor to its shareholders generally and of all reports filed by the Guarantor with the Securities Exchange Commission under Sections 13, 14 or 15(d) of the Exchange Act, to be provided to TxDOT as soon as practicable after furnishing such information to the Guarantor's shareholders or filing such reports with the Securities and Exchange Commission, as the case may be.

21.2.3 Developer shall cooperate and provide, and shall cause the Subcontractors to cooperate and provide, such information as determined necessary or desirable by TxDOT in connection with any Project financing. Without limiting the generality of the foregoing, Developer shall provide such information deemed necessary or desirable by TxDOT for inclusion in TxDOT's securities disclosure documents and in order to comply with Securities and Exchange Commission Rule 15c2-12 regarding certain periodic information and notice of material events. Developer shall provide customary representations and warranties to TxDOT and the capital markets as to the correctness, completeness and accuracy of any information furnished.

21.2.4 Developer shall cooperate and provide, and shall cause the Subcontractors to cooperate and provide, such information as is necessary or requested by TxDOT to

assist or facilitate the submission by TxDOT of any documentation, reports or analysis required by the State, FHWA and/or any other Governmental Entity with jurisdiction over the Project.

21.2.5 All reports and information delivered by Developer under Sections 21.2.3 and 21.2.4 shall also be delivered electronically, to the extent electronic files exist, and be suitable for posting on the web.

21.3 Maintenance and Inspection of Records

21.3.1 Except for EPDs (which shall be maintained as set forth in Section 21.1), Developer shall keep and maintain in Harris County, Texas, or in another location TxDOT approves in writing in its sole discretion, all books, records and documents relating to the Project, Project Right of Way, Utility Adjustments or Work, including copies of all original documents delivered to TxDOT. Developer shall keep and maintain such books, records and documents in accordance with applicable provisions of the Contract Documents, and of the Project Management Plan, and in accordance with Good Industry Practice. Developer shall notify TxDOT where such records and documents are kept.

21.3.2 Developer shall make all its books, records and documents available for inspection by TxDOT and its authorized representatives and legal counsel at Developer's principal offices in Texas, or at TxDOT's project office for EPDs, at all times during normal business hours, without charge. Developer shall provide copies thereof to TxDOT, or make available for review to TxDOT: (a) as and when expressly required by the Contract Documents or (b) for those not expressly required, upon request and at no expense to Developer. TxDOT may conduct any such inspection upon 48 hours' prior written notice, or unannounced and without prior notice where there is good faith suspicion of fraud. The right of inspection includes the right to make extracts and take notes. The provisions of this Section 21.3.2 are subject to the following:

21.3.2.1 Developer reserves the right to assert exemptions from disclosure for information that would be exempt under applicable State Law from discovery or introduction into evidence in legal actions, provided that in no event shall Developer be entitled to assert any such exemption to withhold traffic and revenue data; and

21.3.2.2 Developer shall retain records and documents for the respective time periods set forth in Texas State Records Retention Schedule or, if not addressed therein, for a minimum of five years after the date the record or document is generated; provided that if the Contract Documents specify any different time period for retention of particular records, such time period shall control. Notwithstanding the foregoing, all records which relate to Claims and Disputes being processed or actions brought under the Dispute Resolution Procedures shall be retained and made available until any later date that such Claims, Disputes and actions are finally resolved.

21.4 Audits

21.4.1 TxDOT shall have such rights to review and audit Developer, its Subcontractors and their respective books and records as and when TxDOT deems

necessary for purposes of verifying compliance with the Contract Documents and applicable Law. Without limiting the foregoing, TxDOT shall have the right to audit Developer's Project Management Plan and compliance therewith, including the right to inspect Work and/or activities and to verify the accuracy and adequacy of the Project Management Plan and its component parts, plans and other documentation. TxDOT may conduct any such audit of books and records upon 48 hours' prior written notice, or unannounced and without prior notice where there is good faith suspicion of fraud.

21.4.2 All Claims or Disputes filed against TxDOT shall be subject to audit at any time following the filing of the Claim or Dispute. The audit may be performed by employees of TxDOT or by an auditor under contract with TxDOT. No notice is required before commencing any audit within 60 days after Final Acceptance. Thereafter, TxDOT shall provide 20 days notice to Developer, any Subcontractors or their respective agents before commencing an audit. Developer, Subcontractors or their agents shall provide adequate facilities, acceptable to TxDOT, for the audit during normal business hours. Developer, Subcontractors or their agents shall cooperate with the auditors. Failure of Developer, Subcontractors or their agents to maintain and retain sufficient records to allow the auditors to verify all or a portion of the Claim or Dispute or to permit the auditor access to the books and records of Developer, Subcontractors or their agents shall constitute a waiver of the Claim or Dispute and shall bar any recovery thereunder. At a minimum, the auditors shall have available to them the following documents:

- (a) Daily time sheets and supervisor's daily reports;
- (b) Union agreements;
- (c) Insurance, welfare, and benefits records;
- (d) Payroll registers;
- (e) Earnings records;
- (f) Payroll tax forms;
- (g) Material invoices and requisitions;
- (h) Material cost distribution work sheet;
- (i) Equipment records (list of company equipment, rates, etc.);
- (j) Subcontractors' (including Suppliers) invoices;
- (k) Subcontractors' and agents' payment certificates;
- (l) Canceled checks (payroll and Suppliers);
- (m) Job cost report;
- (n) Job payroll ledger;

- (o) General ledger;
- (p) Cash disbursements journal;
- (q) Project Schedules;
- (r) All documents that relate to each and every Claim or Dispute, together with all documents that support the amount of damages as to each Claim or Dispute; and
- (s) Work sheets used to prepare the Claim or Dispute establishing the cost components for items of the Claim or Dispute, including labor, benefits and insurance, materials, equipment, subcontractors, all documents that establish the time periods, individuals involved, the hours for the individuals, and the rates for the individuals.

21.4.3 Full compliance by Developer with the provisions of this Section 21.4 is a contractual condition precedent to Developer's right to seek relief under Section 19.

21.4.4 Any rights of the FHWA to review and audit Developer, its Subcontractors and their respective books and records are set forth in Exhibit 3.

21.4.5 Developer represents and warrants the completeness and accuracy of all information it or its agents provides in connection with TxDOT audits, and shall cause all Subcontractors other than TxDOT and Governmental Entities acting as Subcontractors to warrant the completeness and accuracy of all information such Subcontractors or their agents provides in connection with TxDOT audits.

21.4.6 Developer's internal and third party quality and compliance auditing responsibilities shall be set forth in the Project Management Plan, consistent with the audit requirements referred to in Section 2 of the Technical Provisions.

21.4.7 Nothing in the Contract Documents shall in any way limit the constitutional and statutory powers, duties and rights of elected State officials, including the independent rights of the State auditor, in carrying out his or her legal authority. Developer understands and acknowledges that: (a) the State auditor may conduct an audit or investigation of any Person receiving funds from the State directly under this Agreement or indirectly through a Subcontract, (b) acceptance of funds directly under this Agreement or indirectly through a Subcontract acts as acceptance of the authority of the State auditor, under the direction of the legislative audit committee, to conduct an audit or investigation in connection with those funds, and (c) a Person that is the subject of an audit or investigation must provide the State auditor with access to any information the State Auditor considers relevant to the investigation or audit.

21.5 Public Information Act

21.5.1 Developer acknowledges and agrees that, except as provided by Section 223.204 of the Texas Transportation Code, all records, documents, drawings, plans, specifications and other materials in TxDOT's possession, including materials submitted by

Developer, are subject to the provisions of the Public Information Act. If Developer believes information or materials submitted to TxDOT constitute trade secrets, proprietary information or other information that is not subject to the Public Information Act pursuant to Section 223.204 of the Texas Transportation Code or excepted from disclosure under the Public Information Act, Developer shall be solely responsible for specifically and conspicuously designating that information by placing "CONFIDENTIAL" in the center header of each such page affected, as it determines to be appropriate. Any specific proprietary information, trade secrets or confidential commercial and financial information shall be clearly identified as such, and shall be accompanied by a concise statement of reasons supporting the claim. Nothing contained in this Section 21.5 shall modify or amend requirements and obligations imposed on TxDOT by the Public Information Act or other applicable Law, and the provisions of the Public Information Act or other Laws shall control in the event of a conflict between the procedures described above and the applicable Law. Developer is advised to contact legal counsel concerning such Law and its application to Developer.

21.5.2 If TxDOT receives a request for public disclosure of materials marked "CONFIDENTIAL," TxDOT will use reasonable efforts to notify Developer of the request and give Developer an opportunity to assert, in writing and at its sole expense, a claimed exception under the Public Information Act or other applicable Law within the time period specified in the notice issued by TxDOT and allowed under the Public Information Act. Under no circumstances, however, will TxDOT be responsible or liable to Developer or any other Person for the disclosure of any such labeled materials, whether the disclosure is required by Law, or court order, or occurs through inadvertence, mistake or negligence on the part of TxDOT or its officers, employees, contractors or consultants.

21.5.3 In the event of any proceeding or litigation concerning the disclosure of any material submitted by Developer to TxDOT, TxDOT's sole involvement will be as a stakeholder retaining the material until otherwise ordered by a court or such other authority having jurisdiction with respect thereto, and Developer shall be fully responsible for otherwise prosecuting or defending any action concerning the materials at its sole cost and risk; provided, however, that TxDOT reserves the right, in its sole discretion, to intervene or participate in the litigation in such manner as it deems necessary or desirable. Except in the case of TxDOT's voluntary intervention or participation in litigation, Developer shall pay and reimburse TxDOT within 30 days after receipt of written demand and reasonable supporting documentation for all costs and fees, including attorneys' fees and costs, TxDOT incurs in connection with any litigation, proceeding or request for disclosure.

21.6 Ownership of Documents

Subject to Section 21.7, all data, sketches, charts, calculations, plans, specifications, electronic files, correspondence and other documents created or collected under the terms of the Contract Documents shall be considered "works made for hire" for which TxDOT owns the copyright. Design Documents shall become TxDOT's property upon preparation; Construction Documents shall become TxDOT's property upon delivery to TxDOT; and other documents prepared or obtained by Developer in connection with the performance of its obligations under the Contract Documents, including studies, manuals, Record

Drawings, technical and other reports and the like, shall become the property of TxDOT upon Developer's preparation or receipt thereof. Copies of all Design Documents and Construction Documents shall be furnished to TxDOT upon preparation or receipt thereof by Developer. Developer shall maintain all other documents described in this Section 21.6 in accordance with the requirements of Section 21.3 and shall deliver copies to TxDOT as required by the Contract Documents or upon request if not otherwise required to be delivered, with an indexed set delivered to TxDOT as a condition to Final Acceptance.

21.7 Intellectual Property

21.7.1 All Proprietary Intellectual Property, including with respect to Source Code and Source Code Documentation, shall remain exclusively the property of Developer or its Affiliates or Subcontractors that supply the same, notwithstanding any delivery of copies thereof to TxDOT.

21.7.2 TxDOT shall have and is hereby granted a nonexclusive, transferable, irrevocable, fully paid up right and license to use, reproduce, modify, adapt and disclose, and sublicense others to use, reproduce, modify, adapt and disclose, the Proprietary Intellectual Property of Developer, including with respect to Source Code and Source Code Documentation, solely in connection with the Project and any State Highway, tolled or not tolled, owned and operated by TxDOT or a State or regional Governmental Entity; provided that TxDOT shall have the right to exercise such license only at the following times:

(a) From and after the expiration or earlier termination of this Agreement for any reason whatsoever; and

(b) During any time that a receiver is appointed for Developer, or during any time that there is pending a voluntarily or involuntary proceeding in bankruptcy in which Developer is the debtor, in which case TxDOT may exercise such license only in connection with the Project.

21.7.3 Subject to the license and rights granted to TxDOT pursuant to Section 21.7.2, TxDOT shall not at any time sell any Proprietary Intellectual Property of Developer or use, reproduce, modify, adapt and disclose, or allow any party to use, reproduce, modify, adapt and disclose, any such Proprietary Intellectual Property for any other purpose.

21.7.4 The right to transfer the license is limited to any Governmental Entity that succeeds to the power and authority of TxDOT generally or with respect to the Project.

21.7.5 The right to sublicense is limited to State or regional Governmental Entities that own or operate a State Highway or other road, tolled or not tolled, and to the concessionaires, contractors, subcontractors, employees, attorneys, consultants and agents that are retained by or on behalf of TxDOT or any such State or regional Governmental Entity in connection with the Project or another State Highway or other road, tolled or untolled. All such sublicenses shall be subject to Section 21.7.6.

21.7.6 Subject to Section 21.5, TxDOT shall:

(a) Not disclose any Proprietary Intellectual Property of Developer to any Person other than authorized transferees and sublicensees who agree to be bound by any confidentiality obligations of TxDOT relating thereto;

(b) Enter into a commercially reasonable confidentiality agreement if requested by Developer with respect to the licensed Proprietary Intellectual Property; and

(c) Include, or where applicable require such State or regional Governmental Entity to include, in the contract with the sublicensee its covenant to employ sound business practices no less diligent than those used for its own confidential information, and no less diligent than required by commercially reasonable standards of confidentiality, to protect all Proprietary Intellectual Property of Developer and other materials provided under the sublicense against disclosure to third parties not in receipt of a sublicense, and to use the sublicense only for the permitted purposes.

21.7.7 Notwithstanding any contrary provision of this Agreement, in no event shall TxDOT or any of its directors, officers, employees, consultants or agents be liable to Developer, any Affiliate or any Subcontractor for any damages, including loss of profit, arising out of breach of the duty of confidentiality set forth in Section 21.7.6 if such breach is not the result of gross negligence or intentional misconduct. Developer hereby irrevocably waives all claims to any such damages.

21.7.8 Developer shall continue to have a full and complete right to use any and all duplicates or other originals of its Proprietary Intellectual Property in any manner it chooses.

21.7.9 With respect to any Proprietary Intellectual Property, including with respect to Source Code and Source Code Documentation, owned by a Person other than Developer, including any Affiliate, and other than TxDOT or a Governmental Entity acting as a Subcontractor, Developer shall obtain from such owner, concurrently with execution of any contract, subcontract or purchase order with such owner or with the first use or adaptation of the Proprietary Intellectual Property in connection with the Project, both for Developer and TxDOT, nonexclusive, transferable, irrevocable, fully paid up licenses to use, reproduce, modify, adapt and disclose such Proprietary Intellectual Property solely in connection with the Project and any State Highway, tolled or not tolled, owned and operated by TxDOT or a State or regional Governmental Entity, of at least identical scope, purpose, duration and applicability as the license granted under Section 21.7.2. The foregoing requirement shall not apply, however, to mass-marketed software products (sometimes referred to as “shrink wrap software”) owned by such a Person where such a license cannot be extended to TxDOT using commercially reasonable efforts. The limitations on sale, transfer, sublicensing and disclosure by TxDOT set forth in Sections 21.7.3 through 21.7.6 shall also apply to TxDOT’s licenses in such Proprietary Intellectual Property.

SECTION 22. VALUE ENGINEERING

22.1 General

This Section 22 sets forth the requirements applicable to preparation, review and approval of Value Engineering recommendations ("VEs") for the purpose of enabling Developer and TxDOT to take advantage of potential cost savings or provide potential improvements to the Work through changes in the requirements relating to the Work. Developer is encouraged to submit VEs whenever it identifies potential savings or improvements ("Developer-Initiated VE") for the Project. TxDOT may also request Developer to develop and submit a specific VE ("TxDOT-Initiated VE"). Developer shall have the right to refuse to consider such TxDOT-Initiated VE, provided that nothing herein is intended to alter TxDOT's right to issue TxDOT-Directed Changes in accordance with Section 13.

22.2 Value Engineering Recommendation

A VE is a proposal developed and documented by Developer which: (a) would modify or require a change in any of the requirements of or constraints set forth in the Contract Documents in order to be implemented; and (b) changes the Price without impairing essential functions or characteristics of the Project, including service life, economy of operation, ease of maintenance, desirability and safety, as determined by TxDOT in its sole discretion, and provided that it is not based solely upon a change in quantities, performance or reliability or a relaxation of the requirements contained in the Contract Documents.

22.3 Required Information

At a minimum, the following information shall be submitted by Developer with each VE:

- (a) A statement that the submission is a VE, and a narrative description of the proposed change;
- (b) Description of the existing requirements in the Contract Documents which are involved in the proposed change;
- (c) Discussion of differences between existing requirements and the proposed change, together with advantages and disadvantages of each changed item;
- (d) Itemization of the requirements of the Contract Documents which must be changed if the VE is approved;
- (e) A complete cost analysis including: (i) Developer's cost estimate for performing the subject Work in accordance with the Contract Documents compared to Developer's cost estimate for performing the subject Work in accordance with the proposed changes, (ii) an estimate of additional costs that will be incurred by TxDOT, including estimated impact on future maintenance costs; and (iii) costs of development and implementation of the VE by Developer. The cost of any additional Governmental

Approvals, rights of way or easements and other costs or impacts to the Project, shall be included in the cost analysis;

(f) Justification for changes in function or characteristics of each item, and effect of the change on the performance of the end item, as well as on the meeting of requirements contained in the Contract Documents, including environmental compliance requirements;

(g) If available, a description of any previous use or tests of the VE and the conditions and results. If the VE was previously submitted on another TxDOT project, indicate the date, contract number and the action taken by TxDOT; and

(h) Date or time by which a Change Order adopting the VE must be issued in order to obtain the maximum cost reduction, noting any effect on the current Project Schedule and most recent approved Draw Request.

Any additional information requested by TxDOT shall be provided in a timely manner. Additional information could include results of field investigations and surveys, design computations and field change sheets.

22.4 TxDOT Review and Approval

22.4.1 TxDOT will determine whether a VE qualifies for consideration and evaluation. VEs that require excessive time or costs for review, evaluation or investigations, or that are not consistent with TxDOT's design policies and basic design criteria may be rejected without evaluation. Developer shall have no Claim for any additional costs or delays resulting from the rejection of a Developer-Initiated VE, including VE development costs, loss of anticipated profits or increased material or labor costs. TxDOT will consider only proven features that have been employed under similar conditions or projects acceptable to TxDOT. Within five Business Days after receipt of the VEs, TxDOT and Developer will meet and confer to determine whether to proceed with further evaluation. If requested by TxDOT, Developer shall conduct an analysis of each such concept and shall provide data to TxDOT within 15 Business Days after receipt of such request so as to enable TxDOT to determine whether to accept the VE.

22.4.2 Upon receipt of a VE, TxDOT will process it, but shall not be liable for any delay in acting upon any VE submitted pursuant to this Section 22. Developer may withdraw all or part of any VE at any time prior to approval. In the event Developer withdraws a VE, Developer shall be liable for costs incurred by TxDOT in reviewing the withdrawn VE. Each Party shall bear its own costs in connection with the preparation and review of rejected VEs.

22.4.3 TxDOT may approve, in its sole discretion, in whole or in part, by Change Order, any VE submitted. Designs for approved VEs shall be prepared by Developer for incorporation into the Design Documents. Until a Change Order is issued on a VE, Developer shall remain obligated to perform in accordance with the Contract Documents. The decision of TxDOT as to rejection or approval of any VE shall be at the sole discretion of TxDOT and shall be final and not subject to partnering, dispute resolution or appeal.

22.5 Price Adjustment

If TxDOT accepts a VE, the Price shall be adjusted in accordance with the following:

22.5.1 For VEs which reduce the Developer's costs, the Price shall be reduced by an amount equal to the sum of: (a) 100% of any additional costs incurred by TxDOT, including the costs incurred in reviewing the VE and any impact the VE may have on project revenue, but excluding the amounts due to the Developer, resulting from the VE (excluding any impact on the Price itself) plus (b) 50% of estimated net savings. For VEs that result in a reduction of the Developer's costs, the term "estimated net savings" shall mean: (i) the difference between the cost of performing the Work according to the Contract Documents and the actual cost to perform the Work, as modified by the VE, less (ii) the actual costs of studying and preparing the VE as substantiated by Developer and approved by TxDOT in writing in accordance with the Change Order procedures set forth herein, less (iii) the costs in (a) above. Developer's profit shall not be considered part of the cost.

22.5.2 For VEs that result in an increase in the Developer's costs, the Price shall be increased by an amount equal to the sum of: (a) 100% of any additional costs incurred by Developer and approved by TxDOT in accordance with the Change Order procedures in Section 13 resulting from the VE plus (b) 50% of estimated net savings. For VEs that result in an increase of the Developer's costs, the term "estimated net savings" shall mean (i) the amount of any savings in TxDOT's costs resulting from the VE (taking into consideration the costs incurred in reviewing the VE and any impact the VE may have on project revenue), less (ii) the actual costs of studying and preparing the VE as substantiated by Developer and approved by TxDOT in writing in accordance with the Change Order procedures set forth herein, less (iii) the costs in (a) above. Developer's profit shall not be considered part of the cost.

22.5.3 Developer is not entitled to share in either collateral or future contract savings. The term "collateral savings" means those measurable net reductions in TxDOT's costs of operation resulting from the VE, including costs of maintenance by TxDOT or any third party, logistics, TxDOT-furnished property and future costs associated with the Project. The term "future contract savings" shall mean reductions in the cost of performance of future construction contracts for essentially the same item resulting from a VE submitted by Developer.

22.5.4 In a case where a VE involves acquisition of Additional Property and/or reduces TxDOT's cost of property acquisition, the analysis of the VE shall consider the additional costs or savings associated with the adjustment in the real property requirements for the Project, including Developer's costs for property acquisition support services, the costs involved in adjusting the Governmental Approvals, TxDOT's additional costs, including costs of personnel, Developer's out-of-pocket costs such as the price of the Additional Property, and the incremental reduction in TxDOT's costs (if any) for property acquisition. The estimated net savings shall be shared between TxDOT and Developer as described above.

22.5.5 In the event that Developer proceeds with a Developer-requested Change Order that TxDOT believes should be characterized as a VE, and it is later determined through the dispute resolution process that the change meets the technical qualifications for a VE, the Price shall be reduced by an amount equal to the sum of: (a) 100% of any additional costs incurred by TxDOT resulting from the VE plus (b) 75% of estimated net savings.

22.6 Implementation of VEs

22.6.1 Designs for approved VEs shall be prepared by Developer for incorporation into the Design Documents and shall be subject to the same design procedures as other aspects of the Project's design.

22.6.2 Developer's share of any VE cost savings shall be payable at such time as payments would have been made for the Work which is the subject of the VE had the VE not been implemented. If a VE results in a Price increase, payment for the additional Construction Work will be made in the ordinary course of progress of the Project.

22.7 Use of VEs By TxDOT

All approved or disapproved VEs will become the property of TxDOT, and shall contain no restrictions imposed by Developer on their use or disclosure. TxDOT retains the right to use, duplicate and disclose in whole or in part any data necessary for the utilization of the VE on any other or subsequent projects without any obligation or liability to Developer.

SECTION 23. COOPERATION AND COORDINATION WITH OTHER CONTRACTORS AND ADJACENT PROPERTY OWNERS

23.1 Cooperation with Other Contractors

Developer acknowledges that TxDOT has awarded and/or plans to award contracts for construction and other work at or near the Site, and that other projects at or near the Site may be in various stages of design and construction. Developer and any Developer-Related Entity shall fully cooperate and be solely responsible for coordinating with such other contractors and projects, and shall schedule and sequence the Work as reasonably necessary to accommodate the work of such other contractors and projects. Further, Developer shall conduct its Work and perform its obligations under the Contract Document without interfering with or hindering the progress or completion of the work being performed by other contractors or of the work relating to such other projects.

23.2 Interference by Other Contractors

If Developer asserts that any of TxDOT's other contractors have caused damage to the Work, or have hindered or interfered with the progress or completion of the Work, then, subject only to the right to a Change Order for TxDOT-Caused Delays, Developer's sole remedy shall be to seek recourse against such other contractors.

23.3 Coordination with Utility Owners and Adjacent Property Owners

Developer shall coordinate with Utility Owners and owners of property adjoining the Project, and with their respective contractors, as more particularly described in the Contract Documents.

23.4 Coordination with Toll Related Project Participants; Delays

Developer shall coordinate with all Persons engaged in work on any elements relating to tolling of the Project. Developer shall also maintain on-going communication regarding requirements applicable to and progress with respect to the tolling elements of the Project, including coordination with TxDOT and the Systems Integrator. Developer shall provide access to the Project and coordinate construction activities for the System Integrator to construct civil Elements and install toll system components for the Toll Zones concurrent with Developer's Work.

SECTION 24. MISCELLANEOUS PROVISIONS

24.1 Amendments

The Contract Documents may be amended only by a written instrument duly executed by the Parties or their respective successors or assigns, except to the extent expressly provided otherwise in this Agreement.

24.2 Waiver

24.2.1 No waiver of any term, covenant or condition of the Contract Documents shall be valid unless in writing and signed by the obligee Party.

24.2.2 The exercise by a Party of any right or remedy provided under the Documents shall not waive or preclude any other or further exercise thereof or the exercise of any other right or remedy. No waiver by any Party of any right or remedy under the Contract Documents shall be deemed to be a waiver of any other or subsequent right or remedy under the Contract Documents. The consent by one Party to any act by the other Party requiring such consent shall not be deemed to render unnecessary the obtaining of consent to any subsequent act for which consent is required, regardless of whether similar to the act for which consent is given.

24.2.3 Except as provided otherwise in the Contract Documents, no act, delay or omission done, suffered or permitted by one Party or its agents shall be deemed to waive, exhaust or impair any right, remedy or power of such Party hereunder, or to relieve the other Party from the full performance of its obligations under the Contract Documents.

24.2.4 Either Party's waiver of any breach or failure to enforce any of the terms, covenants, conditions or other provisions of the Contract Documents at any time shall not in any way limit or waive that Party's right thereafter to enforce or compel strict compliance with every term, covenant, condition or other provision, any course of dealing or custom of the trade notwithstanding. Furthermore, if the Parties make and implement any interpretation of the Contract Documents without documenting such interpretation by an instrument in writing signed by both Parties, such interpretation and implementation thereof will not be binding in the event of any future Claims or Disputes.

24.3 Independent Contractor

24.3.1 Developer is an independent contractor, and nothing contained in the Contract Documents shall be construed as constituting any relationship with TxDOT other than that of Project developer and independent contractor.

24.3.2 Nothing in the Contract Documents is intended or shall be construed to create any partnership, joint venture or similar relationship between TxDOT and Developer; and in no event shall either Party take a position in any tax return or other writing of any kind that a partnership, joint venture or similar relationship exists. While the term "Design-Build" may be used on occasion to refer to contractual relationships of the

type hereby created, the Parties do not thereby express any intention to form or hold themselves out as a *de jure* or *de facto* partnership, joint venture or similar relationship, to share net profits or net losses, or to give TxDOT control or joint control over Developer's financial decisions or discretionary actions concerning the Project and the Work.

24.3.3 In no event shall the relationship between TxDOT and Developer be construed as creating any relationship whatsoever between TxDOT and Developer's employees. Neither Developer nor any of its employees is or shall be deemed to be an employee of TxDOT. Except as otherwise specified in the Contract Documents, Developer has sole authority and responsibility to employ, discharge and otherwise control its employees and has complete and sole responsibility as a principal for its agents, for all Subcontractors and for all other Persons that Developer or any Subcontractor hires to perform or assist in performing the Work.

24.4 Successors and Assigns; Change of Control

24.4.1 The Contract Documents shall be binding upon and inure to the benefit of TxDOT and Developer and their permitted successors, assigns and legal representatives.

24.4.2 TxDOT may transfer and assign all or any portion of its rights, title and interests in and to the Contract Documents, including rights with respect to the Payment and Performance Bond(s), Guarantees, letters of credit and other security for payment or performance:

(a) without Developer's consent, to any other public agency or public entity as permitted by Law, including the Corporation for purposes of developing, financing, constructing, operating and maintaining the Project, provided that the successor or assignee has assumed all of TxDOT's obligations, duties and liabilities under the Contract Document then in effect. In the event of an assignment to the Corporation, the term TxDOT as used in this Agreement shall be deemed to mean the Corporation as assignee of the TxDOT, and as such assignee the Corporation shall have all rights accorded to the TxDOT, including the right to assign the Contract Documents and security to the Bond Trustee, as security for the performance of obligations under the Contract Documents. Any Bond Trustee may, in connection with any default under any financing document, assign any rights assigned to it hereunder to any Person.

(b) without Developer's consent, to any other Person that succeeds to the governmental powers and authority of TxDOT; provided however that such successor(s) has assumed all of TxDOT's obligations, duties and liabilities under the Contract Documents then in effect .

(c) to any other Person with the prior written approval of Developer and the Bond Trustee.

24.4.3 In the event of TxDOT's assignment of all of its rights, title and interests in the Contract Documents as permitted hereunder, Developer shall have no further recourse to the Department under the Contract Documents or otherwise except as specifically provided by other contractual agreement or by statute.

24.4.4 Developer shall not voluntarily or involuntarily sell, assign, convey, transfer, pledge, mortgage or otherwise encumber the Developer's interest or any portion thereof without TxDOT's prior written approval, except to any entity that is under the same ultimate management control as Developer. Developer shall not sublease or grant any other special occupancy or use of the Project to any other Person that is not in the ordinary course of Developer performing the Work, without TxDOT's prior written approval. Any sale, assignment, conveyance, transfer, pledge, mortgage, encumbrance, sublease or grant of other special occupancy or use in violation of this provision shall be null and void ab initio and TxDOT, at its option, may declare any such attempted action to be a material Developer Default.

24.4.5 Developer shall not voluntarily or involuntarily cause, permit or suffer any Change of Control prior to Final Acceptance without TxDOT's prior written approval. If there occurs any voluntary or involuntary Change of Control without TxDOT's prior written approval, TxDOT, at its option, may declare it to be a material Developer Default.

24.4.6 Where TxDOT's prior approval is required for a proposed sale, assignment, conveyance, transfer, pledge, mortgage, encumbrance, sublease or grant of other special occupancy or use, or for any proposed Change of Control prior to Final Acceptance, TxDOT may withhold or condition its approval in its sole discretion. Any such decision of TxDOT to withhold consent shall be final, binding and not subject to the dispute resolution procedures set forth in this Agreement.

24.4.7 Assignments and transfers of Developer's interest permitted under this Section 24.4 or otherwise approved in writing by TxDOT shall be effective only upon TxDOT's receipt of written notice of the assignment or transfer and a written recordable instrument executed by the transferee, in form and substance acceptable to TxDOT, in which the transferee, without condition or reservation, assumes all of Developer's obligations, duties and liabilities under this Agreement and the other Contract Documents then in effect and agrees to perform and observe all provisions thereof applicable to Developer. Each transferee shall take Developer's interest subject to, and shall be bound by, the Project Management Plan, the Major Subcontracts, the Utility Agreements, all agreements between the transferor and railroads, the Governmental Approvals, and all agreements between the transferor and Governmental Entities with jurisdiction over the Project or the Work, except to the extent otherwise approved by TxDOT in writing in its good faith discretion.

24.5 Change of Organization or Name

24.5.1 Developer shall not change the legal form of its organization in a manner that adversely affects TxDOT's rights, protections and remedies under the Contract Documents without the prior written approval of TxDOT, which consent may be granted or withheld in TxDOT's sole discretion.

24.5.2 In the event either Party changes its name, such Party agrees to promptly furnish the other Party with written notice of change of name and appropriate supporting documentation.

24.6 Designation of Representatives; Cooperation with Representatives

24.6.1 TxDOT and Developer shall each designate an individual or individuals who shall be authorized to make decisions and bind the Parties on matters relating to the Contract Documents ("Authorized Representative"). Exhibit 18 hereto provides the initial Authorized Representative designations. Such designations may be changed by a subsequent writing delivered to the other Party in accordance with Section 24.11. The Parties may also designate technical representatives who shall be authorized to investigate and report on matters relating to the design and construction of the Project and negotiate on behalf of each of the Parties, but who do not have authority to bind TxDOT or Developer.

24.6.2 Developer shall cooperate with TxDOT and all representatives of TxDOT designated as described above.

24.7 Survival

Developer's representations and warranties, the dispute resolution provisions contained in Section 19, the indemnifications and releases contained in Section 18, the express rights and obligations of the Parties following termination of this Agreement under Sections 15 and 16, the provisions regarding invoicing and payment under Section 12.2, the obligations regarding Final Reconciliation under Section 12.4, and all other provisions which by their inherent character should survive termination of this Agreement and/or completion of the Work, shall survive the termination of this Agreement and/or completion of the Work. The provisions of Section 19 shall continue to apply after expiration or earlier termination of this Agreement to all Claims and Disputes between the Parties arising out of the Contract Documents.

24.8 Limitation on Third Party Beneficiaries

It is not intended by any of the provisions of the Contract Documents to create any third party beneficiary hereunder or to authorize anyone not a Party hereto to maintain a suit for personal injury or property damage pursuant to the terms or provisions hereof, except to the extent that specific provisions (such as the warranty and indemnity provisions) identify third parties and state that they are entitled to benefits hereunder. Except as otherwise provided in this Section 24.8, the duties, obligations and responsibilities of the Parties to the Contract Documents with respect to third parties shall remain as imposed by Law. The Contract Documents shall not be construed to create a contractual relationship of any kind between TxDOT and a Subcontractor or any Person other than Developer.

24.9 No Personal Liability of TxDOT Employees; Limitation on State's Liability

24.9.1 TxDOT's Authorized Representatives are acting solely as agents and representatives of TxDOT when carrying out the provisions of or exercising the power or authority granted to them under the Contract Documents. They shall not be liable any Developer-Related Entity either personally or as employees of TxDOT for actions in their ordinary course of employment.

24.9.2 The Parties agree to provide to each other's Authorized Representative written notice of any claim which such Party may receive from any third party relating in any way to the matters addressed in the Contract Documents, and shall otherwise provide notice in such form and within such period as is required by Law.

24.9.3 In no event shall TxDOT be liable for injury, damage, or death sustained by reason of a defect or want of repair on or within the Site during the period Developer has operation and control of the Site, nor shall TxDOT be liable for any injury, damage or death caused by the actions, omissions, negligence, intentional misconduct, or breach of applicable Law or contract by any Developer-Related Entity. Developer expressly acknowledges and agrees that TxDOT's rights in this Agreement to take any action with respect to the Project, including the right to review, comment on, disapprove and/or accept designs, plans, specifications, work plans, construction, installation, traffic management details, safety plan and the like, are discretionary in nature and exist solely for the benefit and protection of TxDOT and do not create or impose upon TxDOT any standard or duty of care toward Developer or any other Person, all of which are hereby expressly disclaimed.

24.10 Governing Law

The Contract Documents shall be governed by and construed in accordance with the Laws of the State of Texas.

24.11 Notices and Communications

24.11.1 Notices under the Contract Documents shall be in writing and: (a) delivered personally, (b) sent by certified mail, return receipt requested, (c) sent by a recognized overnight mail or courier service, with delivery receipt requested, or (d) sent by facsimile or email communication followed by a hard copy and with receipt confirmed by telephone, to the addresses set forth in Sections 24.11.2 and 24.11.3, as applicable (or to such other address as may from time to time be specified in writing by such Person).

24.11.2 All notices, correspondence and other communications to Developer shall be delivered to the following address or as otherwise directed by Developer's Authorized Representative:

Jorge Laris
3100 Wilcrest Drive, Suite 240
Houston, Texas 77042
Telephone: (713) 780-6008
Facsimile: (713) 780-6020
E-mail: Jorge.Laris@ZachryCorp.com

In addition, copies of all notices to proceed and suspension, termination and default notices shall be delivered to the following Persons:

Jean Abiassi
12625 Wetmore Road, Suite 301
San Antonio, Texas 78247-3611
Telephone: (210) 871-2700
Facsimile: (210) 871-6910
E-mail: Jean.Abiassi@zachrycorp.com

and

Gilberto Neves
201 Alhambra Circle, Suite 1400
Coral Gables, Florida 33134
Telephone: (305) 341-8800
Facsimile: (305) 569-1501
E-mail: gneves@odebrecht.com

24.11.3 All notices, correspondence and other communications to TxDOT shall be marked as regarding the Grand Parkway Project and shall be delivered to the following address or as otherwise directed by TxDOT's Authorized Representative:

Texas Department of Transportation
Major Projects Office
7721 Washington Ave.
Houston, TX 77007
Attn: Mr. Eddie Sanchez, P.E.
Telephone: (713) 866-7036
Facsimile: (713) 802-5889
E-mail: eddie.sanchez@txdot.gov

With a copy to:

Texas Department of Transportation
Chief Planning & Projects Officer
125 East 11th Street
Austin, TX 78701
Attn: Mr. Russell Zapalac, P.E.
Telephone: (512) 305-9516
E-mail: russell.zapalac@txdot.gov

In addition, copies of all notices regarding Disputes, termination and default notices shall be delivered to the following:

Texas Department of Transportation
Office of General Counsel
125 East 11th Street
Austin, Texas 78701
Telephone: (512) 463-8630
Facsimile: (512) 475-3070
E-mail: jack.ingram@txdot.gov

24.11.4 Notices shall be deemed received when actually received in the office of the addressee (or by the addressee if personally delivered) or when delivery is refused, as shown on the receipt of the U. S. Postal Service, private carrier or other Person making the delivery. Notwithstanding the foregoing, notices sent by telefacsimile after 4:00 p.m. Central Standard or Daylight Time (as applicable) and all other notices received after 5:00 p.m. shall be deemed received on the first Business Day following delivery (that is, in order for a fax to be deemed received on the same day, at least the first page of the fax must have been received before 4:00 p.m.). Any technical or other communications pertaining to the Work shall be conducted by Developer's Authorized Representative and technical representatives designated by TxDOT.

24.12 Taxes

24.12.1 Developer shall pay, prior to delinquency, all applicable taxes. Developer shall have no right to an adjustment to the Price or any other Claim, except as provided in Section 24.12.2, due to its misinterpretation of Laws respecting taxes or incorrect assumptions regarding applicability of taxes.

24.12.2 With respect to Expendable Materials any Developer-Related Entity purchases, Developer shall submit or cause the Developer-Related Entity to submit a "Texas Sales and Use Tax Exemption Certification" to the seller of the Expendable Materials. In the event Developer is thereafter required by the State Comptroller to pay sales tax on Expendable Materials, TxDOT shall reimburse Developer for such sales tax. Reimbursement shall be due within 60 days after TxDOT receives from Developer written evidence of the State Comptroller's claim for sales tax, the amount of the sales tax paid, the date paid and the items purchased. Developer agrees to cooperate with TxDOT in connection with the filing and prosecution of any request for refund of any sales tax paid with respect to Expendable Materials. If materials purchased for the Work are not wholly used or expended on the Project, such that they do not qualify as Expendable Materials, Developer will be responsible for applicable sales taxes.

24.13 Interest on Amounts Due and Owing

Unless expressly provided otherwise in this Agreement or in the case of TxDOT's Recoverable Costs, all amounts to which a Party is entitled to assess, collect, demand or recover under this Agreement shall earn interest from the date on which such amount is due and owing at the lesser of: (a) 12% per annum or (b) the maximum rate allowable under applicable Law.

24.14 Integration of Contract Documents

TxDOT and Developer agree and expressly intend that, subject to Section 24.15, this Agreement and other Contract Documents constitute a single, non-severable, integrated agreement whose terms are interdependent and non-divisible.

24.15 Severability

If any clause, provision, section or part of the Contract Documents is ruled invalid under Section 19 or otherwise by a court having proper jurisdiction, then the Parties shall: (a) promptly meet and negotiate a substitute for such clause, provision, section or part, which shall, to the greatest extent legally permissible, effect the original intent of the Parties, including an equitable adjustment to the Price to account for any change in the Work resulting from such invalidated portion; and (b) if necessary or desirable, apply to the court or other decision maker (as applicable) which declared such invalidity for an interpretation of the invalidated portion to guide the negotiations. The invalidity or unenforceability of any such clause, provision, section or part shall not affect the validity or enforceability of the balance of the Contract Documents, which shall be construed and enforced as if the Contract Documents did not contain such invalid or unenforceable clause, provision, section or part.

24.16 Headings

The captions of the articles, sections and subsections herein are inserted solely for convenience and under no circumstances are they or any of them to be treated or construed as part of this Agreement.

24.17 Entire Agreement

The Contract Documents contain the entire understanding of the Parties with respect to the subject matter hereof and supersede all prior agreements, understandings, statements, representations and negotiations between the Parties with respect to its subject matter.

24.18 Counterparts

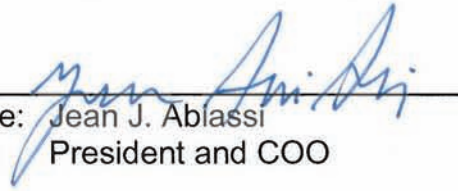
This instrument may be executed in two or more counterparts, each of which shall be deemed an original, but all of which together shall constitute one and the same instrument.

IN WITNESS WHEREOF, this Agreement has been executed as of the date first set forth above.

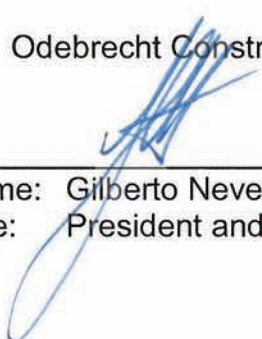
Developer:

**Zachry-Odebrecht Parkway Builders,
J.V.**

By: Zachry Construction Corporation

By: 
Name: Jean J. Ablassi
Title: President and COO

By: Odebrecht Construction, Inc.

By: 
Name: Gilberto Neves
Title: President and CEO

**TEXAS DEPARTMENT OF
TRANSPORTATION**

By: 
Phil Wilson
Executive Director

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APPENDIX F

FORM OF TOLL RATE AGREEMENT

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TOLL RATE AGREEMENT

SH 99 (GRAND PARKWAY)

Harris and Montgomery County Segments

Between

Texas Transportation Commission

and

Grand Parkway Transportation Corporation

Dated as of August 1, 2013

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**SH 99 (GRAND PARKWAY)
HARRIS AND MONTGOMERY COUNTY SEGMENTS**

TOLL RATE AGREEMENT

**STATE OF TEXAS §
 §
COUNTY OF TRAVIS §**

THIS TOLL RATE AGREEMENT (this "Agreement"), by and between the **TEXAS TRANSPORTATION COMMISSION** (the "Commission"), the governing body of the Texas Department of Transportation ("TxDOT"), an agency of the State of Texas, and the **GRAND PARKWAY TRANSPORTATION CORPORATION** (the "Corporation"), a transportation corporation authorized by the Commission pursuant to Chapter 431, Texas Transportation Code, hereinafter identified as the "Corporation," is executed to be effective this 1st day of August, 2013. The Commission and the Corporation are together referred to as the "Parties." Any capitalized terms not otherwise defined in this Agreement shall have the meanings given in the Trust Agreement dated as of August 1, 2013 by and between the Corporation and Wilmington Trust, National Association, as Trustee (the "Trust Agreement").

W I T N E S S E T H

WHEREAS, State Highway 99 ("Grand Parkway") is a controlled-access toll highway project of eleven segments, A, B, C, D, E, F-1, F-2, G, H, I-1, and I-2, in the Texas counties of Harris, Brazoria, Chambers, Fort Bend, Galveston, Liberty, and Montgomery (the "Counties"), to be configured with from two to six lanes, overpasses at major intersections and direct connectors at interchanges with other major thoroughfares, as described in the market valuation waiver agreement dated March 29, 2009 ("Market Valuation Waiver Agreement"), between the Commission and each of the Counties; and

WHEREAS, under Texas Transportation Code, Section 228.0111 (Acts 2007, 80th Leg., ch. 264; as amended by Acts 2009, 81st Leg., 1st C.S., ch. 1), TxDOT and the local toll project entity, the Harris County Toll Road Authority, agreed the Grand Parkway should be developed, constructed, operated and expanded as a toll highway on the terms and conditions set forth in the Market Valuation Waiver Agreement, and by agreement waived the statutory requirement to prepare a market valuation based on the terms and conditions ("Terms and Conditions"); and

WHEREAS, the Commission adopted Minute Order No. 113046 on March 29, 2012, which authorized the creation of the Corporation for the purpose of acting on behalf of the Commission to develop, finance, refinance, design, construct, reconstruct, expand, operate, or maintain certain segments of the Grand Parkway, including execution of contracts with TxDOT or a developer, and borrowing money; and

WHEREAS, the Corporation has all power and authority under Chapter 431, Subchapters A through C, of the Texas Transportation Code, 43 Tex. Admin. Code Section 15.95 under its certificate of formation and bylaws and pursuant to further action of the Commission pursuant to Minute Order 113202 to undertake the activities authorized by the Commission including the issuance of one or more series of obligations to finance the Initial Project; and

WHEREAS, the Initial Project is a toll project as defined in Texas Transportation Code, Section 201.001, and the Initial Project is designated as segments of the state highway system; and

WHEREAS, the Commission is responsible for setting toll rates on state highways and such tolls are generally set so that, at a minimum, the aggregate of tolls from a toll project or system: (i) provides a fund sufficient with other revenue and contributions, if any, to pay (a) the cost of maintaining, repairing and operating the project or system and (b) the principal of and interest on the obligations issued for the project or system as those obligations become due and payable and (ii) creates reserves for the purposes listed under (i) above; and

WHEREAS, the Corporation will finance the costs of the Initial Project using the proceeds of one or more series of its obligations issued pursuant to the Trust Agreement and such obligations will be initially secured, in part, by the toll revenue of the Initial Project; and to provide support for the Corporation's efforts to develop, construct, operate, maintain and provide financing for the Initial Project, the Commission must provide certain covenants for the benefit of the Corporation and the Owner's regarding the setting of toll rates; and

WHEREAS, this toll rate agreement is necessary in connection with the marketing of obligations issued by the Corporation for the Initial Project.

A G R E E M E N T

NOW, THEREFORE, the Commission and the Corporation agree as follows:

ARTICLE I TOLLS AND REVENUES

Section 1.1. Covenants as to Tolls. (a) The Commission covenants that it will (1) adopt and maintain in effect a Toll Rate Schedule for the System, in substantial conformity with the recommendation of the Traffic Consultant and in conformity with the toll rate escalation policy of the Commission and (2) establish charges for other uses of the property constituting a part of the System such as property leases, designed, collectively, to produce Senior Net Revenues in each Fiscal Year in an amount at least equal to the requirements of Section 1.1(b) below. Notwithstanding the foregoing, in the event the toll rates set in accordance with the toll rate escalation policy of the Commission do not produce a Toll Rate Schedule sufficient to satisfy the toll rate covenant in Section 1.1(b), the Commission shall establish toll rates sufficient to comply with the Rate Covenant in Section 1.1(b). It is provided, however, that prior to adopting any change in the Toll Rate Schedule, the Commission shall have obtained and filed with the Corporation and the Trustee a certificate by the Traffic Consultant either:

- (1) stating, in their opinion, that if such proposed Toll Rate Schedule had been in effect during the preceding Fiscal Year, it would not have caused a decrease in the Senior Net Revenues for such preceding Fiscal Year, or
- (2) stating, in their opinion, that the adoption of such proposed Toll Rate Schedule will not materially adversely affect the ability of the Commission to comply with its covenants in Section 1.1(b).

Any such certificate by the Traffic Consultant shall be based on their own opinion as to the Revenues of the System to be derived by the Corporation (which may include appropriate investment income that constitute Revenues of the System as estimated by a Corporation Representative) and, upon a certificate by the General Engineering Consultant to be obtained by the Corporation and filed with the Trustee, stating the opinion of the General Engineering Consultant as to the amount of Operating Expenses during any pertinent Fiscal Year or period, assuming that the proposed Toll Rate Schedule had been in effect during such pertinent Fiscal Year or period.

(b) The Commission covenants to keep in effect a Toll Rate Schedule which will raise and produce Revenues of the System during each Fiscal Year sufficient to satisfy the greatest of (1), (2), (3) or (4) below:

- (1) Senior Net Revenues of 1.50 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations for the Fiscal Year; or
- (2) Senior Net Revenues of 1.30 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations and all Outstanding Second Tier Obligations for the Fiscal Year; or
- (3) Senior Net Revenues of 1.10 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations of the Corporation for the Fiscal Year; or
- (4) Senior Net Revenues, less Junior Operating Expenses and less any monthly deposits necessary to maintain the Operation and Maintenance Reserve Requirement, of 1.00 times the scheduled Debt Service Requirements on all Outstanding First Tier Obligations, Second Tier Obligations, Subordinate Tier Obligations and TELA/Other Tier Obligations of the Corporation for the Fiscal Year.

In the event that for any such Fiscal Year such Revenues of the System shall be less than the amounts contemplated above for such Fiscal Year, the Corporation will, before the 15th day of March of the following Fiscal Year, request the Traffic Consultant to make and file their recommendations with the Corporation, the Commission and the Trustee as to a revision in the Toll Rate Schedule then in effect, in order to cause the raising and production of such Revenues of the System in a manner which will enable the Corporation to produce at the earliest feasible time such Revenues of the System in at least the amounts contemplated above for each such Fiscal Year. The Commission covenants that it will promptly and carefully consider such recommendations, and that it will, within sixty days after receipt of such recommendations, either (i) place into effect any Toll Rate Schedule as so recommended by the Traffic Consultant, or (ii) place into effect any alternative Toll Rate Schedule which, in the opinion of the Commission, will enable it to comply with the covenants in this Section 1.1(b).

In the process of developing and adopting the Toll Rate Schedule for a period or portion of a period that constitutes a Construction and Ramp-Up Period for the Initial Project and any Construction and Ramp-Up Period for additional System Segments, the Traffic Consultant, the Commission and the Corporation may assume that, for making the calculations required by Section 1.1(b)(3) and (4) above, Revenues of the System for such period include the amounts forecasted to be on deposit in the Rate Stabilization Fund as reflected in the Annual Budget for each Fiscal Year in such period. In making the calculations in Section 1.1(b)(1), (2), (3) and (4) above, the Traffic Consultant, the Commission and the Corporation may take into account any amounts reasonably expected to be received by the Trustee in the Fiscal Year from or as a result of any Additional Obligation Security the Corporation has pledged for the benefit of all Obligations or the Obligations of any Tier or Series, but, if the pledge is not for the benefit of all Obligations, the amounts reasonably expected to be received may only be taken into account when making the calculation for the affected Obligations.

The foregoing covenant is referred to herein as the "Rate Covenant."

(c) Anything in this Agreement to the contrary notwithstanding, if the Commission shall comply with all recommendations of the Traffic Consultant (or such independent engineer or engineering firm or corporation as hereinafter provided for in this Section) with respect to the Toll Rate Schedule, it shall not constitute an Event of Default under the provisions of this Agreement or the Trust Agreement, if there shall be a deficiency in any Fiscal Year or Years between the Revenues of the System for such Fiscal Year or Years and the amount required to be produced for such Fiscal Year or Years. It is provided, however, that in the event of any such deficiency, and regardless of any recommendations of the Traffic Consultant or others, or compliance therewith by the Commission, the Trustee may, and the Trustee shall, upon the written request of the Owners of not less than twenty percent (20%) in aggregate principal amount of the Obligations then Outstanding and upon being indemnified to its satisfaction, institute and prosecute in a court of competent jurisdiction an appropriate action to compel the Commission to comply with its covenant herein to adopt and keep in effect a Toll Rate Schedule which will raise and produce during each Fiscal Year an amount of Revenues of the System as required in Section 1.1(b) for such Fiscal Year, or to comply with any other covenant in this Section 1.1. The Commission covenants that it will comply with any final order, decree, or judgment entered in any such proceeding, or any modification thereof.

(d) In the event that the Commission shall request the Traffic Consultant for its recommendations as required herein, and the Traffic Consultant, after such request by the Commission, shall fail to file with the Commission and with the Trustee such recommendations in writing within 90 days after such request, the Trustee shall forthwith designate and appoint an independent engineer or engineering firm or corporation having a nationwide and favorable reputation for skill and experience in such work, in lieu of the Traffic Consultant, to make the necessary survey and study and to make the required recommendations as to such revision, which recommendations shall be reported in writing to the Commission, the Corporation and to the Trustee on or before the 1st day of August of such year. Such recommendations shall for all purposes be considered to be the equivalent of and a substitute for the recommendations of the Traffic Consultant hereinabove mentioned.

The Commission further covenants that upon its making any request of the Traffic Consultant for recommendations, or the receipt of any such recommendation from the Traffic Consultant or others, or the adoption by the Commission of any revised Toll Rate Schedule, certified copies of any such request, recommendations or revisions so adopted will forthwith be filed with the Trustee and the Corporation.

Section 1.2. Uniformity of Tolls; Free Passage. (a) The Commission covenants that tolls will be classified in a reasonable way to cover all traffic, so that the tolls will be uniform in application to all traffic falling within any reasonable class as determined by the Commission; provided that the foregoing shall not be interpreted to restrict the Commission's right, in its discretion in connection with its management of the System, to establish and maintain flexible toll schedules including, but not limited to, provisions for utilizing or otherwise taking into account, peak and nonpeak pricing, introductory

pricing, vehicle weight, number of axles, method of payment, frequency, car pooling, electronic and other toll collection technologies, traffic management systems and similar classifications.

Any change in classification that results in a reduced toll or any new classification shall be subject to the Traffic Consultant approving the same before it is implemented unless the same is temporary (i.e., having a duration of less than one year from the effective date). In all events, the Commission shall not make a change in classification or any new classification unless the Commission determines that such change is not expected to result in the receipt of Revenues of the System in amounts less than that required in Section 1.1(b) hereof.

(b) Notwithstanding the provisions of (a) above, no free vehicular passage or reduced tolls will be permitted over the System within a class, other than its approaches and service roads, or any portion of the System designated toll-free, except that, in its discretion, the Commission may:

- (1) reduce tolls through the use of commutation or other tickets or privileges based upon frequency or volume if the reduction is expected to result in an increase in the Revenues of the System;
- (2) grant free passage to those persons or vehicles as required by the laws of the State of Texas;
- (3) grant free passage to authorized emergency vehicles as defined in Transportation Code, Section 541.201;
- (4) grant free passage to marked, recognizable military vehicles;
- (5) grant free passage to vehicles registered under Transportation Code, Section 504.202 (disabled veterans) and Transportation Code Section 504.315(g) (Purple Heart recipients), and to vehicles registered by a person who has received the Medal of Honor as authorized in Title 10, U.S. Code, Section 6241 or such other military honor authorized by law and approved by the Commission;
- (6) grant free passage to Department or Corporation contractors working on the construction, improvement, maintenance, or operation of the System;
- (7) grant free passage to any vehicle (a) designated by the Department of Public Safety as an emergency vehicle during disasters declared by the Governor of Texas and (b) in the time of a declared emergency or natural disaster, as determined by the Executive Director of the Department;
- (8) vehicles that are part of a funeral procession are permitted free passage under these conditions:
 - a. advance notice;
 - b. the Executive Director determines it is in the interest of public safety that the procession be routed on to the System;
 - c. the procession is escorted by certified peace officers; and
 - d. the procession enters and exits the System outside these hours: Monday through Friday 6:00 a.m. to 9:00 a.m. and 4:00 p.m. to 7:00 p.m.; and
- (9) processions and motorcades for heads-of-state and dignitaries are permitted free passage if the procession or motorcade is escorted by the United States Secret Service, Texas Department of Public Safety, or other law enforcement agency charged with the responsibility for the safety and security of the head-of-state/dignitary..

Any reduced toll pursuant to Section 1.2(b) shall be reviewed by the Commission with the Traffic Consultant before implementing the same unless the same is temporary (i.e., having a duration of less than one year). In addition, in the event the Commission did not meet the Rate Covenant in Section 1.1(b) for the preceding Fiscal Year, any such reduced toll shall be subject to the Traffic Consultant approving the same before it is implemented by the Commission unless the Commission reasonably determines that the circumstances require immediate implementation, in which event the Commission shall obtain such approval promptly following implementation. In all events, the Commission shall not reduce tolls unless the Commission determines, based upon an analysis of the Traffic Consultant, that such reduction is not expected to result in the receipt of Revenues of the System in amounts less than that required by the Rate Covenant in Section 1.1(b).

(c) The Commission's covenant as to uniformity of tolls shall not be construed as requiring that tolls for any given class of traffic shall be identical in amount throughout the entire System for trips of approximately identical lengths. The Commission may fix and place in effect a Toll Rate Schedule for any given class of traffic wherein the tolls charged for travel on a given section or segment of the System shall be different from the tolls charged on another section or segment of the System notwithstanding the fact that both of such sections or segments shall be of identical or approximately identical length. The Commission may determine that certain portions of the System be self-supporting project and the Commission may establish tolls accordingly.

(d) As used in this Section, approval by the Traffic Consultant means that the Traffic Consultant has undertaken an analysis of the impact of the contemplated action of the Commission and determined that it would not

materially adversely affect the ability of the Commission to meet the Rate Covenant in Section 1.1(b). The Commission shall file a copy of each approval by the Traffic Consultant with the Corporation and the Trustee promptly after receipt.

(e) The Commission shall set policies with respect to implementation of this Section.

(f) Notwithstanding anything in this Agreement to the contrary, introductory, free or reduced tolls may be utilized in connection with the opening to the public of any component or segment of the System.

Section 1.3. Corporation as Beneficiary under Master Custodial Agreement; Other Toll Road Revenue Allocation Agreements. (a) The Commission covenants and agrees that, under the Master Custodial Agreement, the Corporation shall be a “Beneficiary” (as defined in the Master Custodial Agreement) so long as the Trust Agreement is outstanding. The Commission shall direct the Department to execute and deliver a “Joinder Agreement” (as defined in the Master Custodial Agreement) among the Department, the Corporation and the Custodian (as defined in the Master Custodial Agreement), which shall also designate the Trustee and the Owners as “Secured Parties” (as defined in the Master Custodial Agreement) under the Master Custodial Agreement.

Amounts relating to the System and received by the Corporation or on behalf of the Corporation pursuant to the Master Custodial Agreement shall be deposited with the Trustee for credit to the Revenue Fund and shall constitute a portion of the Revenues of the System.

(b) To the extent now or hereafter authorized by law, the Corporation or the Commission or the Department, for the benefit of the Corporation, may enter into agreements with any authority or other similar legal body operating a toll road whether or not connected to the System and not otherwise subject to the Master Custodial Agreement, for the collection and application of tolls charged for trips over all or a portion of one or more toll roads, which, on the basis of the revenues to be received by any such agreement, will result in the receipt by the Corporation (or the Trustee) of its allocable portion of such tolls (less fees and expenses associated with such arrangement).

Amounts relating to the System and received by the Corporation or on behalf of the Corporation from such other authority or other similar legal body, in accordance with such agreement, shall be deposited with the Trustee for credit to the Revenue Fund and shall constitute a portion of the Revenues of the System.

ARTICLE II GENERAL PROVISIONS

Section 2.1 Circulation of the Agreement. Copies of this agreement will be provided to, reviewed and relied upon by underwriters, investment bankers, brokerage firms, bond counsel, and similar parties in connection with corporation’s issuance of the bonds and the department’s provision of the toll equity loan to the corporation.

Section 2.2 Severability. If any provision of this agreement, or the application thereof to any person or circumstance, is rendered or declared illegal for any reason and shall be invalid or unenforceable, the remainder of the agreement and the application of such provision to other persons or circumstances shall not be affected thereby but shall be enforced to the greatest extent permitted by applicable law.

Section 2.3 Written Amendments. Any changes in the character, agreement, terms and/or responsibilities of the parties hereto must be enacted through a written amendment. No amendment to this agreement shall be of any effect unless in writing and executed by the commission and the corporation, with the prior written consent of the trustee pursuant to the trust agreement.

Section 2.4 Notices. All notices to either party by the other required under this Agreement shall be delivered personally or sent by electronic mail, addressed to such party at the following addresses:

Corporation:

James Bass
President
Grand Parkway Transportation Corporation
125 East 11th Street
Austin, Texas 78701
James.Bass@TxDOT.gov

TxDOT:

Phil Wilson
Executive Director
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701
Phil.Wilson@TxDOT.gov

With a copy to:

Ed Pensock,
Director
Strategic Project Office
Texas Department of Transportation
125 East 11th Street
Austin, Texas 78701
Ed.Pensock@txdot.gov

With a copy to:

Doug Woodall
Director
Toll Operations Division
Texas Department of Transportation
12719 Burnet Road
Austin, Texas 78727
Doug.Woodall@txdot.gov

All notices shall be deemed given on the date delivered or sent by electronic mail. Either party may change their address by sending written notice of the change to the other in the manner provided for above.

Section 2.5 Limitations. All covenants and obligations of the Department and the Corporation under this Agreement shall be deemed to be valid covenants and obligations of said entities, and no officer, director, or employee of the Commission or the Corporation shall have any personal obligations or liability hereunder.

Section 2.6 Remedies. This Agreement shall not be considered as specifying the exclusive remedy for any default, but all remedies existing at law and in equity, including mandamus, may be availed of by either party to this Agreement and shall be cumulative.

Section 2.7 Benefit. This Agreement is entered into for the benefit of the Commission, the Corporation, and, pursuant to the Trust Agreement, the Trustee and the Owners and their respective successors and permitted assigns. The Commission and the Corporation expressly acknowledge that the Trustee and Owners are intended third party beneficiaries of this Agreement and that the Trustee and Owners may enforce this Agreement pursuant to the terms of the Trust Agreement. Nothing in this Agreement or in any approval subsequently provided by either party hereto shall be construed as giving any benefits, rights, remedies, or claims to any other person, firm, corporation or other entity, including, without limitation, the public in general provided; however, the Trustee and the Owners are third party beneficiaries to this Agreement and is entitled to enforce any provisions herein pursuant to the terms of the Trust Agreement.

Section 2.8 Relationship of the Parties. Nothing in this Agreement shall be deemed or construed by the Parties, or by any third party, as creating the relationship of principal and agent between the Commission and the Corporation.

Section 2.9 Authorization. Each party to this Agreement represents to the other that it is fully authorized to enter into this Agreement and to perform its obligations hereunder, and that no waiver, consent, approval, or authorization from any third party is required to be obtained or made in connection with the execution, delivery, or performance of this Agreement. Each signatory on behalf of the Commission and the Corporation, as applicable, is fully authorized to bind that entity to the terms of this Agreement.

Section 2.10 Interpretation. No provision of this Agreement shall be construed against or interpreted to the disadvantage of any party by any court or other governmental or judicial authority by reason of such party having or being deemed to have drafted, prepared, structured, or dictated such provision.

IN WITNESS WHEREOF, the Commission and the Corporation have executed this Agreement by four multiple counterparts on the dates shown herein below, effective on the date listed above.

**GRAND PARKWAY
TRANSPORTATION CORPORATION**

By: _____
James Bass, President

Date: _____

**TEXAS TRANSPORTATION
COMMISSION**

By: _____
Ted Houghton, Chairman

Date: _____

ACKNOWLEDGED AND AGREED TO

_____, as Trustee
Title: _____
Date: _____

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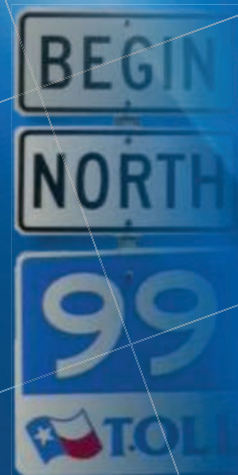
APPENDIX G
TRAFFIC AND REVENUE STUDY

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Comprehensive Traffic and Revenue Study Update 2012

Grand Parkway (SH99)
Segments D Through G

Final Report
June 26, 2013



**CDM
Smith**



12357-A Riata Trace Parkway
Building 5, Suite 210
Austin, Texas 78727
Tel: (512) 346-1100
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June 26, 2013

James Bass
Chief Financial Officer and President of Grand Parkway Transportation Corporation
Texas Department of Transportation
125 E. 11th Street
Austin, TX 78701-2483

**Re: Grand Parkway (SH99) Segments D through G – Comprehensive Traffic and Revenue Study
Update 2012**

Dear Mr. Bass:

CDM Smith is pleased to submit this report of our Comprehensive Traffic and Toll Revenue Study for the proposed Grand Parkway Segments D through G, between IH-10W Katy Freeway, west of downtown Houston, and U.S. 59N in the northeast greater Houston region.

The report summarizes the data collection efforts undertaken in 2011 and 2012, including traffic counts and travel time studies, travel pattern surveys, new market research on the willingness-to-pay tolls, and an update of the socio-economic growth potential of the region, prepared by an independent local economist. These were all used to enhance the Houston-Galveston Area Council (HGAC) regional travel demand model for use in estimating the traffic and toll revenue potential of the proposed initial Grand Parkway Segments D through G. Project-specific toll rate sensitivities, and the estimated T&R sensitivity to changes in future variables and key assumptions are also summarized as part of this comprehensive T&R Study. The study has been conducted at a level of detail sufficient for use in support of project financing.

Our project team, including Scott Allaire, Stefan Reul, Cui Xiao, Adam Aceto, Lin Zhou and others, gratefully acknowledge the assistance and cooperation received from TxDOT and TxDOT's Consultants, as well as others contacted during the course of the study. CDM Smith sincerely appreciates the opportunity to have participated in this important project.

Respectfully submitted,
CDM Smith Inc.

Christopher Mwalwanda
Vice President



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Attachment B: Economic and Demographic Forecast Report, by

CDS Market Research

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Chapter 1

Introduction

DISCLAIMER

Current accepted professional practices and procedures were used in the development of these traffic and revenue estimates. However, as with any forecast of the future, it should be understood that there may be differences between forecasted and actual results caused by events and circumstances beyond the control of the forecasters. In formulating its estimates, CDM Smith has reasonably relied upon the accuracy and completeness of information provided (both written and oral) by the Texas Department of Transportation. CDM Smith also has relied upon the reasonable assurances of some independent parties and is not aware of any facts that would make such information misleading.

CDM Smith has made qualitative judgments related to several key variables in the development and analysis of the traffic and revenue estimates that must be considered as a whole; therefore selecting portions of any individual result without consideration of the intent of the whole may create a misleading or incomplete view of the results and the underlying methodologies used to obtain the results. CDM Smith gives no opinion as to the value or merit to partial information extracted from this report.

All estimates and projections reported herein are based on CDM Smith's experience and judgment and on a review of information obtained from multiple agencies, including the Texas Department of Transportation. These estimates and projections may not be indicative of actual or future values, and are therefore subject to substantial uncertainty. Future developments cannot be predicted with certainty, and may affect the estimates or projections expressed in this report, such that CDM Smith does not specifically guarantee or warrant any estimate or projection contained within this report.

While CDM Smith believes that all of the projections or other forward-looking statements contained within the report are based on reasonable assumptions as of the date in the report, such forward looking statements involve risks and uncertainties that may cause actual results to differ materially from the results predicted. Therefore, following the date of this report, CDM Smith will take no responsibility or assume any obligation to advise of changes that may affect its assumptions contained within the report, as they pertain to socioeconomic and demographic forecasts, proposed residential or commercial land use development projects and/or potential improvements to the regional transportation network.

*

*

*

CDM Smith (formerly Wilbur Smith Associates) has completed a comprehensive traffic and revenue study update (Comprehensive T&R study) of the proposed Grand Parkway Segments D through G between IH-10 W Katy Freeway west of downtown Houston and U.S. 59 N in the northeast greater Houston region. This major update built upon the Comprehensive T&R study conducted in 2011 for the Texas Department of Transportation (TxDOT) and Harris County Toll Road Authority (HCTRA). This study updated key input assumptions pertaining to economic growth, project configuration, and timing of the proposed segments of the Grand Parkway. A complete set of model runs were conducted to reflect these latest project and model input assumptions, resulting in updated forecasts of annual toll transactions and toll revenue for the Grand Parkway.

CDM Smith also recently completed a T&R study of the addition of tolled overpasses along the existing SH 99 Grand Parkway Segment D for the Fort Bend Grand Parkway Toll Road Authority (FBGPTRA). Segment D of the Grand Parkway connects U.S. 59S in the southwest greater Houston region to IH-10W to the west of Houston. The addition of tolled overpasses in December 2013 will improve mobility along this already fast-growing corridor segment that is immediately to the south of the southern terminus of the proposed study segments presented in this report.

The two T&R studies utilized detailed data collected at numerous locations during late 2010 and 2011, including new traffic counts and travel time studies, travel pattern surveys, new market research on the willingness-to-pay tolls, and an update of the socio-economic growth potential of the region conducted in 2012 and prepared by an independent local economist. The latest project configuration assumptions and segment timing pertaining to the Grand Parkway and other future tolled and non-tolled projects in the Houston metropolitan study area were reflected in the model networks during this 2012-2013 study update.

Using this detailed information, the Houston-Galveston Area Council (HGAC) regional travel demand model was refined by CDM Smith for use in estimating the T&R potential of the proposed Grand Parkway segments. CDM Smith also examined project-specific toll rate sensitivities and the estimated T&R sensitivity to changes in future variables and key assumptions. This report documents the Segments D through G Comprehensive T&R Study conducted at a level of detail sufficient for use in support of project financing.

Previous CDM Smith T&R studies of the proposed Grand Parkway project included a Level 2 T&R study as part of the SH 99 Market Valuation Study for TxDOT and HCTRA. Preliminary T&R studies of the Grand Parkway corridor had also been previously performed for HCTRA by CDM Smith.

Study Objectives

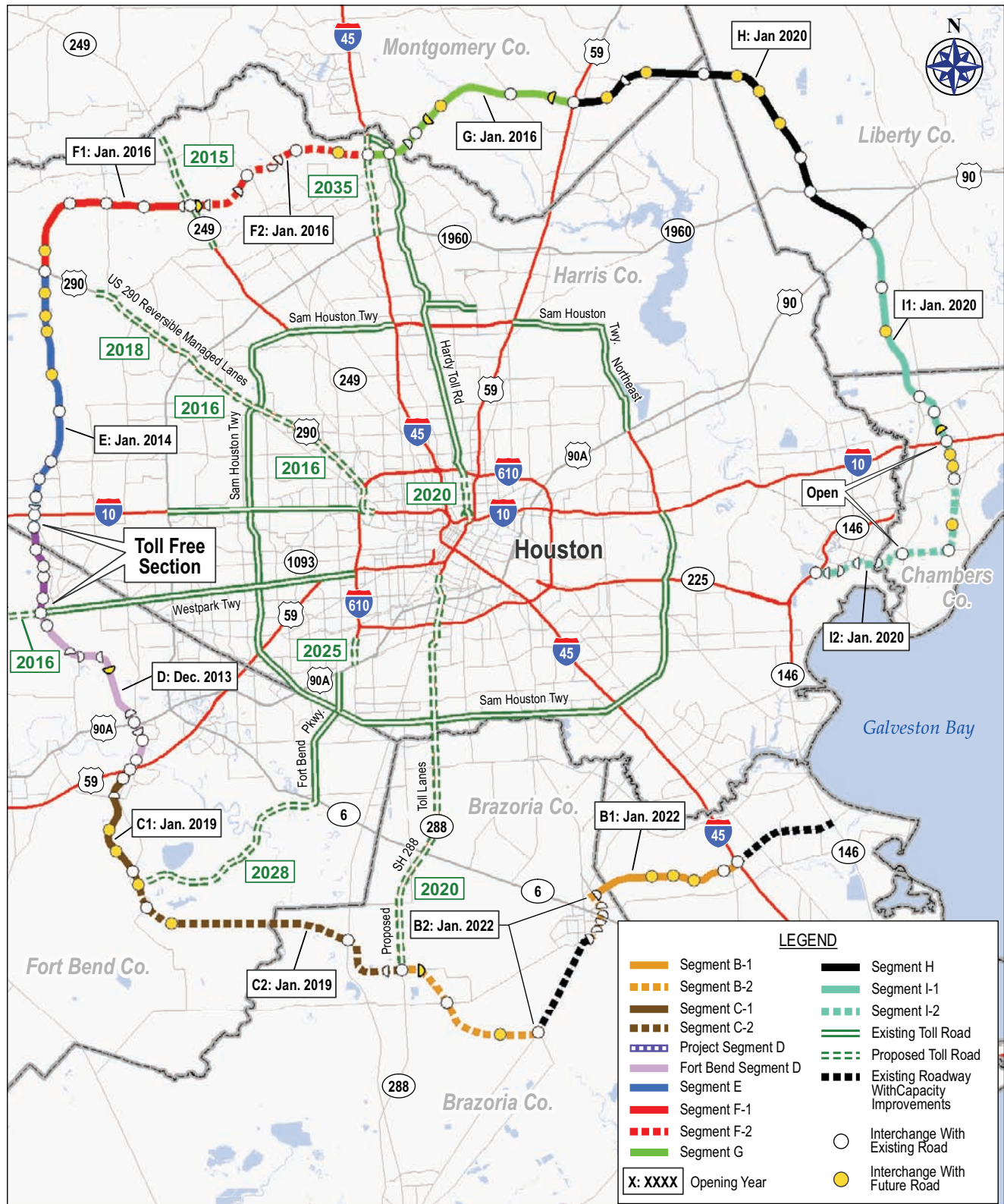
The objective of the study was to develop long-range revenue forecasts through 2064 for the Grand Parkway Segments D through G. The updated forecasts reflect the latest socio-economic growth assumptions, the latest assumptions on future highway improvements for the region including other Grand Parkway segments, and updated assumptions regarding future toll levels and other key variables.

Project Description

The conceptual plan of the ultimate build of State Highway 99 (SH 99) Grand Parkway is shown in Figure 1-1. The ultimate Grand Parkway is planned to be Houston's third circumferential highway, extending approximately 184 miles in length around the Metropolitan Area. The roadway begins at SH 146 in Galveston proceeding west, north, east, and south around the city. It is divided into nine segments for purposes of analysis with several segments subdivided into two sub-segments. The entire facility traverses seven of the eight counties in the region, i.e. Galveston, Brazoria, Fort Bend, Harris, Montgomery, Liberty, and Chambers.

The proposed initial phase Segments D through G will be constructed as a four-lane controlled access toll road with intermittent frontage roads along its alignment. For the purposes of this T&R study, tolls were assumed to be collected by Electronic Toll Collection (ETC) only for the SH 99 Grand Parkway Segments D through G. Full details of project configuration and phasing are provided in

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Chapter 2, including tolling locations. Details on assumed toll rates and rates of escalation are provided in Chapter 6.

Order of Presentation

The subsequent chapters of this report will present the methodologies, analyses, and results of this comprehensive T&R study including the extensive data collection program that included traffic counts, speed and delay studies, origin-destination surveys, calibration of base traffic profiles to existing conditions, stated preference surveys and market research efforts, estimation of local Values-of-Time (VOT), an independent socio-economic analysis, a review of toll collection operations, an update of the computerized travel demand model, the traffic and revenue forecasts themselves, and sensitivity test results.

The base case forecast assumes Segments D through G of the Grand Parkway are constructed along with the Fort Bend Segment D, **but without the impact of any of the other adjacent segments of the Grand Parkway**. Results from a toll sensitivity analysis are also presented. Toll sensitivity curves are presented which display the estimated transactions and toll revenue for the Grand Parkway under a range of assumed per mile toll rates. For purposes of reporting, Segment D will refer exclusively to the proposed project segment.

This is followed up with several sensitivity analyses that identify the impacts of changes in toll and ramp configuration and various key assumptions, specifically, a range of socio-economic growth, major regional network improvements, higher and lower value-of-time assumptions, and higher gasoline price assumptions. In addition to the standard sensitivity tests on economic growth, a scenario using the current but outdated H-GAC (MPO) socio-economic forecasts is also presented to assess the impact of the updated base case growth assumptions provided by the independent economist for this study.

This Comprehensive T&R Study is documented in the following chapters:

- Chapter 1: Introduction
- Chapter 2: The Grand Parkway Project
- Chapter 3: Houston Travel Characteristics
- Chapter 4: Willingness to Pay Tolls, Value of Time
- Chapter 5: Economics and Growth
- Chapter 6: Traffic and Toll Revenue Estimates
- Chapter 7: Sensitivity Testing

Two appendices are also provided, detailing work of two sub-consultants, as follows:

- Attachment A: Stated Preference Study, by RSG
- Attachment B: Independent Economic Review, by CDS Market Research.

Executive Summary of Report

The Houston - Sugar Land - Baytown Metropolitan region is currently ranked first for economic growth and activity among all metropolitan regions in the United States and serves the second largest number of publicly-traded fortune 500 companies in the United States. The growth in the Houston economy has undergone extensive diversification over the last twenty years away from its energy oriented dominance that accounted for over 80 percent of the region's economic activity in 1986, to one that is currently more balanced with non-energy sector industries accounting for over 50 percent of the economic activity. The region has also been moving away from a manufacture oriented economy to one that is more service oriented that encompasses emerging industries that include engineering, biotechnology and health services, aviation and aerospace, financial, legal, accounting and foreign trade.

This economic activity has fueled strong growth in both population and employment within Harris County at the core of the city and its surrounding counties. Harris County is currently the third most populous county in the United States having added 1.2 million in population over the last twenty years. This growth has also manifested in Fort Bend and Montgomery counties – both of which have grown over the last twenty years (1990-2010) by over 4.5 percent annually in population and over 5.5 percent in employment.

The City of Houston has never had zoning or any other form of land use regulation, such that the historical development and growth has not – as is typical of other large urban regions – been localized to the Central Business District (CBD), but instead has occurred in de-centralize clusters around the region. This combined high economic growth and decentralize clustering has placed a tremendous strain on the transportation capacity within the region on both existing radial facilities supporting the typical suburb-to-CBD movements and the circumferential facilities supporting the prominent suburb-to-suburb movements. Many of these radial and circumferential facilities within the proposed Grand Parkway System study area currently demonstrate congested levels of service during the peak periods. The main competing circumferential facilities to the proposed Grand Parkway facility includes SH 6/FM 1960 as a signalized 6-lane undivided arterial, that currently serves between 50-60 thousand daily vehicles and the Sam Houston Tollway (SHT) as a 6-lane divided toll facility with continuous frontage roads running along the majority of its length that currently serves 140-160 thousand daily tolled vehicles. Both these facilities experience congested levels of service during the peak periods in addition to many of the major interesting radial facilities.

The growth within the Grand Parkway corridor is currently already underway with numerous existing and new announcements for additional residential and commercial development. Examples of recent major developments include the Exxon campus, located at IH 45 and the proposed Grand Parkway, which is expected to bring over 10,000 jobs when open in 2015, and the 1,374 acre Valley Ranch mixed-use development that is already under construction. These decentralized developments and the expected future growth within the surrounding counties is expected to continue to accentuate the congestion along the existing transportation infrastructure in the region. The Grand Parkway System is forecasted to support the current suburb-to-suburb movements between the major radial facilities within the region, namely the IH 10, US 290, SH 249, IH 45 and US 59, and the new growth being realized within the surrounding Fort Bend and Montgomery counties.

The Grand Parkway System as part of Segment G will also provide a new alternative crossing to the San Jacinto River. Currently there are limited options to cross this natural boundary, such that the

proposed corridor will provide a major connection to the two regions on either side of the river. The travel time savings along the various segments of the proposed 54-mile Grand Parkway System are expected to range between 10 to 50 minutes during the peak periods in 2035.

The traffic and revenue projections and growth for the proposed Grand Parkway System are shown to be within a modest range compared to those experienced historically within the 10 and 20 year time horizons along the existing Sam Houston Tollway facility. The assumptions used to generate the traffic and revenue estimates were based on comprehensive traffic data collected within the corridor, current observed toll utilization trends from existing toll facilities within the region, reasonable economic growth develop using a local independent economist with detailed knowledge of the region, and travel demand modeling undertaken using the regional metropolitan planning organization that was enhanced to reflect corridor specific characteristics and toll diversion characteristics of the markets likely to be served within the Grand Parkway corridor.

The proposed Grand Parkway System is forecasted to capture a total market share that ranges between 3.5 and 5.2 percent of the total corridor demand in 2016 (when all the segments are opened), and is expected to grow to between 7.8 and 9.3 percent by 2035. The commercial vehicle traffic captured along the Grand Parkway segments is expected to range between 4 and 6 percent of the daily transactions and approximately 55 to 60 percent of travelers using the facility during the peak periods. The daily capture of traffic along the various Grand Parkway segments is expected to range between 10.4 (Segment F-2) and 35.6 (Segment G) thousand vehicles at their opening, and between 33.0 (Segment F-2) and 104.6 (Segment G) thousand by 2035. The gross nominal revenues generated by the Grand Parkway System in fiscal year 2016 are forecasted to be \$48.3 million and are expected to grow to \$424.6 million by the 2035 fiscal year.

Chapter 2

The Grand Parkway Project

Background and Needs

The 8-county region surrounding Houston has seen significant population growth over a sustained period. The region added almost 1 million people between 1970 and 1980 and although the rate of growth was substantially reduced by a major economic recession and restructuring which followed in the mid-1980's, the greater Houston region emerged as a much more diverse economy. Strong growth resumed in the 1990s and through the beginning years of the 21st century. Today, almost 4.0 million people live in Harris County, and over 5.6 million in the total eight-county region.

In recent years, the most rapidly growing counties have been Montgomery and Fort Bend, averaging growth of approximately 6 percent per year. Both of these counties, which had populations in the range of 50,000 residents in 1970, have now grown by nine to tenfold.

This growth has resulted in ever-increasing traffic demands and the need for additional capacity and highway improvement projects particularly outside the City of Houston. Some of these projects have been identified for implementation by TxDOT, including a possible extension of the IH-10 Katy Tollway Managed Lanes to the west, an extension of the existing SH 249 Freeway in the northwestern part of the region, a new toll facility along the SH 35 corridor between Hobby Airport and Alvin, and future managed toll lanes along IH-45 between downtown Houston and Montgomery County. Figure 2-1 shows the existing and future proposed toll facilities in the Houston area.

Fort Bend County Toll Road Authority (FBCTRA) built and financed the Fort Bend Parkway and the Westpark Tollway Extension. It is considering further extensions of its existing facilities. Several other potential toll roads are at various planning stages in Fort Bend County including Grand Parkway Segment D and part of Segment C. The Grand Parkway is an important facility that is needed to accommodate the County and region's mobility needs and to support the future development that is anticipated.

The Houston, TX region has become a toll road success story; Harris County and more recently Fort Bend County have very successfully used toll road financing in the construction of new highway capacity to significantly enhance regional mobility. A review of the historic performance of these toll facilities illustrates the widespread acceptance of toll roads by the local population, high ownership of toll transponders and rapid growth that each facility has brought to the corridors that the toll facilities serve. Almost all of the facilities experienced a doubling of full first-year traffic within about ten years, whereas some almost tripled. This significant ramp-up of toll-paying traffic was driven by the socio-economic growth outside the Sam Houston Beltway and a growing understanding of the benefits that the toll facilities provide.

Most recently, economic growth along the western edges of the Metropolitan Area has been accommodated by the Westpark Tollway and Katy Tollway. The Westpark Tollway reached capacity during peak hours within a few years of opening. The Katy Tollway managed lanes are a part of the upgraded Katy Freeway system that has provided significant additional toll and non-tolled capacity to

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Graphics-Apr 2013 / Location Map Toll Facilities-Ex & Prop.mxd / 12-18-12



**LOCATION MAP HOUSTON AREA TOLL FACILITIES
EXISTING AND PROPOSED**

the Katy corridor, resulting in a tremendous growth in development over the past five years. The demand for the managed lanes, particularly outside the Beltway, has exceeded all expectations.

Project Description

A location map is provided in Figure 2-2 showing the location of the proposed alignment of Segments D, E, F1, F2 and G in Harris and Montgomery Counties, located north and west of downtown Houston, spanning a distance of 54.5 miles between IH-10 W and U.S. 59 N. Also shown in the Figure is Fort Bend County's Segment D, whose T&R summary is not included in this report, although Segment D's impacts on Segments D through G are included. Figures 2-3 through 2-5 display each proposed segment in detail, including their respective tolling plan. Specific details on opening and future year toll rates are provided in Chapter 6.

The proposed Segments D through G will be constructed as a four-lane controlled access toll road with intermittent frontage roads along its alignment. For the purposes of this T&R study, tolls are assumed to be collected by Electronic Toll Collection (ETC) only for the SH 99 Grand Parkway Segments D through G. Tolling locations, toll rates and escalation are discussed in Chapter 6.

Segment D, as it pertains to the traffic and revenue estimates in this report, extends approximately 1.3 miles from IH-10 Interchange ramps to/from the south, northward to south of Franz Road. Segment D is assumed to be open for toll-paying traffic in January 2014.

Segment E of the Grand Parkway is oriented northwards from south of Franz Road to U.S. 290 Northwest Freeway through Harris County. It is approximately 14.4 miles in length connecting the Energy Corridor and the City of Katy in the south with the emerging center of Cypress in the north. Segment E is assumed to be open for toll-paying traffic in January 2014.

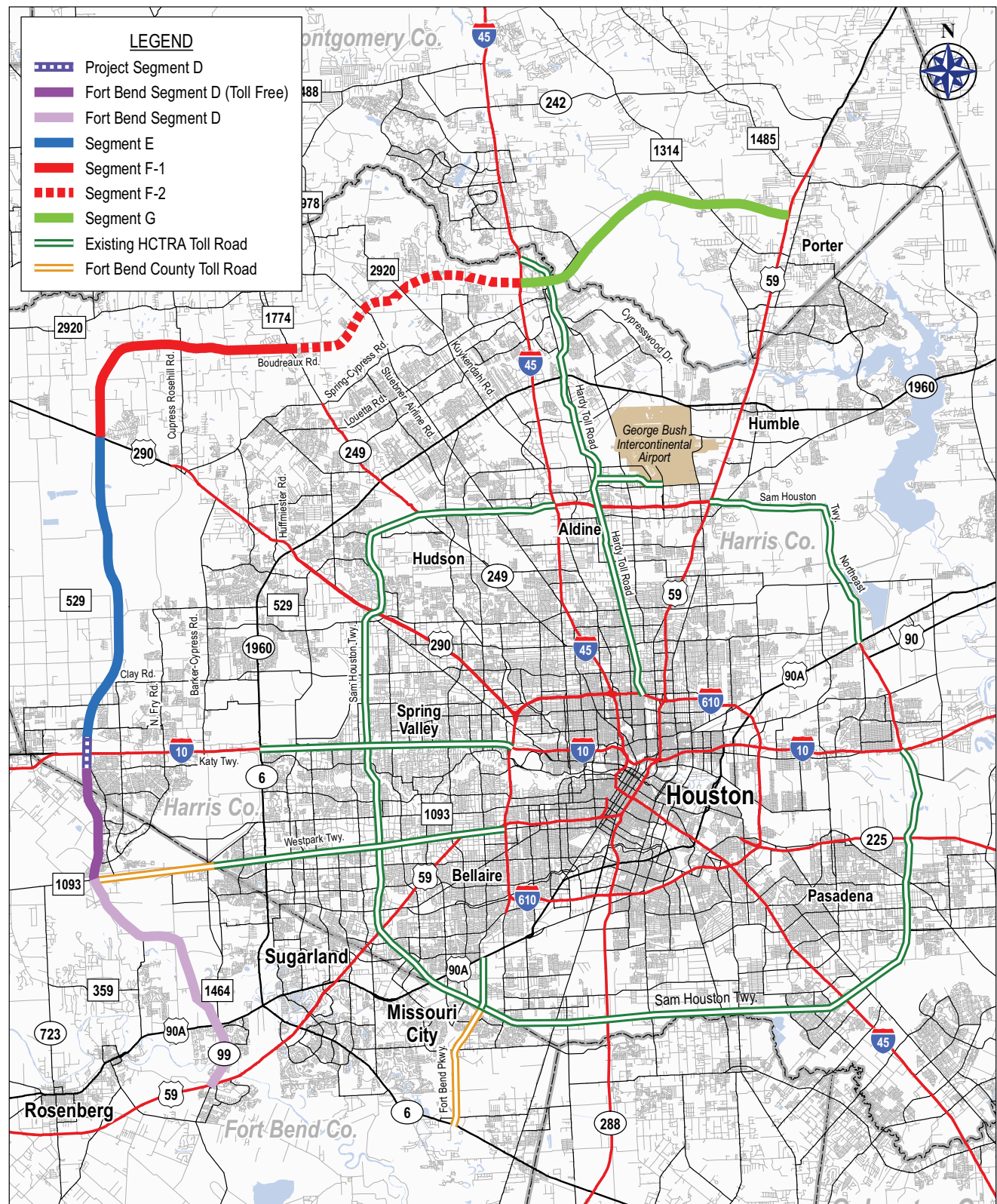
Segment F of the Grand Parkway toll road loop extends approximately 24.0 miles northeast from the limit of Segment E at the U.S. 290 interchange. This segment continues on an East-West orientation through IH-45 North (North Freeway) in Harris County at the south side of The Woodlands community. The mainline section will be a four-lane controlled access toll road proposed to be completed by January 2016. Segment F has previously been subdivided into two sub-segments, namely F-1 and F-2.

Segment F-1 is the approximate 12.0 mile portion of the stretch between U.S. 290 and SH 249 (Tomball Parkway). Segment F-2 is the approximate 12.0 mile portion between SH 249 and IH-45 North. Both of these sub-segments will have intermittent frontage roads along their alignments. The North Cypress and Champions areas contain significant developable land supporting strong growth projections. In particular the Springwoods Village mixed-use development is projected to bring enormous growth to the corridor including the consolidation of Exxon Mobil to a single office campus.

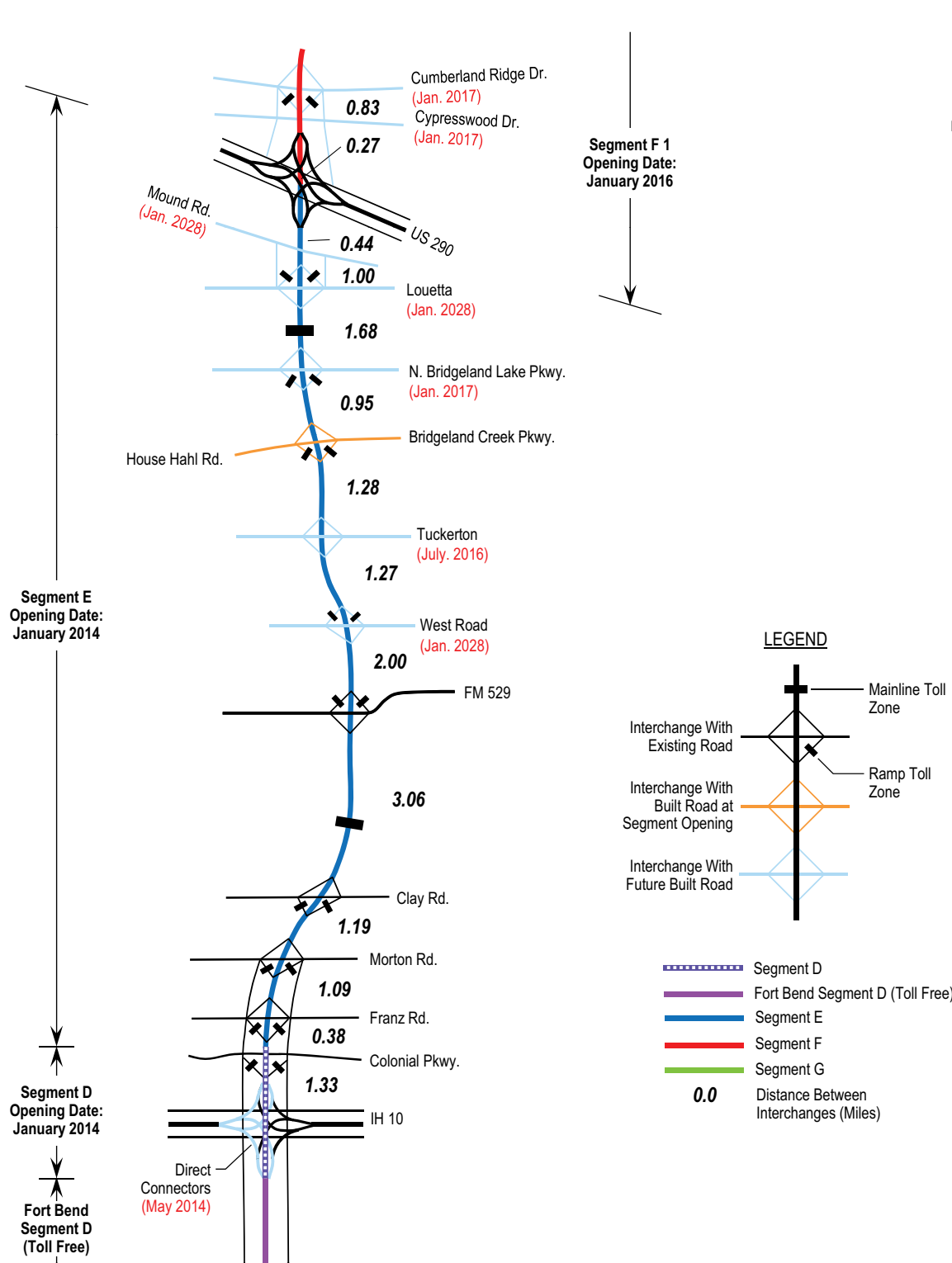
The proposed Segment G is expected to open January 2016 and will also be constructed as a four-lane controlled access toll road with intermittent frontage roads. This segment extends west from IH-45 North to U.S. 59 North (Eastex Freeway) completing the loop from U.S. 59 N to U.S. 59 S thereby providing the opportunity to bypass the City of Houston completely. This Segment is 13.8 miles in length and is adjacent to significant developable land. The new Segment G will also provide very significant local time savings as it will provide the only San Jacinto River crossing within approximately 15 miles between U.S. 59 and SH 242.

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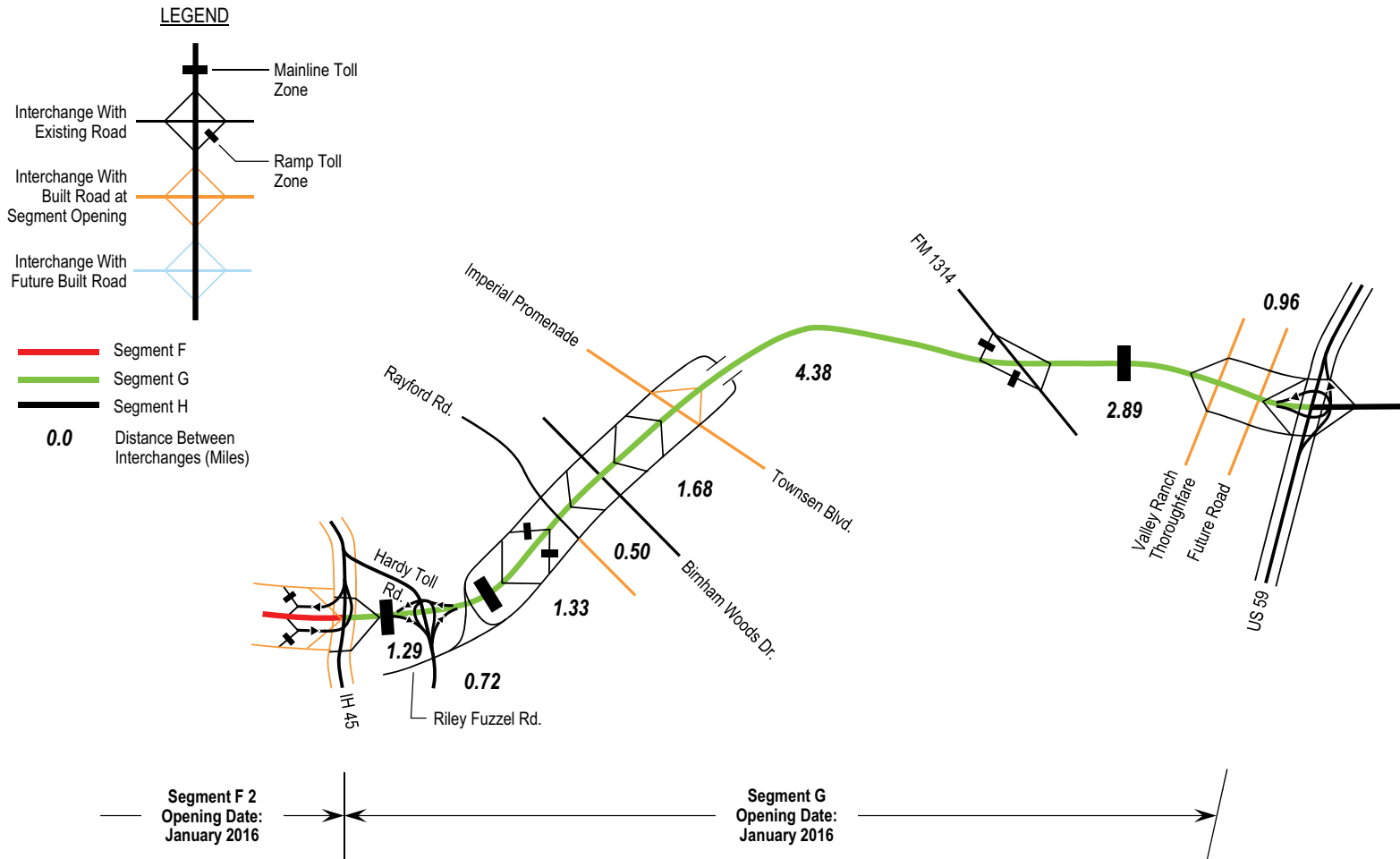
Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Overall, the 54.5 mile stretch of Grand Parkway Segments D through G will be completed as a four-lane divided toll road. The engineering design accommodates future expansion to six-lanes subject to further approval and needs, and is thus **not included as part of the base assumptions**.

As mentioned, this Comprehensive T&R study was coordinated with the FBGPTRA Segment D T&R study. Currently, Segment D is constructed as SH 99, a four-lane state highway. The southern portion of Segment D, between Westpark Tollway and U.S. 59 South, has an initial configuration consisting of seven interchanges built at-grade with local cross streets and signals that are vehicle-actuated that cause delays for existing through-traffic. The proposed construction on this portion, assumed to be complete in mid-2013, will significantly improve journey times by adding seven new electronically tolled (ETC) mainline overpasses to provide toll-paying customers with new opportunities to bypass the at-grade signalized interchanges. North of Westpark Tollway, the mainline overpasses have already been built along SH 99 at all interchanges and will remain untolled in the future.

The Base Case condition presented in this report assumes only Segments D through G are built. A sensitivity was undertaken with the other future Grand Parkway Segments to the east of U.S. 59, specifically Segments A through C to the South, Segment H to the North-East and the future segments of Segments I to the East.

Chapter 3

Houston Travel Characteristics

In order to understand current traffic conditions and traffic patterns within the existing Grand Parkway Corridor and the roadway system in the surrounding area, extensive data collection efforts were undertaken. A series of data collection exercises were conducted in February, May and June 2011, in the region, which included the collection of automatic traffic recording (ATR) counts, speed and delay studies and origin and destination surveys.

A series of 48-hour traffic counts were conducted in order to obtain complete traffic pattern information for existing conditions within the Segments D, E, F, and G corridor. The count data was reviewed and analyzed for use in the model calibration process, as explained in more detail in following sections of this report.

A large amount of speed and delay data was collected for the model calibration process. This data was collected during several time periods throughout the day. This chapter of the report summarizes the data collection activities and presents the results.

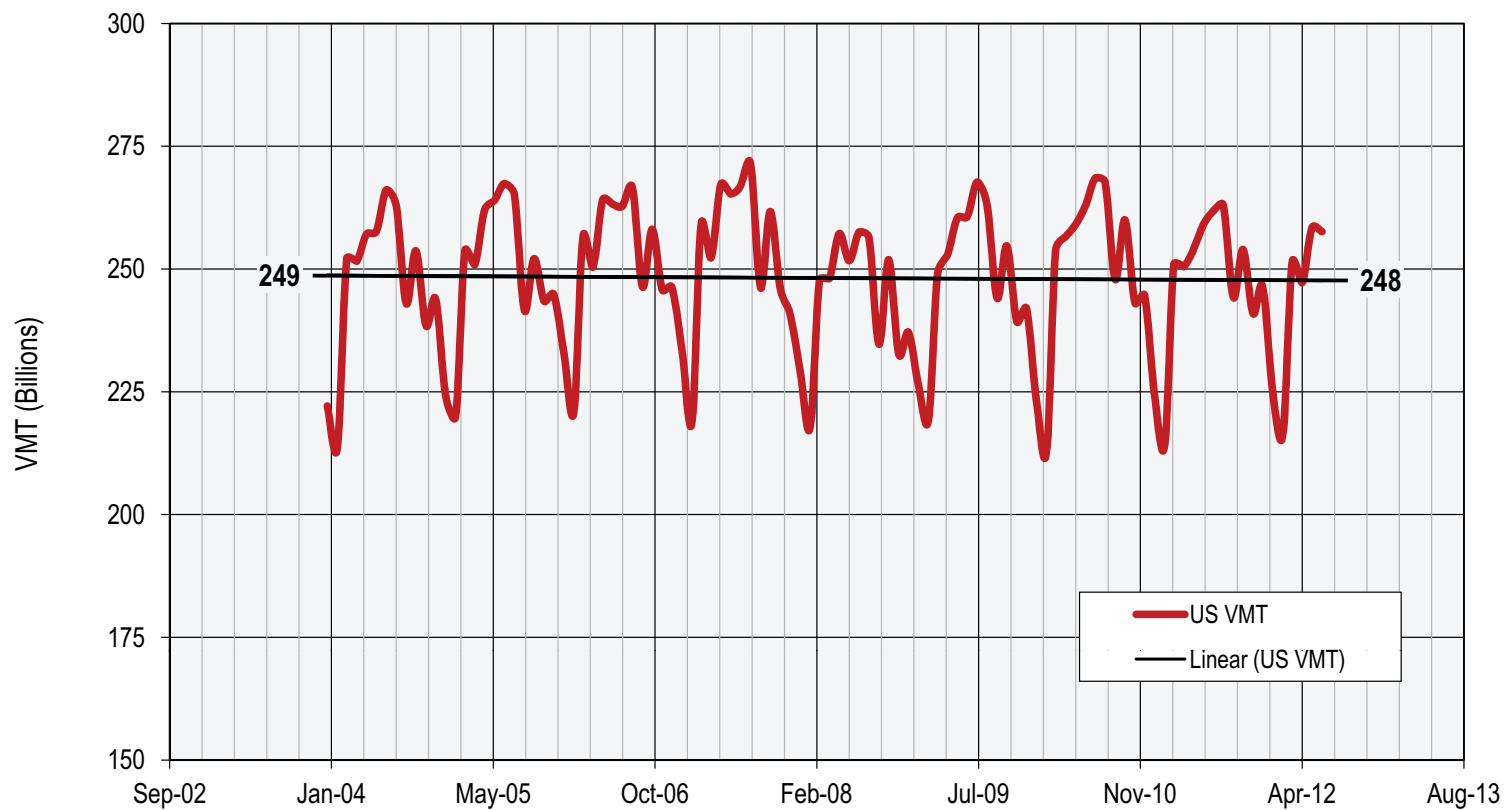
Vehicle Miles Traveled (VMT)

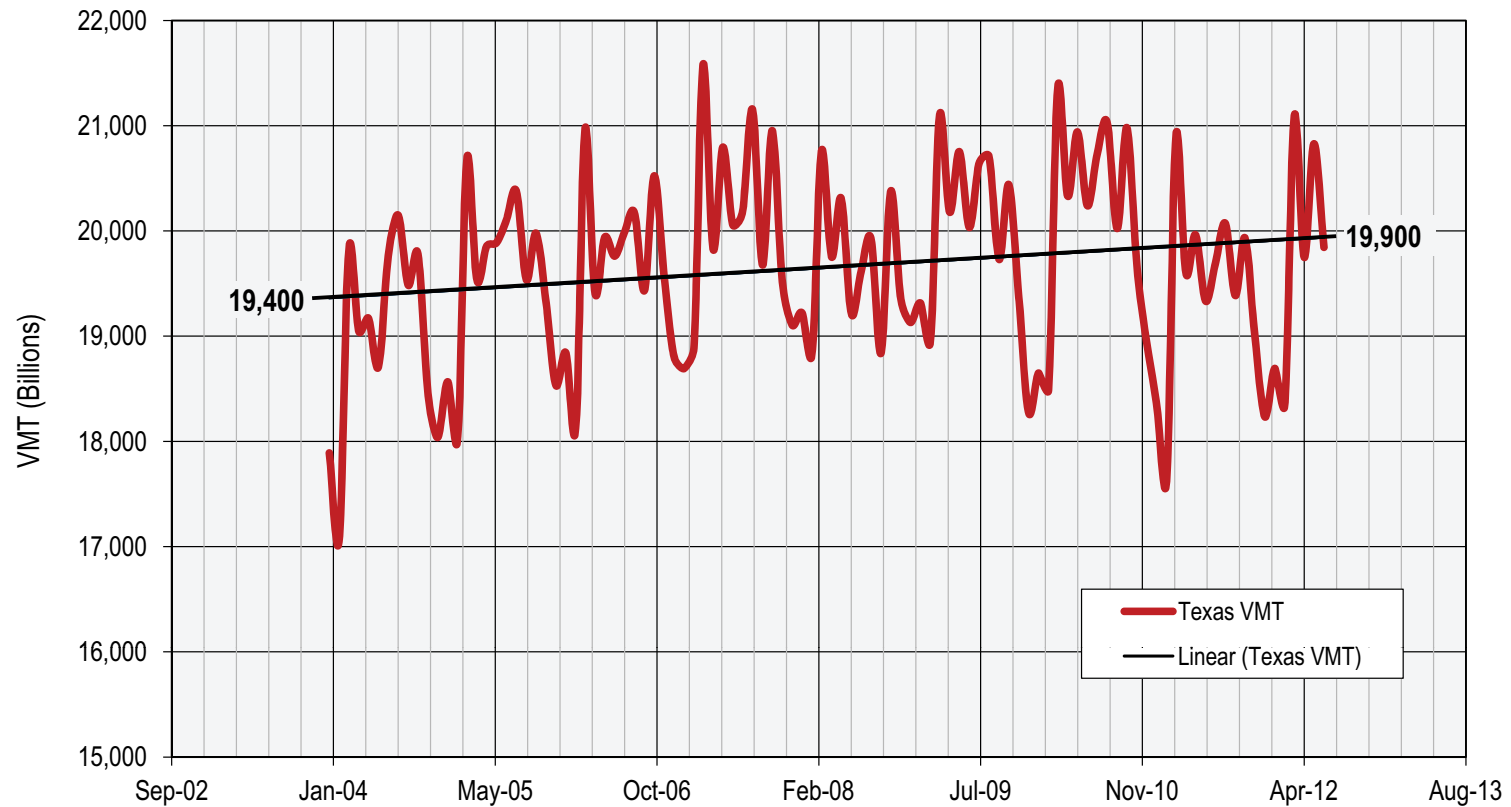
To effectively evaluate highway system usage, it is important to determine how many miles are driven on the system each year. This measure is known as Vehicle Miles Traveled or VMT. It estimates roadway use within a geographic area and allows for year-to-year comparisons.

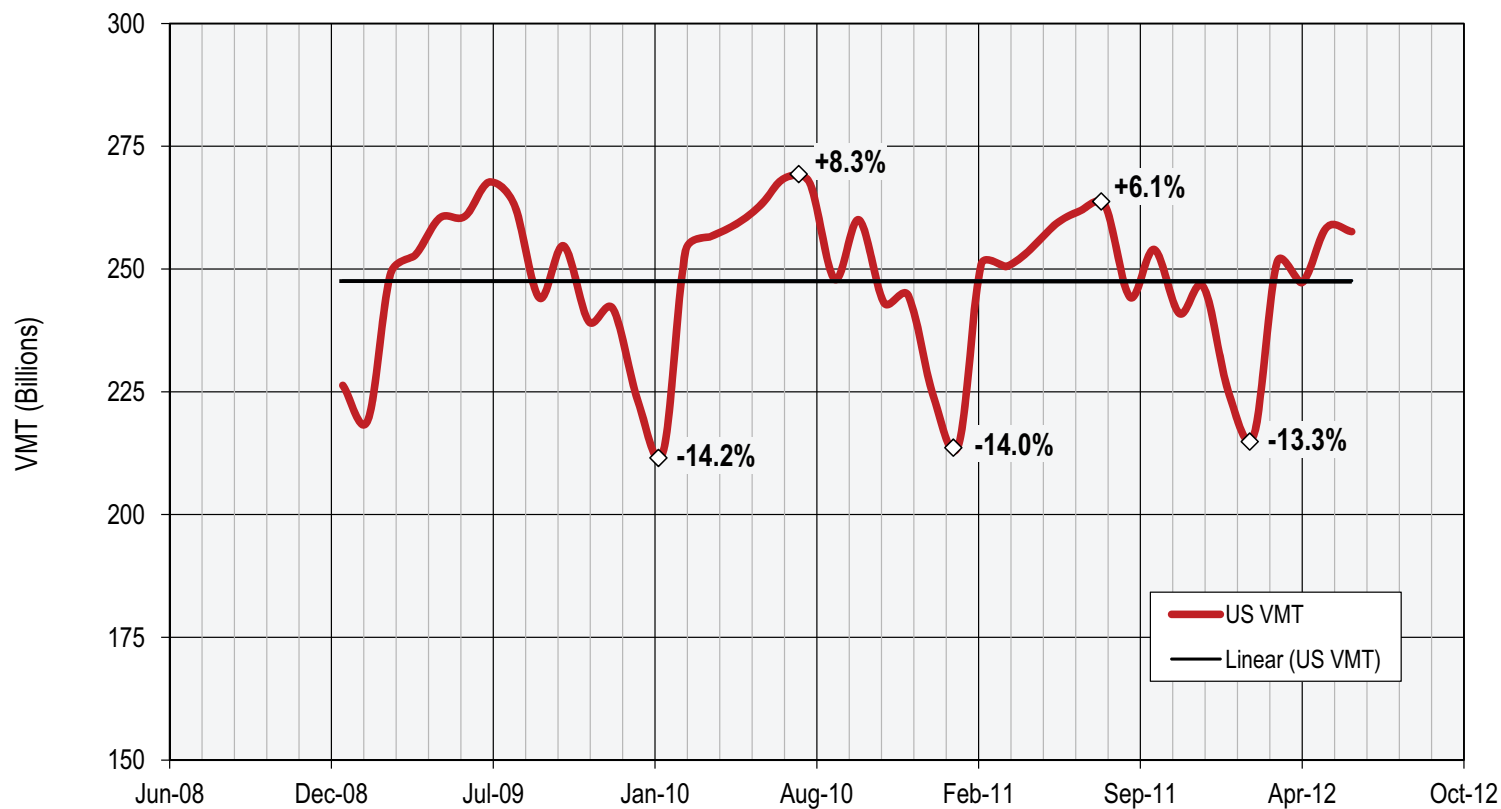
Figure 3-1 shows the U.S. nationwide VMT from January 2004 to June 2012. The linear trend line is virtually flat for the 8 and one-half years. It was 249 billion miles in 2004 and decreased to 248 billion miles through June 2012. Figure 3-2 shows the State of Texas VMT for the same 8 and one-half year period. The linear trend line shows a rise from 19,400 million miles in 2004 to 19,900 million miles in June 2012. Over this period, the national VMT did not, on the average, increase, while the Texas VMT rose approximately three percent.

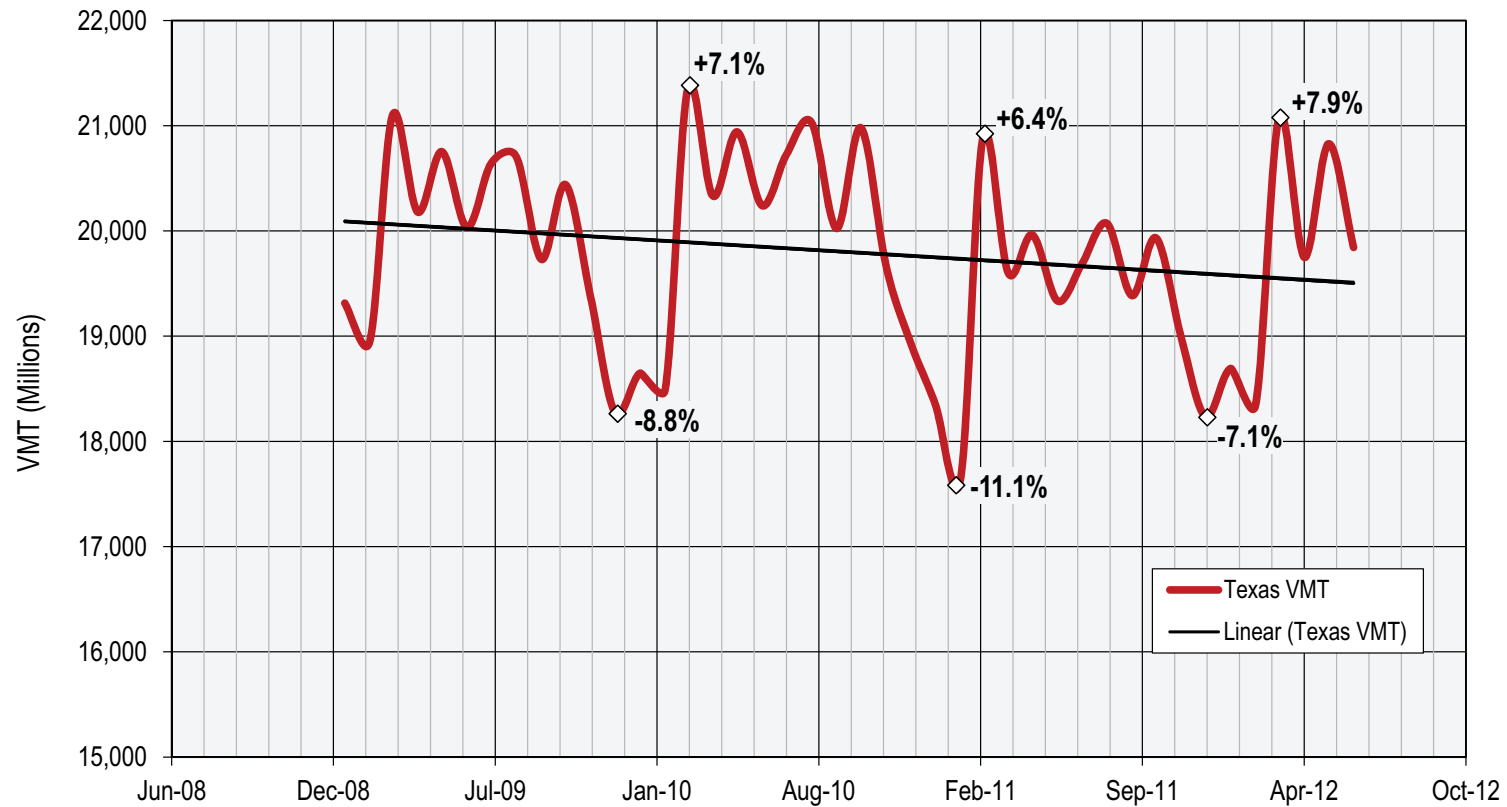
For the short-term, Figure 3-3 shows the VMT for the entire United States from January 2009 through June 2012. Figure 3-4 represents VMT in the State of Texas for the same time period. The nationwide VMT showed lower and higher deviations from its linear trend line than the Texas VMT. It ranged from a low of -14.2 percent in February 2010 to a high of 8.3 percent in July 2010. The low points for Texas were also in February 2010 and 2011, but the dip below the linear trend line was -8.8 percent and -11.1 percent those months, respectively. The high point for Texas was in March 2012 when VMT was 7.9 percent above the linear trend.

In the long and short-term, the linear trend lines for both the nationwide VMT and Texas are both relatively flat. In the long-term, the Texas trend was up by a small percentage. In the short-term, the two trend lines were close, however, the nationwide curve had more volatility with higher drops and increases, while the Texas curve demonstrated a more narrow band of ups and downs, indicating a more stable situation.







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Systemwide Annual Transactions and Revenue Trends

Figure 3-5 illustrates the annual growth trends of the HCTRA system from the early 1990's to 2012. Both transactions and revenue steadily increased from about 38 million transactions and \$29 million in revenue in 1990 to almost 360 million transactions and almost \$360 million in toll revenue, in 2007. This is an average annual growth rate of 14.2 percent for transactions and 15.9 percent for revenue for the 17 years (partially as a result of added new segments in addition to the overall regional growth). During the most recent 5-year period from 2007 to 2012, transactions increased by an average annual rate of 2.6 percent and revenue increased by an annual rate of 6.7 percent.

Trends in ETC Utilization

Usage of Electronic Toll Collection (ETC) has been steadily increasing over the years. In 2003, 46 percent of HCTRA transactions were by ETC. This also represented almost 47 percent of toll revenue. By 2007, the percent of transactions had grown to nearly 66 percent while the percentage of revenue was similar at 67 percent. In 2012, ETC was still growing, and constituted over 72 percent of the transactions and nearly 76 percent of revenue collected. Figure 3-6 shows the percentages of transactions using ETC and the respective percentages of revenue collected.

Ramp Up History

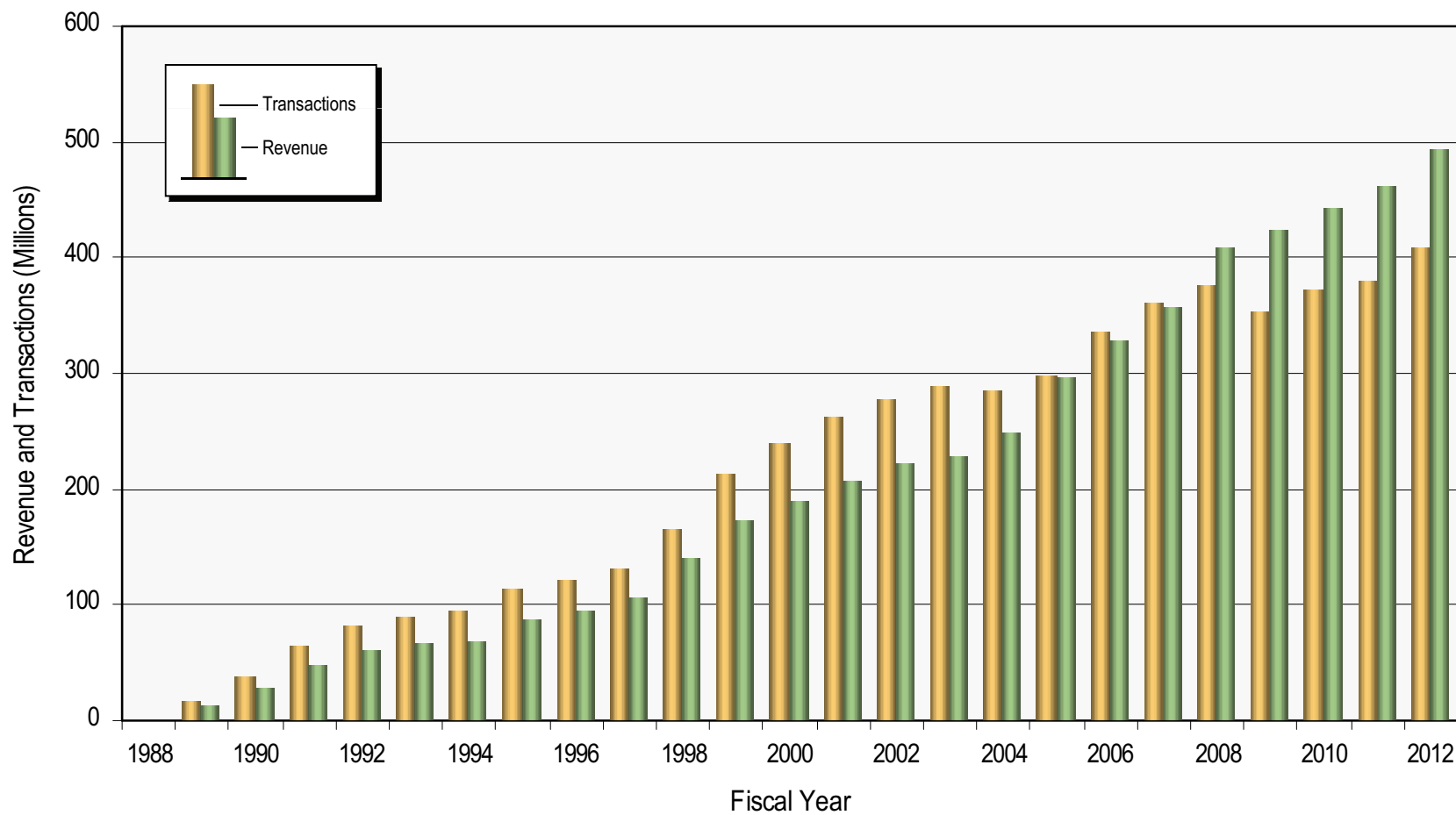
When a new toll facility first opens, normally 100 percent of potential users are not aware of the facility or they do not know whether or not they can benefit from its use. Gradually, over time, more and more drivers become aware of the new roadway and its usage increases. Figure 3-7 illustrates, historically, the observed ramp up that occurred for the eight Houston Area toll facilities. Significant growth was demonstrated during the first five years of operation, as people became familiar with the facility, and then, normal growth (from new development, population increases, heavier congestion on free-road alternatives, etc.) usually occurred thereafter.

Figure 3-8 shows the first five years of operation for the Houston Area toll facilities. In most cases, the number of transactions in the first year ranged between 50 and 70 percent of the fifth year experienced transactions. In the second year, transactions increased to between 70 percent and nearly 90 percent of the observed fifth year. Increases tapered off such that the fourth year transactions on almost all of the presented facilities approached or exceeded 90 percent of fifth year levels.

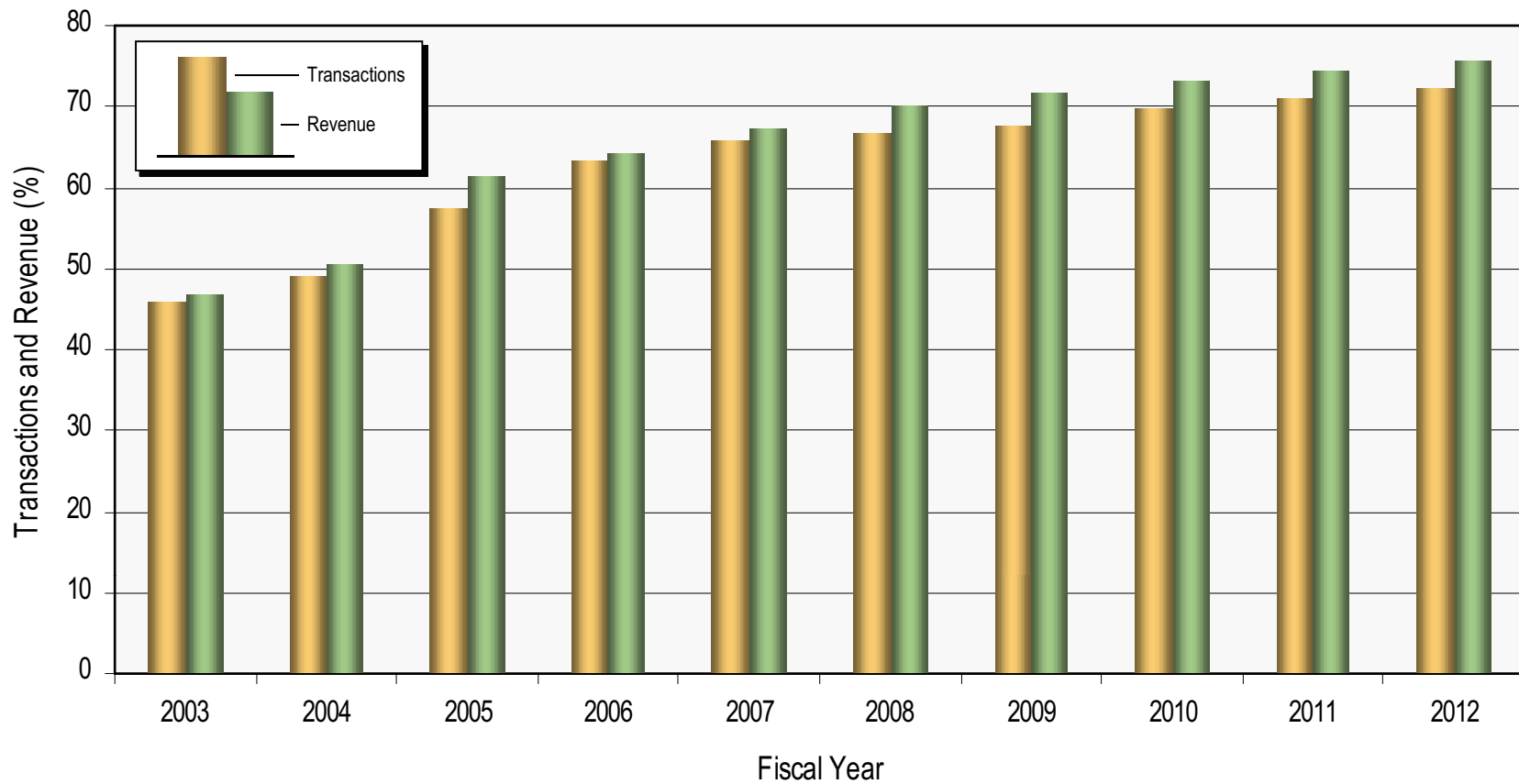
Growth in usage of the Houston Area toll roads was very high during the first five years of operation (and beyond). Two of the roadways, Sam Houston Southeast and Sam Houston Southwest, both more than doubled their toll transactions over the first five years of operation. Sam Houston South increased 96 percent in the first five years. Another three facilities (Hardy North, Sam Houston Central, and Sam Houston East) increased over 70 percent during this period, and Sam Houston North grew by over 50 percent over the five years. Ramp-up factors of 0.61, 0.85 and 0.95 were applied to the first three years of operation of each proposed Segments D, E, F and G, respectively.

Traffic Counts

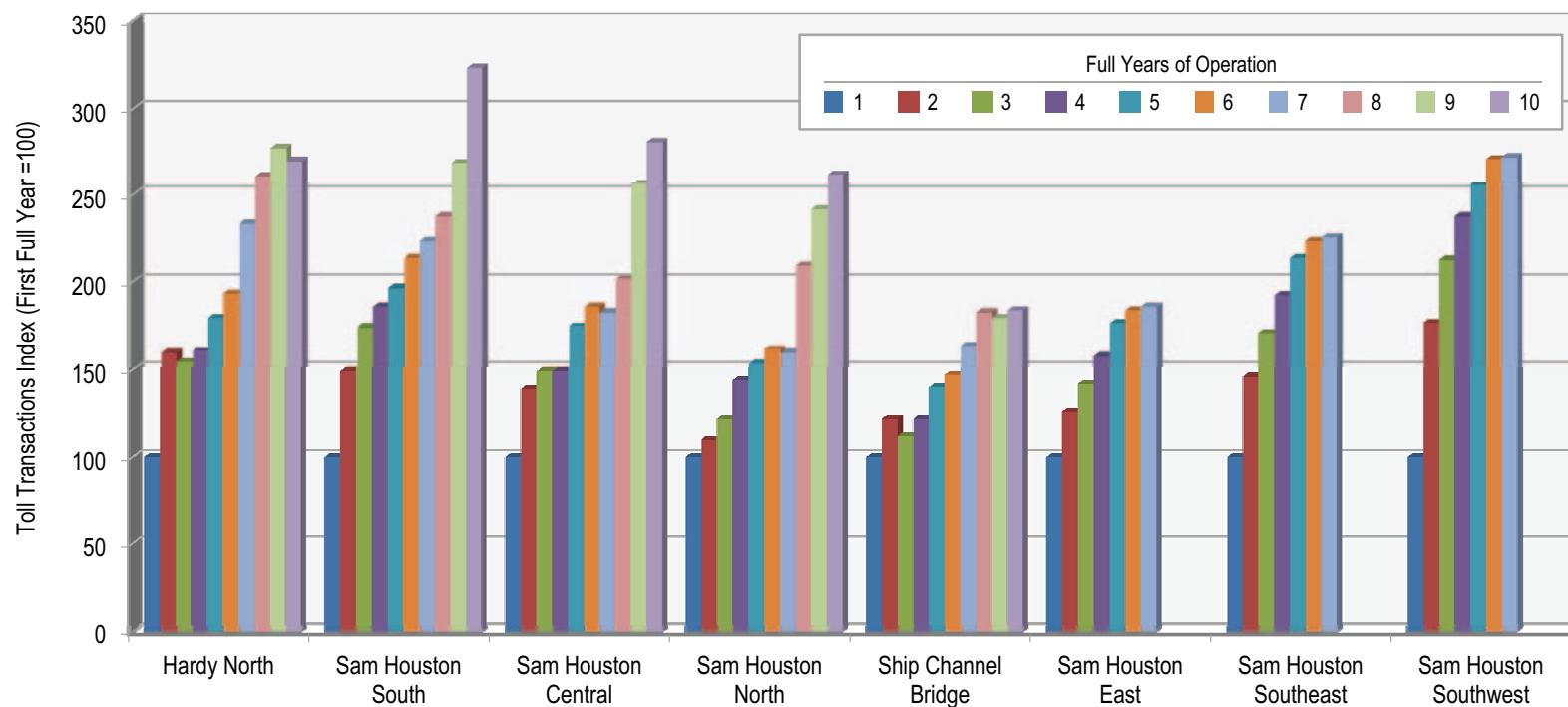
In order to obtain current traffic information on the existing roadways in the vicinity of Segments D, E, F, and G, automatic traffic counts were conducted on 28 different highway sections in the region. In



Note: Reproduced by permission of HCTRA.

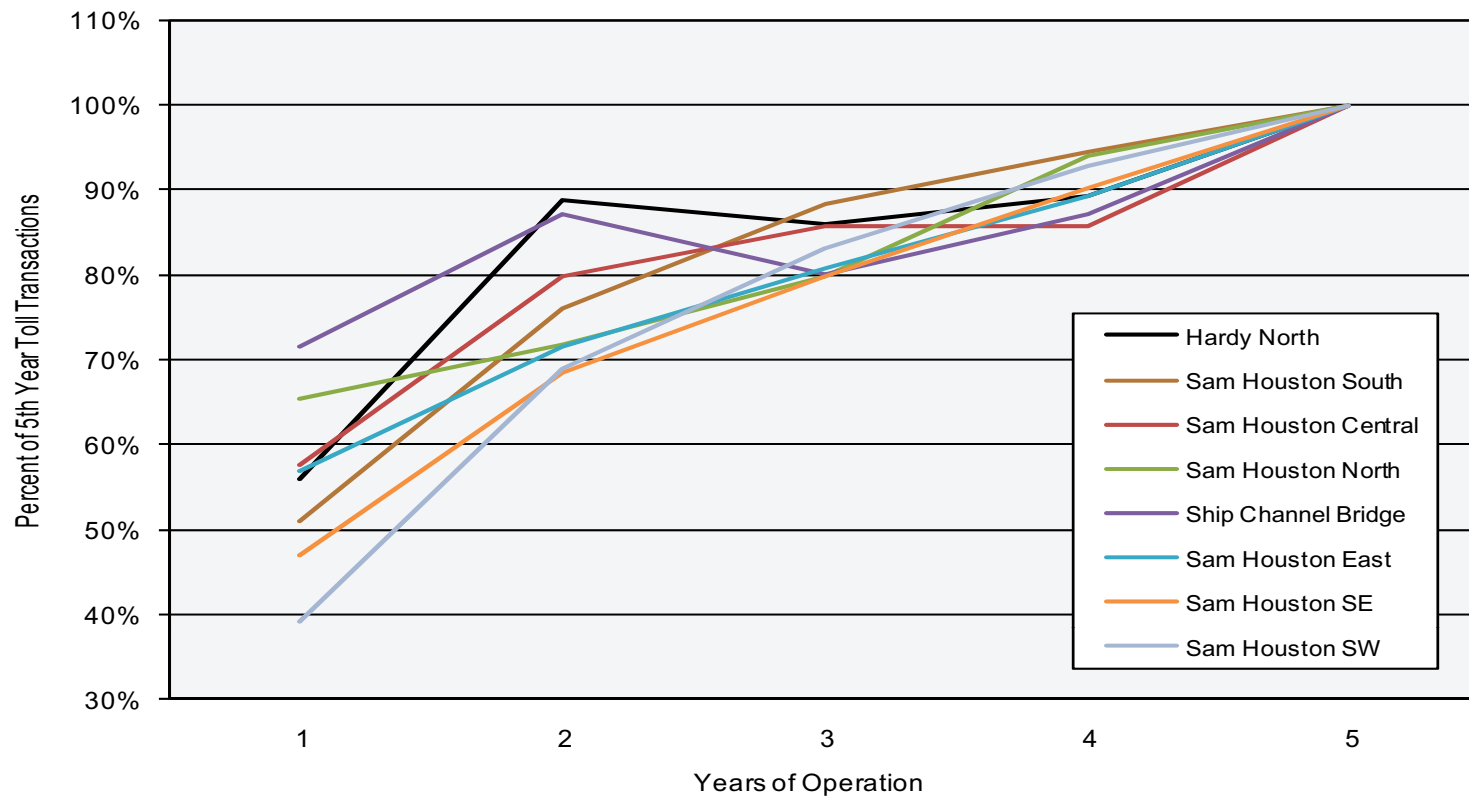


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**RAMP-UP OF TOLL TRANSACTIONS (1ST FULL YEAR = 100)
HOUSTON AREA TOLL FACILITIES**

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



addition, traffic counts were taken in both travel directions at each of the 16 stations of the origin and destination survey. The list of locations of these two sets of traffic counts is shown in Table 3-1 and further illustrated on a map of the study region in Figure 3-9.

The traffic counts were conducted for 48 hours in April, May and June 2011, on Wednesdays and Thursdays, to obtain average weekday data. The collected traffic count data was reviewed and analyzed for use in the model calibration process.

Average Daily and Peak Hour Traffic

Table 3-2 shows the average daily traffic and the morning and afternoon peak hour traffic volumes for the traffic counting program. Average daily traffic ranged from a high of 94,875 vehicles per day on IH-45 southbound between Louetta Road and Cypresswood Drive to a low of 720 vehicles northbound on Roberts Road between Botkins Road and FM 2920. Fourteen of the segments counted carried an average of over 50,000 vehicles per day. These included IH-10, U.S. 290, and IH-45. Traffic count data obtained from the Harris County Toll Road Authority (HCTRA) for a typical Tuesday and Wednesday in April 2011, on the Northern Section of the Sam Houston Tollway, showed an average of 70,700 transactions per day eastbound and 72,300 transactions per day westbound. For a typical Tuesday and Wednesday in May 2011, on the Central Section of the Sam Houston Tollway, there were 72,500 transactions per day northbound and 74,100 transactions per day southbound.

Morning peak hour counts at the 28 counting stations ranged from 45 vehicles per hour, eastbound, on Roberts Road between Botkins Road and FM 2920, to 8,322 vehicles per hour, eastbound, on IH-10 between Park Ten Boulevard and SH 6. The IH-10 also had high eastbound volumes between Mason Road and Westgreen Boulevard (5,679 per hour) and between SH 6 and North Eldridge Parkway (6,320 per hour). The IH-45 had high morning peak hour volumes in both directions between Rayford Road and the Hardy Tollway North (6,437 per hour northbound and 7,998 per hour southbound) and on the section between Louetta Road and Cypresswood Drive (6,046 per hour northbound and 8,024 per hour southbound). The U.S. 290 carried 5,942 vehicles per hour in the morning peak hour, northbound, between SH 6 and North Eldridge Parkway.

Afternoon peak hour counts ranged from a low of 50 vehicles per hour on Roberts Road between Botkins Road and FM 2920, to a high of 9,029 per hour on IH-10, westbound, between Park Ten Boulevard and SH 6. The same highway facilities that had high morning peak volumes also experienced high afternoon peak volumes. The IH-10, westbound, between Mason and Westgreen had 5,780 vehicles per hour and between SH 6 and North Eldridge Parkway, 7,015 vehicles per hour. The U.S. 290, southbound, between SH 6 and North Eldridge Parkway carried 7,151 per hour and the section between Barker Cypress and Telge Road, 5,079 per hour. On IH-45, between Rayford Road and the Hardy Tollway North, there were 7,900 vehicles per hour, northbound, and 7,150 vehicles per hour, southbound. The IH-45 section between Louetta Road and Cypresswood Drive saw an average of 6,070 vehicles per hour during the afternoon peak.

Table 3-1
List of Video and Traffic Count Locations

Ref.	Type	Name	Description	Count	Video	Latitude	Longitude
				Direction	Direction		
CL1	Count	IH-10	b/w Katy Mills Blvd and Katy Fort Bend Rd	EB/WB	--	29.78446940	-95.80206584
CL2	Count	IH-10	b/w N. Mason Rd and Westgreen Blvd	EB/WB	--	29.78420436	-95.73988940
CL3	Count	IH-10	b/w Park Ten Blvd and SH 6	EB/WB	--	29.78442215	-95.65463895
CL4	Count	IH-10	b/w SH 6 and N. Eldridge Pkwy	EB/WB	--	29.78500219	-95.62924239
CL5	Count	N. Eldridge Pkwy	b/w Patterson Rd and Clay Rd	NB/SB	--	29.82488088	-95.60709717
CL6	Count	N. Eldridge Pkwy	b/w FM 529 and West Rd	NB/SB	--	29.88938131	-95.60636395
CL7	Count	SH 6	b/w Longenbaugh Dr and West Rd	NB/SB	--	29.90157841	-95.63378535
CL8	Count	Barker Cypress Rd	b/w Longenbaugh Dr and West Rd	NB/SB	--	29.90779603	-95.68546475
CL9	Count	N. Fry Rd	b/w Longenbaugh Dr & Cypress N. Houston Rd	NB/SB	--	29.92307499	-95.72350375
CL10	Count	Katy Hockley Cutoff Rd	b/w House Hahl Rd and Jack Rd	NB/SB	--	29.94529171	-95.80833931
CL11	Count	USHY 290	b/w SH 6 and N. Eldridge Pkwy	NB/SB	--	29.90924481	-95.61183418
CL12	Count	USHY 290	b/w Barker Cypress Rd and Telge Rd	NB/SB	--	29.93566029	-95.64917215
CL13	Count	USHY 290	b/w Fairfield Place Dr and Mueschke Rd	NB/SB	--	29.98938603	-95.74511863
CL14	Count	USHY 290	b/w Katy Hockley Rd and Bauer Rd	NB/SB	--	30.00825550	-95.79503338
CL15	Count	Roberts Rd	b/w Botkins Rd and FM 2920	NB/SB	--	30.04284013	-95.81519682
CL16	Count	FM 2920	b/w Roberts Cemetery Rd and Mueschke Rd	EB/WB	--	30.07998947	-95.73654888
CL17	Count	Telge Rd	b/w Humble Rd and Cypress Garden Dr	NB/SB	--	30.06111170	-95.66329726
CL18	Count	Telge Rd	b/w Spring Cypress Rd and Telge manor Dr	NB/SB	--	30.00212260	-95.65418985
CL19	Count	FM 1960	b/w Steepletop Dr and Jones Rd	NB/SB	--	29.93361003	-95.58413050
CL20	Count	STHY 249	b/w Spring Cypress Rd and Gregson Rd	NB/SB	--	30.01809145	-95.59357152
CL21	Count	FM 2920	b/w FM 2978 and Steubner Airline Rd	NB/SB	--	30.08947380	-95.57275121
CL22	Count	IH-45	b/w Rayford Rd and Hardy Toll N	NB/SB	--	30.11686781	-95.44089831
CL23	Count	FM 2920	b/w Spring Cypress Rd and I-45	EB/WB	--	30.07247821	-95.44056209
CL24	Count	IH-45	b/w Louetta Rd and Cypresswood Dr	NB/SB	--	30.05375288	-95.43176974
CL25	Count	FM 1960	b/w Bammel Village Dr and Kuykendahl Rd	EB/WB	--	30.00732414	-95.46314439
CL26	Count	USHY 59	b/w FM 1485 and McClesky Rd	NB/SB	--	30.14097789	-95.22492880
CL27	Count	USHY 59	b/w Community Dr and FM 1314	NB/SB	--	30.11572408	-95.23295725
CL28	Count	USHY 59	b/w FM 1314 and Northpark Dr	NB/SB	--	30.08149063	-95.24320382
VL1	LPR w/Count	Katy Hockley Cutoff Rd	north of FM 529	NB/SB	SB	29.88448737	-95.80629243
VL2	LPR w/Count	N. Fry Rd	north of FM 529	NB/SB	SB	29.88244733	-95.72238950
VL3	LPR w/Count	Barker Cypress Rd	north of FM 529	NB/SB	SB	29.88286628	-95.68336243
VL4	LPR w/Count	SH 6	north of FM 529	NB/SB	SB	29.88026477	-95.64484274
VL5	LPR w/Count	Louetta Rd	west of N. Eldridge Pkwy	EB/WB	EB	29.99649170	-95.61376939
VL6	LPR w/Count	Spring Cyrees Rd	west of N. Eldridge Pkwy	EB/WB	EB	30.01251688	-95.60792669
VL7	LPR w/Count	Boudreaux Rd	west of Telge Rd	EB/WB	EB	30.04535601	-95.64958363
VL8	LPR w/Count	FM 2920	east of Telge Rd	EB/WB	EB	30.07953160	-95.67639472
VL9	LPR w/Count	FM 1960	east of Steubner Airline Rd	EB/WB	WB	29.99204008	-95.49189939
VL10	LPR w/Count	Louetta Rd	east of Steubner Airline Rd	EB/WB	WB	30.02389361	-95.51830609
VL11	LPR w/Count	Spring Cyrees Rd	east of Steubner Airline Rd	EB/WB	WB	30.04755758	-95.53230766
VL12	LPR w/Count	FM 2920	east of Steubner Airline Rd	EB/WB	WB	30.07292175	-95.52901000
VL13	LPR w/Count	FM 1488	west of FM 2978	EB/WB	WB	30.22100046	-95.58802217
VL14	LPR w/Count	FM 1960	east of Cypresswood Dr	EB/WB	EB	30.01167221	-95.33408446
VL15	LPR w/Count	STHY 242	east of FM1314/Conroe Porter	EB/WB	EB	30.21267404	-95.33900858
VL16	LPR w/Count	USHY 59	overpass on STHY 242	NB/SB	NB/SB	30.19265834	-95.19258421

Note: All automatic traffic counts to be performed for 48-hours with a minimum of 24-hour 3-category classification

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

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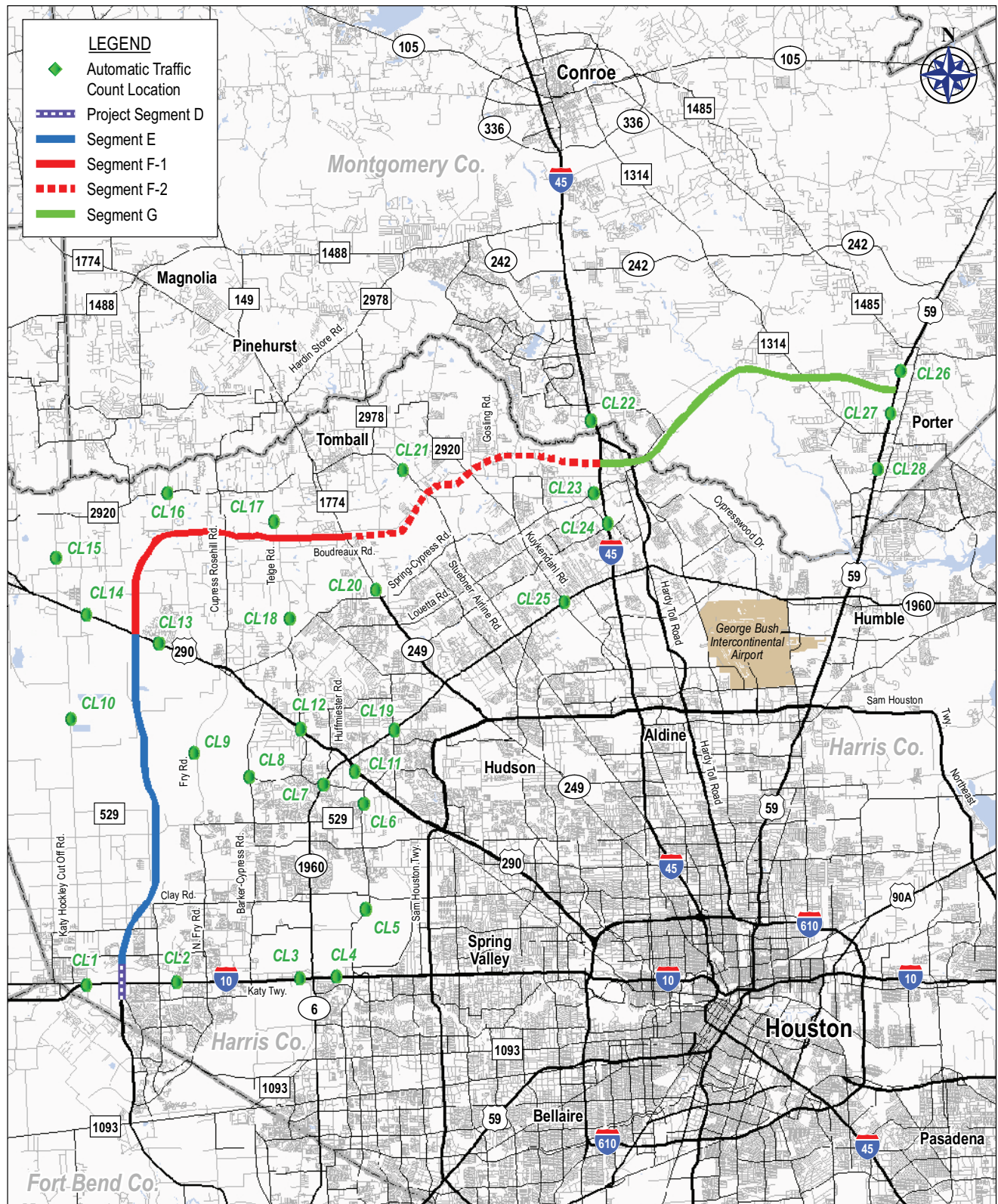


Table 3-2
Average Daily and Peak Hour Traffic Counts

Ref.	Type	Name	Description	Count Direction	Average	AM Peak Hour	PM Peak Hour
					Daily Traffic		
CL1	Count	IH-10	b/w Katy Mills Blvd and Katy Fort Bend Rd	EB	24,358	1,383	1,794
CL1	Count	IH-10	b/w Katy Mills Blvd and Katy Fort Bend Rd	WB	23,702	1,363	1,779
CL2	Count	IH-10	b/w N. Mason Rd and Westgreen Blvd	EB	59,476	5,679	3,485
CL2	Count	IH-10	b/w N. Mason Rd and Westgreen Blvd	WB	60,024	2,813	5,780
CL3	Count	IH-10	b/w Park Ten Blvd and SH 6	EB	88,448	8,322	4,757
CL3	Count	IH-10	b/w Park Ten Blvd and SH 6	WB	91,986	3,906	9,029
CL4	Count	IH-10	b/w SH 6 and N. Eldridge Pkwy	EB	80,782	6,320	4,795
CL4	Count	IH-10	b/w SH 6 and N. Eldridge Pkwy	WB	83,554	4,236	7,015
CL5	Count	N. Eldridge Pkwy	b/w Patterson Rd and Clay Rd	NB	15,313	989	1,582
CL5	Count	N. Eldridge Pkwy	b/w Patterson Rd and Clay Rd	SB	13,915	1,467	1,314
CL6	Count	N. Eldridge Pkwy	b/w FM 529 and West Rd	NB	11,638	740	1,128
CL6	Count	N. Eldridge Pkwy	b/w FM 529 and West Rd	SB	10,635	758	756
CL7	Count	SH 6	b/w Longenbaugh Dr and West Rd	NB	32,455	2,487	2,218
CL7	Count	SH 6	b/w Longenbaugh Dr and West Rd	SB	31,357	1,869	2,514
CL8	Count	Barker Cypress Rd	b/w Longenbaugh Dr and West Rd	NB	16,068	1,261	1,254
CL8	Count	Barker Cypress Rd	b/w Longenbaugh Dr and West Rd	SB	16,906	1,047	1,274
CL9	Count	N. Fry Rd	b/w Longenbaugh Dr & Cypress N. Houston Rd	NB	8,381	783	747
CL9	Count	N. Fry Rd	b/w Longenbaugh Dr & Cypress N. Houston Rd	SB	8,502	1,012	662
CL10	Count	Katy Hockley Cutoff Rd	b/w House Hahl Rd and Jack Rd	NB	2,159	141	266
CL10	Count	Katy Hockley Cutoff Rd	b/w House Hahl Rd and Jack Rd	SB	2,083	270	187
CL11	Count	USHY 290	b/w SH 6 and N. Eldridge Pkwy	NB	70,584	5,942	4,129
CL11	Count	USHY 290	b/w SH 6 and N. Eldridge Pkwy	SB	73,095	3,308	7,151
CL12	Count	USHY 290	b/w Barker Cypress Rd and Telge Rd	NB	52,529	3,427	3,181
CL12	Count	USHY 290	b/w Barker Cypress Rd and Telge Rd	SB	55,261	2,348	5,079
CL13	Count	USHY 290	b/w Fairfield Place Dr and Mueschke Rd	NB	24,534	1,468	1,969
CL13	Count	USHY 290	b/w Fairfield Place Dr and Mueschke Rd	SB	29,742	1,650	2,618
CL14	Count	USHY 290	b/w Katy Hockley Rd and Bauer Rd	NB	24,155	1,248	2,016
CL14	Count	USHY 290	b/w Katy Hockley Rd and Bauer Rd	SB	24,090	1,440	1,885
CL15	Count	Roberts Rd	b/w Botkins Rd and FM 2920	NB	720	45	86
CL15	Count	Roberts Rd	b/w Botkins Rd and FM 2920	SB	691	57	50
CL16	Count	FM 2920	b/w Roberts Cemetery Rd and Mueschke Rd	EB	6,426	579	436
CL16	Count	FM 2920	b/w Roberts Cemetery Rd and Mueschke Rd	WB	6,499	301	628
CL17	Count	Telge Rd	b/w Humble Rd and Cypress Garden Dr	NB	4,320	378	435
CL17	Count	Telge Rd	b/w Humble Rd and Cypress Garden Dr	SB	3,981	351	336
CL18	Count	Telge Rd	b/w Spring Cypress Rd and Telge Manor Dr	NB	6,031	382	606
CL18	Count	Telge Rd	b/w Spring Cypress Rd and Telge Manor Dr	SB	5,864	551	442
CL19	Count	FM 1960	b/w Steepletop Dr and Jones Rd	NB	26,399	1,479	1,855
CL19	Count	FM 1960	b/w Steepletop Dr and Jones Rd	SB	25,867	1,357	1,856
CL20	Count	STHY 249	b/w Spring Cypress Rd and Gregson Rd	NB	38,363	1,854	3,617
CL20	Count	STHY 249	b/w Spring Cypress Rd and Gregson Rd	SB	41,564	4,163	2,493
CL21	Count	FM 2920	b/w FM 2978 and Steubner Airline Rd	NB	11,424	849	1,034
CL21	Count	FM 2920	b/w FM 2978 and Steubner Airline Rd	SB	11,319	915	930
CL22	Count	IH-45	b/w Rayford Rd and Hardy Toll N	NB	89,379	6,437	7,900
CL22	Count	IH-45	b/w Rayford Rd and Hardy Toll N	SB	89,486	7,998	7,150
CL23	Count	FM 2920	b/w Spring Cypress Rd and I-45	EB	33,102	3,219	2,182
CL23	Count	FM 2920	b/w Spring Cypress Rd and I-45	WB	28,326	1,444	2,753
CL24	Count	IH- 45	b/w Louetta Rd and Cypresswood Dr	NB	93,453	6,046	7,420
CL24	Count	IH- 45	b/w Louetta Rd and Cypresswood Dr	SB	94,875	8,024	6,070
CL25	Count	FM 1960	b/w Bammel Village Dr and Kuykendahl Rd	EB	30,492	1,992	2,093
CL25	Count	FM 1960	b/w Bammel Village Dr and Kuykendahl Rd	WB	30,908	1,793	2,292
CL26	Count	USHY 59	b/w FM 1485 and McClesky Rd	NB	21,387	897	2,054
CL26	Count	USHY 59	b/w FM 1485 and McClesky Rd	SB	20,583	1,970	1,101
CL27	Count	USHY 59	b/w Community Dr and FM 1314	NB	23,995	988	2,454
CL27	Count	USHY 59	b/w Community Dr and FM 1314	SB	23,573	2,783	990
CL28	Count	USHY 59	b/w FM 1314 and Northpark Dr	NB	41,449	1,688	4,836
CL28	Count	USHY 59	b/w FM 1314 and Northpark Dr	SB	39,469	4,474	2,080

Note: All automatic traffic counts to be performed for 48-hours with a minimum of 24-hour 3-category classification

Speed and Delay Studies

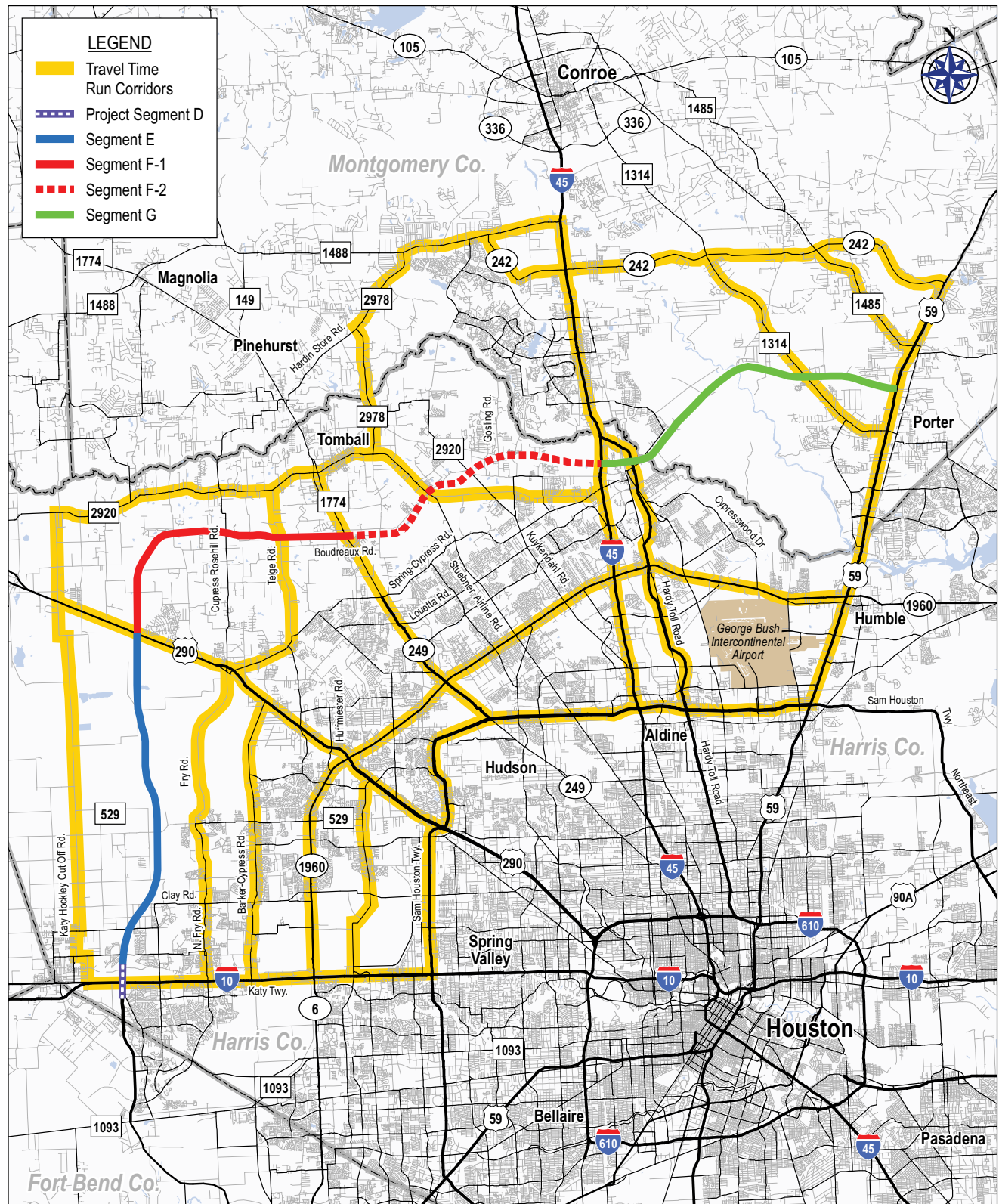
Traffic speeds, congestion, and delay within the study network are an important element of the analysis process. In February 2011, speed and delay studies were conducted on approximately 50 roadway segments within the study area. This data was a critical input for model calibration and validation. CDM Smith collected a large amount of speed data in and around the vicinity of the proposed Grand Parkway Segments D, E, F, and G. Information was collected by traveling along the routes under consideration during the AM peak (6:30 AM – 8:30 AM) and shoulder hours (8:30 AM – 9:30 AM), Midday (11:00 AM – 2:00 PM) and PM peak (4:30 PM – 6:30 PM) and shoulder periods (3:30 PM – 4:30 PM). GPS units were used to record data continuously during each trip. Since the exact location and time of each vehicle were known for each datum, the travel speeds and delays were known along each route.

Figure 3-10 shows the following key routes that were covered in the speed and delay studies and included:

- IH-10 between Sam Houston Tollway and Old Katy Road, west of Grand Parkway;
- Sam Houston Tollway between IH-10 and US 59;
- SH 6/SH 1960 between IH-10 and US 59;
- Katyland Drive/Katy Hockley Cut Off Road between Old Katy Road and U.S. 290;
- Katy Hockley/Roberts Road between U.S. 290 and FM 2920;
- Waller-Tomball Road (FM 2920) between Roberts Road and IH-45;
- Spring Cypress Road/Telge Road between U.S. 290 and FM 2920;
- Tomball Parkway (SH 249) between Sam Houston Tollway and FM 2920;
- FM 1488 between FM 2978 and IH-45;
- SH 242 between FM 1488 and U.S. 59;
- Conroe Porter Road (FM 1314) between SH 242 and U.S. 59;
- FM 1485 between SH 242 and U.S. 59;
- Hardy Toll Road between Sam Houston Tollway and IH-45;
- IH-45 between Sam Houston Tollway and FM 1488;
- U.S. 59 between Sam Houston Tollway and SH 242;
- Boudreaux Road between SH 249 and IH-45;
- Cypress Rosehill Road between U.S. 290 and FM 2920;
- Fry Road between IH-10 and U.S. 290; and

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Graphics-Apr 2013 / Speed Delay Surveys.mxd / 12-18-12



- Barker-Cypress Road between IH-10 and U.S. 290.

In parallel to the speed and delay studies, route reconnaissance was conducted to inventory key attributes along the Grand Parkway corridor and the major competing/complementary routes, including number of lanes and posted speeds.

Speed and delay runs were made on approximately 50 roadway segments. On all but 5 segments, runs were done during the morning and afternoon peak periods as well as during midday. Table 3-3 lists the locations, directions and average speeds of these respective runs.

There were three segments with morning peak hour average speeds of less than 30 miles per hour. These were SH 6/SH 1960, eastbound and westbound, between the U.S. 290 and IH-45. The third was Boudreaux Road, eastbound, between SH 249 and IH-45. Also in the morning peak period, there were ten segments with average speeds between 30 and 35 miles per hour. These included segments on SH 6/SH 1960 (2), FM 2920 (2), Spring Cypress Road (2), SH 242 (1), Barker Cypress Road (2), and Boudreaux Road (1). The afternoon peak hour was slower with 19 segments (42 percent) under 35 miles per hour, eight of which were under 30 miles per hour.

Midday average speeds were, in general, higher than the peak period speeds. Out of 45 segments, 27 segments or 60 percent, had midday average speeds that were higher than at least one of the peak periods. There were, however, seven segments with average speeds of less than 35 miles per hour, four of which were under 30 miles per hour.

Extensive speed and delay runs were also previously conducted along U.S. 290 in 2009. Survey vehicles entered at the Roberts Road Interchange and continued to a point West of the IH-610 interchange, or in the reverse direction. Peak period speed and delay runs were conducted between 6:00-9:00 AM and 3:00-7:00 PM. The results of the morning and afternoon peak period runs are shown in Figure 3-11. Speeds shown in Figure 3-11 are segment speeds with morning peak speeds shown in red and afternoon peak speeds shown in blue for both directions.

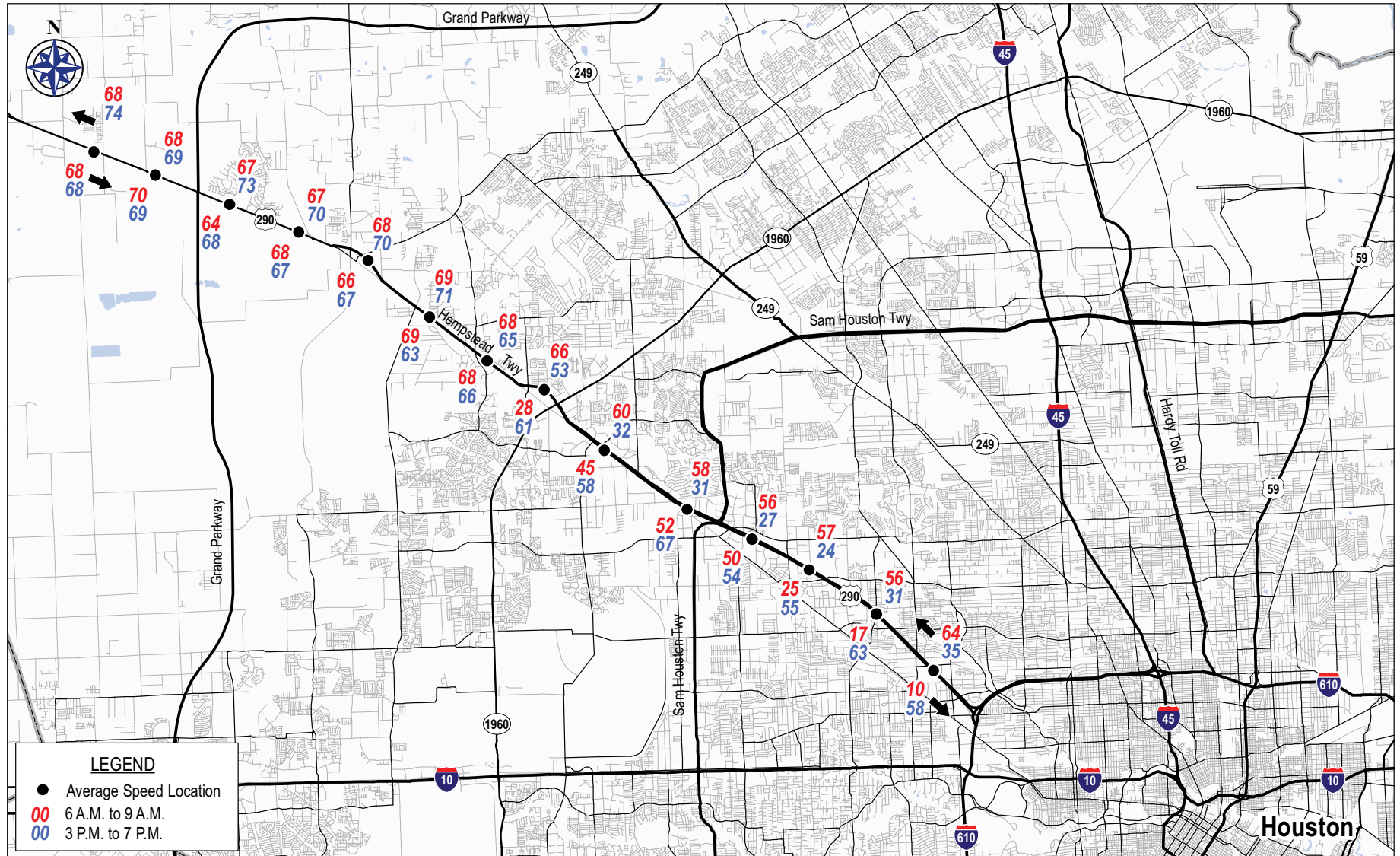
Travel speeds in the eastbound direction during the morning peak travel period ranged from 64 mph to 70 mph between Roberts Road and Ladino Road, representing free flow conditions. Speeds fell off sharply in the vicinity of FM 1960 with a recorded average of 28 mph between Ladino Road and FM 1960. Speeds increase again once past FM 1960, ranging from 45 mph to 52 mph between FM 1960 and North Fairbanks Houston Road. Average speeds fell as low as 10 mph just west of the IH-610 interchange. Morning peak period travel speeds in the westbound direction range from 56 mph to 64 mph between IH-610 and FM 1960. Average speeds return to free flow conditions once past FM 1960 ranging from 66 mph to 69 mph.

Travel speeds in the westbound direction during the afternoon peak travel period ranged from 24 mph to 35 mph between IH-610 and Village Drive. Once past Ladino Road, east of FM 1960, speeds increased to free flow conditions. During the afternoon peak travel period, average speeds in the eastbound direction remained above 60 mph until after FM 1960 and decreased only slightly, ranging from 55 mph to 67 mph between FM 1960 and IH-610. Figures 3-12 through 3-14 provide a summary of the peak period and non-congested average speed profiles observed along the remaining respective routes within the study corridor.

Table 3-3
Existing Average Speeds

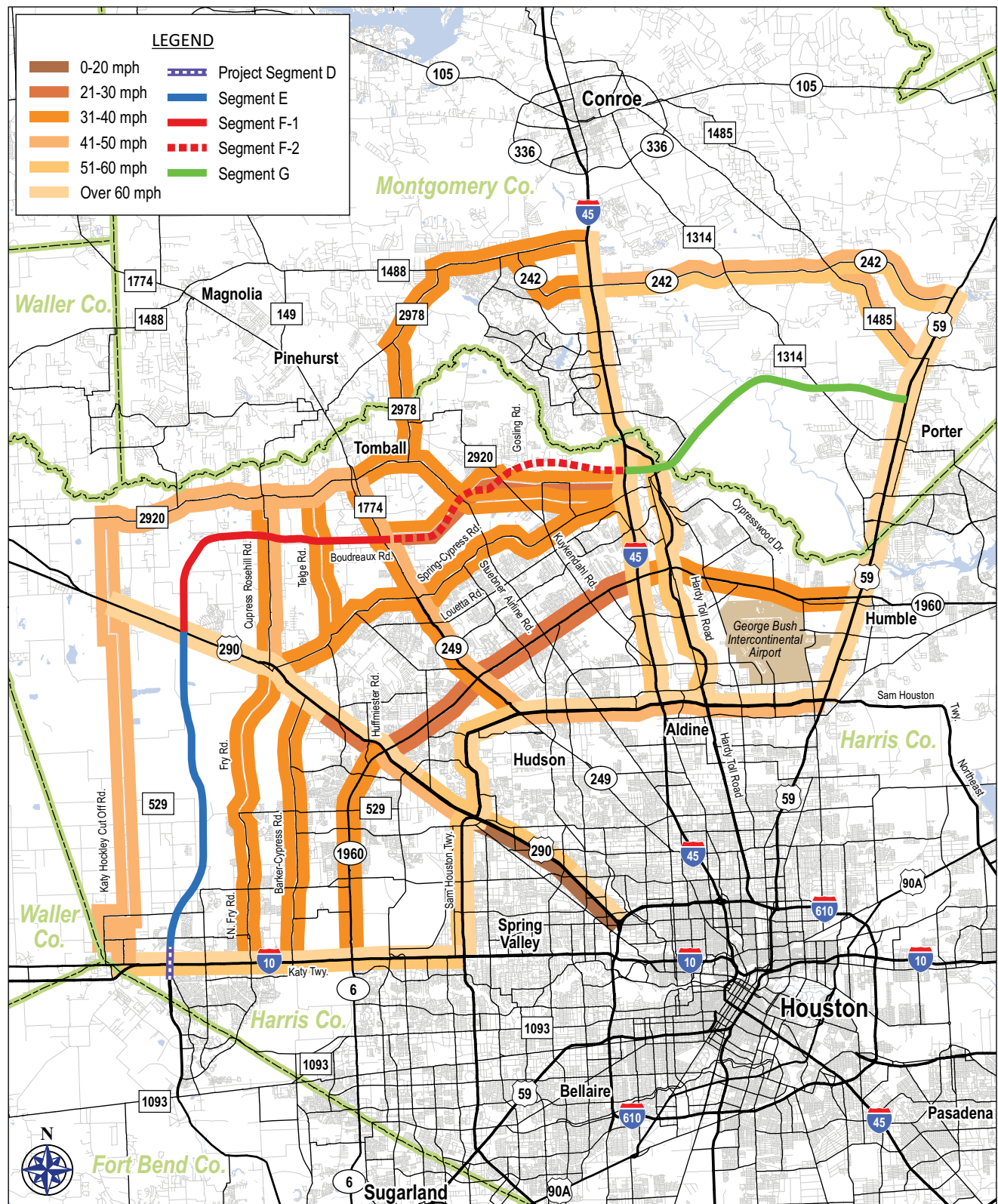
Route	From	To	Direction	AM Peak	Off Peak	PM Peak
IH-10	Sam Houston Tollway	Old Katy Road	EB	46.7	70.0	62.8
IH-10	Sam Houston Tollway	Old Katy Road	WB	69.2	69.1	41.4
Sam Houston Tollway	SH 249	US 59	EB	48.3		62.5
Sam Houston Tollway	SH 249	US 59	WB	65.5	65.0	56.5
Sam Houston Tollway	IH-10	SH 249	NB	65.2	68.3	52.0
Sam Houston Tollway	IH-10	SH 249	SB	57.3	70.3	64.0
SH 6/SH 1960 (Seg 1)	U.S. 290	IH-45	EB	28.2	28.0	26.3
SH 6/SH 1960 (Seg 1)	U.S. 290	IH-45	WB	29.5	29.2	23.6
SH 6/SH 1960 (Seg 2)	IH-10	U.S. 290	NB	32.3	35.5	28.2
SH 6/SH 1960 (Seg 2)	IH-10	U.S. 290	SB	31.4	37.2	33.6
SH 6/SH 1960 (Seg 3)	IH-45	U.S. 59	EB	35.3	36.7	33.4
SH 6/SH 1960 (Seg 3)	IH-45	U.S. 59	WB	36.2	38.6	31.2
Katyland Drive/Katy Hockley Cut Off Road	Old Katy Road	U.S. 290	NB	40.0	42.0	44.4
Katyland Drive/Katy Hockley Cut Off Road	Old Katy Road	U.S. 290	SB	43.7	47.1	44.5
Katy Hockley/Roberts Road	U.S. 290	FM 2920	NB	39.3	43.9	40.8
Katy Hockley/Roberts Road	U.S. 290	FM 2920	SB	41.8	43.4	45.4
Waller-Tomball Road (FM 2920)	Roberts Road	SH 249	EB	41.7	46.8	45.1
Waller-Tomball Road (FM 2920)	Roberts Road	SH 249	WB	42.8	44.6	41.3
Waller-Tomball Road (FM 2920)	SH 249	IH-45	EB	32.4	33.1	33.0
Waller-Tomball Road (FM 2920)	SH 249	IH-45	WB	34.9	35.6	34.3
Spring Cypress Road/Telge Road	U.S. 290	FM 2920	EB	31.7	28.5	31.4
Spring Cypress Road/Telge Road	U.S. 290	FM 2920	WB	30.6	31.7	29.5
Tomball Parkway (SH 249)	Sam Houston Tollway	FM 2920	NB	48.6	51.3	45.0
Tomball Parkway (SH 249)	Sam Houston Tollway	FM 2920	SB	37.7	44.6	48.9
FM 1488	FM 2978	IH-45	EB	37.4	35.8	36.6
FM 1488	FM 2978	IH-45	WB	35.1	36.1	31.1
SH 242 (Seg 1)	IH-45	U.S. 59	EB	51.6	54.0	49.4
SH 242 (Seg 1)	IH-45	U.S. 59	WB	48.0	49.0	51.6
SH 242 (Seg 2)	IH-45	FM 1488	EB	35.6	29.9	27.2
SH 242 (Seg 2)	IH-45	FM 1488	WB	33.1	34.2	30.6
Conroe Porter Road (FM 1314)	SH 242	U.S. 59	NB		53.6	
Conroe Porter Road (FM 1314)	SH 242	U.S. 59	SB		47.3	
FM 1485	SH 242	U.S. 59	NB	46.5		
FM 1485	SH 242	U.S. 59	SB	50.3		
Hardy Toll Road	Sam Houston Tollway	IH-45	NB	69.2	64.5	51.9
Hardy Toll Road	Sam Houston Tollway	IH-45	SB	58.1	64.5	67.6
IH-45	Sam Houston Tollway	FM 1488	NB	65.3	65.5	54.6
IH-45	Sam Houston Tollway	FM 1488	SB	59.4	65.6	65.5
U.S. 59	Sam Houston Tollway	SH 242	NB	65.5	65.5	64.5
U.S. 59	Sam Houston Tollway	SH 242	SB	65.6	65.4	64.9
Fry Road	IH-10	U.S. 290	NB	38.7	39.1	32.8
Fry Road	IH-10	U.S. 290	SB	36.6	40.0	34.4
Barker-Cypress Road	IH-10	U.S. 290	NB	30.4	36.0	25.7
Barker-Cypress Road	IH-10	U.S. 290	SB	31.6	38.9	30.3
Boudreaux Road	SH 249	IH-45	EB	25.2	35.3	29.2
Boudreaux Road	SH 249	IH-45	WB	32.2	36.4	27.8
Cypress Rosehill Road	U.S. 290	FM 2920	NB	40.9	43.7	43.8
Cypress Rosehill Road	U.S. 290	FM 2920	SB	39.5	44.2	44.1

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



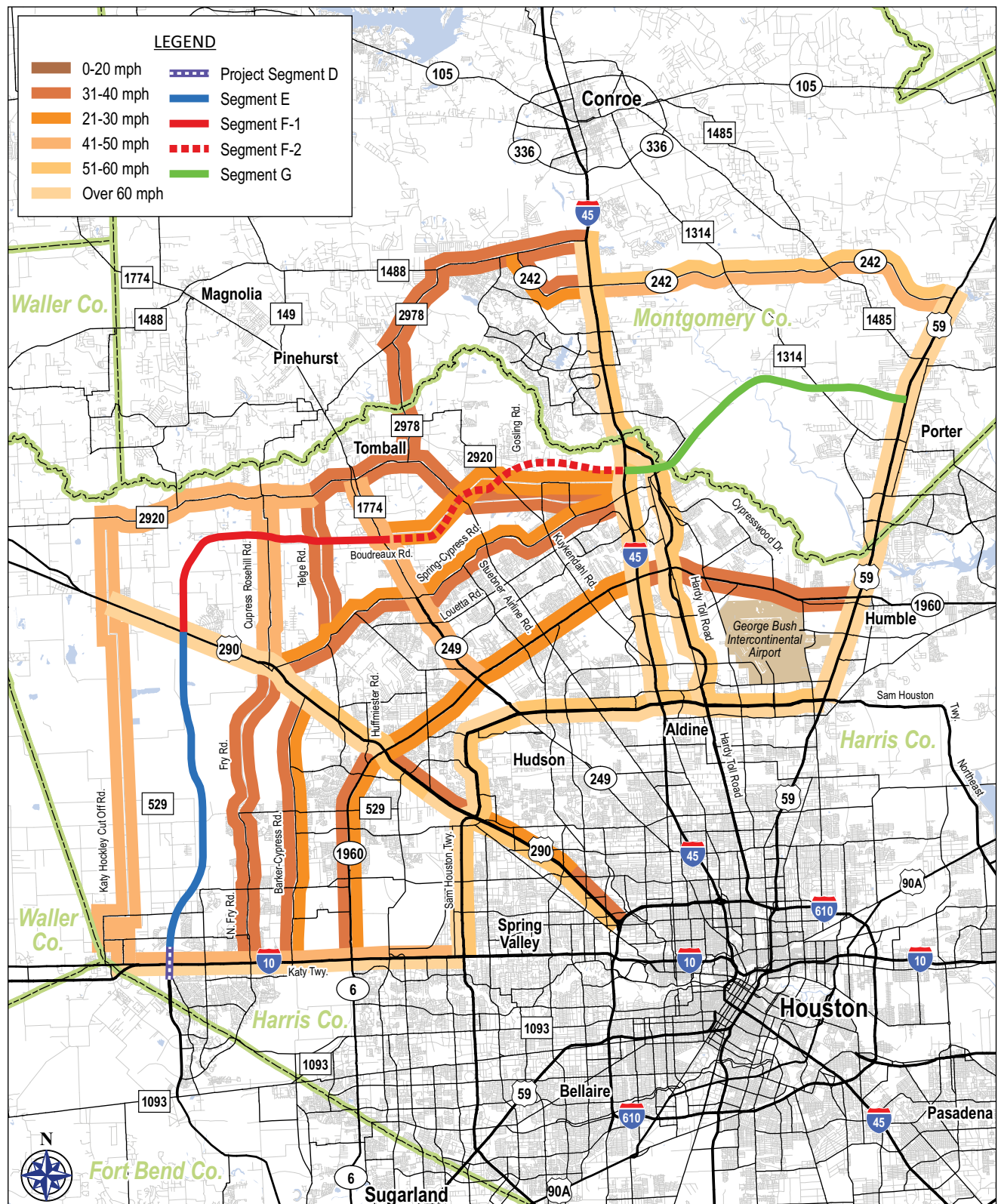
Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

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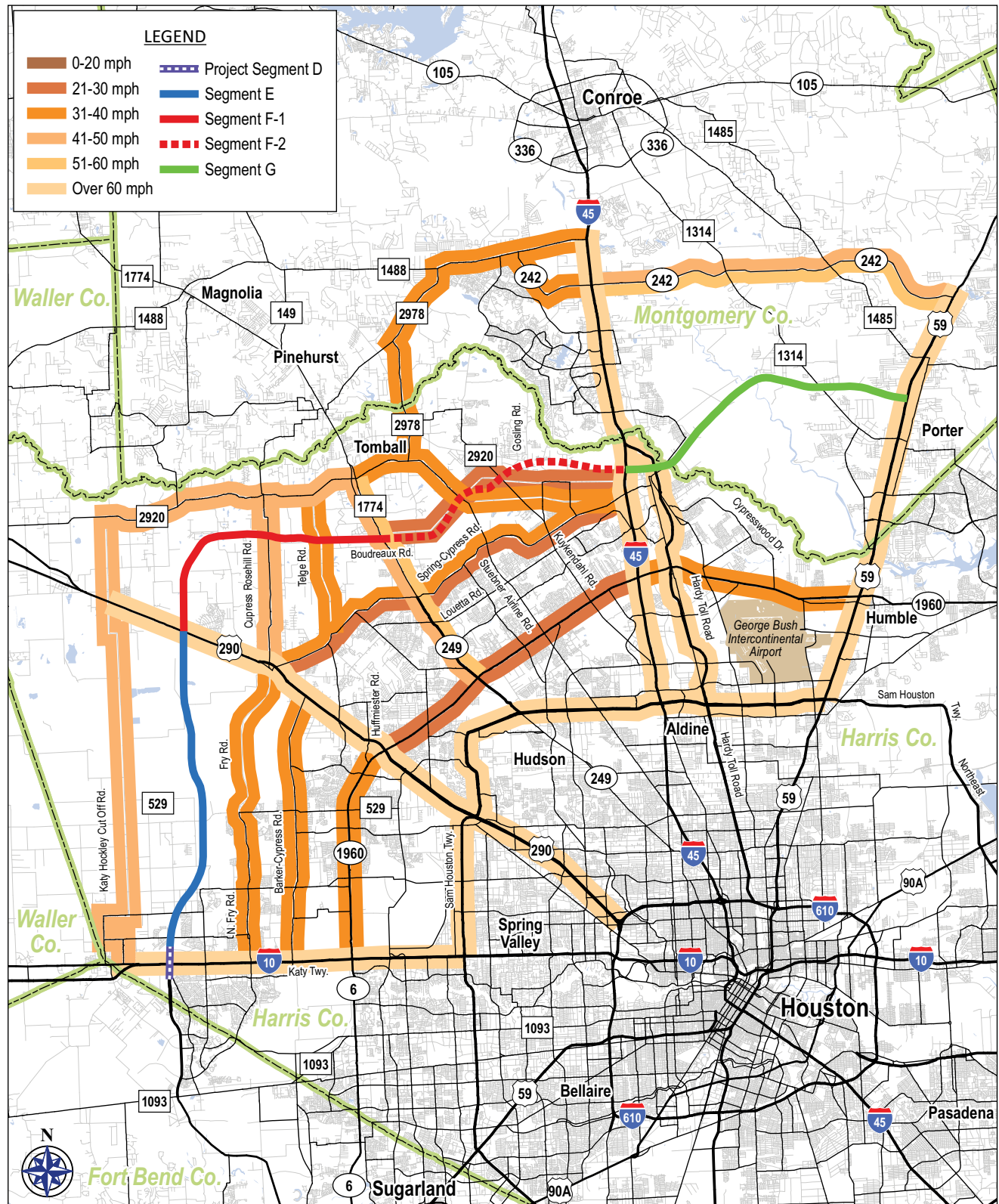
Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

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Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Graphics-May 2013 Update / Off Peak Speed & Delay.mxd



Video License Plate O-D Surveys

In order to understand the travel patterns and characteristics of motorists in the Houston region, origin and destination (O-D) surveys of drivers in the region were conducted. The origin-destination surveys were conducted during the months of April and May 2011 using video license plate surveys of the motorists in the greater Houston region spanning from FM 529 and Katy Hockley Cut Off Road in the southwest to SH 242 and U.S. 59 in the northeast. This survey program also included 24-hour traffic counts at each survey site, to be used for factoring survey samples, so that the data could be used as input into the travel demand model for projecting future traffic.

Sixteen locations were identified along the path of the proposed Grand Parkway corridor (Segments D, E, F1, F2 and G) to capture license plates using video cameras. Figure 3-15 is a map of the survey area showing the locations of the video sites. Automatic traffic recording counts were conducted at the same locations during the time that the license plate images were recorded. Table 3-4 presents the average daily traffic and morning and afternoon peak hour traffic for the sixteen origin-destination stations.

Video cameras were mounted either on overpasses or on tripods and telescoping masts. License plate images were recorded for 12 or 13 hours per day, at each location. During the period of video recording, over a 3 week period for 3 days each week, license plate images were captured. These were first processed to eliminate duplicate plates, leaving 122,000 images. The Harris County Toll Road Authority then reviewed them and provided names and addresses from their databases. The remainder was sent to the Texas Department of Motor Vehicles for names and addresses they could reference in their database. After these reviews, there were approximately 116,000 identified license plates with names and addresses. Mailback survey cards were then sent to all of the registered owners identified.

Figure 3-16 is a copy of the instruction/address side of the mailout survey card. Figure 3-17 is the form with the survey questions. Respondents were asked to think about the most recent trip they made through the location where their license plate was video recorded. They were asked the time, day of the week and direction of the trip. The address or location of the beginning and end of the trip was requested. Also asked was the purpose of the trip, the type of vehicle, the number of people in the vehicle during the trip, and how often the particular trip was made. The respondents were asked if they had an EZ Tag. As an incentive to fill and return the survey card, if the name and address was filled in the appropriate box, they would be entered into a drawing for a \$150 prize. After a period of several weeks, 4,550 forms were received in the mail.

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Graphics-Apr 2013 / Count Locations & Travel Time Runs3.mxd / 12-18-12

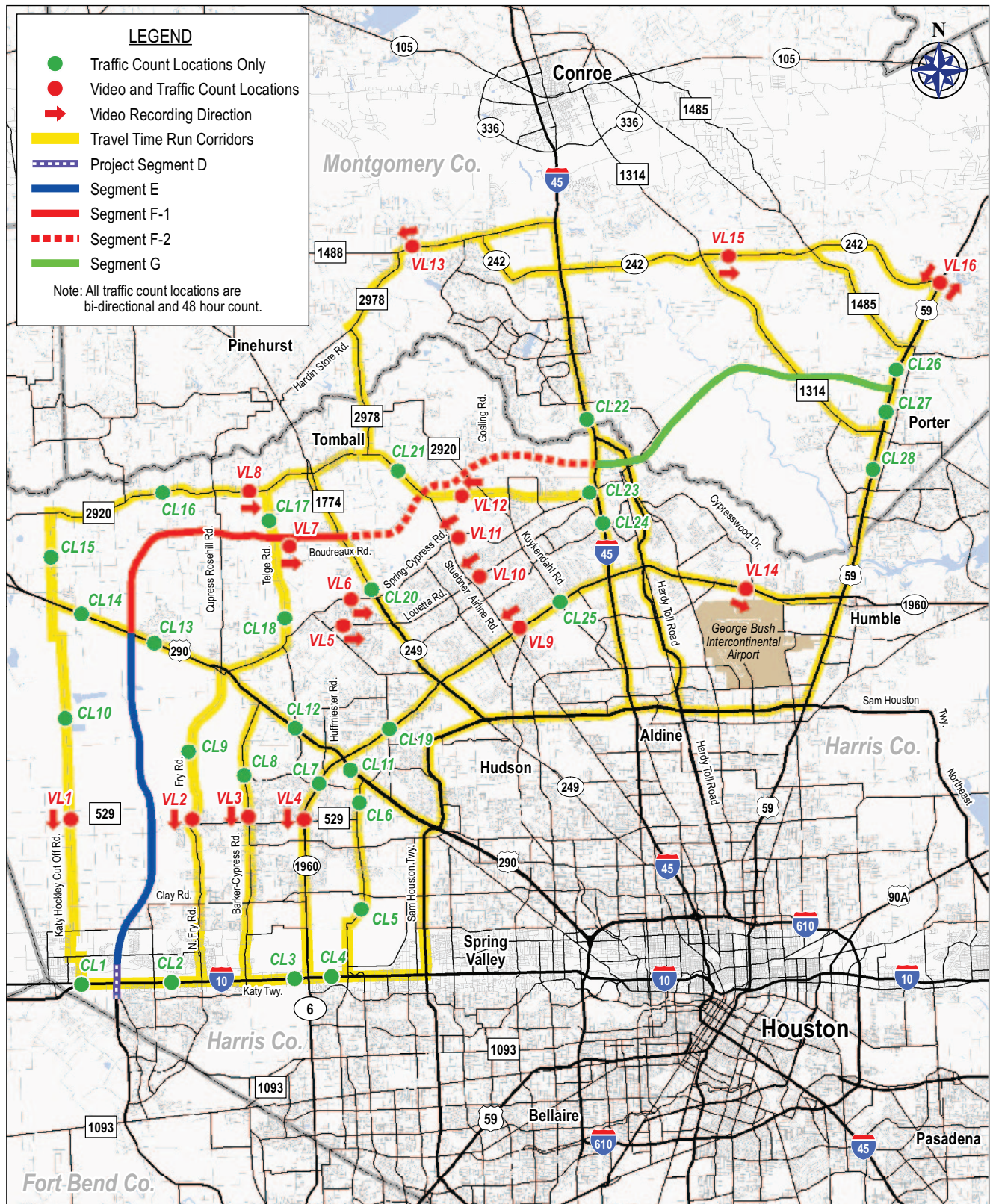


Table 3-4
Average Daily and Peak Hour Traffic Counts
Video Count Locations

Ref.	Type	Name	Description	Count Direction	Average	AM Peak Hour	PM Peak Hour
					Daily Traffic		
VL1	LPR w/Count	Katy Hockley Cutoff Rd	north of FM 529	NB	2,262	153	275
VL1	LPR w/Count	Katy Hockley Cutoff Rd	north of FM 529	SB	2,306	234	211
VL2	LPR w/Count	N. Fry Rd	north of FM 529	NB	10,192	856	914
VL2	LPR w/Count	N. Fry Rd	north of FM 529	SB	9,398	738	728
VL3	LPR w/Count	Barker Cypress Rd	north of FM 529	NB	15,931	954	1,336
VL3	LPR w/Count	Barker Cypress Rd	north of FM 529	SB	15,595	1,164	979
VL4	LPR w/Count	SH 6	north of FM 529	NB	25,507	1,404	1,867
VL4	LPR w/Count	SH 6	north of FM 529	SB	24,791	1,714	1,648
VL5	LPR w/Count	Louetta Rd	west of N. Eldridge Pkwy	EB	8,792	913	630
VL5	LPR w/Count	Louetta Rd	west of N. Eldridge Pkwy	WB	8,438	368	930
VL6	LPR w/Count	Spring Cyrees Rd	west of N. Eldridge Pkwy	EB	11,764	1,131	818
VL6	LPR w/Count	Spring Cyrees Rd	west of N. Eldridge Pkwy	WB	11,024	515	988
VL7	LPR w/Count	Boudreaux Rd	west of Telge Rd	EB	2,183	187	190
VL7	LPR w/Count	Boudreaux Rd	west of Telge Rd	WB	2,252	168	215
VL8	LPR w/Count	FM 2920	east of Telge Rd	EB	13,065	1,135	969
VL8	LPR w/Count	FM 2920	east of Telge Rd	WB	12,764	740	1,211
VL9	LPR w/Count	FM 1960	east of Steubner Airline Rd	EB	25,655	1,684	1,694
VL9	LPR w/Count	FM 1960	east of Steubner Airline Rd	WB	26,600	1,422	1,879
VL10	LPR w/Count	Louetta Rd	east of Steubner Airline Rd	EB	16,643	1,015	1,315
VL10	LPR w/Count	Louetta Rd	east of Steubner Airline Rd	WB	16,105	1,167	1,139
VL11	LPR w/Count	Spring Cyrees Rd	east of Steubner Airline Rd	EB	14,329	1,163	1,213
VL11	LPR w/Count	Spring Cyrees Rd	east of Steubner Airline Rd	WB	12,786	943	1,034
VL12	LPR w/Count	FM 2920	east of Steubner Airline Rd	EB	13,110	974	1,057
VL12	LPR w/Count	FM 2920	east of Steubner Airline Rd	WB	13,134	908	1,038
VL13	LPR w/Count	FM 1488	west of FM 2978	EB	11,346	864	828
VL13	LPR w/Count	FM 1488	west of FM 2978	WB	11,823	742	1,049
VL14	LPR w/Count	FM 1960	east of Cypresswood Dr	EB	28,442	2,189	2,418
VL14	LPR w/Count	FM 1960	east of Cypresswood Dr	WB	27,333	2,104	2,227
VL15	LPR w/Count	STHY 242	east of FM1314/Conroe Porter	EB	6,779	349	684
VL15	LPR w/Count	STHY 242	east of FM1314/Conroe Porter	WB	6,674	737	447
VL16	LPR w/Count	USHY 59	overpass on STHY 242	NB	21,658	943	2,203
VL16	LPR w/Count	USHY 59	overpass on STHY 242	SB	21,485	1,997	1,272

WilburSmith
ASSOCIATES

TRAVEL PATTERN SURVEY - 2011

Dear Motorist:

Wilbur Smith Associates (WSA) is working for several transportation agencies to improve motorists' driving experience in the Houston region. WSA is conducting travel pattern and trip characteristic surveys on certain improvement corridors to learn more about travel demand in the region. The information will help to plan future improvements in the Greater Houston area.

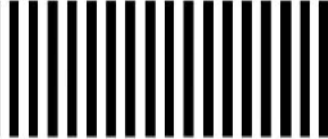
Your answers will remain anonymous and will be used for planning purposes only. If you have a few moments, please think about your most recent trip made on a weekday (Monday - Friday) that included your trip at or near the location listed in the survey form. Please answer all the questions on the survey, detach the form, and drop in the mail. No postage is necessary.

Your participation in completing the survey qualifies you to win a chance to receive one of three Visa gift cards of \$150 pre-paid. By completing the survey in its entirety and providing your name and address in the space provided on the questionnaire, you will be entered in the Visa gift card drawing.

WSA sincerely thanks you for taking the time to provide us with your comments related to your driving experience. This survey is an essential part of determining mobility improvements in the region and your feedback is valued.

Thank you.


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Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Apr 2013.pptx / 4-5-13

<p>Dear Motorist: When responding to this survey, please think about the most recent one-way trip you made on a weekday (Monday through Friday) that included your trip at or near the following location:</p> <p style="text-align: center;">Katy Hockley Rd, between I.H. 10 and U.S. 290</p>																																						
<p>A. Please indicate the time period in which you began this one-way trip. (Circle one)</p> <p>1. 6:00 am to 9:00 am 2. 9:00 am to 3:00 pm 3. 3:00 pm to 7:00 pm 4. 7:00 pm to 6:00 am</p>																																						
<p>B. What was your direction of travel? (Circle one) 1. Northbound 2. Southbound</p>																																						
<p>C. Please indicate the day this one-way trip was made. (Circle one)</p> <p>1. Monday 2. Tuesday 3. Wednesday 4. Thursday 5. Friday</p>																																						
<p>D. Where did you begin this weekday trip (in the direction indicated in Question B)? Please be as specific as possible. If you do not know the street address, please identify the nearest intersection, shopping area, subdivision, etc.</p> <p>Street Address, nearest intersection or location _____</p> <p>City or town _____ State _____ Zip Code (if known) _____</p>																																						
<p>E. Where did this weekday trip end (in the same direction as Question D)? Please be as specific as possible. If you do not know the street address, please identify the nearest intersection, shopping area, subdivision, etc. <i>Response should be different to Question D. Please do not describe a round trip such as home to work and then home. Please describe the trip only in the direction you were going when you received this card.</i></p> <p>Street Address, nearest intersection or location _____</p> <p>City or town _____ State _____ Zip Code (if known) _____</p>																																						
<p>F. What is the zip code of your primary residence? _____</p>																																						
<p>G. Please indicate the main purpose of your one-way trip. (Circle one)</p> <p>1. To or from work 3. School 5. Recreation 7. Other personal business 2. Company business 4. Shopping 6. Social event and/or visit</p>																																						
<p>H. Please identify the type of vehicle you were driving. (Circle one)</p> <p>1. 2-axle, 4-tire Passenger Car, SUV or Pickup Truck 2. 2-axle, 6-tire Truck 4. 4-axle Truck 6. Motorcycle 3. 3-axle Truck 5. Truck with 5 or More Axles</p>																																						
<p>I. Do you, or others in your immediate household, currently have an EZ TAG or other electronic tag useable in Texas? (Circle one) 1. Yes 2. No</p>																																						
<p>J. How many people, including yourself and any children, were in your vehicle? (Circle one)</p> <p>1 2 3 4 5 6 or more</p>																																						
<p>K. How often do you make this one-way trip? (Circle one)</p> <p>1. 4 or more times per week 3. Once per week 5. Less than once per month but more than twice per year 2. 2 or 3 times per week 4. 1 to 3 times per month</p>																																						
<p>L. By completing the survey in its entirety and providing your name and address in the space provided below, early respondents qualify to participate in a \$150 pre-paid Visa gift card drawing. (OPTIONAL)</p> <p>_____</p> <p>_____</p>																																						
<p>M. How many times per week do you use the following alternatives:</p> <p>1. Katy Hockley Rd _____ 3. Barker Cypress Rd _____ 2. Fry Rd _____ 4. S.H. 6 _____</p>																																						
<table border="1"> <tr> <td>0</td><td>1</td><td>3</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></tr> <tr> <td>STATION</td><td>DIR</td><td>A</td><td>B</td><td>C</td><td>F</td><td>G</td><td>H</td><td>I</td><td>J</td><td>K</td><td>M</td><td></td></tr> </table>													0	1	3											STATION	DIR	A	B	C	F	G	H	I	J	K	M	
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STATION	DIR	A	B	C	F	G	H	I	J	K	M																											

Combined Survey Periods

Of the 4,550 cards that came back in the mail, 3,000 or 66 percent were fully usable. Some were not 100 percent complete; others contained contradictory information or information that was not relevant to this survey. The data from the usable mailback surveys, combined for the three survey periods (AM Peak, Midday and PM Peak) were summarized and shown in Table 3-5.

Almost 80 percent of trip origins/destinations were from the eight municipalities in the region. Almost 32 percent started in Houston, with another 27 percent from Cypress and Spring. About 20 percent began their trips from all the other communities in the study region.

Overall, the highest trip purpose was going to/coming back from work. These were almost half of the total trips reported. There was a relatively high EZ Tag penetration with over 75 percent reporting that they had tags or access to tags. Average vehicle occupancy for the three survey periods, combined, was 1.47 persons per vehicle. Over half of the respondents indicated that they made the same trip at least four times per week. Another 17 percent said they made the trip two to three times per week (total- over 71 percent were frequent trip makers).

Morning Peak Period (6:00 am to 9:00 am)

Table 3-6 displays the summary of morning peak hour trips. Over 80 percent of the origins and destinations were to/from the eight highest municipalities in the region. Over 34 percent were to/from Houston and 27 percent oriented to Cypress and Spring.

Trip purpose in the morning was heavily weighted to work trips with over 78 percent of responses. Personal business was the second highest with only 8.6 percent. Almost 78 percent of respondents indicated that they had, or had access to, EZ tags. Average vehicle occupancy in the morning was 1.26 persons per vehicle, with over 82 percent single-occupant trips. This correlates well with the 78 percent work trips. Trip frequency also was indicative of the morning commute with 78.7 percent of respondents taking the same trip four or more times per week (compared to 78.1 percent to/from work trip purpose). Over 88 percent of morning trips were trips made two or more times per week.

Midday Period (9:00 am to 3:00 pm)

The midday period trips, Table 3-7, were slightly more spread out than the morning period with less than 78 percent oriented to the eight highest municipalities. Houston was only 29 percent and Cypress and Spring slightly higher than in the morning at almost 28 percent total.

As expected, trips during the midday period were more diverse than during the morning peak period. A much higher percentage of the trips in this period were shopping trips (24.2 percent) and trips for personal business (29.7 percent). Company business and social events, together, were only 6.5 percent in the morning, but 22.9 percent during the midday.

The EZ Tag percentage was lower at slightly less than 72 percent. This was likely due to the much lower percentage of work trip purpose and lower trip frequency. Only 27.9 percent indicated making the same trip four or more times per week. Vehicle occupancy was 28 percent higher than the morning peak period, at an average 1.61 persons per vehicle. This is to be expected with the higher percentages of shopping and social event trip purposes. The midday period included fewer frequent trip makers. Only 52.5 percent said they made the same trip two times per week or more.

Table 3-5
Mail Out Surveys - All Periods Combined

Direction			Origins			EZ Tag		
NB or EB	2437	41.4%	Cypress	823	13.9%	Yes	4428	75.3%
SB or WB	<u>3449</u>	<u>58.6%</u>	Houston	1877	31.8%	No	<u>1455</u>	<u>24.7%</u>
	5886	100.0%	Spring	807	13.7%		5883	100.0%
			Tomball	549	9.3%			
			Magnolia	234	4.0%			
			The Woodlands	150	2.5%			
			Humble	107	1.8%			
			Katy	165	2.8%			
			Others	<u>1190</u>	<u>20.2%</u>			
				5902	100.0%			
Day of Week			Destinations			Vehicle Occupancy		
Monday	1755	30.5%	Houston	1876	31.8%	Driver Only	4168	70.7%
Tuesday	1140	19.8%	Tomball	547	9.3%	2 Occupants	1112	18.9%
Wednesday	952	16.5%	Spring	807	13.7%	3 Occupants	344	5.8%
Thursday	908	15.8%	Katy	166	2.8%	4 Occupants	172	2.9%
Friday	<u>1006</u>	<u>17.5%</u>	Cypress	822	13.9%	5 Occupants	70	1.2%
	5761	100.0%	Magnolia	235	4.0%	6 Occupants	<u>30</u>	<u>0.5%</u>
			Humble	107	1.8%		5896	100.0%
			The Woodlands	149	2.5%			
			Others	<u>1193</u>	<u>20.2%</u>			
				5902	100.0%			
Trip Purpose						Average Occupancy = 1.47 /veh		
Work	2868	49.1%				Trip Frequency		
Co. Business	416	7.1%				4 or more/week	3184	54.0%
School	152	2.6%				2-3 times/week	1012	17.2%
Shopping	694	11.9%				Once a week	528	9.0%
Recreation	296	5.1%				1-3 times/month	730	12.4%
Social Event	408	7.0%				> once/month	<u>440</u>	<u>7.5%</u>
Pers. Bus.	<u>1008</u>	<u>17.3%</u>					5894	100.0%
	5842	100.0%						

Table 3-6
Mail Out Surveys - Morning Peak Period

Direction			Origins			EZ Tag		
NB or EB	1039	41.5%	Cypress	362	14.4%	Yes	1949	77.8%
SB or WB	<u>1464</u>	<u>58.5%</u>	Houston	868	34.5%	No	<u>555</u>	<u>22.2%</u>
	2503	100.0%	Spring	318	12.7%		2504	100.0%
			Tomball	221	8.8%			
			Magnolia	117	4.7%			
			The Woodlands	64	2.5%			
			Humble	47	1.9%			
			Katy	69	2.7%			
			Others	<u>447</u>	<u>17.8%</u>			
				2513	100.0%			
Day of Week			Destinations			Vehicle Occupancy		
Monday	1118	46.2%	Houston	855	34.0%	Driver Only	2065	82.3%
Tuesday	421	17.4%	Tomball	220	8.8%	2 Occupants	298	11.9%
Wednesday	293	12.1%	Spring	318	12.7%	3 Occupants	99	3.9%
Thursday	248	10.2%	Katy	69	2.7%	4 Occupants	34	1.4%
Friday	<u>342</u>	<u>14.1%</u>	Cypress	362	14.4%	5 Occupants	11	0.4%
	2422	100.0%	Magnolia	117	4.7%	6 Occupants	<u>2</u>	<u>0.1%</u>
			Humble	53	2.1%		2509	100.0%
			The Woodlands	64	2.5%			
			Others	<u>455</u>	<u>18.1%</u>			
				2513	100.0%			
Trip Purpose						Average Occupancy = 1.26 /veh		
Work	1945	78.1%				Trip Frequency		
Co. Business	129	5.2%				4 or more/week	1974	78.7%
School	58	2.3%				2-3 times/week	236	9.4%
Shopping	55	2.2%				Once a week	92	3.7%
Recreation	58	2.3%				1-3 times/month	107	4.3%
Social Event	32	1.3%				> once/month	<u>100</u>	<u>4.0%</u>
Pers. Bus.	<u>213</u>	<u>8.6%</u>					2509	100.0%
	2490	100.0%						

Table 3-7
Mail Out Surveys - Midday Period

Direction			Origins			EZ Tag		
NB or EB	784	42.5%	Cypress	263	14.2%	Yes	1324	71.9%
SB or WB	<u>1062</u>	<u>57.5%</u>	Houston	540	29.2%	No	<u>518</u>	<u>28.1%</u>
	1846	100.0%	Spring	251	13.6%		1842	100.0%
Day of Week			Tomball	183	9.9%	Vehicle Occupancy		
Monday	334	18.4%	Magnolia	75	4.1%			
Tuesday	424	23.3%	The Woodlands	49	2.7%	Driver Only	1108	60.0%
Wednesday	426	23.4%	Humble	30	1.6%	2 Occupants	500	27.1%
Thursday	326	17.9%	Katy	44	2.4%	3 Occupants	140	7.6%
Friday	<u>310</u>	<u>17.0%</u>	Others	<u>413</u>	<u>22.3%</u>	4 Occupants	60	3.3%
	1820	100.0%		1848	100.0%	5 Occupants	30	1.6%
Trip Purpose			Destinations			6 Occupants	<u>8</u>	<u>0.4%</u>
Work	256	14.0%	Houston	539	29.2%		1846	100.0%
Co. Business	230	12.6%	Tomball	182	9.8%	Average Occupancy = 1.61 /veh		
School	64	3.5%	Spring	251	13.6%			
Shopping	442	24.2%	Katy	44	2.4%	Trip Frequency		
Recreation	102	5.6%	Cypress	262	14.2%			
Social Event	188	10.3%	Magnolia	75	4.1%	4 or more/week	516	27.9%
Pers. Bus.	<u>542</u>	<u>29.7%</u>	Humble	30	1.6%	2-3 times/week	454	24.6%
	1824	100.0%	The Woodlands	48	2.6%	Once a week	268	14.5%
			Others	<u>417</u>	<u>22.6%</u>	1-3 times/month	390	21.1%
				1848	100.0%	> once/month	<u>220</u>	<u>11.9%</u>
							1848	100.0%

Afternoon Peak Period (3:00 pm to 7:00 pm)

From Table 3-8, it can be seen that this period had several similarities to the combined survey periods. The percentage of vehicles oriented to the eight highest municipalities was very close, about 1 percent lower than the combined all day total. Compared to the morning period, the afternoon percentage was about 3 percent lower.

Work trips were a little over 5 percent less than the combined percent (43.7 percent versus 49.1 percent), but about 35 percent lower than the morning peak. This is a possible indication that a number of drivers don't immediately return home after work. In the afternoon peak period, the sum of shopping, social event and personal business was 41.6 percent, while the sum of these three trip purposes for the combined all-day period was 36.2 percent. These three purposes in the morning peak were a total of about 12 percent. The difference in EZ Tag access between the afternoon peak and the all-day combined was only 0.2 percent. Vehicle occupancy in the afternoon peak was a surprising average of 1.63 persons per vehicle (ppv), 0.02 higher than the midday period. The difference between the morning and afternoon peak periods was 29 percent (1.63 ppv to 1.26 ppv).

About 66 percent of afternoon peak period trips were made two or more times per week. The percentage for the combined periods was about 71 percent.

Table 3-8
Mail Out Surveys - Afternoon Peak Period

Direction			Origins			EZ Tag		
NB or EB	614	39.9%	Cypress	198	12.8%	Yes	1155	75.1%
SB or WB	<u>923</u>	<u>60.1%</u>	Houston	469	30.4%	No	<u>382</u>	<u>24.9%</u>
	1537	100.0%	Spring	238	15.4%		1537	100.0%
Day of Week			Tomball	145	9.4%	Vehicle Occupancy		
Monday	303	19.9%	Magnolia	42	2.7%	Driver Only	995	64.6%
Tuesday	295	19.4%	The Woodlands	37	2.4%	2 Occupants	314	20.4%
Wednesday	233	15.3%	Humble	30	1.9%	3 Occupants	105	6.8%
Thursday	334	22.0%	Katy	52	3.4%	4 Occupants	78	5.1%
Friday	<u>354</u>	<u>23.3%</u>	Others	<u>330</u>	<u>21.4%</u>	5 Occupants	29	1.9%
	1519	100.0%		1541	100.0%	6 Occupants	<u>20</u>	<u>1.3%</u>
Trip Purpose			Destinations				1541	100.0%
Work	667	43.7%	Houston	482	31.3%	Average Occupancy = 1.63 /veh		
Co. Business	57	3.7%	Tomball	145	9.4%	Trip Frequency		
School	30	2.0%	Spring	238	15.4%	4 or more/week	694	45.2%
Shopping	197	12.9%	Katy	53	3.4%	2-3 times/week	322	20.9%
Recreation	136	8.9%	Cypress	198	12.8%	Once a week	168	10.9%
Social Event	188	12.3%	Magnolia	43	2.8%	1-3 times/month	233	15.2%
Pers. Bus.	<u>253</u>	<u>16.6%</u>	Humble	24	1.6%	> once/month	<u>120</u>	<u>7.8%</u>
	1528	100.0%	The Woodlands	37	2.4%		1537	100.0%
			Others	<u>321</u>	<u>20.8%</u>			
				1541	100.0%			

78.6%

79.2%

Summary of Traffic Trends

Assessment of the data collected as part of this effort demonstrated that the existing corridors that parallel the proposed Grand Parkway, namely FM 1960 and the current Sam Houston Tollway are heavily traveled during the peak periods with average daily traffic volumes ranging between 40-50 and 140-160 thousand respectively. The speed and delay runs showed these corridors are heavily congested during the peak periods reaching low levels of service with speeds that average 20 mile per hour along the arterials such as the FM 1960 and 40 mile per hour along the Sam Houston Tollway. Analysis of the origin-destination patterns also showed a great variability and spread in the distribution of origins and destinations throughout the region compared to the typical suburb-to-central business district movements that are typical for a large metropolitan area. The patterns of travel thus indicated a strong suburb-to-suburb interaction is currently evident along the existing circumferential routes within the region.

Chapter 4

Willingness To Pay Tolls, Values of Time

Resource Systems Group (RSG) was contracted by CDM Smith to develop and implement a stated preference survey to gather information from current automobile travelers in the vicinity of the Grand Parkway Segments D through G corridor and estimate the distribution of potential customer's value-of-time (VOT). In addition to collecting data on current travel behaviors, the survey presents respondents with information about the proposed highway improvements and, with the use of choice-based conjoint (trade-off) questions, assists in estimating travelers' values-of-time which will be essential for toll diversion and estimating toll revenue.

This chapter provides a brief overview the survey data collection and model estimation work conducted by RSG for the Grand Parkway Stated Preference Study. The detailed Stated Preference Report, prepared by RSG may be found in Attachment A to this report.

Survey Approach

Survey data was collected that allows for statistical estimation of a stated preference mode choice model. Data were collected so that the model could include time-of-day and trip purpose segments, as well as travel cost sensitivity and willingness of travelers to use the toll road options on the Grand Parkway corridor. The stated preference survey conducted for this study, collected data from travelers on their current trip characteristics and choices among the current travel options; such as tolled and un-tolled use of Grand Parkway, HOV, and use of public transit.

This stated preference survey approach was based on the IVIS computer-assisted self-interview (CASI) technique as developed by RSG. It was programmed using customized proprietary software for both laptops and Internet administration.

The laptop-based stated preference survey was conducted at a variety of locations throughout the Grand Parkway corridor area. The locations were selected to ensure that a representative sample of corridor travelers would be obtained. To ensure that all of the groups of interest were included in the sample, a multi-method sampling approach was used. Intercepts were conducted in public facilities such as shopping malls, tax collection offices, large office buildings, and libraries. The sample obtained by intercept was supplemented with the participation of employees from a number of large employers located in the vicinity of the Grand Parkway corridor using an online version of the survey.

The customized survey was adapted to each respondent by presenting questions and modifying wording based on respondents' answers. The text of the questionnaire and example screens are included in the RSG report in Attachment A.

Survey Administration

The data collection effort for this project was conducted between January and March, 2011. Travelers who either used or could have used the Grand Parkway corridor for a trip between 15 minutes and 4 hours in length were intercepted at various locations throughout Houston. Emphasis was placed on

selecting sites that were proximate to the Grand Parkway corridor and would allow collection of responses for both work and non-work purposes. The following general areas were targeted:

1. Office buildings and other area employment sites
2. Shopping and recreational centers
3. Libraries
4. Other heavily trafficked sites including the Fort Bend Tax Offices

The survey administration setup was comprised of up to ten laptop computer interview stations set up each day, usually split between two locations. Each survey site was staffed by two to four survey attendants who were responsible for soliciting and screening potential respondents, escorting the participants to survey stations, and if necessary, assisting them with questions. Potential respondents were questioned to ensure that they met the screening criteria. A framed poster mounted on an easel was positioned near the interview station to assist in attracting respondents.

When taking the survey, respondents sat in front of a laptop computer and primarily used a mouse to record answers and navigate through the survey. Most respondents took between ten and fifteen minutes to complete the survey. Data for each individual was automatically saved to the computer for later analysis. It was reported that participants were generally enthusiastic about taking the survey and seemed to enjoy the survey's interactive technology.

In addition to the surveys collected at central site locations, additional surveys were collected via the Internet at SurveyCafe.com. The majority of these were obtained from a number of large businesses and a small number from libraries. These participants were invited to participate via email. The remaining surveys were obtained via the Internet through flyers that were handed to individuals at central site locations who were unable to participate when they were intercepted.

Survey Results

A total of 1,816 people completed the survey. For matters of consistency, all tabulations in this report include only data from respondents who completed the entire survey. A complete set of straight tabulations are contained in Attachment A. The sources for the completed surveys are shown below on Table 4-1.

Table 4-1
SP Survey Sources

Source	Surveys	%
Research Now	302	16.6%
Field	597	32.9%
O&D E-Mails	428	23.6%
Fort Bend Tax Office	15	0.8%
M.S. Marks Library	46	2.5%
Barbara Bush Library	7	0.4%
Other	421	23.2%
Totals	1816	100.0%

Demographics

The sample was comprised of 48.1 percent women and 51.9 percent men. The median age was in the range of 45 to 54 years, which is also the largest category, representing 23.4 percent of the whole sample. Average household income, shown on Figure 4-1, was slightly over \$100,000, with the range of \$50,000 to \$74,999 having the largest number of respondents (339 or 18.7 percent). Approximately 61.9 percent of respondents were employed full-time.

Trip Characteristics

Over 40 percent of respondents indicated that the purpose of their trip was to commute to/from work. The next two highest categories of trip purpose were “work-related business” (16.1 percent) and “social/recreational” at 15.6 percent. Figure 4-1 shows the distribution of trip purposes.

The distribution of time-of-day when respondents took their trip is shown in Figure 4-1. The Midday period, which was seven hours, had the largest number of responses, almost 40 percent. The two-hour AM Peak (34.5 percent) was over three times the three-hour PM Peak (11.2 percent). Nighttime trips were slightly over the PM Peak with 14.4 percent.

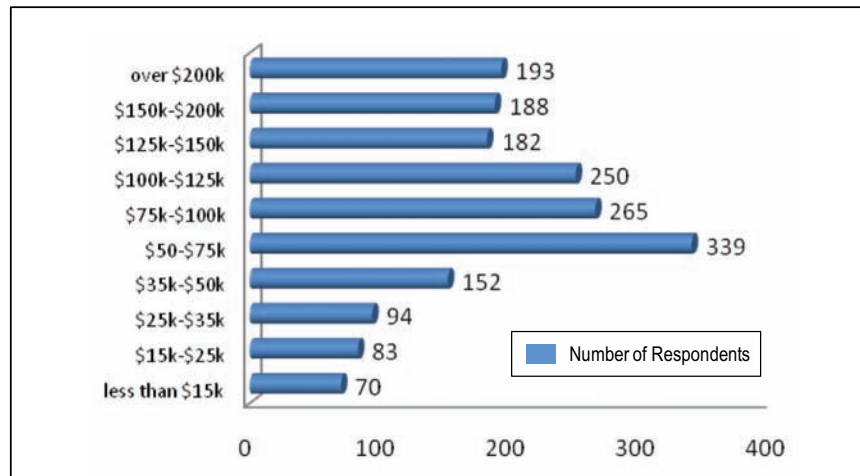
Based on their current origins and/or destinations, trip purposes, and the results of the choice-based conjoint (trade-off) questions, some respondents would be potential Fort Bend Segment D users and some would not. According to the 1,816 completed surveys, 667 or 36.7 percent would be potential users.

Results and Usage

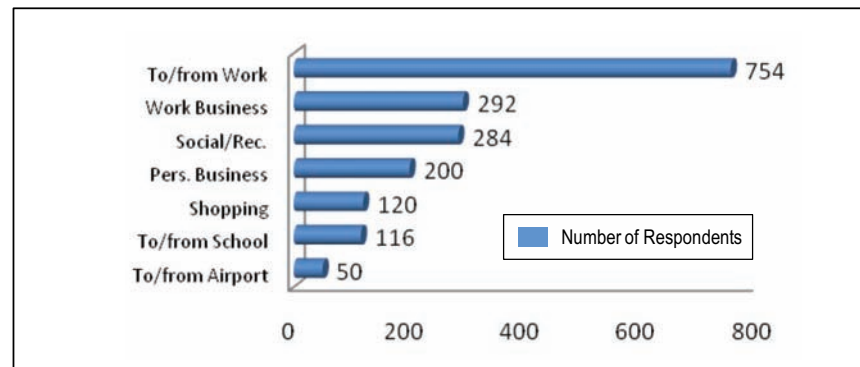
The results of the SP exercise provided CDM Smith with a distribution of values-of-time dependent on income to use in the modeling process. Table 4-2 summarizes the multinomial values-of-time resulting from the SP survey analysis for the corridor.

Full details are presented and described in Attachment A, and a description of how the VOT distribution was used by CDM Smith to estimate values-of-time by TAZ is provided in Chapter 6.

Household Income



Trip Purpose



Time of Day Distribution

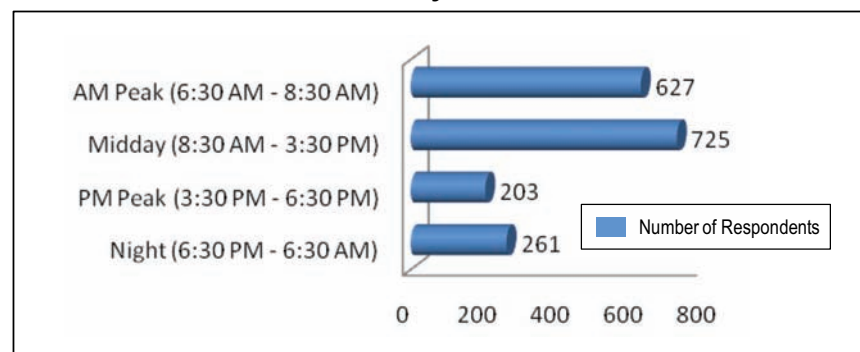


Table 4-2
Multinomial Values of Time by Segment and Income

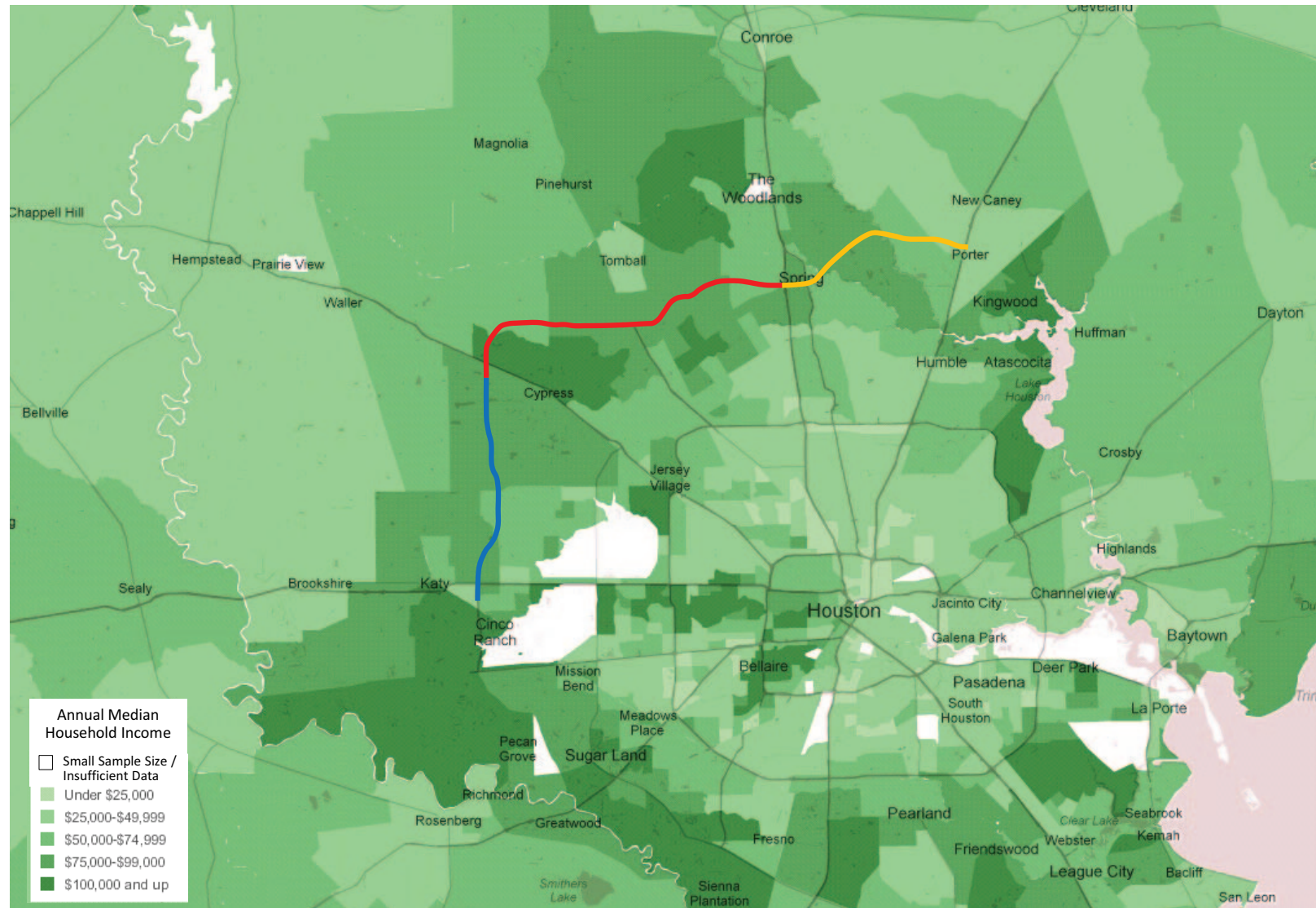
Household Income	Aggregate VOT (\$/hr)	Peak VOT (\$/hr)	Off Peak VOT (\$/hr)
\$10,000	\$7.51	\$8.19	\$6.96
22,500	10.15	11.07	9.41
30,000	11.09	12.09	10.28
42,500	12.22	13.33	11.34
62,500	13.48	14.70	12.50
87,500	14.58	15.90	13.52
112,500	15.40	16.79	14.28
137,500	16.05	17.51	14.89
175,000	16.84	18.36	15.61
225,000	17.66	19.26	16.37
MML ¹ Median	9.81	10.17	9.66
MML ¹ Mean	12.98	12.92	12.73

Source: Resource Systems Group, Inc. March 2011

¹MML - Mixed Multinomial Logit models evaluated
at \$87,500 median household income

The current distribution of the income throughout the region, as shown in Figure 4-2, illustrates the greater concentration of higher income households that currently reside within the Grand Parkway study region. The Houston region already has numerous tolled facilities serving the various travelling markets and thus the values of time and biases regarding tolled facilities are consistent with observed toll market trends within the region and reflect a mature distribution.

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Chapter 5

Economics and Growth

The distribution and growth of population, households, and employment all have a significant impact on the initial and continued feasibility of a toll facility. The forecasts of these indicators are a key input for the trip generation step in building travel demand model trip tables. These trip tables are the foundation of the travel demand model in key forecasting years and accordingly future traffic and revenue estimates. It is therefore vital to review these underlying demographic assumptions.

The official regional socioeconomic forecasts used in the regional travel demand model are prepared by the Houston-Galveston Area Council (H-GAC). The Regional Growth Forecasts present estimates for population, households, and employment in a 13-county area. However, as part of this study, an independent firm, Community Development Strategies (CDS) was retained to conduct an independent analysis of the validity of the socioeconomic data that is used in conjunction with the H-GAC Regional Planning Model to forecast future travel demand in the Houston-Galveston area. In particular, the independent economist focused on the area of influence of the Grand Parkway project. A separate report has been prepared by CDS and is included in Attachment B of this report. Their report was first produced in May 2011 but later updated in August to reflect the very latest results of the 2010 census. An additional update was conducted in June of 2012 for this study update.

This chapter of the report provides a summary of the demographic and economic information from various sources including summaries of CDS's findings and the adjusted socio-economic forecast used for the base case T&R estimates.

Historical Regional Trends

A review of historical trends of the region's economic indicators was performed to assess growth patterns in the Houston-Galveston area. This section of the chapter summarizes the past socio-economic trends of the region.

Historical Population Trends

Table 5-1 shows the historical population trends for selected counties in the Houston-Galveston region. The total population has increased by an average annual growth rate of 2.5 percent from 1970 to 2010 for the eight-county region, adding approximately 3.71 million additional residents to the area.

The eight-county region added almost 1 million people between 1970 and 1980. The rate of growth was substantially reduced by major economic recession and restructuring which occurred in the mid-1980s as a result of falling oil prices and an over dependency on the petroleum industry within the Houston economy. Subsequent to that economic downturn, the greater Houston region emerged as a much more diverse economy and strong growth resumed in the 1990s and the first ten years of the new century.

Table 5-1
Historical Population Growth by County

County	1970-2010									
	1970	CAGR	1980	CAGR	1990	CAGR	2000	CAGR	2010	CAGR
Brazoria	108,312	4.6%	169,587	1.2%	191,707	2.3%	241,767	2.6%	313,166	2.7%
Chambers	12,187	4.3%	18,538	0.8%	20,088	2.6%	26,031	3.0%	35,096	2.7%
Fort Bend	52,314	9.6%	130,962	5.6%	225,421	4.6%	354,452	5.1%	585,375	6.2%
Galveston	169,812	1.4%	195,738	1.1%	217,399	1.4%	250,158	1.5%	291,309	1.4%
Harris	1,741,913	3.3%	2,409,547	1.6%	2,818,199	1.9%	3,400,578	1.9%	4,092,459	2.2%
Liberty	33,014	3.6%	47,088	1.1%	52,726	2.9%	70,154	0.8%	75,643	2.1%
Montgomery	49,479	9.9%	127,222	3.7%	182,201	4.9%	293,786	4.5%	455,746	5.7%
Waller	14,285	3.3%	19,798	1.7%	23,390	3.4%	32,663	2.8%	43,205	2.8%
8-County Region	2,181,316	3.6%	3,118,480	1.8%	3,731,131	2.3%	4,669,589	2.4%	5,891,999	2.5%

Source: US Census Bureau (August 2011)

The most populous county of the 8-county region and Texas, of course, is Harris County. In the 40 years between 1970 and 2010, Harris County added over 2.4 million additional residents, an overall rate of growth of 2.2 percent per year. Today, more than 4 million people live in Harris County, out of 5.9 million in the total eight-county region.

The most rapidly growing counties are Fort Bend and Montgomery, averaging about 6 percent per year in growth. Both of these counties had populations in the range of about 50,000 residents in 1970; today Fort Bend County has more than 11 times that amount while Montgomery County has over 455,000 residents. Fort Bend County has had consistent long-term growth, even during the 1980's. In the past decade Fort Bend County had the highest rate of population growth of 5.1 percent per annum.

Historical Employment Trends

The historical employment trend in the region by county is shown in Table 5-2. Total employment of the eight-county region has increased by approximately 690,000 over the last 20 years. This equals a growth rate of 1.6 percent per year with a high of 3.2 percent per year in the period of 1995-2000. The counties of Fort Bend and Montgomery maintained higher growth rates of 5.4 percent per year and 6.2 percent per year, respectively, compared to the other five counties.

Table 5-2
Historical Total Employment Growth by County

County	1990-2010									
	1990	CAGR	1995	CAGR	2000	CAGR	2005	CAGR	2010	CAGR
Brazoria	70,950	0.4%	72,482	1.3%	77,472	0.7%	80,250	1.2%	85,071	0.9%
Chambers	6,048	2.7%	6,921	3.7%	8,288	1.2%	8,787	3.1%	10,259	2.7%
Fort Bend	50,546	4.1%	61,908	10.0%	99,768	2.5%	112,936	5.2%	145,621	5.4%
Galveston	80,224	0.9%	83,826	2.3%	94,138	0.6%	96,956	0.1%	97,581	1.0%
Harris	1,539,045	1.0%	1,619,544	2.8%	1,855,051	0.5%	1,906,019	0.8%	1,986,400	1.3%
Liberty	14,251	1.0%	14,951	3.7%	17,901	1.1%	18,862	2.2%	21,017	2.0%
Montgomery	43,268	4.8%	54,602	10.4%	89,634	3.9%	108,484	5.7%	143,369	6.2%
Waller	7,612	1.9%	8,373	3.3%	9,851	1.8%	10,778	3.4%	12,761	2.6%
8-County Region	1,811,944	1.2%	1,922,607	3.2%	2,252,103	0.8%	2,343,072	1.3%	2,502,079	1.6%

Source: University of Houston – Institute for Regional Forecasting

Considering the entire Houston Metropolitan Area, there has been an increase in employment of almost 250,000 jobs between 2000 and 2010. This is almost 11 percent or 1.1 percent per year, compounded, over the last ten years. The greatest increases occurred in the far Southwest and far Northwest, with ten-year growth of over 50 percent.

Historical Personal Income Trends

Travel demand in general is sensitive to, among other things, the amount of disposable income available in a household. As for demand for toll facilities, a reliable indicator of an individual's propensity to pay tolls instead of using non-tolled alternatives is personal income; this is a key input into the assessment of the value-of-time of a motorist, especially given that there is typically a relationship between value-of-time, income and the motorists' willingness-to-pay.

The historical per capita income trend in the region by county is shown in Table 5-3. As can be noted from the table, the overall growth is in the range of 4.2 percent to 5.8 percent per year. Chambers County has had the highest growth rate over the 19-year period at 5.8 percent per year. Montgomery County is a close second with a growth rate of 5.2 percent per year. The lowest is Brazoria County with a growth rate of 4.2 percent per year. In 2009, Fort Bend County had the highest per capita income outside the City of Houston, at \$45,798.

Table 5-3
Historical Personal Per Capita Personal Income by County

County	1990	CAGR	1995	CAGR	2000	CAGR	2005	CAGR	1990-2009	
									2009	CAGR
Brazoria	\$17,243	3.4%	\$20,376	5.9%	\$27,165	2.7%	\$31,111	4.8%	\$37,523	4.2%
Chambers	\$15,458	5.7%	\$20,365	6.4%	\$27,774	4.3%	\$34,205	7.3%	\$45,257	5.8%
Fort Bend	\$19,632	4.7%	\$24,710	6.5%	\$33,917	2.4%	\$38,096	4.7%	\$45,798	4.6%
Galveston	\$17,857	4.7%	\$22,445	5.8%	\$29,749	2.9%	\$34,295	5.0%	\$41,621	4.6%
Harris	\$20,964	3.7%	\$25,161	7.3%	\$35,728	3.1%	\$41,522	3.9%	\$48,337	4.5%
Liberty	\$13,691	4.3%	\$16,883	4.7%	\$21,199	5.1%	\$27,145	5.6%	\$33,729	4.9%
Montgomery	\$17,489	6.2%	\$23,670	7.0%	\$33,177	2.4%	\$37,278	5.1%	\$45,490	5.2%
Waller	\$13,763	3.7%	\$16,495	3.9%	\$20,015	7.2%	\$28,371	4.5%	\$33,798	4.8%

Source: US Bureau of Economic Analysis, last updated by BEA April 21, 2011. 2010 data not available.

Per capita personal income was computed using Census Bureau midyear population estimates.

All state and local area dollar estimates are in current dollars (not adjusted for inflation).

Trends in Households/Housing Units

Another key indicator is the number of households or housing units in the study area. Table 5-4 shows the 20-year trend in housing unit growth. Since 1990, the number of housing units in the 8-county region has grown by 2.0 percent per year. Fort Bend and Montgomery counties had the largest growth rates at 4.8 and 4.5 percent per year, respectively. The largest absolute growth was in Harris County, where housing units increased by almost 425,000 between 1990 and 2010. This was an average rate of 1.6 percent per year. Fort Bend and Montgomery counties had the second and third highest absolute growth at over 119,000 and 103,000 respectively.

Table 5-4
Historical Housing Units by County

County	1990	CAGR	2000	CAGR	2005	CAGR	2005-2010		1990-2010	
							2010	CAGR	CAGR	
Brazoria	74,504	2.0%	91,211	3.0%	105,629	2.9%	118,336	2.3%	2.3%	
Chambers	8,061	2.6%	10,433	3.7%	12,522	1.5%	13,291	1.2%	2.5%	
Fort Bend	77,075	4.3%	117,509	3.0%	136,195	9.7%	197,030	7.7%	4.8%	
Galveston	99,451	1.2%	112,431	2.2%	125,525	1.4%	132,492	1.1%	1.4%	
Harris	1,173,808	1.1%	1,303,521	2.1%	1,444,928	2.6%	1,598,698	2.0%	1.6%	
Liberty	22,243	1.8%	26,477	1.1%	28,013	0.7%	28,759	0.5%	1.3%	
Montgomery	73,871	4.4%	113,960	4.3%	140,764	6.0%	177,647	4.8%	4.5%	
Waller	8,824	3.2%	12,062	2.4%	13,556	4.0%	15,839	3.2%	3.0%	
8-County Region	1,537,837	1.5%	1,787,604	2.3%	2,007,132	3.3%	2,282,092	2.6%	2.0%	

Source: US Census Bureau (August 2011)

Again considering the entire Houston Metro Area, growth in households was 27.7 percent from 2000 to 2010. The two areas with the highest growth rates in households were the Far Southwest at 49.5 percent and the Far Northwest at 50.3 percent.

Recent Economic Trends and Outlook

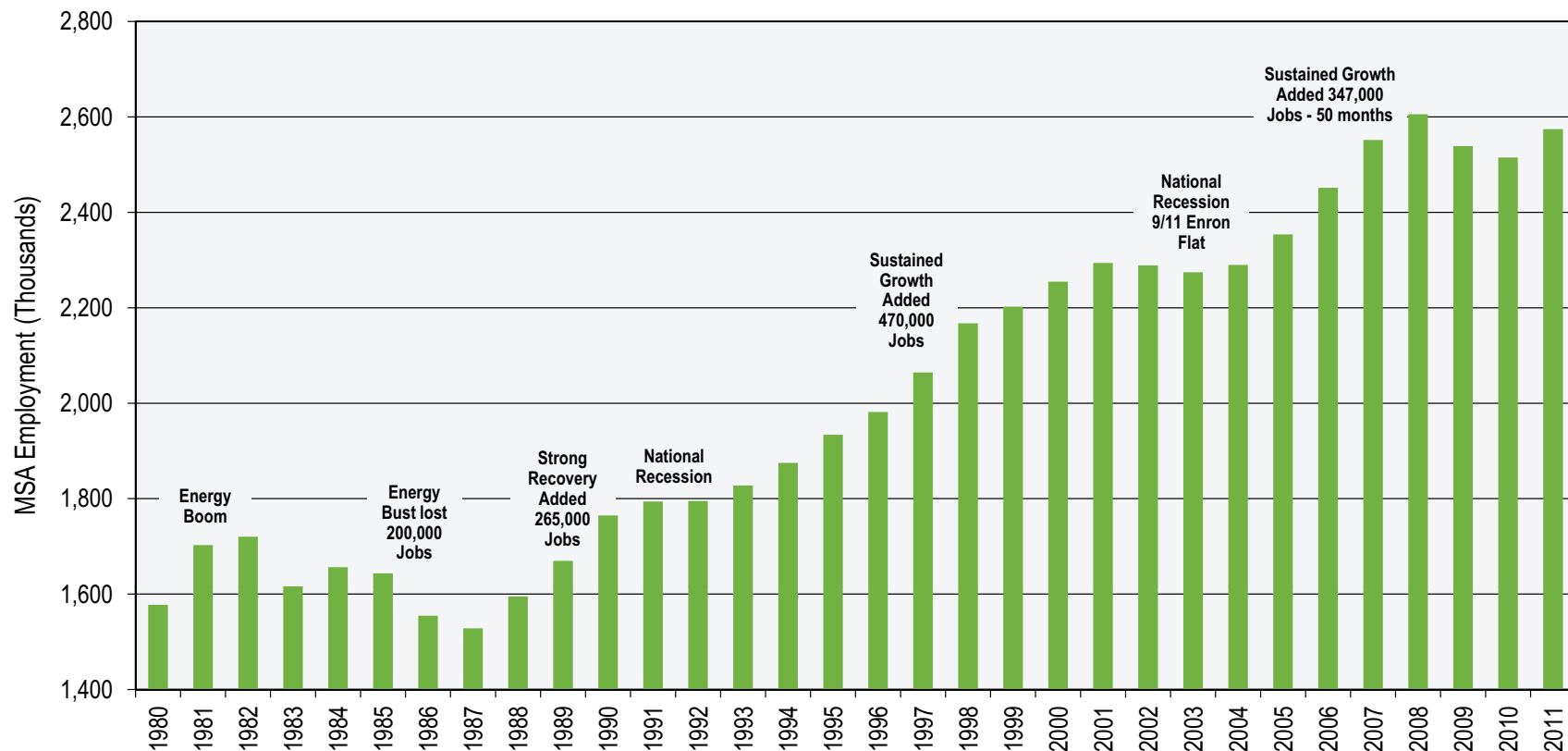
The U.S. economy recently experienced one of the most significant contractions since the Great Depression. In 2010, the national unemployment rate reached above 10.0 percent.

In light of ongoing economic conditions, CDM Smith requested CDS, as an independent consultant, to review recent economic indicators for the Houston-Galveston area to better understand how trends in Houston's market compare to national trends. CDS conducted a study that analyzed the validity of regional socio-economic data. A summary of this analysis is presented in this section. CDS's full report on local economic indicators is attached in Attachment B of this report.

Recent Employment Trends

The Houston Area enjoyed a boom during the 1970's during the country's energy shortages. When the oil market fell in the early 1980's, it had a devastating impact on the Houston Area economy. From 1982 to 1987 almost 222,000 jobs were lost. Over 80 percent of those lost jobs were in oil and gas related industries. Since 1986, Houston diversified its economy and thereby lessened dependence on the energy industry. Today the energy sector accounts for approximately 33 percent of the Houston Area employment base.

Figure 5-1 shows the decline in employment beginning in 1982 and continuing through 1987. Jobs increased significantly from 1988 through 1990 and then growth flattened out for the next four years. There was another period of sharp increase from 1993 to 1999. After a year of basically no growth, 2000 and 2001 showed another sharp increase.



Source: U.S. Bureau of Labor Statistics.

That was followed by another “flat” period from 2002 to 2004. The area experienced steady growth through 2008. The second half of 2008 saw the Houston Area declining with the rest of the country with some recovery evident in 2010 and the early part of 2011.

Factors Affecting Future Regional Economic Growth

According to the Greater Houston Partnership, three factors have governed the state of Houston’s economy over the past 10 years:

- The health of the national economy;
- The value of the U.S. dollar against foreign currencies; and
- Energy prices.

Higher oil and gas prices stimulate demand for oil field equipment and services. Spot market closing prices for West Texas Intermediate began the 2000’s decade in the \$20-\$30 per barrel range and remained there until 2004 when they began a steady climb, with a brief downward fall in 2006, to a peak of over \$140 per barrel during the first half of 2008. The sharp rise was attributed to large increases in demand from China, India and the Middle East. However, with the beginning of the worldwide recession in the second half of 2008, accompanied by a fall-off in demand, crude oil prices subsided to levels below \$40 per barrel in late 2008 and early 2009, started climbing to an average of almost \$80 per barrel in 2010, and have spiked recently to the vicinity of \$105 per barrel. Concurrently, natural gas was under \$130 per thousand cubic meters (TCM), in the early 2000’s. In 2003 and 2004, the price hovered around \$200 per TCM. The year 2005 averaged slightly less than \$320 per TCM, followed by prices falling to the neighborhood of \$250 in 2006 and 2007. Prices peaked in 2008 at almost \$320 again and then rapidly fell to a little over \$140 per TCM in 2009 and \$158 in 2010. Current prices are almost \$162 per TCM.

Economic Geography

The City of Houston has never had zoning or any other form of land use regulation. Therefore, there is no “Central Business District” typical of other large urban areas. Loosely-defined “edge cities” comprise a large portion of the region’s employment base. These are usually made up of clusters of office, medical office, hotel, and supportive retail land uses. Many of these clusters contain high-rise, high density buildings. The area’s large employment centers are largely dependent for access on the highway system. The de-centralized locations of these centers do not lend themselves to the use of mass transit.

Historical Growth and Projections

Population growth is one of the principal measures of the economic vitality of any area because increasing population is generally the result of more jobs, a high level of immigration and a stable or expanding economy.

From 1960 to 2010, population in the eight-county region has grown from 1.6 million to 5.9 million (estimated), and is projected to reach 6.4 million by 2015. This is an annual compound growth rate of 1.9 percent per year. Fort Bend County is projected to grow 564,000 (estimated) in 2010 to 655,000 in 2015, 3.3 percent per annum.

Population growth is made up of three primary components – Natural Increase (births minus deaths); Domestic Migration (from the U.S.); and International Migration (from outside the U.S.). Net in-migration, which is calculated based on the number of persons moving in versus the number moving out, has accounted for almost 50 percent of the growth in Houston Metro Area population over the 2000-2009 period. Approximately 60 percent of this net migration has come from outside the U.S., which is not surprising in view of Houston's status as an international trading and business center.

The H-GAC 2040 Regional Growth Forecast

In late 2009, H-GAC embarked on the preparation of new forecasts for the Houston region. As the MPO for the 8-county Houston Transportation Management Area, the agency prepares regional and small area forecasts that are utilized in transportation and other regional planning efforts. This new effort will replace the 2035 Regional Growth Forecasts which were completed in 2006. In this new forecast process, the H-GAC is using a new approach for the small area forecasts of population and employment. They will be using "a micro-simulation of the real estate development industry which supplies residential and non-residential buildings to accommodate the growing population and employment." The 2035 Forecasts were prepared using a model called UrbanSim. For the new 2040 Forecasts, they made a decision to implement the algorithms and ideas of UrbanSim in SAS, a data management and statistical analysis tool. They are calling their new model HGACSim.

Other public and private organizations have made population projections for the Houston Area and include:

- The Texas State Data center;
- Moody's;
- The Texas Water Development Board;
- Wood & Poole Economics, Inc.;
- University of Houston, Institute for Regional Forecasting;
- The Perryman Group; and
- IHS Global Insight.

All of these forecasts are alike in showing substantial future growth in the Houston region. From a current population of 5.85 million, the region is expected to grow to between 8.74 and 11.64 million residents by 2040. That range of annual growth is 98,300 to 195,000 new residents annually. Historically, the Houston region added an average of 118,000 new residents every year between 2000 and 2010. The H-GAC projection for 2040 was 9.7 million.

There have been several recent employment projections for the Houston Region prepared by:

- The Houston-Galveston Area Council;
- University of Houston, Institute for Regional Forecasting;
- Moody's; and

- The Perryman Group.

Employment projections for 2040 were all relatively close, ranging from 4.16 million to 4.20 million. The difference between the highest and lowest was only 181,000 or slightly over 4 percent.

County Level Population Projections

Population projections for the eight counties in the region were compared in the CDS report. Data sources used were the following:

- H-GAC 2035 Forecasts prepared in 2006;
- Texas Water Development Board (TWBD) Forecasts;
- The 2010 forecasts from the UH-IRF;
- Texas State Data Center, Scenario 2000-2007;
- The new Version 1 2040 forecasts from the H-GAC; and
- Most recent forecasts from the UH-IRF (January 2011).

Details on these county population comparisons may be found in the full CDS report in Attachment B.

In addition, Figures 5-2 through 5-7 show the historical and Moody's Economy.com forecasts for gross product, local employment and local population respectively. For each variable there are two figures, the first showing the MPO total and Harris County, the second showing county totals for the smaller counties.

Overall Evaluation of H-GAC Forecasts

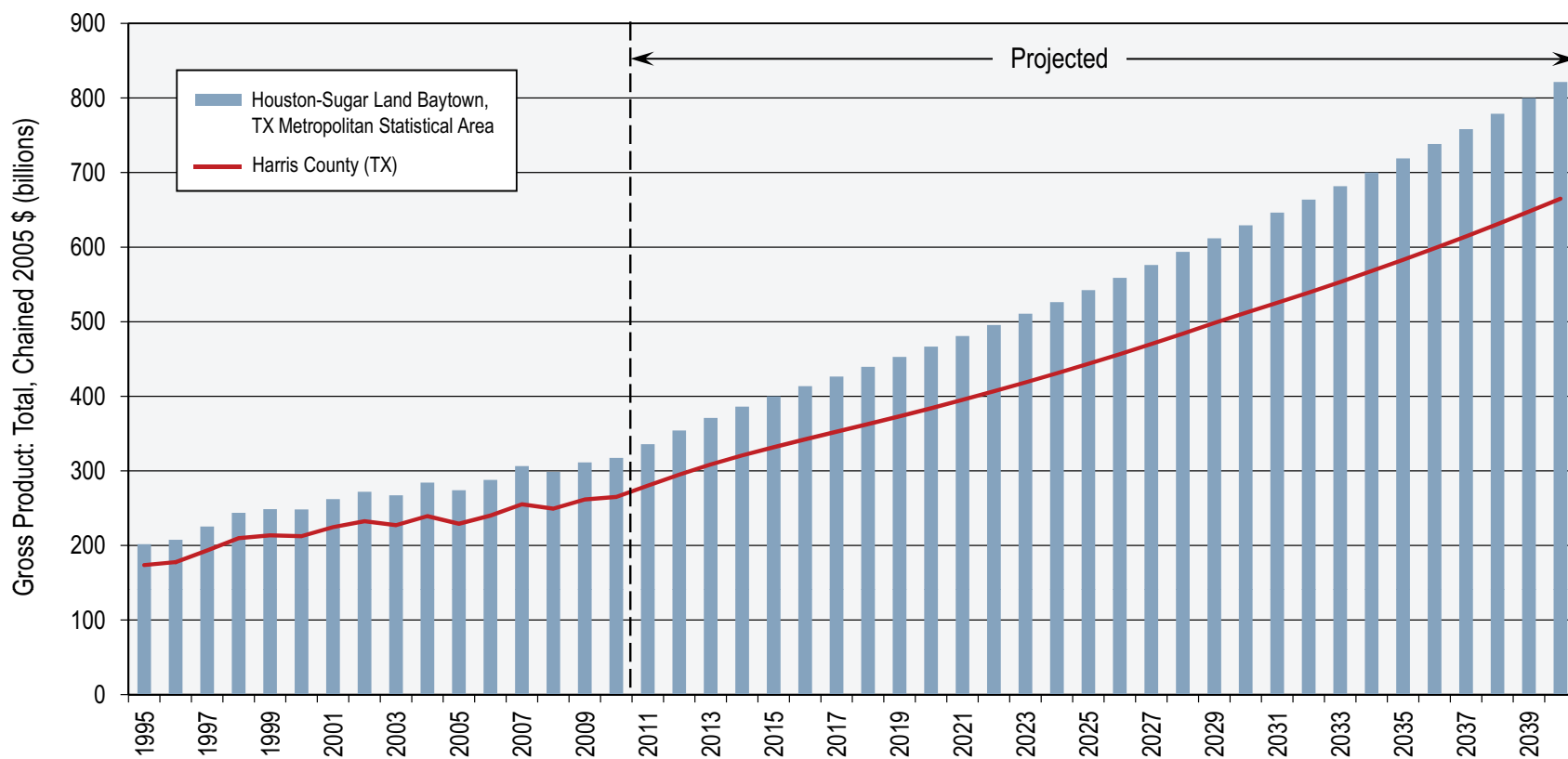
CDS considered multiple independent forecasts to determine those that are most likely. Along with H-GAC's regional forecast, this report considered seven independent forecasts of population from respected organizations and three independent forecasts of employment.

The H-GAC's regional forecasts, from which their small area forecasts were derived, tended to be in the middle of the independent forecasts considered in this project. It has been the conclusion of the CDS team that the H-GAC 2040 regional forecasts were reasonable and appropriate to form the basis of the small area forecasts to be used in the Grand Parkway Toll Road Study.

Small Area Forecast Method Overview

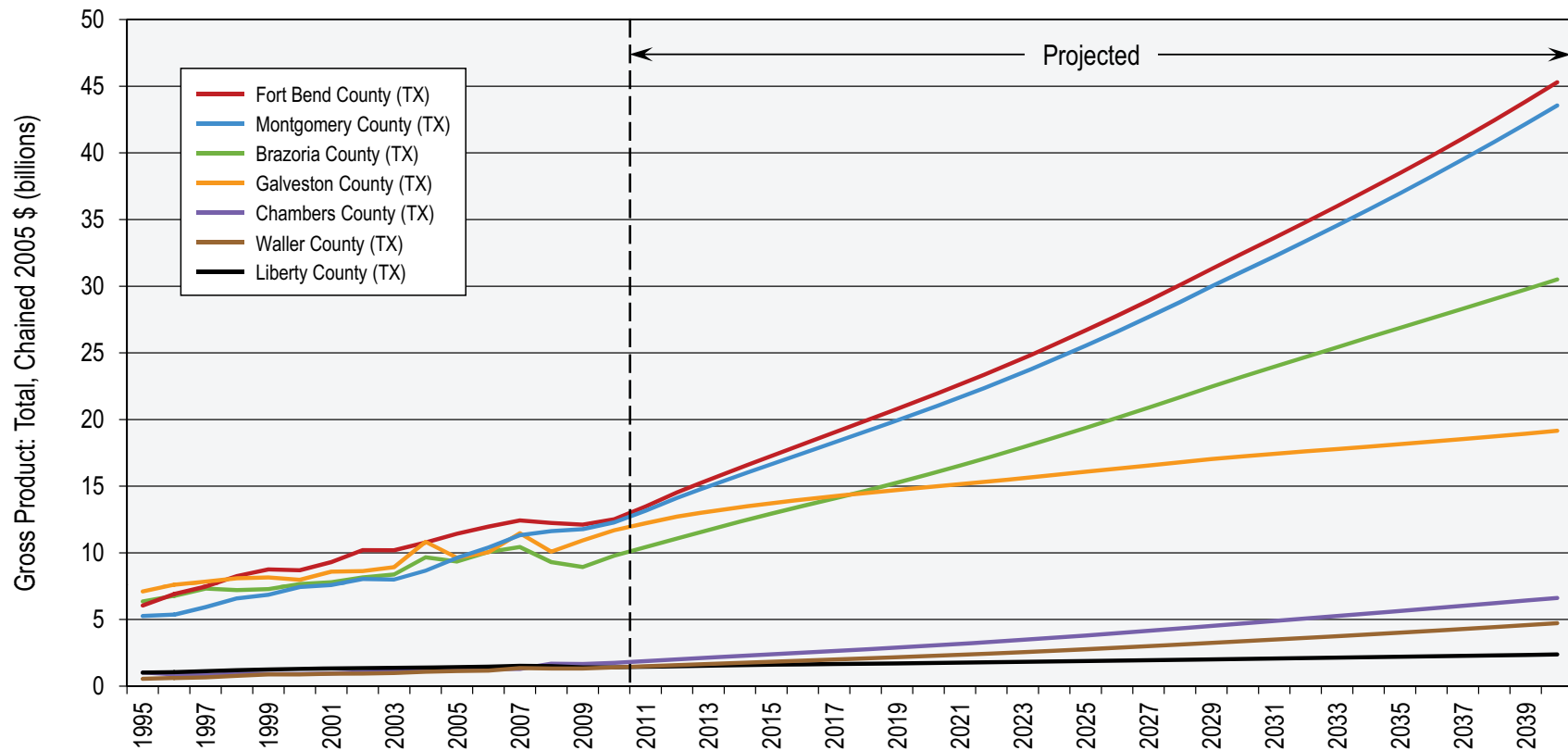
In general, the methodology CDS used, included the following steps:

1. Utilize the new forecasts of county-level jobs and population from the University of Houston – Institute for Regional Forecasting (UH-IRF);
2. Compile data on historical growth trends from the central appraisal districts for Harris, Waller, Montgomery and Fort Bend counties; commercial development data from O'Connor and Associates; PCensus for Arcview; historical employment information from the Census



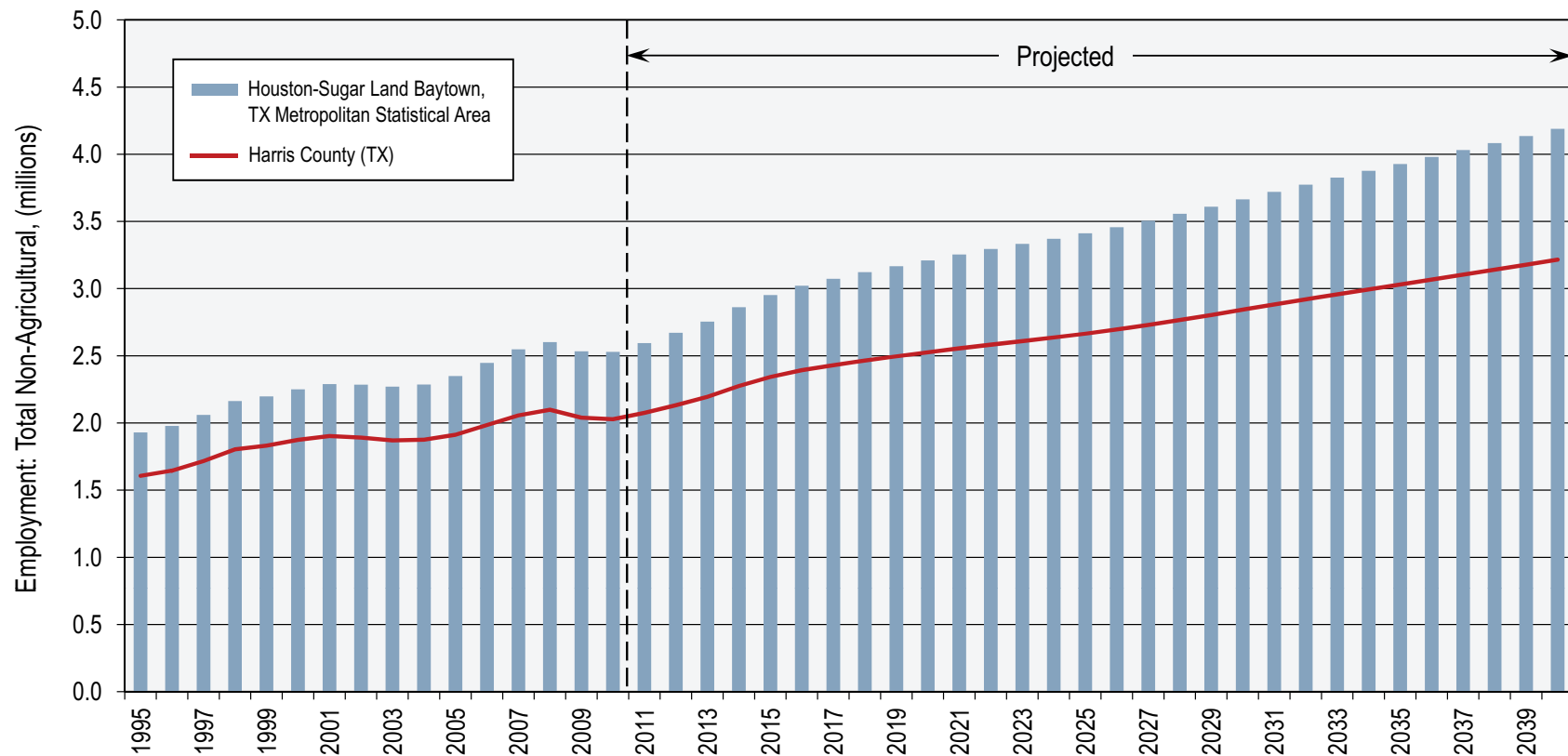
Source: Moody's Economy.com forecast, Aug 2011
 last updated: July 29, 2011; historical end date: Dec 31, 2010 (County & MSA)
 GDP historical estimates and forecast in NAICS 2007 Industrial Classification

GROSS PRODUCT - TREND AND FORECAST HOUSTON METROPOLITAN AREA



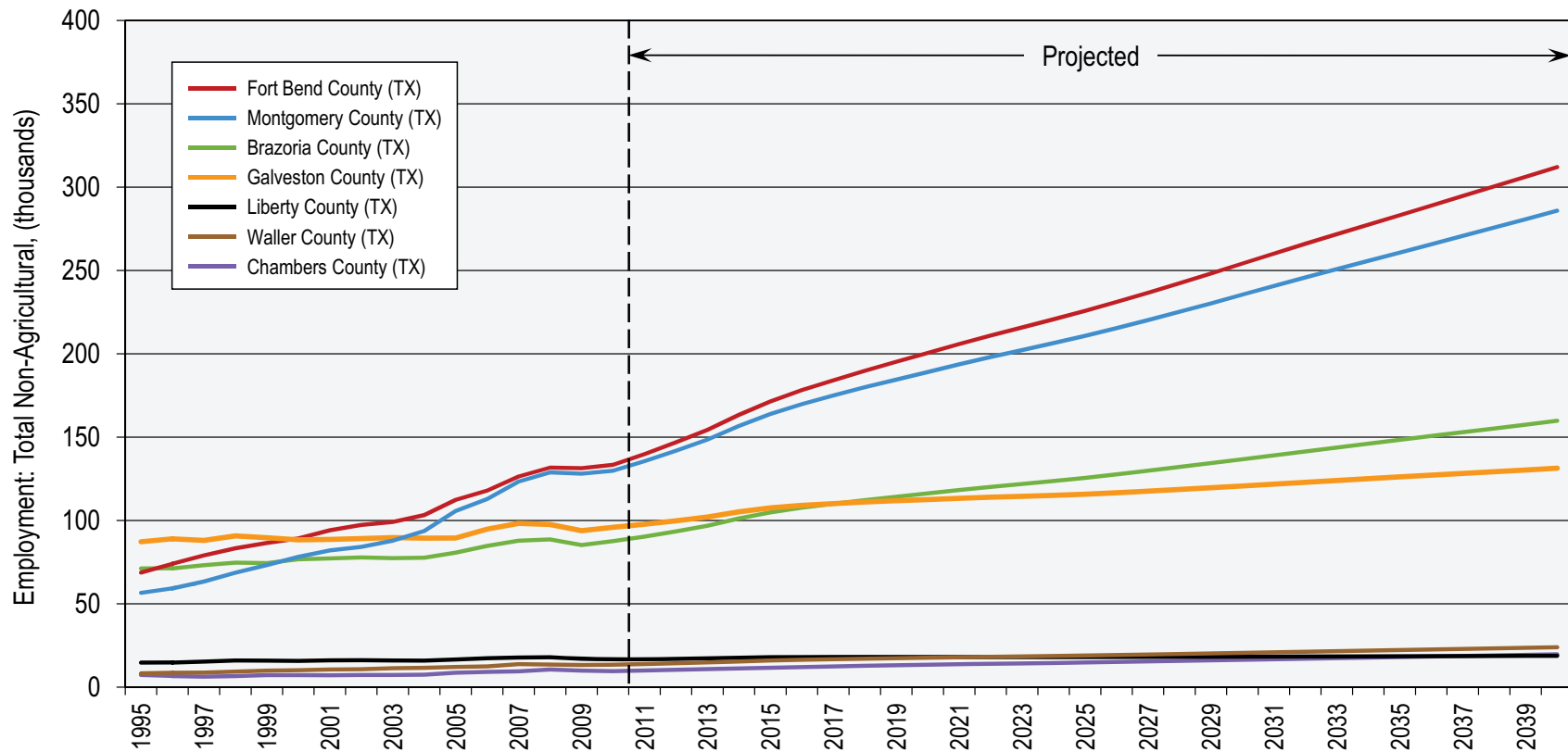
Source: Moody's Economy.com forecast, Aug 2011
last updated: July 29, 2011; historical end date: Dec 31, 2010 (County & MSA)
GDP historical estimates and forecast in NAICS 2007 Industrial Classification

GROSS PRODUCT - TREND AND FORECAST COUNTIES OF THE HOUSTON METROPOLITAN AREA



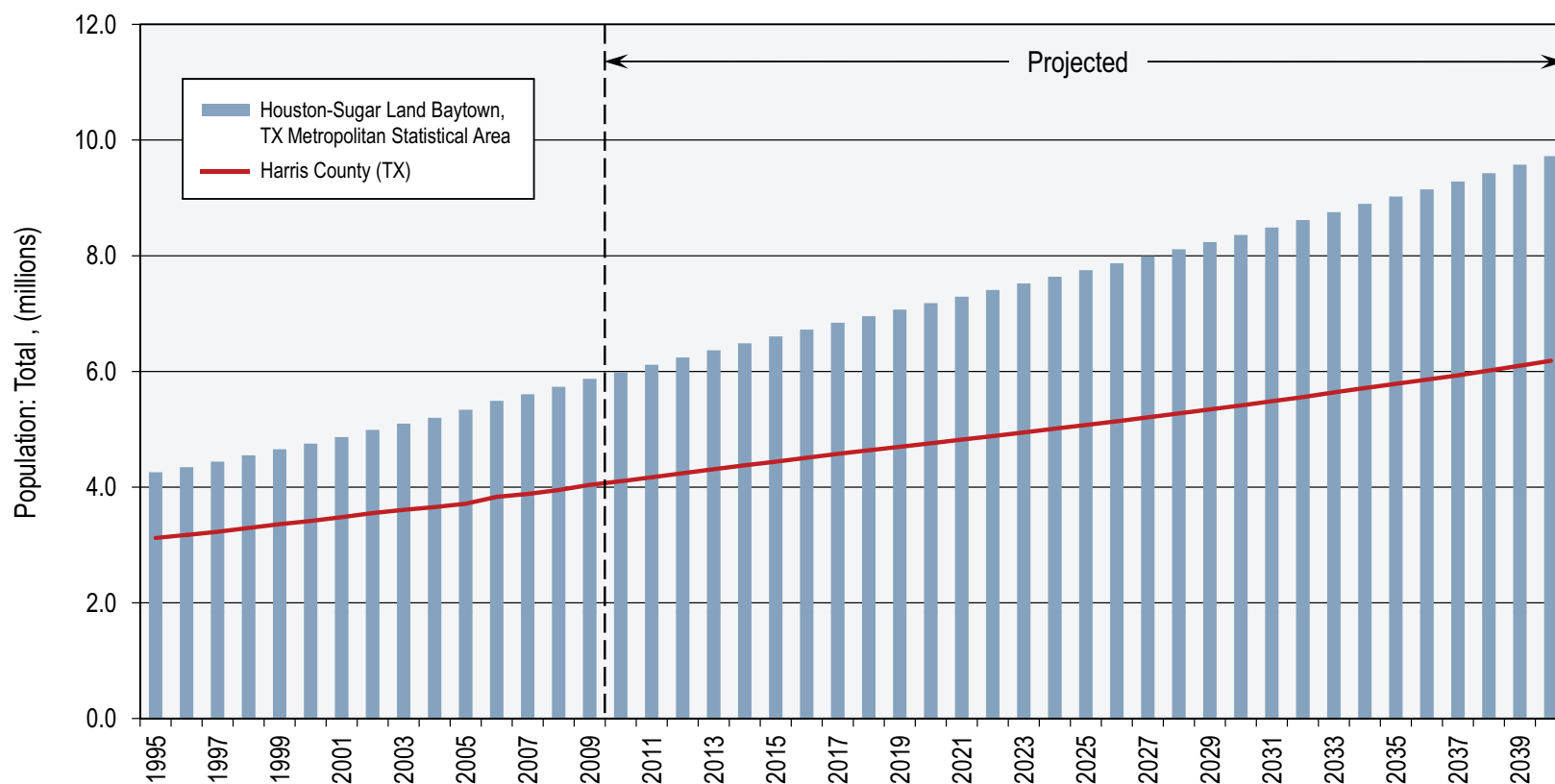
Source: Moody's Economy.com forecast, Aug 2011
 last updated: July 29, 2011; historical end date: Dec 31, 2010 (County)
 & Mar 31, 2011 (MSA)

LOCAL EMPLOYMENT - TREND AND FORECAST HOUSTON METROPOLITAN AREA



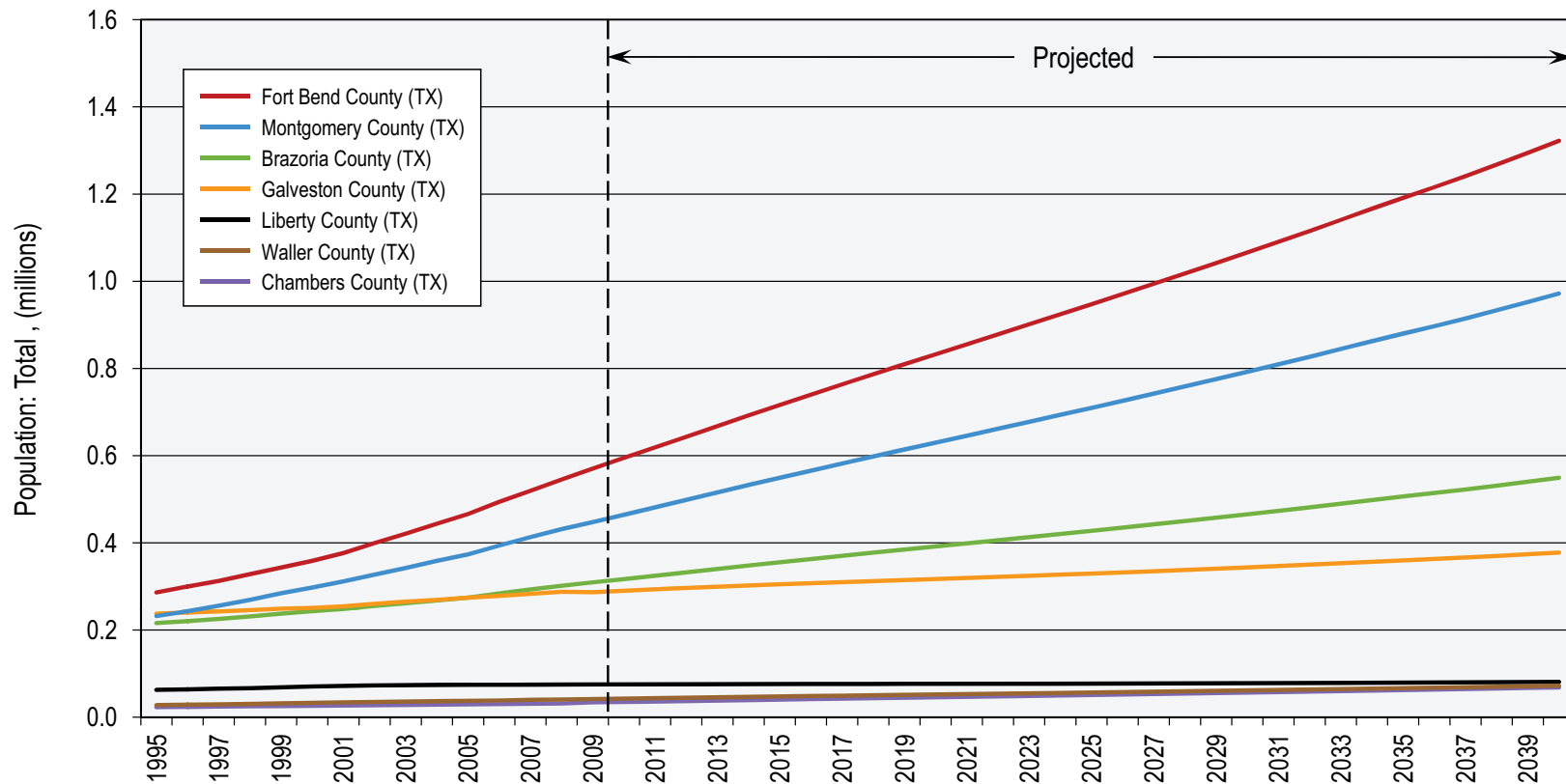
Source: Moody's Economy.com forecast, Aug 2011
 last updated: July 29, 2011; historical end date: Dec 31, 2010 (County & MSA)
 GDP historical estimates and forecast in NAICS 2007 Industrial Classification

LOCAL EMPLOYMENT - TREND AND FORECAST COUNTIES OF THE HOUSTON METROPOLITAN AREA



Source: Moody's Economy.com forecast, Aug 2011
 last updated: July 28, 2011; historical end date: Dec 31, 2009 (County)
 & June 30, 2010 (MSA)

LOCAL POPULATION - TREND AND FORECAST HOUSTON METROPOLITAN AREA



Source: Moody's Economy.com forecast, Aug 2011
 last updated: July 28, 2011; historical end date: Dec 31, 2009 (County)
 & June 30, 2010 (MSA)

LOCAL POPULATION - TREND AND FORECAST COUNTIES OF THE HOUSTON METROPOLITAN AREA

Transportation Planning Package; and 2005 population and jobs from previous H-GAC forecasts;

3. Evaluate the growth trends in the previous H-GAC 2035 projections and the Version 1 H-GAC 2040 forecasts;
4. Investigate the forecasts of area governmental agencies and private organizations;
5. Evaluate the potential growth inducing effects of the Grand Parkway;
6. Implement a “shift-share” forecasting methodology at the RAZ level; and
7. Disaggregate the RAZ forecast into the smaller zones.

Future Transportation Network Assumptions

Consideration of all changes in the regional transportation network including both highways and public transit were beyond the scope of the CDS study. However, major new planned facilities such as the Grand Parkway, the Fort Bend and Harris County Major Thoroughfare Plans, and known enhancement to existing facilities such as improvements to US 290, IH-45 South and IH-45 North, and planned light rail extensions were included.

Contact with Area Agencies and Organizations

In the course of developing Small Area forecasts, CDS sought out the demographic and economic projections used by key public sector agencies serving both the key areas of focus and the Houston region as a whole. CDS’s goal was to understand the projections used by these organizations.

The RAZ Level Forecasts

The forecasts at the RAZ level of geography were produced using a shift-share forecasting methodology, accounting for land availability throughout the process. The methodology involved establishment of county-level forecasts from 2010 to 2040 using the UH-IRF’s most recent 2012 forecasts. The shares of the future county housing units, population and jobs were then estimated for each 5-year period from 2010 to 2040. An area of detailed analysis, the Focus Area that constituted the geographic areas surrounding the Grand Parkway Corridor was selected. Whole RAZ areas were included in the focus area as illustrated in Figure 5-8.

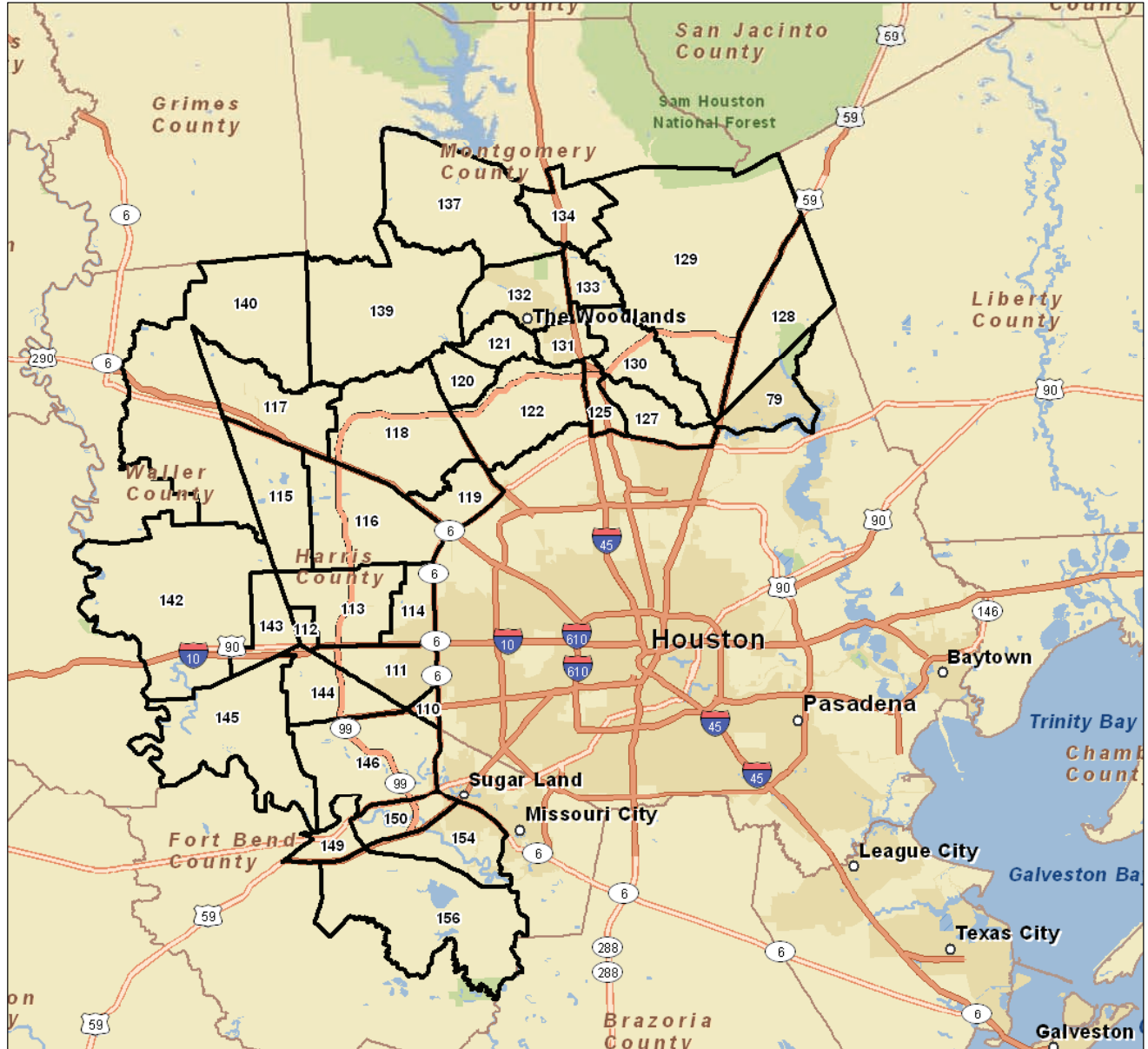
RAZ-level forecasts were made for each of the 32 zones located within the Focus Area. These forecasts and short descriptions of the development trends within each zone may be found in the full CDS report.

Distributing RAZ-Level Forecast Data to the TAZ and SAZ

The forecasts for the RAZ were distributed to the smaller Traffic Analysis Zones (TAZ), and subsequent SAZ, for the entire 8-county region. There are 3,216 forecast areas in the region. The methodology used to distribute the forecasts from the RAZ to the TAZ and SAZ is described in the CDS report in Attachment B. Detailed population and employment forecasts, by RAZ, can be found there also.

Grand Parkway (SH 99) Segments D Through G
Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Apr 2013.pptx / 4-5-13



Population growth, as predicted by CDS, for 2010-2020, 2020-2035 and 2010-2035 is shown on Figure 5-9. As can be seen from this map, there are estimated to be many areas of relatively high population growth in the Grand Parkway corridor. The 2010 to 2035 small area growth is shown in the CDS report.

Growth in households, as predicted by CDS, for 2010-2020, 2020-2035 and 2010-2035, is shown on Figure 5-10. Again, significant growth is shown for Segments D, E, F, and G close to the Grand Parkway corridor. Figure 5-11 illustrates the employment growth between 2010-2020, 2020-2035 and 2010-2035. Similarly, there is a concentration of relatively high employment growth in Segments D, E, F, and G.

Tables 5-5 and 5-6 compare population and employment forecasts of CDS versus H-GAC.

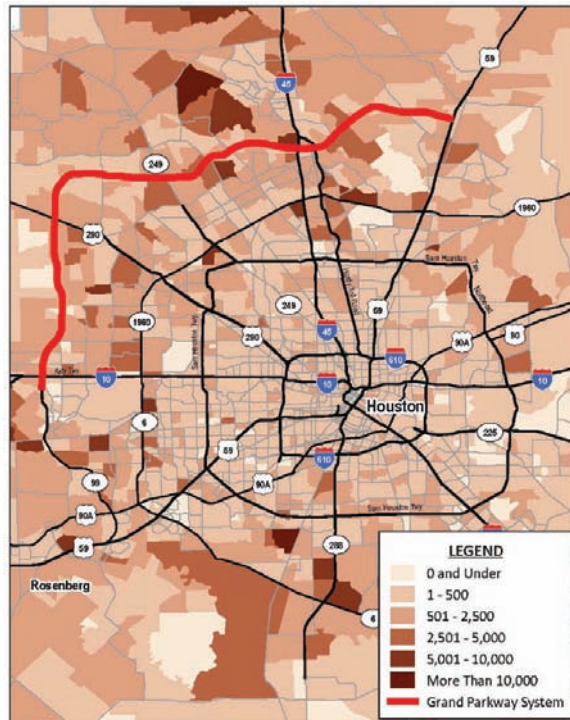
Conclusions

The region, Montgomery and Fort Bend counties in particular, has sustained very high growth rates in population, employment and other key demographic and economic variables over the past 40 years. The decentralized growth arising from no zoning regulations within the City of Houston has facilitated the growth of clustered edge cities throughout the region.

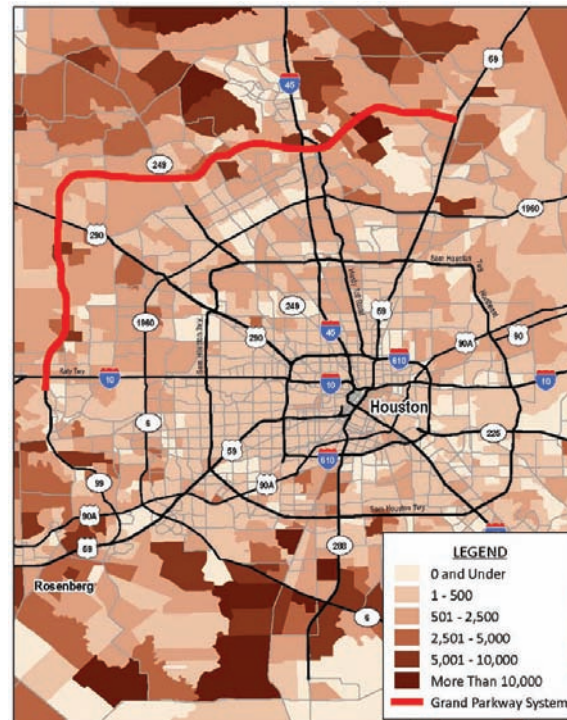
Relatively high levels of growth are expected to continue and the new Version 1 H-GAC 2040 Forecast estimates the region will grow from below 6 million today to 9.7 million by 2035. This is consistent with the consensus of a number of key forecasting groups reviewed. CDS has reviewed this forecast and found it to be reasonable at the regional level and adopted it as a basis for determining the distribution of small area growth in the region as described above and in more detail in their report. For small area growth, CDS is predicting higher share of the growth in the Segments D to G corridor than the to-be-revised H-GAC forecasts.

CDM Smith used the CDS forecasts as an input for base case scenario T&R estimates presented later in Chapter 6. However, accepting that risks are inherent in long-term forecasting, the impacts of several sensitivity tests on economic growth have been presented in Chapter 7 as follows:

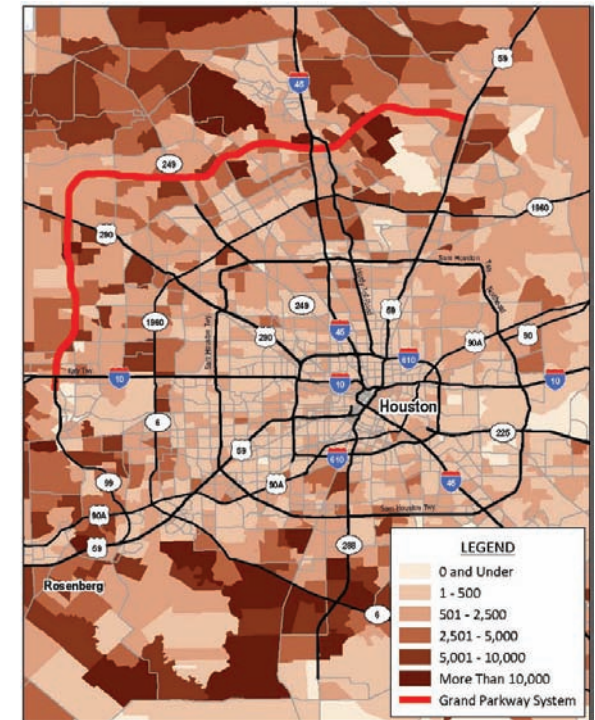
- Base Case – Socioeconomics as revised by independent economist, CDS;
- Sensitivity Test – Base Case with a reduction in growth implied in the base case by 30 percent in 2015 and 50 percent in 2035;
- Sensitivity Test – Base Case with an increase in growth implied in the base case by 30 percent in 2015 and 50 percent in 2035; and
- Sensitivity Test – H-GAC Socio-economic forecasts (2035). It should be noted that the ‘version 1’ 2040 H-GAC forecasts have not yet been adjusted at the small area zone level for new methodology and assumptions.



2010 - 2020

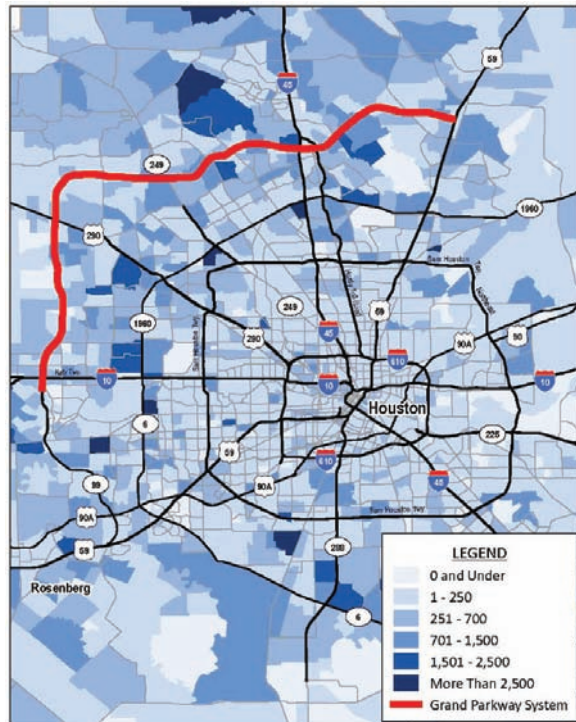


2020 - 2035

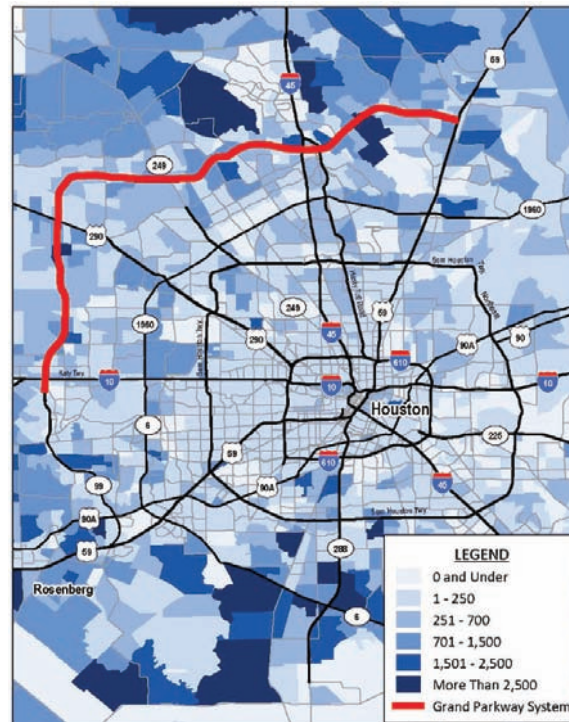


2010 - 2035

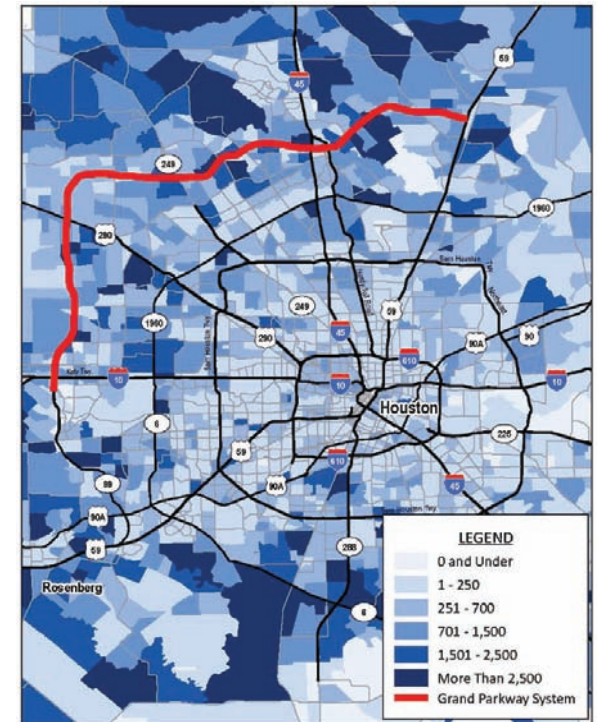
Source: CDS Market Research zone-level socioeconomic adjusted forecasts 2011.



2010 - 2020

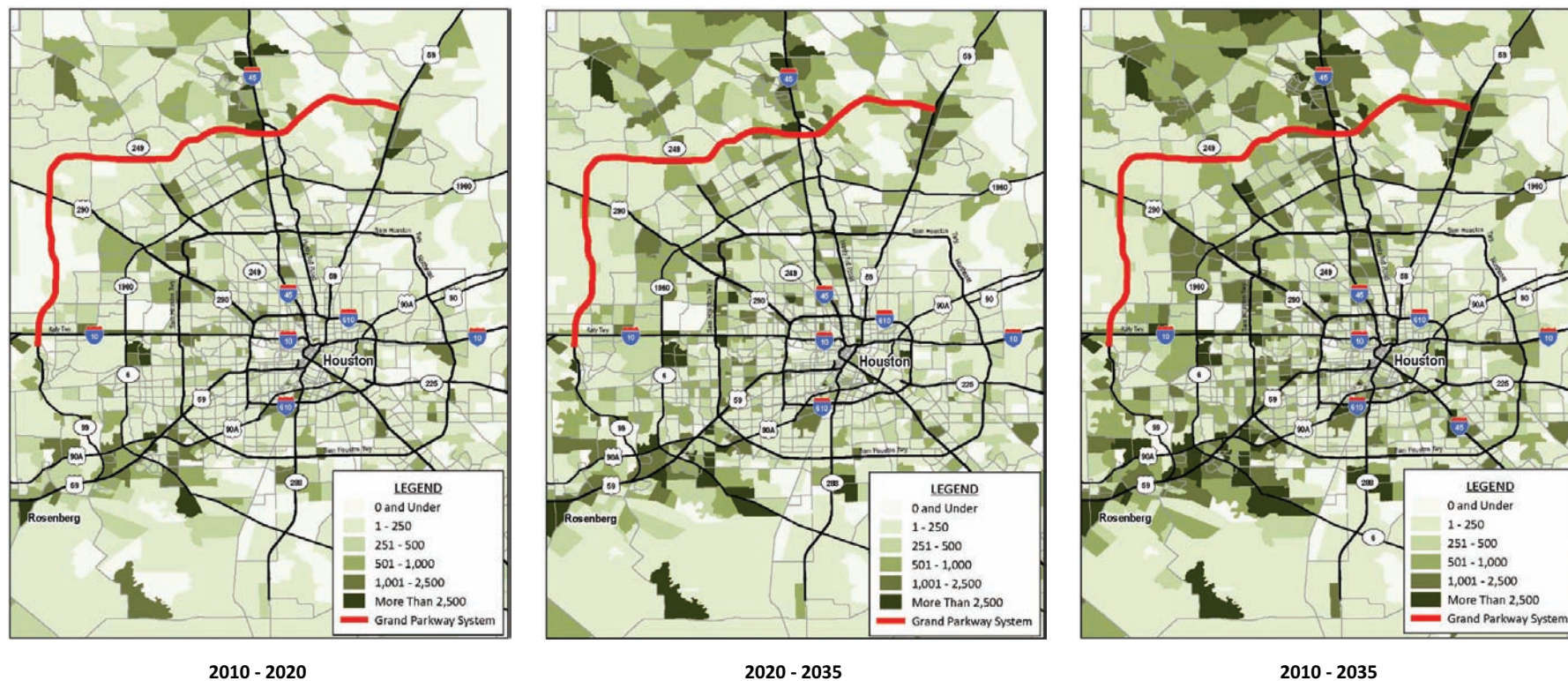


2020 - 2035



2010 - 2035

Source: CDS Market Research zone-level socioeconomic adjusted forecasts 2011.



Source: CDS Market Research zone-level socioeconomic adjusted forecasts 2011.

Table 5-5
Comparison of County-level Population Forecasts by H-GAC and CDS

H-GAC Forecast	Brazoria County	Chambers County	Fort Bend County	Galveston County	Harris County	Liberty County	Montgomery County	Waller County	8-County Region
2010	298,100	34,300	509,600	287,500	4,026,600	81,200	441,400	41,700	5,720,400
2015	330,500	37,700	584,500	316,900	4,340,400	88,300	511,800	47,100	6,257,300
2020	364,600	41,500	668,700	344,000	4,669,600	95,900	590,900	53,200	6,828,500
2025	398,900	45,300	757,100	367,000	5,011,500	103,600	674,800	60,000	7,418,100
2030	434,200	49,000	847,600	386,900	5,380,700	111,500	764,800	67,500	8,042,200
2035	469,300	52,600	935,100	404,500	5,769,200	119,800	857,600	75,600	8,683,800
2040	-	-	-	-	-	-	-	-	-
CDS adjusted Forecast	Brazoria County	Chambers County	Fort Bend County	Galveston County	Harris County	Liberty County	Montgomery County	Waller County	8-County Region
2010	313,200	35,100	585,400	291,300	4,092,500	75,600	455,700	43,200	5,892,000
2015	352,100	40,300	678,300	317,400	4,356,600	80,900	534,000	48,500	6,408,100
2020	432,300	49,200	846,700	370,600	4,757,900	98,600	671,800	66,900	7,294,000
2025	527,000	58,400	1,011,900	428,400	5,049,700	123,400	809,500	109,900	8,118,200
2030	623,600	67,900	1,172,100	481,800	5,283,400	153,900	949,700	156,700	8,889,000
2035	719,700	78,800	1,325,200	530,500	5,436,500	188,700	1,084,900	202,900	9,567,200
2040	803,800	90,400	1,455,400	567,600	5,547,300	225,700	1,212,200	243,400	10,145,600
Percent Difference	Brazoria County	Chambers County	Fort Bend County	Galveston County	Harris County	Liberty County	Montgomery County	Waller County	8-County Region
2010	5.1%	2.4%	14.9%	1.3%	1.6%	-6.9%	3.3%	3.6%	3.0%
2015	6.5%	6.8%	16.0%	0.2%	0.4%	-8.5%	4.3%	3.0%	2.4%
2020	18.6%	18.5%	26.6%	7.7%	1.9%	2.8%	13.7%	25.7%	6.8%
2025	32.1%	29.0%	33.7%	16.7%	0.8%	19.1%	20.0%	83.3%	9.4%
2030	43.6%	38.5%	38.3%	24.5%	-1.8%	38.0%	24.2%	132.1%	10.5%
2035	53.4%	49.7%	41.7%	31.2%	-5.8%	57.5%	26.5%	168.4%	10.2%
2040	-	-	-	-	-	-	-	-	-

Notes:
1) H-GAC forecasts run through 2035

Table 5-6
Comparison of County-level Employment Forecasts by H-GAC and CDS

H-GAC Forecast	Brazoria County	Chambers County	Fort Bend County	Galveston County	Harris County	Liberty County	Montgomery County	Waller County	8-County Region
2010	102,000	8,800	157,700	117,100	2,260,100	23,300	126,900	14,600	2,810,600
2015	110,700	9,600	181,500	127,100	2,434,000	25,300	146,100	16,200	3,050,600
2020	118,900	10,300	206,100	136,400	2,593,000	27,200	165,900	17,700	3,275,500
2025	127,300	11,000	232,600	146,100	2,754,200	29,100	187,300	19,300	3,507,000
2030	136,900	11,800	263,100	157,100	2,938,600	31,300	211,800	21,200	3,771,800
2035	147,700	12,800	297,700	169,500	3,145,000	33,800	239,700	23,300	4,069,400
2040	-	-	-	-	-	-	-	-	-
CDS adjusted Forecast	Brazoria County	Chambers County	Fort Bend County	Galveston County	Harris County	Liberty County	Montgomery County	Waller County	8-County Region
2010	85,100	10,300	145,600	97,600	1,986,400	21,000	143,400	12,800	2,502,100
2015	92,900	12,500	198,200	106,300	2,080,600	25,300	192,400	16,600	2,724,900
2020	106,800	16,600	260,600	120,300	2,257,100	32,800	250,600	23,000	3,067,700
2025	121,300	21,300	318,200	133,500	2,416,100	41,700	304,900	31,200	3,388,200
2030	137,400	27,000	374,100	148,100	2,558,000	50,200	359,000	39,500	3,693,300
2035	152,300	32,300	425,500	161,000	2,677,200	58,700	410,600	47,600	3,965,100
2040	166,100	37,000	470,500	172,200	2,778,700	66,400	458,700	55,100	4,204,700
Percent Difference	Brazoria County	Chambers County	Fort Bend County	Galveston County	Harris County	Liberty County	Montgomery County	Waller County	8-County Region
2010	-16.6%	16.2%	-7.6%	-16.6%	-12.1%	-9.9%	13.0%	-12.9%	-11.0%
2015	-16.1%	30.9%	9.2%	-16.4%	-14.5%	0.1%	31.6%	2.6%	-10.7%
2020	-10.2%	61.1%	26.4%	-11.9%	-13.0%	20.7%	51.1%	29.8%	-6.3%
2025	-4.7%	93.9%	36.8%	-8.6%	-12.3%	43.2%	62.8%	61.2%	-3.4%
2030	0.3%	127.7%	42.2%	-5.7%	-13.0%	60.4%	69.5%	86.6%	-2.1%
2035	3.1%	152.9%	42.9%	-5.0%	-14.9%	73.7%	71.3%	104.6%	-2.6%
2040	-	-	-	-	-	-	-	-	-

Notes:
1) H-GAC forecasts run through 2035

Chapter 6

Traffic and Toll Revenue Estimates

The demand on a toll facility is estimated through use of appropriate analysis, methodology, tools and assumptions. For this Comprehensive T&R Study, this has been accomplished by applying a fully updated travel demand model for the Houston region with refinements appropriate for an investment grade study.

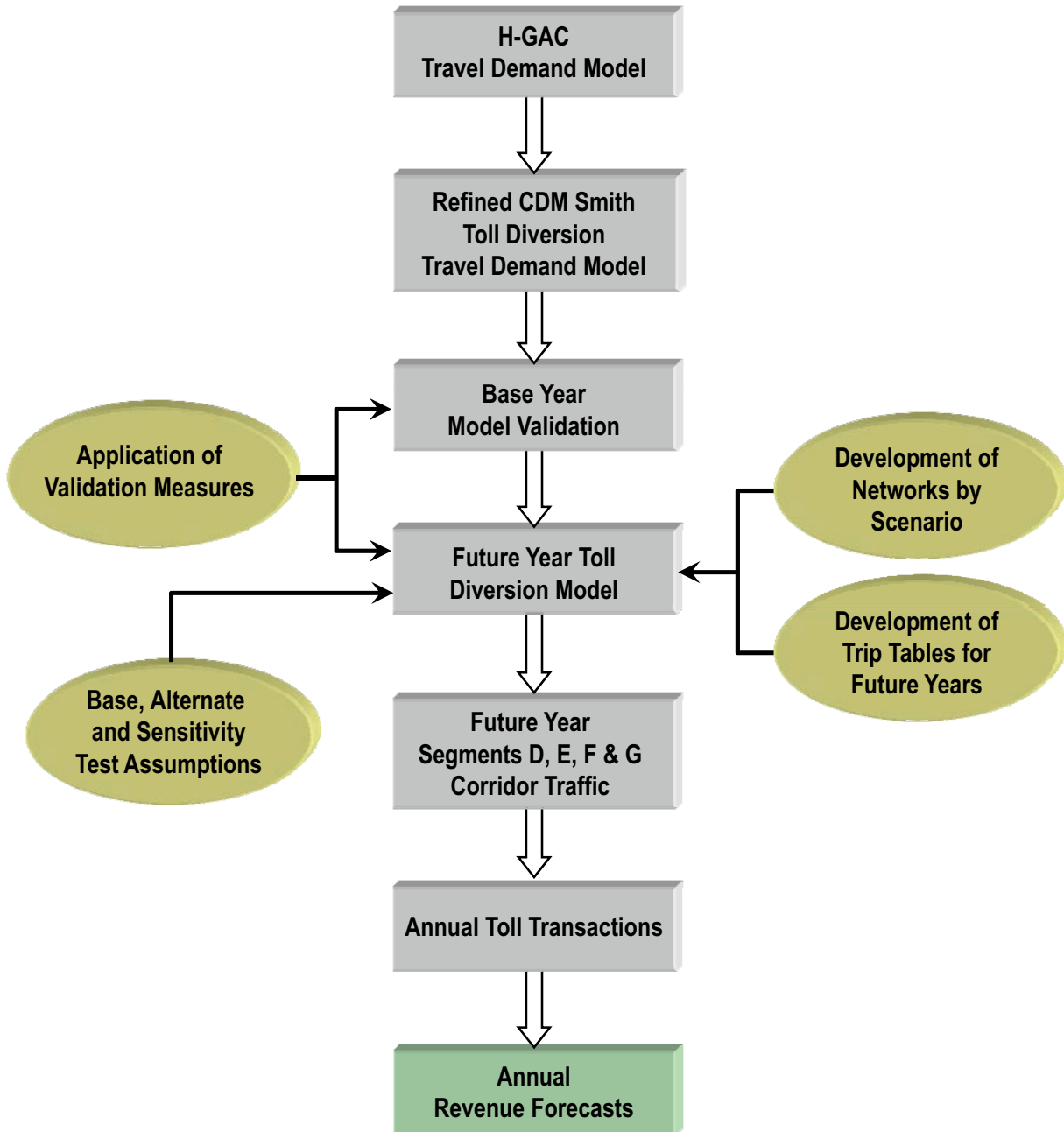
This chapter explains the adopted toll analysis process for estimating the volume of toll patrons' transactions and toll revenues generated over time from the Grand Parkway Segments D through G, followed by presentation of estimated average weekday and annual traffic and toll revenue forecasts. Provided first is a brief outline of the regional model update and refinement process including model validation followed by a description of other inputs used to update the model. These inputs include development of new origin-destination information from surveys as described in previous chapters, and adjustments made due to updated socio-economic datasets provided by the independent economist. The forecasting process is outlined in subsequent sections by explaining the development processes of the toll modeling components. Following this, a summary of the basic assumptions used for forecasting traffic and toll revenue for the Grand Parkway is presented. Finally, annual traffic and toll revenue forecasts estimated from future year model runs are then presented.

Traffic and Toll Revenue Forecasting Process

A regional travel demand model was utilized to develop the estimated traffic and toll revenue forecasts for this study. Figure 6-1 is a flow chart depicting the overall traffic and toll revenue forecasting process. The regional transportation planning area is defined by the regional Metropolitan Planning Organization (MPO), the Houston-Galveston Area Council (H-GAC). The H-GAC Travel Demand Model is cooperatively developed and maintained by the H-GAC, the Texas Department of Transportation (TxDOT) and the Metropolitan Transit Authority (METRO). The H-GAC regional travel demand model was used by CDM Smith as the foundation for developing a toll diversion model.

For the purposes of the study, the H-GAC model was converted to CDM Smith's standard toll diversion modeling framework. The model was then fine-tuned for base year conditions through an application of appropriate validation measures. Following the base year model validation, the future year model datasets, including future year networks and future year trip tables, were developed.

Future year traffic assignments were conducted for a base case and sensitivity scenarios developed for the study. For each scenario, the future year network and trip tables were developed from the validated toll diversion model to produce estimated traffic demand for future years. Toll transactions at each of the tolling locations were then extracted from the validated model and annual estimates for interim and out-years were interpolated and extrapolated, respectively. Toll revenue estimates were then calculated at each of the tolling zone locations by applying the appropriate toll rates.



The following sections describe the regional travel demand model refinement process in further detail including the highway network development, trip table development, the toll diversion methodology adopted for this study, and an overview of key input parameters in the traffic and toll revenue forecasting process.

The H-GAC Regional Travel Demand Model

The eight-county Houston-Galveston-Brazoria Consolidated Metropolitan Statistical Area (CMSA) has been federally designated as the Transportation Management Area (TMA) for the Houston-Galveston region. The eight counties that are included in this geography are Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller counties. The Houston-Galveston TMA extends over an area of 7,809 square miles. Land Use and Demographic forecasts for the TMA are developed by H-GAC.

The H-GAC has designated 3,000 detailed traffic analysis zones (TAZs) in the Houston-Galveston TMA. This includes 2,954 internal zones and 46 external stations. The internal zones are entirely within the TMA and the external stations are used to capture external-external and external-local trips into and through the TMA.

For the purposes of this study, and using the recently concluded FBGPTRA Grand Parkway Segment D T&R study, a detailed focus area was demarcated along the alignment of the Grand Parkway Segments D through G corridor. This geographic area was selected for a thorough analysis of demographics and economic projections. Within the focus area, the TAZs were further split into even smaller zones for a fine grain analysis to provide the best possible local socio-economic information of the geographic area to feed traffic directly into the Grand Parkway corridor.

Base Year Model Validation

Base year trip tables were developed using a combination of the H-GAC trip tables enhanced by observed travel patterns in the corridor. The base year trip tables were adjusted to better reflect the travel pattern information obtained from the origin-destination surveys. Trips passing through links that represent locations where the travel pattern surveys were collected were extracted and adjusted to match the trip patterns from the survey. This was undertaken at a superzone level which is simply a collection of TAZs. This ensures that adjusted trip tables are a better reflection of actual travel patterns observed from the surveys.

Model validation tests the ability of the model to closely replicate the existing travel patterns in the base year before it can be used to estimate reliable forecasts. As mentioned previously, the model was fine-tuned for the base year through an application of appropriate model validation measures. These measures primarily included a detailed verification of the existing local road network in the vicinity of the Grand Parkway corridor. This included refinement of posted and observed speeds and the appropriate capacity on various key routes in the vicinity of the project corridor. Much of this was verified through reconnaissance of the study area including the speed-delay surveys described in Chapter 3 and historic databases from the Houston TranStar real-time traffic system.

Model validation was performed for the model base year 2011 by comparing observed counts with estimated traffic volumes obtained from the base year 2011 model run. Various criteria, including minimizing the root mean square error (RMSE), were used to test model refinements as subsequent calibration tests were performed. Before validation, screenlines were selected at locations across the

focus area, spanning between IH-10 in the west and U.S. 59 in the northeast. Figure 6-2 shows the defined screenlines and the extent to which model validation was performed. On each of these screenlines, traffic counts were obtained from the primary traffic count survey and various secondary sources, which were then coded in the base year highway network.

Base year validation adjustments were conducted to obtain reasonable matches between the observed and estimated traffic volumes at the screenlines. Table 6-1 provides a detailed raw model screenline validation comparison. Figure 6-3 is a corresponding scatter graph comparing modeled versus observed traffic volumes. The regression line shows that the base year model tends to slightly under-predict traffic, i.e. is just below the $y=x$ line, and there are no extreme outliers. Overall the model appears to have a very reasonable R2 or goodness of fit of approximately 0.95.

Future Highway Network Development

The regional travel demand model network encompasses eight counties: Harris, Fort Bend, Brazoria, Montgomery, Galveston, Waller, Chambers and Liberty counties. This model area is represented by more than 3,400 traffic analysis zones after disaggregation by CDM Smith.

As described above, the base year model network was reviewed and adjusted based on current speed observations, number of lanes, and other link attributes including facility type, capacity, and link distance. The future year networks were then reviewed against the current transportation improvement plans and other information to confirm that committed and funded improvements were included. Various sources of information were used to refine the future year networks including Grand Parkway Segments D through G planned alignments and other key transportation corridors in the regional model. These sources included:

1. SH 99 Business Terms and Conditions – Grand Parkway Project Description, as adopted by stakeholders;
2. Design plans from engaged engineering consultants including AECOM, Atkins, Jacobs, and LJA Engineering, Inc. at the latest stage of design;
3. 2011-2014 Transportation Improvement Plan (TIP update 6/30/2010), by H-GAC;
4. 2035 Regional Transportation Plan (RTP update 1/21/2011), by H-GAC; and
5. Discussions with TxDOT, HCTRA, FBCTRA and H-GAC.

H-GAC adopted the previous 2035 RTP based on total future revenues for transportation expenditures of \$156.7 billion. However, the latest State forecast predicts much lower tax revenue from State and Federal motor fuels taxes. In order to reflect the revised revenue forecast through 2035 for the Houston region, which is approximately half of the previously adopted forecast, H-GAC released the latest 2035 RTP update in January 2011. According to H-GAC, many projects on the State system were removed as a consequence of the revised revenue forecast and revisions have been made to project costs, limits, and scope. This led to a resultant RTP totaling approximately \$87 billion.

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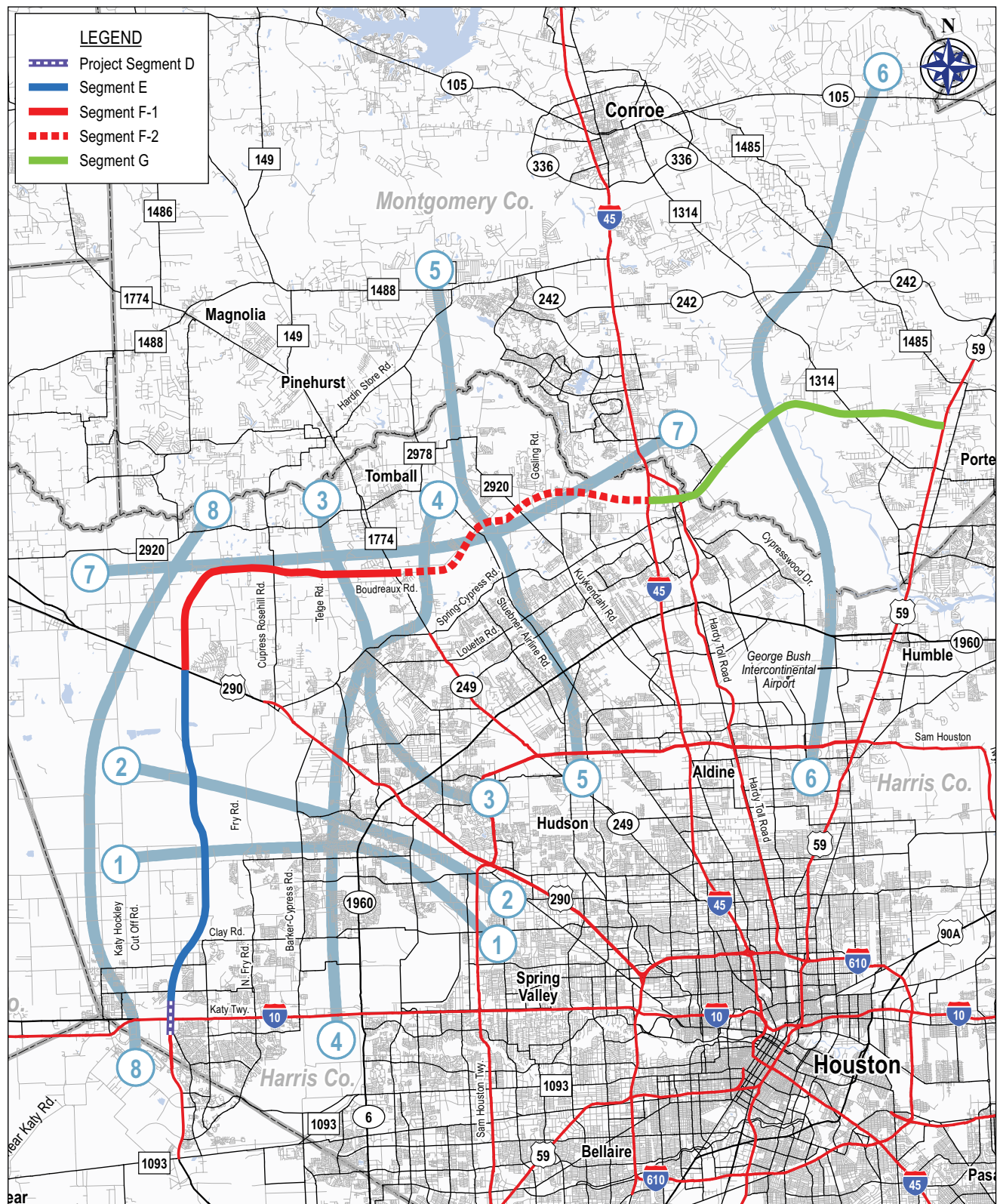


Table 6-1
Screenline Calibration Summary

Screenline	Location	Two-way	Traffic Model	Difference	
		Traffic Count	Assignment	Absolute	Percent
Screenline 1	Katy Hockley Cut Off	4,568	7,767	3,199	
	Fry Road	19,590	29,287	9,697	
	Barker Cypress Road	31,526	37,050	5,524	
	SH 6	50,298	43,957	(6,341)	
	Sam Houston Tollway	149,436	129,274	(20,162)	
	Total	255,418	247,335	(8,083)	-3.2%
Screenline 2	Katy Hockley Cut Off	4,242	6,948	2,706	
	Fry Road	16,883	14,346	(2,537)	
	Barker Cypress Road	32,974	33,471	497	
	SH 6	96,000	68,387	(27,613)	
	N. Eldridge Parkway	22,273	45,914	23,641	
	FM 529	70,000	65,900	(4,100)	
	Sam Houston Tollway	143,671	129,274	(14,397)	
	Total	386,043	364,240	(21,803)	-5.6%
Screenline 3	FM 2920	25,829	27,458	1,629	
	Telge Road	8,301	10,881	2,580	
	Boudreaux Road	4,435	4,938	503	
	Spring Cypress Road	22,788	22,560	(228)	
	Louetta Road	17,230	24,764	7,534	
	Cypress North Houston	22,000	24,338	2,338	
	FM 1960	52,798	53,687	889	
	Sam Houston Tollway	121,012	104,172	(16,840)	
	Total	274,393	272,798	(1,595)	-0.6%
Screenline 4	FM 2920	22,743	31,701	8,958	
	Boudreaux Road	11,000	13,546	2,546	
	SH 249	80,000	63,490	(16,510)	
	Spring Cypress Road	22,788	22,560	(228)	
	Louetta Road	17,230	24,764	7,534	
	Grand Road	15,000	6,229	(8,771)	
	Huffmeister Road	9,400	19,872	10,472	
	U.S. 290	107,789	98,330	(9,459)	
	West Road	28,000	13,470	(14,530)	
	FM 529	40,000	65,463	25,463	
	Little York West	29,000	35,011	6,011	
	Clay Road	36,000	37,737	1,737	
	Groeschke Road	12,626	20,283	7,657	
	IH-10	180,434	184,017	3,583	
	Total	612,010	636,473	24,463	4.0%

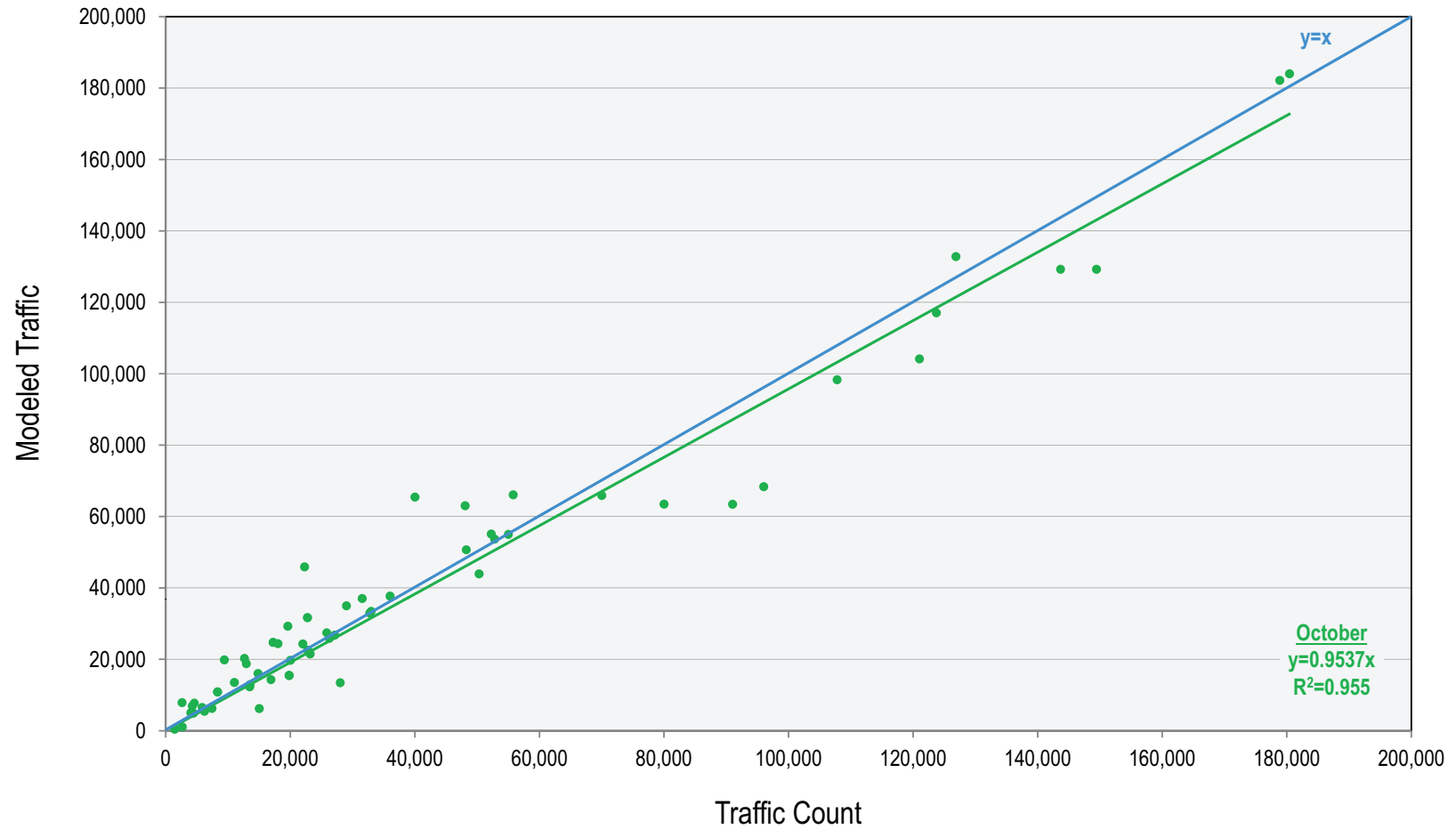
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Table 6-1 (contd.)
Screenline Calibration Summary

Screenline	Location	Two-way	Traffic Model	Difference	
		Traffic Count	Assignment	Absolute	Percent
Screenline 5	FM 1488	23,169	21,513	(1,656)	
	Kuykendahl-Huffsmith Road	19,800	15,522	(4,278)	
	FM 2920	26,244	25,885	(359)	
	Spring Cypress Road	27,115	26,798	(317)	
	Louetta Road	32,748	32,965	217	
	Cypresswood	18,000	24,412	6,412	
	FM 1960	52,255	55,121	2,866	
	Sam Houston Tollway	123,728	117,055	(6,673)	
	Total	323,059	319,271	(3,788)	-1.2%
Screenline 6	U.S. 105	14,800	16,060	1,260	
	FM 1485	2,600	7,902	5,302	
	FM 3083	7,400	6,273	(1,127)	
	FM 1314	13,500	12,916	(584)	
	SH 242	13,453	12,318	(1,135)	
	FM 1960	55,775	66,103	10,328	
	Beltway 8	126,864	132,833	5,969	
	Total	234,392	254,405	20,013	8.5%
Screenline 7	Roberts Road	1,411	429	(982)	
	Mueschke Road	5,832	6,542	710	
	Telge Road	8,301	10,881	2,580	
	SH 249	55,000	55,008	8	
	FM 2920	22,743	31,701	8,958	
	Kuykendahl-Huffsmith	19,800	15,522	(4,278)	
	IH-45	178,865	182,174	3,309	
	Total	291,952	302,257	10,305	3.5%
Screenline 8	FM 2920	12,925	18,798	5,873	
	U.S. 290	48,245	50,705	2,460	
	FM 529	4,000	5,055	1,055	
	Clay Road	2,648	1,073	(1,575)	
	Morton Road	6,200	5,473	(727)	
	Franz Road	20,000	19,747	(253)	
	IH-10 West Freeway	91,000	63,450	(27,550)	
	IH-10	48,060	63,043	14,983	
	Total	233,078	227,344	(5,734)	-2.5%

Source for traffic counts: CDM Smith primary traffic counts (2011), Harris County traffic counts, TxDOT District Map (2010), H-GAC traffic counts

Source for model assignment: Base Model 2011 developed by CDM Smith based on H-GAC Travel Demand Model



A major effort was made to review all TIP and RTP projects and to identify and select the projects which would potentially impact traffic along the Grand Parkway corridor, interstate highways, and major arterials in the Houston Metropolitan Area. The selected projects mainly included new construction, recent conversions of the high occupancy vehicles lanes within the region, proposed managed lane and capacity expansion projects.

At the recommendation of TxDOT and HCTRA officials the following 'other' major project opening dates were assumed:

- 2016/2019 FBCTRA Westpark Extension Phase 1 and 2;
- 2015 SH 249 from 1.5 miles north of Spring Cypress Road to Brown Road;
- 2016/2018 US290 Reversible Managed Lanes IH-610 to SH 6 / FM 1960 (Phase 1) and SH 6 / FM 1960 to west of Mueschke Rd (Phase 2);
- 2020 Hardy Toll Road Downtown Connector;
- 2020 IH-45 S (Harris County);
- 2020 SH 288 Reversible Managed Lanes between US 59 and SH 6 with Direct Connectors between the Reversible Managed Lanes and Sam Houston Tollway (Egress only, no Ingress from Sam Houston Tollway via Direct Connectors);
- 2025 HCTRA Post Oak Extension;
- 2028 FBCTRA Fort Bend Parkway Extension;
- 2034 IH-45 N; and
- 2034 IH-45 S (Galveston).

Future Trip Table Adjustments

The travel demand model used for the revenue estimation process is based on the forecasts of socioeconomic variables such as population, households, and employment. These socioeconomic forecasts are used to generate vehicular trips that are, in turn, assigned on the transportation network. CDM Smith appointed an independent economist firm CDS to review and adjust the population and employment growth at five-year intervals beginning 2010 from the H-GAC travel demand model. A summary of CDS's analysis is presented in Chapter 5 and a detailed report has been included as Attachment B of this report. These forecasts were then used as inputs to the CDM Smith fine-tuned four-step model to obtain adjusted future year trip tables.

Toll Diversion Methodology

A toll diversion model was used to estimate the market share of toll and non-toll facilities based on factors such as value-of-time, operating cost, toll cost, and congestion. A CDM Smith-developed algorithm was used to determine the minimum time path between each zone pair. The minimum time path for each O-D pair may or may not include the use of toll facilities.

For the trips that may potentially use toll facilities, the travel time and distance of the toll facility routing was compared with that of the best alternative route not involving a toll payment. A share of the total traffic moving between each pair of zones is then assigned to the toll facility routing, while the remaining portion is assigned to the best toll-free alternative route. The model's estimate of the toll facility's market share is a function of time savings, distance relationships, toll rate, and estimates of perceived value-of-time and vehicle operating costs by the motorists. As the cost of the toll facility routing increases when compared to the toll-free routing, the share of traffic using the toll road would decrease.

Values of Time and Vehicle Operating Costs

Motorists' value-of-time (VOT), or willingness-to-pay tolls to reduce travel time and receive an improved level of service of travel, was estimated through a stated-preference survey conducted by RSG. As mentioned previously in Chapter 4, a detailed report of their analysis is presented in Attachment A.

Table 4-2 summarizes the multinomial values-of-time as derived from the SP surveys by RSG. For passenger cars, a mean VOT of approximately \$12.98 per hour was used. As a further refinement, CDM Smith developed differential values-of-time for each traffic analysis zone (TAZ) for use in the model traffic assignment. In the base year, these were developed using TAZ income distributions from Census data. The VOT for future years were estimated by inflating to the respective year using an annual average growth rate of 2.25 percent through 2014 and 2.5 percent thereafter.

The vehicle operating cost used in the analysis was calculated by taking into account the average per-mile costs of gasoline and oil, and to a lesser extent, maintenance, and wear and tear of tires for vehicles in the area. For this study, it was assumed that fuel efficiency of vehicles would improve in future years. The average fuel efficiency of passenger cars was assumed to increase from approximately 27 miles per gallon in 2011 to about 40 miles per gallon in 2035. Future gasoline prices were assumed to remain at approximately \$3.00 per gallon in real terms for the base case.

The resulting vehicle operating costs adopted for this study are shown in Table 6-2.

Table 6-2 Vehicle Operating Cost Rates (nominal dollars per mile)		
	Passenger	Commercial
Year	Cars	Vehicles
2010	\$0.185	\$0.974
2011	0.189	0.995
2015	0.194	1.023
2020	0.208	1.093
2025	0.229	1.203
2035	0.275	1.446

Toll Rates

Future toll rates for Grand Parkway Segments D through G were computed using the following parameters as advised by officials of TxDOT and HCTRA:

- Toll rate of \$0.177 per mile in 2012;
- Toll rate rounding to the nearest cent;
- Minimum base year toll rate per transaction of \$0.40; and
- Toll rate escalation
 - 2012-2014: 2.25%
 - 2014-2064: 2.5%

Figure 6-4 shows the resultant 2012 Base Toll Rates for Segments D and E, Figure 6-5 shows the 2012 Base Toll Rates for Segment F and Figure 6-6 shows the 2012 Base Toll Rates for Segment G. Toll rates were based on the distances shown.

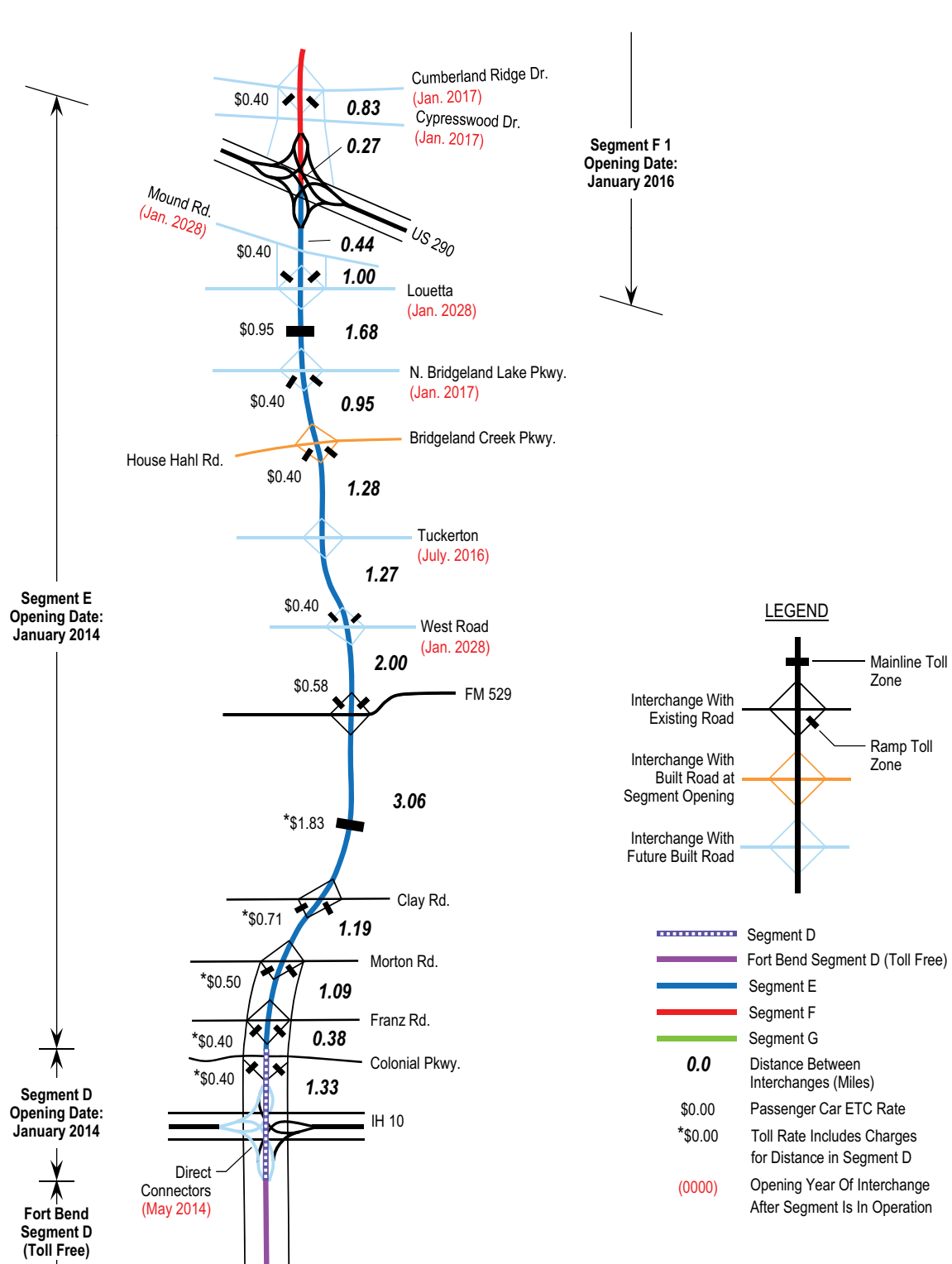
Toll rates for the existing and future HCTRA and FBCTRA systems were also reviewed including known assumptions regarding future toll rate policies of the toll agencies.

Other Basic Assumptions

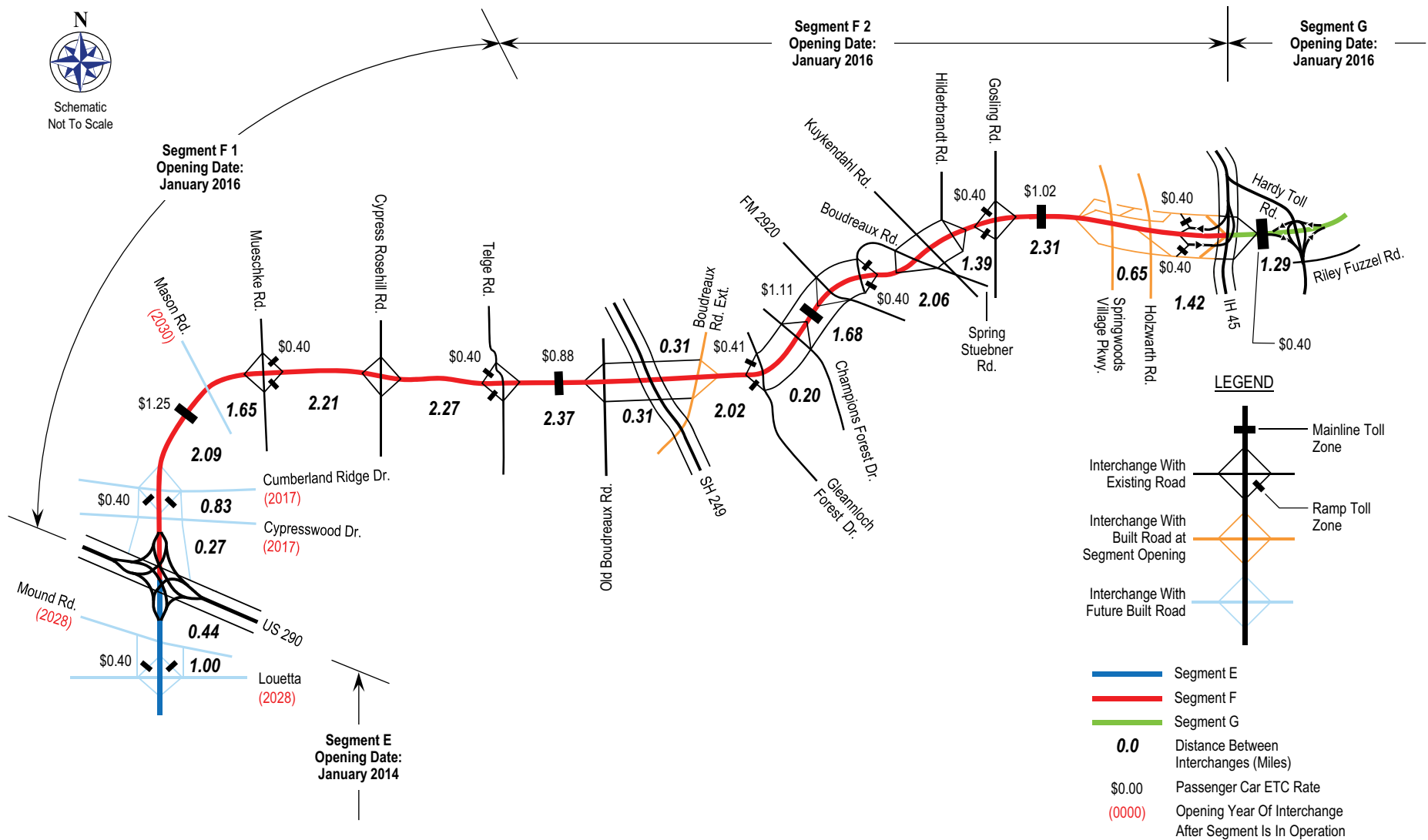
Base case traffic and toll revenue estimates for the proposed Grand Parkway were predicated on the following basic assumptions:

1. The various segments of the Grand Parkway would be opened as shown in Figure 2-2.
2. Grand Parkway Segments D through G will be an ETC-only toll facility. Video tolling will not be utilized.
3. Fort Bend Segment D will also be an ETC-only toll facility. Video tolling will not be used at any stage on the Segment D corridor.
4. Ramp-up factors of 0.61, 0.85 and 0.95 were applied to the first three years of operation of each segment.
5. The first month of operation of Segments D and E (January 2014) and Segments F-1, F-2 and G (January 2016) is assumed to be toll free. These initial free month(s) are included to reflect the GPTC's anticipated marketing campaign to allow users to become familiar with the facility's access locations, travel time savings and route options.
6. Tolls on the existing HCTRA and Fort Bend County toll systems, along with those on future expansion sections and new toll road facilities, are all assumed to be increased annually at 2.25 percent until 2014 and 2.5 percent annually thereafter.
7. For regional toll roads, prior to 2035 it is assumed transponder usage will continue to grow as toll agencies move towards all electronic tolling. The remaining cash collection will be phased

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



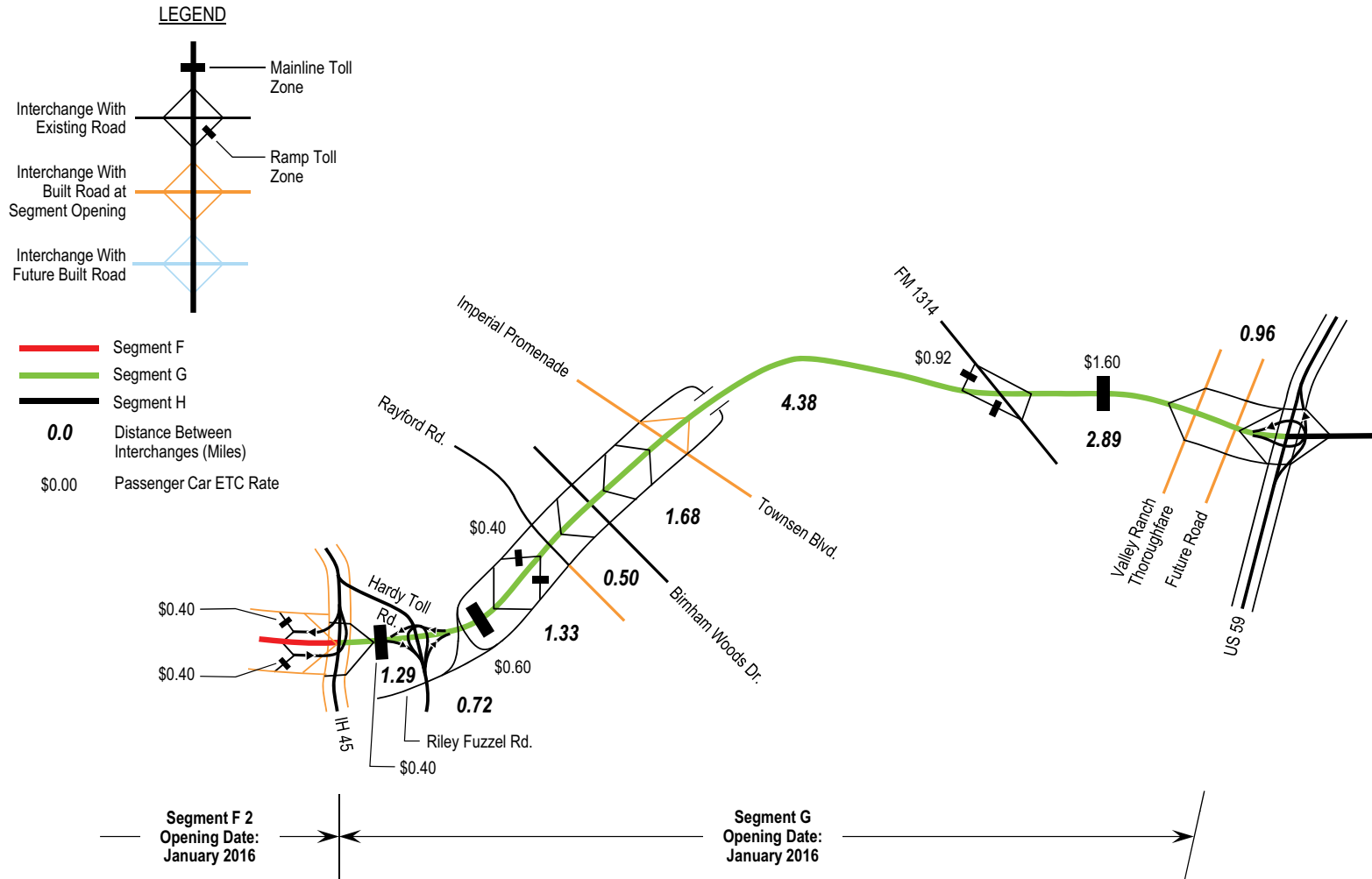
Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



BASE TOLL RATES - SEGMENT F 2012 LEVELS

FIGURE 6-5

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



BASE TOLL RATES - SEGMENT G 2012 LEVELS

out. Beginning in 2035, all vehicles in the region are assumed to be equipped for electronic toll collection.

8. It is assumed that expansion will not take place on an as-needed basis and capacity constraints have been applied in the peak periods in outer years where capacity constraints of the future facility have been exceeded.
9. Future population and employment will be in line with those estimated by the independent economist both in scale and distribution.
10. The revenue leakage estimates are provided to reflect the HCTRA business rules and indicate the transaction and revenue leakage prior to the application of administration and violation fees. Optimization of these fees with the associated collection and processing costs is likely to lessen the net revenue leakage impact.
11. No other competing facilities, toll or toll-free, beyond those included in the H-GAC regional transportation plan, and/or the toll road expansion programs of TxDOT, HCTRA and FBCTRA, shall be implemented within the forecast period as shown in Figure 1-1.
12. The Grand Parkway is assumed to be properly maintained, efficiently operated and appropriately promoted and signed to encourage maximum usage.
13. No national, regional or local emergency will occur which would abnormally restrict the use of motor vehicles for the duration of the forecast period.
14. Motor fuel will remain in adequate supply for the forecast period, and overall long term increases in price will not be substantially greater than the rate of inflation.

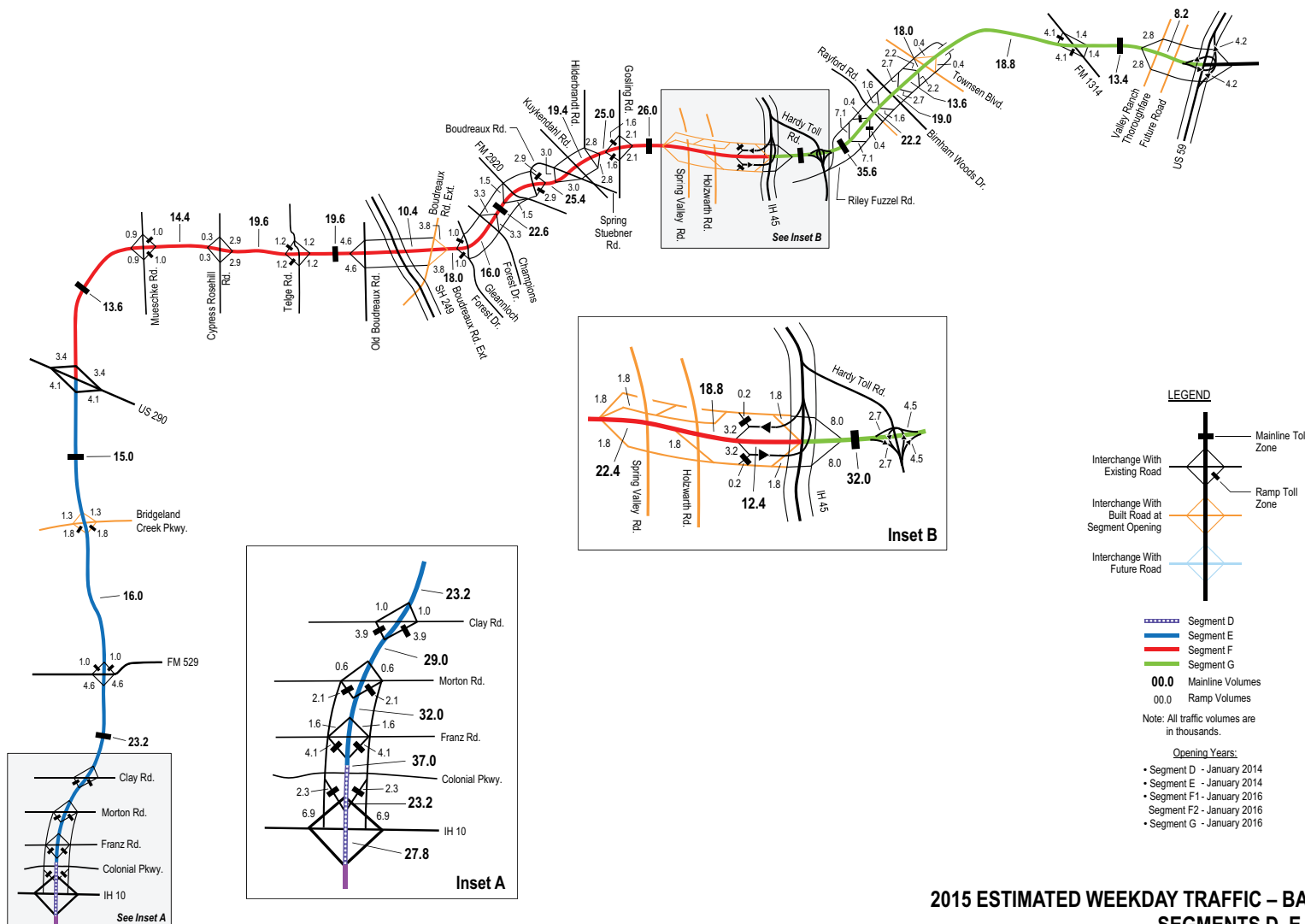
CDM Smith anticipates that any significant departure from these key assumptions could have a material impact on traffic and toll revenue forecasts for the proposed Grand Parkway Segments D through G.

Estimated Average Weekday Traffic

Future year model traffic assignments were made using the refined model and modeling approach described above. Model assignments were made at different year levels. Traffic assignments reflected typical “weekday” conditions; traffic volumes on weekends would tend to be lower, as would overall seven day average daily traffic conditions.

Estimated 2015 Weekday Traffic

Figure 6-7 presents estimated 2015 weekday traffic on the proposed Grand Parkway Segments D through G, respectively (note: the opening year for F and G are 2016 such that the 2015 volumes in the figure are for illustrative purposes only). All traffic is shown in thousands, rounded to the nearest 100 vehicles. These represent weekday traffic estimates; average daily traffic including weekends would be slightly lower. Traffic volume estimates are shown for each of the ramp locations and on each mainline section. In all cases, ramp volumes were balanced between entering and exiting locations; in practice there may actually be slight differences between entering and exiting volumes on any given day. The figures also show the location of electronic toll zones.



2015 ESTIMATED WEEKDAY TRAFFIC – BASE CASE SEGMENTS D, E, F, AND G

Estimated weekday transactions and revenue by toll zone at 2015 levels is shown in Table 6-3A. Traffic estimates at each location are broken out by market category (e.g. passenger car ETC, truck ETC) and show the appropriate toll rate at 2015 levels at each toll zone location. Obviously, traffic and revenue are shown only for Segments D and E of the Grand Parkway which will be open by 2015.

Daily revenue estimates are shown for each toll zone, and subtotaled for each segment or subsegment. In Table 6-3B volumes are shown at 2015 levels assuming that Segments F and G are implemented for purposes of comparison against the 2020 estimates shown in Table 6-4.

Estimated 2020 Weekday Traffic

Figure 6-8 and Table 6-4 present estimated 2020 weekday traffic on the proposed Grand Parkway Segments D through G, respectively. As can be noted, traffic on the mainline sections between Clay Road and FM 529 on Segment E is expected to reach nearly 34,000 vehicles per day. Traffic on the section between Gosling Road and Spring Valley Road in Segment F is estimated to reach almost 42,000 weekday vehicles. On Segment G weekday traffic is estimated to reach nearly 22,800 vehicles just west of U.S. 59.

Estimated 2025 Weekday Traffic

Figure 6-9 and Table 6-5 present estimated 2025 weekday traffic on the proposed Grand Parkway Segments D through G, respectively. Again this reflects 2025 dollars as the toll rates have been inflated using the aforementioned growth rates.

Estimated 2035 Weekday Traffic

Figure 6-10 and Table 6-6 present estimated 2035 weekday traffic on the proposed Grand Parkway Segments D through G, respectively. As can be noted, traffic on the mainline sections between Clay Road and FM 529 on Segment E is expected to reach 61,600 vehicles per day. Traffic on the section between Gosling Road and Spring Valley Road in Segment F is estimated to reach almost 68,800 weekday vehicles. Finally, on Segment G weekday traffic is estimated to be over 56,400 immediately west of U.S. 59.

Detailed Annual Transactions and Toll Revenue

Table 6-3 through Table 6-6 also showed conversion calculations to annual T&R estimates. The weekday transaction and revenue estimates are annualized to estimated annual levels using an annualization factor of 325 typical weekdays. This assumes that weekend day trips are approximately 65 percent of weekday trips. Since the modeling was performed at a weekday level, this translates into 325 equivalent weekdays for a typical calendar year. Historical traffic and toll revenue for existing toll roads in Houston were reviewed in developing the annualization factor of 325. It is noted that toll rates and revenue estimates shown in Table 6-3 through Table 6-6 are in future year dollars. No secondary inflation is needed; since the traffic assignments inflated both toll rates, as well as values-of-time and vehicle operating cost.

Table 6-3A
Estimated Weekday Transactions and Revenue by Toll Location, 2015 - Only Segments D and E Implemented

Plaza Location		Passenger Car (PC)			Commercial Vehicle (CV)			Total T&R		Revenue Contribution
		Volume	Toll	Revenue	Volume	Toll	Revenue	Transactions	Revenue	Seg. E to Seg. D
Colonial Pkwy	NB	2,120	\$ 0.42	\$ 900	80	\$ 1.25	\$ 100	2,200	\$ 1,000	
Colonial Pkwy	SB	2,130	0.42	900	70	1.43	100	2,200	1,000	
SEGMENT D TOTAL		4,250		\$ 1,800	150		\$ 200	4,400	\$ 2,000	
Annual Subtotal:								1,215,000	\$ 553,000	
Franz Rd.	NB	4,060	0.09	380	140	0.29	40	4,200	\$ 420	\$ 1,480
Franz Rd.	SB	4,070	0.10	400	130	0.31	40	4,200	440	1,560
Morton Rd.	NB	2,020	0.29	580	80	0.63	50	2,100	630	570
Morton Rd.	SB	2,030	0.29	580	70	0.71	50	2,100	630	570
Clay Rd.	NB	3,820	0.51	1,930	180	1.50	270	4,000	2,200	1,100
Clay Rd.	SB	3,830	0.50	1,930	170	1.59	270	4,000	2,200	1,100
Mainline Plaza 1	NB	10,460	1.71	17,860	540	5.17	2,790	11,000	20,650	3,050
Mainline Plaza 1	SB	10,450	1.71	17,860	550	5.07	2,790	11,000	20,650	3,050
FM 529	NB	860	0.58	500	40	2.50	100	900	600	---
FM 529	SB	860	0.58	500	40	2.50	100	900	600	---
West Road	NB	---	---	---	---	---	---	---	---	---
West Road	SB	---	---	---	---	---	---	---	---	---
Bridgelands Creek Pkwy.	NB	2,290	0.44	1,000	110	0.91	100	2,400	1,100	---
Bridgelands Creek Pkwy.	SB	2,290	0.44	1,000	110	0.91	100	2,400	1,100	---
N. Bridgelands Lake Pkwy.	NB	---	---	---	---	---	---	---	---	---
N. Bridgelands Lake Pkwy.	SB	---	---	---	---	---	---	---	---	---
Mainline Plaza 2	NB	5,460	1.03	5,600	340	2.94	1,000	5,800	6,600	---
Mainline Plaza 2	SB	5,470	1.02	5,600	330	3.03	1,000	5,800	6,600	---
Louetta	NB	---	---	---	---	---	---	---	---	---
Louetta	SB	---	---	---	---	---	---	---	---	---
SEGMENT E TOTAL		57,970		\$ 55,720	2,830		\$ 8,700	60,800	\$ 64,420	\$ 12,480
Annual Subtotal:								16,798,000	\$ 17,799,000	\$ 3,448,000
Cumberland Bridge	NB	---	---	---	---	---	---	---	---	---
Cumberland Bridge	SB	---	---	---	---	---	---	---	---	---
Mainline Plaza 1	NB	---	---	---	---	---	---	---	---	---
Mainline Plaza 1	SB	---	---	---	---	---	---	---	---	---
Mueschke Rd.	EB	---	---	---	---	---	---	---	---	---
Mueschke Rd.	WB	---	---	---	---	---	---	---	---	---
Telge Rd.	EB	---	---	---	---	---	---	---	---	---
Telge Rd.	WB	---	---	---	---	---	---	---	---	---
Mainline Plaza 2	EB	---	---	---	---	---	---	---	---	---
Mainline Plaza 2	WB	---	---	---	---	---	---	---	---	---
Gleannloch Forest Dr.	EB	---	---	---	---	---	---	---	---	---
Gleannloch Forest Dr.	WB	---	---	---	---	---	---	---	---	---
Mainline Plaza 3	EB	---	---	---	---	---	---	---	---	---
Mainline Plaza 3	WB	---	---	---	---	---	---	---	---	---
FM 2920	EB	---	---	---	---	---	---	---	---	---
FM 2920	WB	---	---	---	---	---	---	---	---	---
Gosling Rd.	EB	---	---	---	---	---	---	---	---	---
Gosling Rd.	WB	---	---	---	---	---	---	---	---	---
Mainline Plaza 4	EB	---	---	---	---	---	---	---	---	---
Mainline Plaza 4	WB	---	---	---	---	---	---	---	---	---
IH 45 DC Ramp	EB	---	---	---	---	---	---	---	---	---
IH 45 DC Ramp	WB	---	---	---	---	---	---	---	---	---
SEGMENT F TOTAL		0		\$ 0	0		\$ 0	0	\$ 0	
Annual Subtotal:								0	\$ 0	
Mainline Plaza 0	EB	---	---	---	---	---	---	---	---	---
Mainline Plaza 0	WB	---	---	---	---	---	---	---	---	---
Mainline Plaza 1	EB	---	---	---	---	---	---	---	---	---
Mainline Plaza 1	WB	---	---	---	---	---	---	---	---	---
Ramp Plaza 1 (w/o Rayford)	EB	---	---	---	---	---	---	---	---	---
Ramp Plaza 1 (w/o Rayford)	WB	---	---	---	---	---	---	---	---	---
FM 1314	EB	---	---	---	---	---	---	---	---	---
FM 1314	WB	---	---	---	---	---	---	---	---	---
Mainline Plaza 2	EB	---	---	---	---	---	---	---	---	---
Mainline Plaza 2	WB	---	---	---	---	---	---	---	---	---
SEGMENT G TOTAL		0		\$ 0	0		\$ 0	0	\$ 0	
Annual Subtotal:								0	\$ 0	

Note:
Daily values do not include ramp-up. Annualized transactions and revenue are 325 days per year and do reflect ramp-up. Totals may be subject to rounding differences.

	Segm.			
	D, E, F, G			
Annual Total:	18,013,000	\$ 18,352,000	\$ 3,448,000	
Combined Revenue Total:		\$ 21,800,000		

Table 6-3B
Estimated Weekday Transactions and Revenue by Toll Location, 2015, Segments D, E, F and G Implemented

Plaza Location		Passenger Car (PC)			Commercial Vehicle (CV)			Total T&R		Revenue Contribution
		Volume	Toll	Revenue	Volume	Toll	Revenue	Transactions	Revenue	Seg. E to Seg. D
Colonial Pkwy	NB	2,220	\$ 0.45	\$ 1,000	80	\$ 1.25	\$ 100	2,300	\$ 1,100	
Colonial Pkwy	SB	2,230	0.45	1,000	70	1.43	100	2,300	1,100	
SEGMENT D TOTAL		4,450		\$ 2,000	150		\$ 200	4,600	\$ 2,200	
Annual Subtotal:								1,272,000	\$ 609,000	
Franz Rd.	NB	3,960	0.10	380	140	0.29	40	4,100	\$ 420	\$ 1,480
Franz Rd.	SB	3,970	0.10	380	130	0.31	40	4,100	420	1,480
Morton Rd.	NB	2,020	0.29	580	80	0.63	50	2,100	630	570
Morton Rd.	SB	2,030	0.29	580	70	0.71	50	2,100	630	570
Clay Rd.	NB	3,730	0.50	1,870	170	1.59	270	3,900	2,140	1,060
Clay Rd.	SB	3,730	0.50	1,870	170	1.59	270	3,900	2,140	1,060
Mainline Plaza 1	NB	11,020	1.71	18,820	580	5.10	2,960	11,600	21,780	3,220
Mainline Plaza 1	SB	11,010	1.71	18,820	590	5.17	3,050	11,600	21,870	3,230
FM 529	NB	960	0.63	600	40	2.50	100	1,000	700	---
FM 529	SB	960	0.63	600	40	2.50	100	1,000	700	---
West Road	NB	---	---	---	---	---	---	---	---	---
West Road	SB	---	---	---	---	---	---	---	---	---
Bridgelands Creek Pkwy.	NB	1,730	0.40	700	70	1.43	100	1,800	800	---
Bridgelands Creek Pkwy.	SB	1,730	0.40	700	70	1.43	100	1,800	800	---
N. Bridgelands Lake Pkwy.	NB	---	---	---	---	---	---	---	---	---
N. Bridgelands Lake Pkwy.	SB	---	---	---	---	---	---	---	---	---
Mainline Plaza 2	NB	7,050	1.02	7,200	450	3.11	1,400	7,500	8,600	---
Mainline Plaza 2	SB	7,060	1.02	7,200	440	2.95	1,300	7,500	8,500	---
Louetta	NB	---	---	---	---	---	---	---	---	---
Louetta	SB	---	---	---	---	---	---	---	---	---
SEGMENT E TOTAL		60,960		\$ 60,300	3,040		\$ 9,830	64,000	\$ 70,130	\$ 12,670
Annual Subtotal:								17,683,400	\$ 19,376,600	\$ 3,501,150
Cumberland Bridge	NB	---	---	---	---	---	---	---	---	---
Cumberland Bridge	SB	---	---	---	---	---	---	---	---	---
Mainline Plaza 1	NB	6,910	\$ 1.34	\$ 9,300	490	\$ 4.02	\$ 2,000	7,400	\$ 11,300	
Mainline Plaza 1	SB	6,920	1.34	9,300	480	4.02	1,900	7,400	11,200	
Mueschke Rd.	EB	660	0.43	300	40	1.29	100	700	400	
Mueschke Rd.	WB	660	0.43	300	40	1.29	100	700	400	
Telge Rd.	EB	1,140	0.43	500	60	1.29	100	1,200	600	
Telge Rd.	WB	1,140	0.43	500	60	1.29	100	1,200	600	
Mainline Plaza 2	EB	9,280	0.94	8,700	520	2.82	1,500	9,800	10,200	
Mainline Plaza 2	WB	9,290	0.94	8,700	510	2.82	1,400	9,800	10,100	
Gleannloch Forest Dr.	EB	970	0.44	400	30	1.32	---	1,000	400	
Gleannloch Forest Dr.	WB	970	0.44	400	30	1.32	---	1,000	400	
Mainline Plaza 3	EB	10,770	1.19	12,800	530	3.57	1,900	11,300	14,700	
Mainline Plaza 3	WB	10,770	1.19	12,800	530	3.57	1,900	11,300	14,700	
FM 2920	EB	2,820	0.43	1,200	80	1.29	100	2,900	1,300	
FM 2920	WB	2,820	0.43	1,200	80	1.29	100	2,900	1,300	
Gosling Rd.	EB	1,530	0.43	700	70	1.29	100	1,600	800	
Gosling Rd.	WB	1,530	0.43	700	70	1.29	100	1,600	800	
Mainline Plaza 4	EB	12,410	1.09	13,500	590	3.27	1,900	13,000	15,400	
Mainline Plaza 4	WB	12,450	1.09	13,600	550	3.27	1,800	13,000	15,400	
IH 45 DC Ramp	EB	200	0.43	100	---	1.29	---	200	100	
IH 45 DC Ramp	WB	200	0.43	100	---	1.29	---	200	100	
SEGMENT F TOTAL		93,440		\$ 95,100	4,760		\$ 15,100	98,200	\$ 110,200	
Annual Subtotal:								19,469,980	\$ 21,849,590	
Mainline Plaza 0	EB	15,360	\$ 0.43	\$ 6,600	640	\$ 1.29	\$ 800	16,000	\$ 7,400	
Mainline Plaza 0	WB	15,380	0.43	6,600	620	1.29	800	16,000	7,400	
Mainline Plaza 1	EB	17,080	0.64	10,900	720	1.92	1,400	17,800	12,300	
Mainline Plaza 1	WB	17,110	0.64	11,000	690	1.92	1,300	17,800	12,300	
Ramp Plaza1 (w/o Rayford)	EB	390	0.43	200	10	1.29	---	400	200	
Ramp Plaza1 (w/o Rayford)	WB	390	0.43	200	10	1.29	---	400	200	
FM 1314	EB	3,920	0.99	3,900	180	2.97	500	4,100	4,400	
FM 1314	WB	3,930	0.99	3,900	170	2.97	500	4,100	4,400	
Mainline Plaza 2	EB	6,370	1.71	10,900	330	5.13	1,700	6,700	12,600	
Mainline Plaza 2	WB	6,340	1.71	10,800	360	5.13	1,800	6,700	12,600	
SEGMENT G TOTAL		86,270		\$ 65,000	3,730		\$ 8,800	90,000	\$ 73,800	
Annual Subtotal:								17,843,720	\$ 14,631,460	
Note: Daily values do not include ramp-up. Annualized transactions and revenue are 325 days per year and do reflect ramp-up. Totals may be subject to rounding differences.										
								Segm. D, E, F, G		
Annual Total:								56,269,100	\$ 56,466,650	\$ 3,501,150
Combined Revenue Total:								\$ 59,967,800		

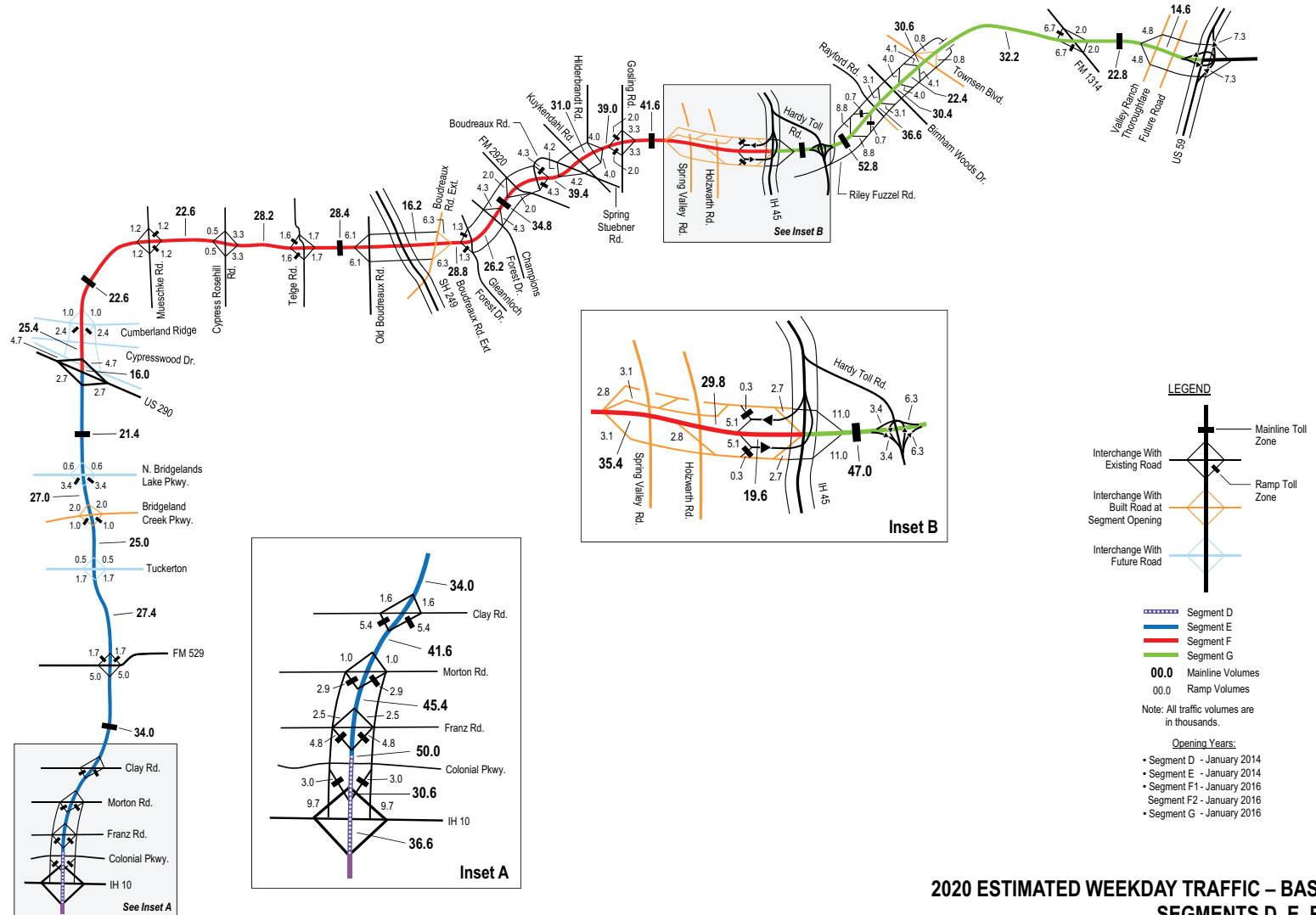
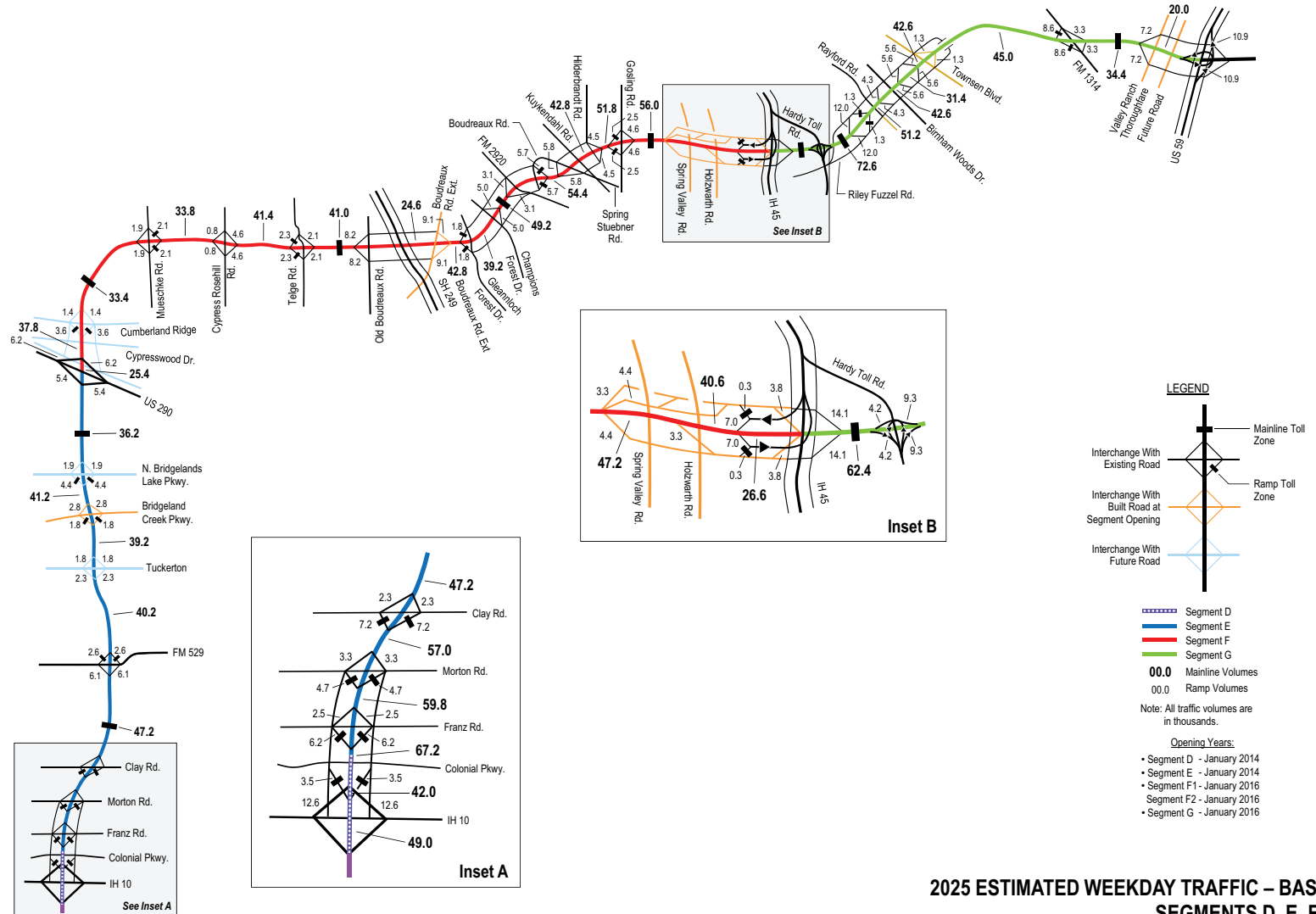
Grand Parkway (SH 99) Segments D Through G
Comprehensive Traffic and Revenue Study Update 20122020 ESTIMATED WEEKDAY TRAFFIC – BASE CASE
SEGMENTS D, E, F, AND G

FIGURE 6-8

Table 6-4
Estimated Weekday Transactions and Revenue by Toll Location, 2020

		Passenger Car (PC)			Commercial Vehicle (CV)			Total T&R		Revenue
Plaza Location		Volume	Toll	Revenue	Volume	Toll	Revenue	Transactions	Revenue	Contribution Seg. E to Seg. D
Colonial Pkwy	NB	2,900	0.48	1,400	100	1.00	100	3,000	\$ 1,500	
Colonial Pkwy	SB	2,910	0.48	1,400	90	1.11	100	3,000	1,500	
SEGMENT D TOTAL		5,810		\$ 2,800	190		\$ 200	6,000	\$ 3,000	
Annual Subtotal:								1,950,000	\$ 976,000	
Franz Rd.	NB	4,630	0.11	490	170	0.24	40	4,800	\$ 530	\$ 1,870
Franz Rd.	SB	4,650	0.11	490	150	0.27	40	4,800	530	1,870
Morton Rd.	NB	2,790	0.32	890	110	1.00	110	2,900	1,000	910
Morton Rd.	SB	2,800	0.32	890	100	1.10	110	2,900	1,000	910
Clay Rd.	NB	5,180	0.58	3,000	220	1.82	400	5,400	3,400	1,700
Clay Rd.	SB	5,170	0.57	2,930	230	1.74	400	5,400	3,330	1,670
Mainline Plaza 1	NB	16,160	1.94	31,270	840	5.81	4,880	17,000	36,150	5,350
Mainline Plaza 1	SB	16,140	1.93	31,190	860	5.78	4,970	17,000	36,160	5,340
FM 529	NB	1,630	0.67	1,100	70	1.43	100	1,700	1,200	---
FM 529	SB	1,630	0.67	1,100	70	1.43	100	1,700	1,200	---
West Road	NB	---	---	---	---	---	---	---	---	---
West Road	SB	---	---	---	---	---	---	---	---	---
Bridgelands Creek Pkwy.	NB	970	0.52	500	30	---	---	1,000	500	---
Bridgelands Creek Pkwy.	SB	970	0.52	500	30	---	---	1,000	500	---
N. Bridgelands Lake Pkwy.	NB	3,260	0.49	1,600	140	1.43	200	3,400	1,800	---
N. Bridgelands Lake Pkwy.	SB	3,220	0.47	1,500	180	1.67	300	3,400	1,800	---
Mainline Plaza 2	NB	10,100	1.15	11,600	600	3.50	2,100	10,700	13,700	---
Mainline Plaza 2	SB	10,110	1.15	11,600	590	3.39	2,000	10,700	13,600	---
Louetta	NB	---	---	---	---	---	---	---	---	---
Louetta	SB	---	---	---	---	---	---	---	---	---
SEGMENT E TOTAL		89,410		\$ 100,650	4,390		\$ 15,750	93,800	\$ 116,400	\$ 19,620
Annual Subtotal:								30,729,000	\$ 38,259,000	\$ 6,422,000
Cumberland Bridge	NB	2,300	\$ 0.48	\$ 1,100	100	\$ 1.44	\$ 100	2,400	\$ 1,200	
Cumberland Bridge	SB	2,300	0.48	1,100	100	1.44	100	2,400	1,200	
Mainline Plaza 1	NB	10,610	1.52	16,100	690	4.56	3,100	11,300	19,200	
Mainline Plaza 1	SB	10,620	1.52	16,100	680	4.56	3,100	11,300	19,200	
Mueschke Rd.	EB	1,140	0.48	500	60	1.44	100	1,200	600	
Mueschke Rd.	WB	1,140	0.48	500	60	1.44	100	1,200	600	
Telge Rd.	EB	1,520	0.48	700	80	1.44	100	1,600	800	
Telge Rd.	WB	1,520	0.48	700	80	1.44	100	1,600	800	
Mainline Plaza 2	EB	13,480	1.07	14,400	720	3.21	2,300	14,200	16,700	
Mainline Plaza 2	WB	13,490	1.07	14,400	710	3.21	2,300	14,200	16,700	
Gleannloch Forest Dr.	EB	1,260	0.50	600	40	1.50	100	1,300	700	
Gleannloch Forest Dr.	WB	1,260	0.50	600	40	1.50	100	1,300	700	
Mainline Plaza 3	EB	16,590	1.35	22,400	810	4.05	3,300	17,400	25,700	
Mainline Plaza 3	WB	16,600	1.35	22,400	800	4.05	3,200	17,400	25,600	
FM 2920	EB	4,180	0.48	2,000	120	1.44	200	4,300	2,200	
FM 2920	WB	4,190	0.48	2,000	110	1.44	200	4,300	2,200	
Gosling Rd.	EB	1,920	0.48	900	80	1.44	100	2,000	1,000	
Gosling Rd.	WB	1,910	0.48	900	90	1.44	100	2,000	1,000	
Mainline Plaza 4	EB	19,900	1.24	24,700	900	3.72	3,300	20,800	28,000	
Mainline Plaza 4	WB	19,960	1.24	24,800	840	3.72	3,100	20,800	27,900	
IH 45 DC Ramp	EB	290	0.48	100	10	1.44	---	300	100	
IH 45 DC Ramp	WB	300	0.48	100	---	1.44	---	300	100	
SEGMENT F TOTAL		145,890		\$ 166,900	7,110		\$ 25,100	153,000	\$ 192,000	
Annual Subtotal:								49,555,000	\$ 60,990,000	
Mainline Plaza 0	EB	22,560	\$ 0.48	\$ 10,800	940	\$ 1.44	\$ 1,400	23,500	\$ 12,200	
Mainline Plaza 0	WB	22,540	0.48	10,800	960	1.44	1,400	23,500	12,200	
Mainline Plaza 1	EB	25,330	0.73	18,500	1,070	2.19	2,300	26,400	20,800	
Mainline Plaza 1	WB	25,370	0.73	18,500	1,030	2.19	2,300	26,400	20,800	
Ramp Plaza1 (w/o Rayford)	EB	690	0.48	300	10	1.44	---	700	300	
Ramp Plaza1 (w/o Rayford)	WB	680	0.48	300	20	1.44	---	700	300	
FM 1314	EB	6,450	1.12	7,200	250	3.36	800	6,700	8,000	
FM 1314	WB	6,460	1.12	7,200	240	3.36	800	6,700	8,000	
Mainline Plaza 2	EB	10,870	1.94	21,100	530	5.82	3,100	11,400	24,200	
Mainline Plaza 2	WB	10,830	1.94	21,000	570	5.82	3,300	11,400	24,300	
SEGMENT G TOTAL		86,680		\$ 94,100	3,720		\$ 12,600	90,400	\$ 106,700	
Annual Subtotal:								44,946,000	\$ 43,150,000	
Note:										
Daily values do not include ramp-up. Annualized transactions and revenue are 325 days per year and do reflect ramp-up. Totals may be subject to rounding differences.										
Segm.										
D, E, F, G										
Annual Total:								127,180,000	\$ 143,375,000	\$ 6,422,000
Combined Revenue Total:								\$ 149,797,000		

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



**2025 ESTIMATED WEEKDAY TRAFFIC – BASE CASE
SEGMENTS D, E, F, AND G**

Table 6-5
Estimated Weekday Transactions and Revenue by Toll Location, 2025

Plaza Location		Passenger Car (PC)			Commercial Vehicle (CV)			Total T&R		Revenue Contribution
		Volume	Toll	Revenue	Volume	Toll	Revenue	Transactions	Revenue	Seg. E to Seg. D
Colonial Pkwy	NB	3,370	\$ 0.56	\$ 1,900	130	\$ 1.54	\$ 200	3,500	\$ 2,100	
Colonial Pkwy	SB	3,390	0.56	1,900	110	1.82	200	3,500	2,100	
SEGMENT D TOTAL		6,760		\$ 3,800	240		\$ 400	7,000	\$ 4,200	
Annual Subtotal:								2,276,000	\$ 1,366,000	
Franz Rd.	NB	5,970	0.12	730	230	0.39	90	6,200	\$ 820	\$ 2,880
Franz Rd.	SB	6,000	0.12	730	200	0.35	70	6,200	800	2,800
Morton Rd.	NB	4,540	0.36	1,630	160	1.00	160	4,700	1,790	1,610
Morton Rd.	SB	4,530	0.36	1,630	170	1.24	210	4,700	1,840	1,660
Clay Rd.	NB	6,910	0.65	4,470	290	1.83	530	7,200	5,000	2,500
Clay Rd.	SB	6,900	0.65	4,470	300	2.00	600	7,200	5,070	2,530
Mainline Plaza 1	NB	22,420	2.19	49,040	1,180	6.57	7,750	23,600	56,790	8,410
Mainline Plaza 1	SB	22,400	2.19	48,960	1,200	6.53	7,840	23,600	56,800	8,400
FM 529	NB	2,500	0.80	2,000	100	2.00	200	2,600	2,200	---
FM 529	SB	2,490	0.80	2,000	110	2.73	300	2,600	2,300	---
West Road	NB	---	---	0	---	---	0	---	---	---
West Road	SB	---	---	0	---	---	0	---	---	---
Bridgelands Creek Pkwy.	NB	1,740	0.57	1,000	60	1.67	100	1,800	1,100	---
Bridgelands Creek Pkwy.	SB	1,730	0.58	1,000	70	1.43	100	1,800	1,100	---
N. Bridgelands Lake Pkwy.	NB	4,240	0.54	2,300	160	1.88	300	4,400	2,600	---
N. Bridgelands Lake Pkwy.	SB	4,210	0.55	2,300	190	1.58	300	4,400	2,600	---
Mainline Plaza 2	NB	17,140	1.30	22,300	960	3.85	3,700	18,100	26,000	---
Mainline Plaza 2	SB	17,150	1.30	22,300	950	3.89	3,700	18,100	26,000	---
Louetta	NB	---	---	0	---	---	0	---	---	---
Louetta	SB	---	---	0	---	---	0	---	---	---
SEGMENT E TOTAL		130,870		\$ 166,860	6,330		\$ 25,950	137,200	\$ 192,810	\$ 30,790
Annual Subtotal:								44,923,000	\$ 63,239,000	\$ 10,067,000
Cumberland Bridge	NB	3,470	\$ 0.55	\$ 1,900	130	\$ 1.65	\$ 200	3,600	\$ 2,100	
Cumberland Bridge	SB	3,460	0.55	1,900	140	1.65	200	3,600	2,100	
Mainline Plaza 1	NB	15,680	1.71	26,800	1,020	5.13	5,200	16,700	32,000	
Mainline Plaza 1	SB	15,730	1.71	26,900	970	5.13	5,000	16,700	31,900	
Mueschke Rd.	EB	2,000	0.55	1,100	100	1.65	200	2,100	1,300	
Mueschke Rd.	WB	2,000	0.55	1,100	100	1.65	200	2,100	1,300	
Telge Rd.	EB	2,180	0.55	1,200	120	1.65	200	2,300	1,400	
Telge Rd.	WB	2,190	0.55	1,200	110	1.65	200	2,300	1,400	
Mainline Plaza 2	EB	19,460	1.21	23,500	1,040	3.63	3,800	20,500	27,300	
Mainline Plaza 2	WB	19,500	1.21	23,600	1,000	3.63	3,600	20,500	27,200	
Gleannloch Forest Dr.	EB	1,740	0.56	1,000	60	1.68	100	1,800	1,100	
Gleannloch Forest Dr.	WB	1,750	0.56	1,000	50	1.68	100	1,800	1,100	
Mainline Plaza 3	EB	23,440	1.52	35,600	1,160	4.56	5,300	24,600	40,900	
Mainline Plaza 3	WB	23,460	1.52	35,700	1,140	4.56	5,200	24,600	40,900	
FM 2920	EB	5,530	0.55	3,000	170	1.65	300	5,700	3,300	
FM 2920	WB	5,520	0.55	3,000	180	1.65	300	5,700	3,300	
Gosling Rd.	EB	2,400	0.55	1,300	100	1.65	200	2,500	1,500	
Gosling Rd.	WB	2,400	0.55	1,300	100	1.65	200	2,500	1,500	
Mainline Plaza 4	EB	26,740	1.40	37,400	1,260	4.20	5,300	28,000	42,700	
Mainline Plaza 4	WB	26,800	1.40	37,500	1,200	4.20	5,000	28,000	42,500	
IH 45 DC Ramp	EB	290	0.55	200	10	1.65	---	300	200	
IH 45 DC Ramp	WB	290	0.55	200	10	1.65	---	300	200	
SEGMENT F TOTAL		205,450		\$ 266,000	10,150		\$ 40,800	215,600	\$ 306,800	
Annual Subtotal:								69,968,000	\$ 98,212,000	
Mainline Plaza 0	EB	29,900	\$ 0.55	\$ 16,400	1,300	\$ 1.65	\$ 2,100	31,200	\$ 18,500	
Mainline Plaza 0	WB	29,850	0.55	16,400	1,350	1.65	2,200	31,200	18,600	
Mainline Plaza 1	EB	34,760	0.82	28,500	1,540	2.46	3,800	36,300	32,300	
Mainline Plaza 1	WB	34,810	0.82	28,500	1,490	2.46	3,700	36,300	32,200	
Ramp Plaza1 (w/o Rayford)	EB	1,270	0.55	700	30	1.65	---	1,300	700	
Ramp Plaza1 (w/o Rayford)	WB	1,270	0.55	700	30	1.65	---	1,300	700	
FM 1314	EB	8,300	1.26	10,500	300	3.78	1,100	8,600	11,600	
FM 1314	WB	8,290	1.26	10,400	310	3.78	1,200	8,600	11,600	
Mainline Plaza 2	EB	16,360	2.19	35,800	840	6.57	5,500	17,200	41,300	
Mainline Plaza 2	WB	16,330	2.19	35,800	870	6.57	5,700	17,200	41,500	
SEGMENT G TOTAL		121,390		\$ 150,900	5,410		\$ 21,000	126,800	\$ 171,900	
Annual Subtotal:								62,151,000	\$ 68,942,000	
Note:										
Daily values do not include ramp-up. Annualized transactions and revenue are 325 days per year and do reflect ramp-up. Totals may be subject to rounding differences.										
								Segm.		
								D, E, F, G		
								Annual Total:	179,318,000	\$ 231,759,000
								Combined Revenue Total:	\$ 241,826,000	\$ 10,067,000

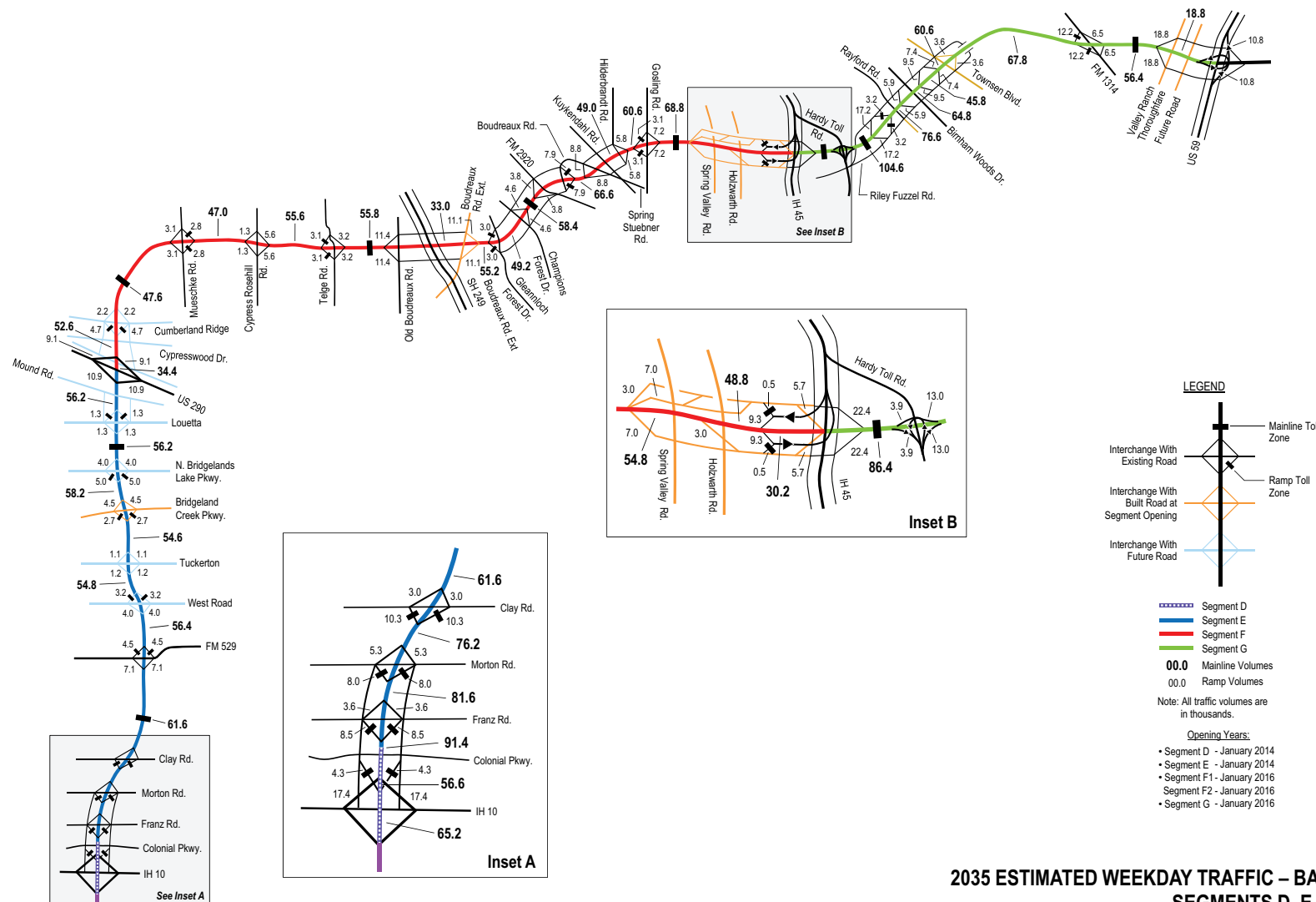


Table 6-6
Estimated Weekday Transactions and Revenue by Toll Location, 2035

Plaza Location		Passenger Car (PC)			Commercial Vehicle (CV)			Total T&R		Revenue Contribution
		Volume	Toll	Revenue	Volume	Toll	Revenue	Transactions	Revenue	Seg. E to Seg. D
Colonial Pkwy	NB	4,150	\$ 0.70	\$ 2,900	150	\$ 2.00	\$ 300	4,300	\$ 3,200	
Colonial Pkwy	SB	4,160	0.70	2,900	140	2.14	300	4,300	3,200	
SEGMENT D TOTAL		8,310		\$ 5,800	290		\$ 600	8,600	\$ 6,400	
Annual Subtotal:								2,796,000	\$ 2,080,000	
Franz Rd.	NB	8,150	0.16	1,270	350	0.46	160	8,500	1,430	\$ 4,970
Franz Rd.	SB	8,180	0.16	1,270	320	0.50	160	8,500	1,430	4,970
Morton Rd.	NB	7,710	0.46	3,570	290	1.45	420	8,000	3,990	3,610
Morton Rd.	SB	7,670	0.46	3,520	330	1.42	470	8,000	3,990	3,610
Clay Rd.	NB	9,990	0.83	8,330	310	2.58	800	10,300	9,130	4,570
Clay Rd.	SB	9,940	0.83	8,270	360	2.58	930	10,300	9,200	4,600
Mainline Plaza 1	NB	29,140	2.80	81,450	1,660	8.40	13,940	30,800	95,390	14,110
Mainline Plaza 1	SB	29,170	2.80	81,540	1,630	8.39	13,680	30,800	95,220	14,080
FM 529	NB	4,320	1.02	4,400	180	3.33	600	4,500	5,000	---
FM 529	SB	4,330	1.02	4,400	170	2.94	500	4,500	4,900	---
West Road	NB	3,080	0.71	2,200	120	2.50	300	3,200	2,500	---
West Road	SB	3,080	0.71	2,200	120	2.50	300	3,200	2,500	---
Bridgelands Creek Pkwy.	NB	2,620	0.69	1,800	80	2.50	200	2,700	2,000	---
Bridgelands Creek Pkwy.	SB	2,620	0.69	1,800	80	2.50	200	2,700	2,000	---
N. Bridgelands Lake Pkwy.	NB	4,820	0.71	3,400	180	2.22	400	5,000	3,800	---
N. Bridgelands Lake Pkwy.	SB	4,810	0.71	3,400	190	2.11	400	5,000	3,800	---
Mainline Plaza 2	NB	26,590	1.67	44,400	1,510	5.03	7,600	28,100	52,000	---
Mainline Plaza 2	SB	26,600	1.67	44,400	1,500	5.00	7,500	28,100	51,900	---
Louetta	NB	1,250	0.72	900	50	2.00	100	1,300	1,000	---
Louetta	SB	1,250	0.72	900	50	2.00	100	1,300	1,000	---
SEGMENT E TOTAL		195,320		\$ 303,420	9,480		\$ 48,760	204,800	\$ 352,180	\$ 54,520
Annual Subtotal:								66,946,000	\$ 116,363,000	\$ 17,986,000
Cumberland Bridge	NB	4,530	\$ 0.70	\$ 3,200	170	\$ 2.10	\$ 400	4,700	\$ 3,600	
Cumberland Bridge	SB	4,530	0.70	3,200	170	2.10	400	4,700	3,600	
Mainline Plaza 1	NB	22,250	2.20	49,000	1,550	6.60	10,200	23,800	59,200	
Mainline Plaza 1	SB	22,300	2.20	49,100	1,500	6.60	9,900	23,800	59,000	
Mueschke Rd.	EB	2,670	0.70	1,900	130	2.10	300	2,800	2,200	
Mueschke Rd.	WB	2,670	0.70	1,900	130	2.10	300	2,800	2,200	
Telge Rd.	EB	2,950	0.70	2,100	150	2.10	300	3,100	2,400	
Telge Rd.	WB	2,950	0.70	2,100	150	2.10	300	3,100	2,400	
Mainline Plaza 2	EB	26,410	1.55	40,900	1,490	4.65	6,900	27,900	47,800	
Mainline Plaza 2	WB	26,460	1.55	41,000	1,440	4.65	6,700	27,900	47,700	
Gleannloch Forest Dr.	EB	2,900	0.72	2,100	100	2.16	200	3,000	2,300	
Gleannloch Forest Dr.	WB	2,910	0.72	2,100	90	2.16	200	3,000	2,300	
Mainline Plaza 3	EB	27,680	1.95	54,000	1,520	5.85	8,900	29,200	62,900	
Mainline Plaza 3	WB	27,740	1.95	54,100	1,460	5.85	8,500	29,200	62,600	
FM 2920	EB	7,650	0.70	5,400	250	2.10	500	7,900	5,900	
FM 2920	WB	7,650	0.70	5,400	250	2.10	500	7,900	5,900	
Gosling Rd.	EB	2,980	0.70	2,100	120	2.10	300	3,100	2,400	
Gosling Rd.	WB	2,990	0.70	2,100	110	2.10	200	3,100	2,300	
Mainline Plaza 4	EB	32,750	1.79	58,600	1,650	5.37	8,900	34,400	67,500	
Mainline Plaza 4	WB	32,850	1.79	58,800	1,550	5.37	8,300	34,400	67,100	
IH 45 DC Ramp	EB	490	0.70	300	10	2.10	---	500	300	
IH 45 DC Ramp	WB	490	0.70	300	10	2.10	---	500	300	
SEGMENT F TOTAL		265,820		\$ 439,100	13,980		\$ 72,200	279,800	\$ 511,300	
Annual Subtotal:								91,342,000	\$ 165,397,000	
Mainline Plaza 0	EB	41,400	\$ 0.70	\$ 29,000	1,800	\$ 2.10	\$ 3,800	43,200	\$ 32,800	
Mainline Plaza 0	WB	41,220	0.70	28,900	1,980	2.10	4,200	43,200	33,100	
Mainline Plaza 1	EB	50,020	1.05	52,500	2,280	3.15	7,200	52,300	59,700	
Mainline Plaza 1	WB	50,120	1.05	52,600	2,180	3.15	6,900	52,300	59,500	
Ramp Plaza1 (w/o Rayford)	EB	3,120	0.70	2,200	80	2.10	200	3,200	2,400	
Ramp Plaza1 (w/o Rayford)	WB	3,100	0.70	2,200	100	2.10	200	3,200	2,400	
FM 1314	EB	11,710	1.62	19,000	490	4.86	2,400	12,200	21,400	
FM 1314	WB	11,700	1.62	19,000	500	4.86	2,400	12,200	21,400	
Mainline Plaza 2	EB	26,840	2.81	75,400	1,360	8.43	11,500	28,200	86,900	
Mainline Plaza 2	WB	26,830	2.81	75,400	1,370	8.43	11,500	28,200	86,900	
SEGMENT G TOTAL		183,440		\$ 298,300	8,360		\$ 42,300	191,800	\$ 340,600	
Annual Subtotal:								87,450,000	\$ 130,670,000	
Segm. D, E, F, G										
Annual Total:								248,534,000	\$ 414,510,000	\$ 17,986,000
Combined Revenue Total:									\$ 432,496,000	

Note:
 Daily values do not include ramp-up. Annualized transactions and revenue are 325 days per year and do reflect ramp-up. Totals may be subject to rounding differences.

Corridor Share Analysis

The assignment results were reviewed for reasonableness, using both select link and screenline corridor share analyses. In the screenline review, special attention was paid to the overall level of growth in traffic throughout the projection period, and the relative share of total screenline demand expected to be accommodated by the Grand Parkway.

Table 6-7 summarizes the corridor share analysis. Segments E through G capture between 4.9% and 6.4% of the corridor travel demand in 2020 and 7.8%- 9.3% by 2035. Figures 6-11 and 6-12 provide a graphic illustration of the total screenline and Grand Parkway traffic growth and market shares forecasted to be captured along the various screenlines.

Travel Time Saving Summary

The 2035 peak period travel time savings for the respective segments of the proposed Grand Parkway facility along with an estimate of the percentage of traffic benefiting from these savings are illustrated in Figure 6- 13. The Segment G is shown to yield the highest travel time savings due to the natural barrier and limited crossing options that currently exists across the San Jacinto River. These travel time savings range between 47-48 minutes. Segment D/E are also shown to yield similarly high travel time savings ranging between 25-34 minutes as a result of the arterial nature of the limited existing competing routes and their current congested characteristics during the peak periods.

Estimated Annual Transactions and Toll Revenue

Table 6-8 presents the base case traffic and toll revenue estimates for Grand Parkway Segments D through G until the year 2064. Transaction and revenue numbers beyond 2035 are extrapolated from the 2035 data using nominal growth rates for transactions of 2.5 percent (2036 through 2040), 2.0 percent (2041 through 2045), 1.5 percent (2046 through 2050), 1.0 percent (2051 through 2055) and 0.5 percent thereafter. Revenue estimates are based on the assumed transaction growth rates as well as an annual 2.5 percent increase in toll rates between 2036 and 2064.

Analysis of Leakage Potential

Based on the annual gross revenue and transaction data presented in Table 6-8, a follow up analysis was conducted estimating the potential for uncollectible violations, or leakage, on the facility under the electronic toll collection (ETC) regime (Table 6-9).

It is assumed that in opening year 5.0 percent of all ETC transactions are violations. It is also assumed that 75 percent of violations are uncollectible resulting in a leakage rate of 3.7 percent. The ratio of collectible to uncollectible violations is assumed to remain constant throughout the 50-year forecast period. Over time it is assumed that more vehicles will be equipped with transponders. It is assumed that violations will decline as a percent of total transactions as ETC market share increases. In table 6-9, valid and non-readable ETC transactions are assumed to increase in proportion to one another. By 2035 violations and leakage are assumed to account for 2.0 percent and 1.5 percent of all transactions, respectively. It is assumed that 0.8 percent of all tolled transactions and revenue will be waived due to discounts for veterans. It is assumed that this proportion remains constant over time.

The resultant number of annual non-collectible violation transactions on Segments D, E, F and G is estimated to increase from approximately 2.5 million in 2016 to 5.5 million in 2035. Corresponding

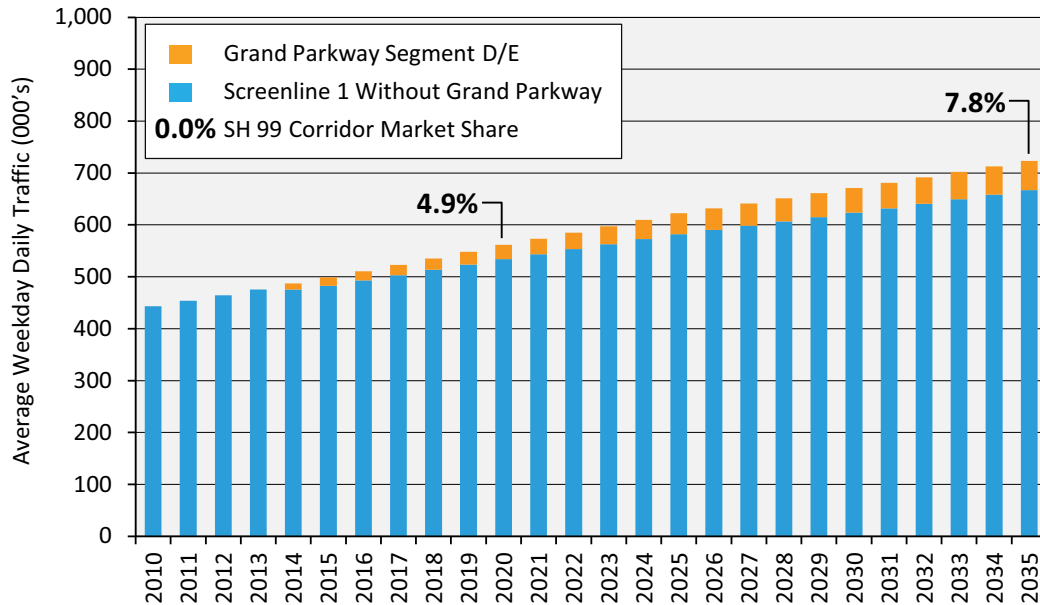
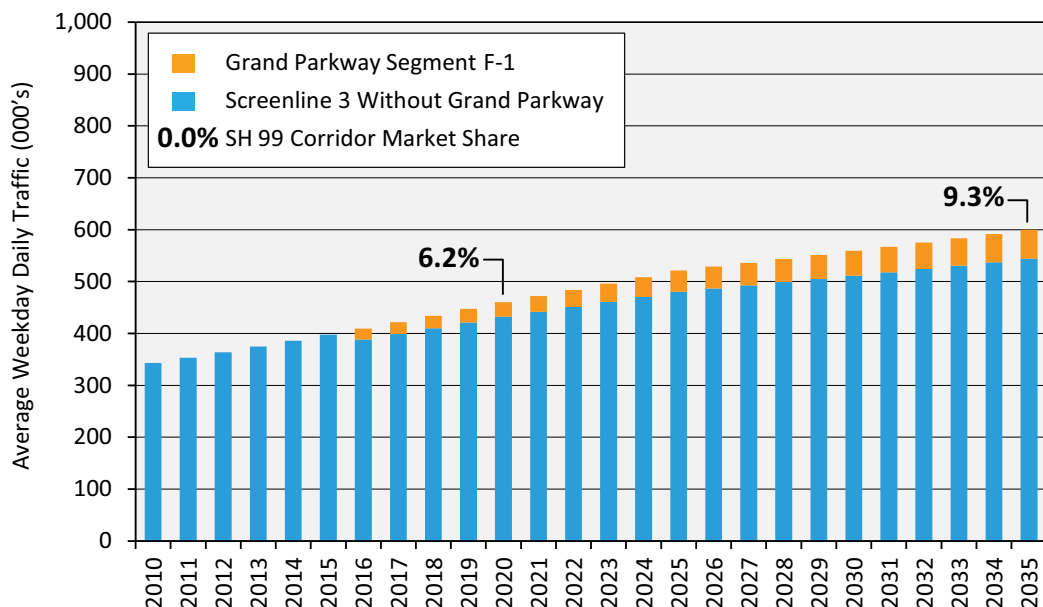
Table 6-7
Market Share of Total Weekday Screen Line Volumes

Screen Line 1	Year							
	2010		2020		2025		2035	
	Volume	Market Share	Volume	Market Share	Volume	Market Share	Volume	Market Share
W BELT	157,800	35.6%	184,500	32.9%	199,200	32.0%	225,400	31.2%
BRITTMORE	22,300	5.0%	31,800	5.7%	33,500	5.4%	37,400	5.2%
TANNER	20,600	4.7%	24,000	4.3%	27,000	4.3%	29,900	4.1%
W LITTLE YORK	30,400	6.9%	36,500	6.5%	39,000	6.3%	50,500	7.0%
FM 529	63,600	14.4%	67,600	12.0%	72,300	11.6%	80,800	11.2%
SH 6	44,000	9.9%	51,200	9.1%	56,800	9.1%	66,900	9.2%
QUEENSTON BLVD	27,400	6.2%	30,900	5.5%	33,500	5.4%	36,700	5.1%
Barker_Cypress_Rd	37,100	8.4%	53,400	9.5%	56,000	9.0%	58,600	8.1%
N_Fry_Rd	29,300	6.6%	27,500	4.9%	30,200	4.9%	38,500	5.3%
GRAND PKWY - Segm. E	---	---	27,400	4.9%	40,200	6.5%	56,400	7.8%
PORTER RD	100	0.0%	13,300	2.4%	8,600	1.4%	10,500	1.5%
Katy_Hockley_Cutoff_Rd	7,800	1.8%	7,300	1.3%	15,800	2.5%	19,000	2.6%
KATY HOCKLEY ROAD	2,600	0.6%	6,100	1.1%	10,500	1.7%	12,700	1.8%
Total Screen Line	443,000	100.0%	561,500	100.0%	622,600	100.0%	723,300	100.0%

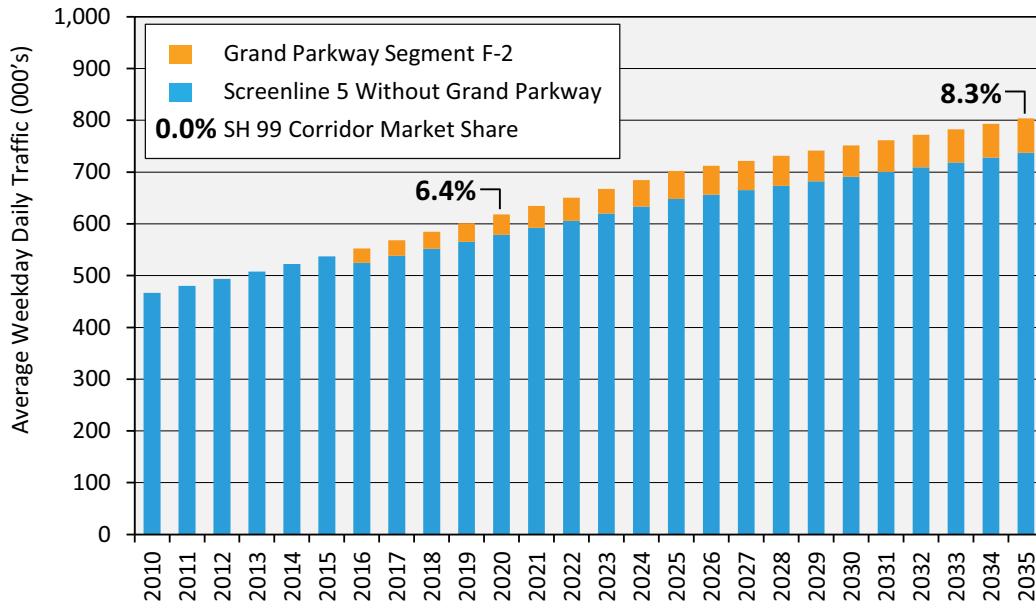
Screen Line 3	Year							
	2010		2020		2025		2035	
	Volume	Market Share	Volume	Market Share	Volume	Market Share	Volume	Market Share
N BELT	119,800	34.9%	144,300	31.3%	157,700	30.3%	173,500	28.9%
FALLBROOK	39,800	11.6%	41,400	9.0%	43,000	8.2%	45,300	7.6%
FM 1960	53,700	15.7%	63,100	13.7%	65,600	12.6%	70,800	11.8%
CYPRESS- N HOUSTON	24,300	7.1%	41,500	9.0%	47,400	9.1%	52,900	8.8%
JARVIS RD	8,300	2.4%	10,700	2.3%	11,700	2.2%	13,200	2.2%
HUFFMEISTER RD	17,500	5.1%	17,300	3.8%	21,300	4.1%	25,200	4.2%
LOUETTA	15,900	4.6%	17,000	3.7%	18,500	3.5%	19,900	3.3%
SPRING-CYPRESS RD	15,900	4.6%	20,600	4.5%	24,500	4.7%	27,700	4.6%
LOUETTA	2,300	0.7%	2,000	0.4%	2,700	0.5%	3,500	0.6%
GRANT RD	4,400	1.3%	15,600	3.4%	18,200	3.5%	23,700	4.0%
GRAND PKWY - Segm. F1	---	---	28,400	6.2%	41,000	7.9%	55,800	9.3%
Boudreaux_Rd	4,900	1.4%	5,000	1.1%	5,900	1.1%	8,700	1.5%
FUTURE RD	---	---	12,600	2.7%	15,700	3.0%	20,700	3.5%
EXXON PVT/HUMBLE	8,600	2.5%	4,300	0.9%	5,700	1.1%	8,500	1.4%
FM 2920	27,500	8.0%	36,800	8.0%	42,400	8.1%	50,400	8.4%
Total Screen Line	342,900	100.0%	460,600	100.0%	521,300	100.0%	599,800	100.0%

Screen Line 5	Year							
	2010		2020		2025		2035	
	Volume	Market Share	Volume	Market Share	Volume	Market Share	Volume	Market Share
NORTH BELTWAY 8	164,800	35.3%	189,500	30.6%	205,800	29.3%	227,600	28.3%
GREENS RD	6,300	1.3%	8,900	1.4%	10,700	1.5%	12,600	1.6%
W RICHEY	9,600	2.1%	15,300	2.5%	17,000	2.4%	21,300	2.6%
BAMMEL-N HOUSTON	17,800	3.8%	22,800	3.7%	25,000	3.6%	26,900	3.3%
FM 1960	55,100	11.8%	59,600	9.6%	62,300	8.9%	63,400	7.9%
CYPRESSWOOD	24,400	5.2%	29,700	4.8%	32,700	4.7%	34,400	4.3%
LOUETTA	33,000	7.1%	40,100	6.5%	43,500	6.2%	46,600	5.8%
SPRING-CYPRESS RD	26,800	5.7%	23,600	3.8%	28,600	4.1%	33,200	4.1%
GRAND PKWY - Segm. F2	---	---	39,400	6.4%	54,400	7.7%	66,600	8.3%
FM 2920	25,900	5.5%	24,900	4.0%	29,400	4.2%	33,100	4.1%
BOUDREAUX RD	5,800	1.2%	1,200	0.2%	1,500	0.2%	2,700	0.3%
DOWDELL RD	6,200	1.3%	10,800	1.7%	12,400	1.8%	14,000	1.7%
FUTURE RD	---	---	12,900	2.1%	15,800	2.2%	21,200	2.6%
KUYKENDAHL-HUFFSM	15,500	3.3%	22,000	3.6%	25,400	3.6%	31,400	3.9%
HUFSMITH RD	13,000	2.8%	22,600	3.7%	25,000	3.6%	28,100	3.5%
WOODLANDS PKWY	21,200	4.5%	30,800	5.0%	35,000	5.0%	43,000	5.3%
FM 2978	20,000	4.3%	23,800	3.8%	28,400	4.0%	38,500	4.8%
FM 1488	21,500	4.6%	40,600	6.6%	49,500	7.0%	59,400	7.4%
Total Screen Line	466,900	100.0%	618,500	100.0%	702,400	100.0%	804,000	100.0%

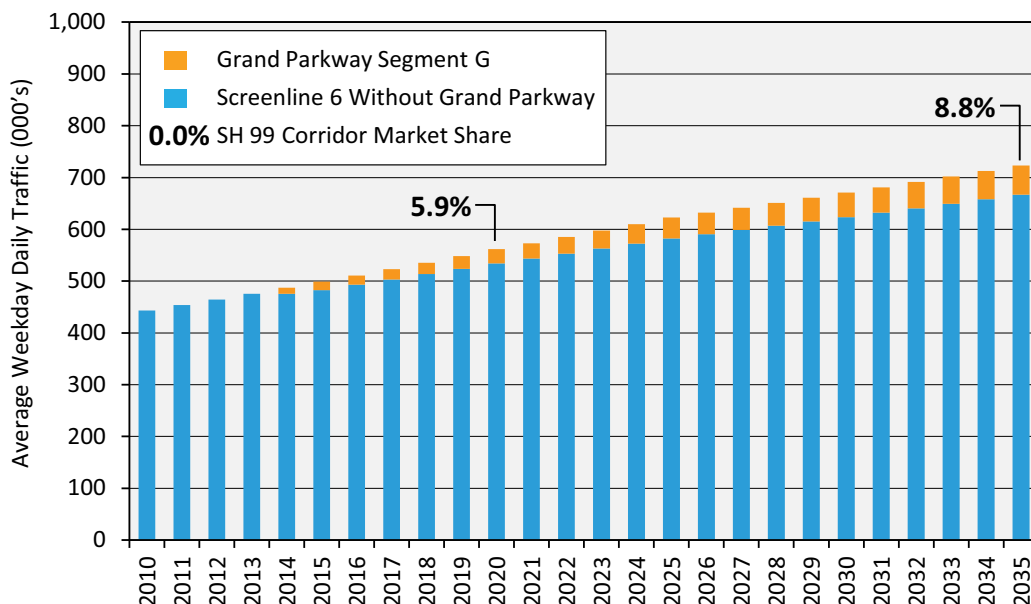
Screen Line 6	Year							
	2010		2020		2025		2035	
	Volume	Market Share	Volume	Market Share	Volume	Market Share	Volume	Market Share
NORTH BELT	171,800	45.1%	202,000	36.9%	216,700	34.3%	238,700	31.1%
GREENS RD	18,300	4.8%	30,500	5.6%	36,000	5.7%	42,600	5.5%
HRDY TOLL/IAH CON	7,800	2.0%	13,000	2.4%	21,300	3.4%	39,400	5.1%
WILL CLAYTON PKWY	51,000	13.4%	61,400	11.2%	64,300	10.2%	68,400	8.9%
FM 1960	66,100	17.3%	80,700	14.7%	87,700	13.9%	98,300	12.8%
GRAND PKWY - Segm. G	---	---	32,200	5.9%	45,000	7.1%	67,800	8.8%
FUTURE RD	---	---	23,700	4.3%	29,200	4.6%	35,600	4.6%
FM 1314	12,900	3.4%	24,000	4.4%	31,200	4.9%	42,800	5.6%
SH 242	12,300	3.2%	12,100	2.2%	17,600	2.8%	25,000	3.3%
FM 3083	6,300	1.7%	12,100	2.2%	13,500	2.1%	17,900	2.3%
FM 1485	7,900	2.1%	12,900	2.4%	17,500	2.8%	23,600	3.1%
FM 2090	7,800	2.0%	18,400	3.4%	21,900	3.5%	26,400	3.4%
OLD HWY 105E	2,700	0.7%	5,900	1.1%	8,200	1.3%	12,400	1.6%
SH 105	16,100	4.2%	18,500	3.4%	21,400	3.4%	29,000	3.8%
Total Screen Line	381,000	100.0%	547,400	100.0%	631,500	100.0%	767,900	100.0%

Screenline 1 - Segments D/E**Screenline 3 - Segment F-1****SCREENLINE GROWTH AND GRAND PARKWAY
CORRIDOR MARKET SHARE - SEGMENTS D/E AND F-1**

Screenline 5 - Segment F-2



Screenline 6 - Segment G



SCREENLINE GROWTH AND GRAND PARKWAY CORRIDOR MARKET SHARE - SEGMENTS F-2 AND G

Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012

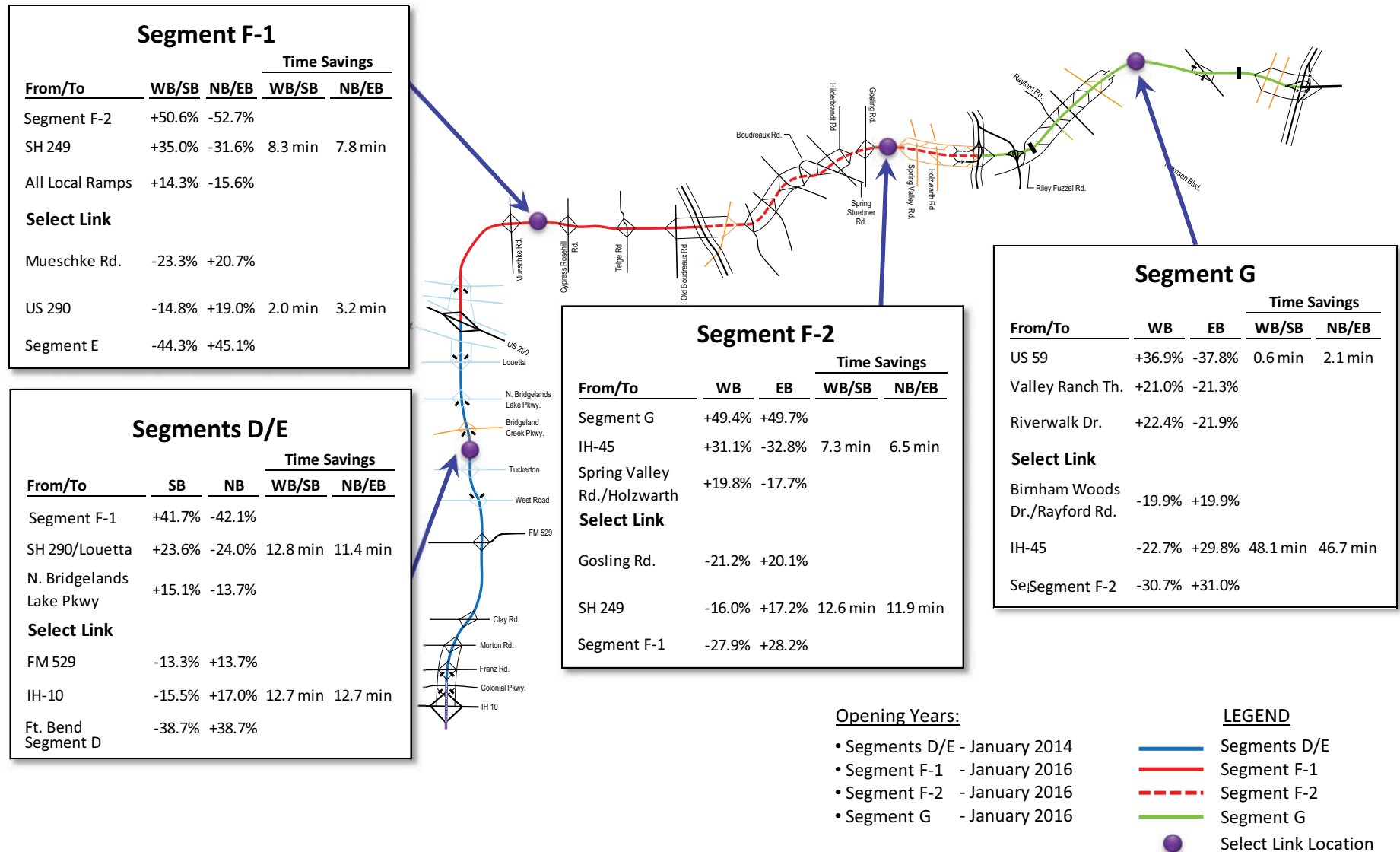


Table 6-8
Estimated Annual Transactions and Nominal Gross Toll Revenue (thousands) - SH 99 Segments D, E, F-1, F-2 and G

Year	Transactions ('000s)					Total D, E, F, G	Revenues (\$'000s)							Total D, E, F, G
	D	E	F-1	F-2	G		E Contri- bution	D	to D	Total D	E	F-1	F-2	G
2014 (1)	791	9,739	-	-	-	10,530	\$ 371	\$ 1,996	\$ 2,366	\$ 9,870	-	-	-	\$ 12,236
2015 (2)	1,215	16,798	-	-	-	18,013	553	3,448	4,000	17,799	-	-	-	21,799
2016 (3)	1,459	20,669	7,558	11,936	18,273	59,895	683	4,236	4,918	23,126	8,079	13,389	15,588	65,100
2017	1,617	23,748	12,565	19,017	29,603	86,550	760	4,886	5,646	27,119	12,498	21,935	26,178	93,376
2018 (4)	1,722	26,080	15,268	23,408	36,119	102,597	827	5,370	6,197	30,646	15,772	27,701	32,904	113,220
2019 (5)	1,835	28,524	17,512	27,140	41,556	116,567	900	5,903	6,803	34,600	18,830	32,990	39,043	132,266
2020 (6)(7)	1,950	30,729	19,637	29,918	44,946	127,180	976	6,422	7,398	38,259	23,614	37,376	43,150	149,797
2021	2,027	33,154	21,354	32,043	48,137	136,715	1,046	7,021	8,067	42,315	26,685	41,114	47,508	165,689
2022 (8)	2,094	35,822	23,030	34,048	51,456	146,450	1,118	7,692	8,810	46,859	29,273	44,863	52,319	182,124
2023	2,163	38,809	24,767	36,297	55,211	157,247	1,197	8,443	9,640	52,111	31,781	49,116	57,928	200,576
2024	2,217	41,954	26,617	38,425	58,946	168,159	1,277	9,258	10,535	57,714	34,449	53,388	63,766	219,852
2025 (9)	2,276	44,923	29,080	40,888	62,151	179,318	1,366	10,067	11,433	63,239	39,930	58,282	68,942	241,826
2026	2,327	46,765	30,451	42,069	64,014	185,626	1,430	10,711	12,142	67,278	43,326	61,544	73,241	257,531
2027	2,377	48,399	31,530	42,939	65,650	190,895	1,490	11,346	12,836	71,150	46,076	64,483	77,621	272,166
2028	2,427	51,688	31,636	43,692	68,034	197,477	1,550	12,144	13,694	77,981	45,952	67,388	83,570	288,585
2029	2,478	54,248	32,457	44,667	70,239	204,089	1,616	12,936	14,552	83,817	47,750	70,740	89,335	306,194
2030	2,530	56,482	33,542	45,674	72,288	210,516	1,686	13,737	15,422	89,289	50,423	74,265	95,079	324,478
2031	2,582	58,647	34,752	46,708	74,318	217,007	1,758	14,572	16,330	94,823	53,545	77,969	101,042	343,709
2032	2,634	60,754	36,078	47,768	76,356	223,590	1,833	15,448	17,281	100,434	57,076	81,861	107,282	363,934
2033	2,687	62,937	37,455	48,852	78,450	230,381	1,912	16,376	18,289	106,376	60,840	85,947	113,907	385,359
2034	2,741	65,198	38,884	49,960	80,602	237,385	1,994	17,361	19,355	112,670	64,853	90,237	120,941	408,056
2035 (10)(11)	2,796	66,946	40,447	50,895	87,450	248,534	2,080	17,986	20,066	116,363	72,578	92,819	130,670	432,496
2036	2,866	68,380	41,490	52,087	91,507	256,330	2,177	18,652	20,830	120,566	77,412	96,359	137,726	452,893
2037	2,938	69,987	42,541	53,355	94,594	263,415	2,290	19,546	21,837	126,297	82,051	101,020	145,284	476,489
2038	3,011	71,684	43,612	54,672	97,368	270,347	2,412	20,547	22,960	132,742	86,725	106,216	153,213	501,856
2039	3,087	73,476	44,702	56,038	99,802	277,105	2,534	21,588	24,122	139,462	91,116	111,594	160,969	527,263
2040	3,148	74,946	45,596	57,159	101,798	282,647	2,650	22,570	25,219	145,808	95,262	116,671	168,293	551,253
2041	3,211	76,445	46,508	58,302	103,834	288,300	2,770	23,597	26,367	152,442	99,596	121,980	175,951	576,336
2042	3,275	77,974	47,438	59,468	105,911	294,066	2,896	24,670	27,567	159,378	104,128	127,530	183,957	602,560
2043	3,341	79,533	48,387	60,658	108,029	299,948	3,028	25,793	28,821	166,630	108,865	133,332	192,327	629,975
2044	3,407	81,124	49,355	61,871	110,190	305,947	3,166	26,967	30,132	174,212	113,819	139,399	201,077	658,639
2045	3,458	82,341	50,095	62,799	111,843	310,536	3,294	28,055	31,349	181,245	118,414	145,027	209,196	685,231
2046	3,510	83,576	50,847	63,741	113,520	315,194	3,427	29,188	32,615	188,562	123,195	150,883	217,642	712,897
2047	3,563	84,830	51,609	64,697	115,223	319,922	3,565	30,367	33,931	196,176	128,169	156,974	226,429	741,679
2048	3,617	86,102	52,383	65,668	116,951	324,721	3,709	31,593	35,301	204,097	133,344	163,312	235,572	771,626
2049	3,671	87,393	53,169	66,653	118,706	329,592	3,859	32,868	36,727	212,337	138,728	169,906	245,083	802,781
2050	3,708	88,267	53,701	67,319	119,893	332,888	3,995	34,027	38,021	219,822	143,618	175,895	253,722	831,078
2051	3,745	89,150	54,238	67,992	121,092	336,217	4,135	35,226	39,362	227,570	148,680	182,095	262,666	860,373
2052	3,782	90,042	54,780	68,672	122,303	339,579	4,281	36,468	40,749	235,593	153,921	188,514	271,925	890,702
2053	3,820	90,942	55,328	69,359	123,526	342,975	4,432	37,753	42,185	243,898	159,347	195,159	281,510	922,099
2054	3,858	91,851	55,881	70,052	124,761	346,403	4,588	39,084	43,673	252,494	164,964	202,039	291,433	954,603
2055	3,877	92,311	56,161	70,403	125,385	348,137	4,727	40,262	44,988	260,101	169,934	208,125	300,213	983,361
2056	3,897	92,772	56,442	70,755	126,012	349,878	4,869	41,475	46,343	267,937	175,053	214,395	309,256	1,012,984
2057	3,916	93,236	56,724	71,109	126,642	351,627	5,016	42,724	47,740	276,008	180,326	220,854	318,573	1,043,501
2058	3,936	93,702	57,007	71,464	127,275	353,384	5,167	44,011	49,178	284,322	185,759	227,507	328,170	1,074,936
2059	3,955	94,171	57,292	71,821	127,911	355,150	5,322	45,337	50,659	292,888	191,355	234,361	338,056	1,107,319
2060	3,975	94,642	57,579	72,180	128,551	356,927	5,483	46,703	52,185	301,712	197,119	241,421	348,240	1,140,677
2061	3,995	95,115	57,867	72,541	129,194	358,712	5,648	48,110	53,757	310,801	203,058	248,693	358,731	1,175,040
2062	4,016	95,590	58,156	72,904	129,840	360,506	5,818	49,559	55,377	320,163	209,175	256,185	369,537	1,210,437
2063	4,036	96,068	58,447	73,269	130,489	362,309	5,993	51,052	57,045	329,808	215,476	263,903	380,670	1,246,902
2064	4,055	96,549	58,739	73,635	131,141	364,119	6,174	52,590	58,763	339,744	221,967	271,853	392,137	1,284,464
	151,619					12,851,602			\$ 1,363,583					\$ 29,410,323

Notes:

Source: CDM Smith Estimates, May 2013

(1) January 1st 2014 opening date of Segments D and E. First month of operation (January) is assumed to be toll free.

(2) January 1st 2015 opening date for Tomball Tollway.

(3) January 1st 2016 opening date of Segments F-1, F-2 and G as well as Phase I of US 290 Reversible Managed Lanes and the Fort Bend Westpark Extension. First month of operation of Segments F-1, F-2 and G (January) is assumed to be toll free.

(4) January 1st 2018 opening date of Phase II of US 290 Reversible Managed Lanes.

(5) January 1st 2019 opening date of Segments C-1 and C-2 (in Scenarios with other Segments built).

(6) January 1st 2020 opening date of SH 288 Managed Lanes US 59 to SH6 and Hardy Connector.

(7) January 1st 2020 opening date of Segments H, I-1 and I-2-2 (in Scenarios with other Segments built).

(8) January 1st 2022 opening date of Segments B-1 and B-2 (in Scenarios with other Segments built).

(9) January 1st 2025 opening date of HCTRA Post Oak Extension.

(10) January 1st 2035 opening date of Fort Bend Parkway Extension South.

(11) January 1st 2035 opening date of IH45 North.

Revenue and transaction numbers do not include deductions for leakage. These potential deductions are shown in Table 6-9.

The following interchanges are assumed to be operational by:

Bridgeland Creek Pkwy Jan. 2014 (Segment E)

Tuckerton Rd Jul. 2016 (Segment E)

N Bridgeland Lake Pkwy Jan. 2017 (Segment E)

Cumberland Ridge Dr Jan. 2017 (Segment F-1)

West Rd Jan. 2028 (Segment E)

Louetta Rd Jan. 2028 (Segment E)

DCs to and from the West at IH 10 May 2014 (Segment E)

No interchanges are assumed for:

Mason Rd (Segment F-1)

Riverwalk Dr (Segment G)

Table 6-9
Estimated Annual Baseline Transaction and Nominal Toll Revenue Leakage (Thousands) - SH 99 Segments D, E, F-1, F-2 and G

Year	Share of Total Transactions						Non-Collectible Transaction Potential ('000s)						Non-Collectible Gross Revenue Potential (\$'000s)					
	Valid ETC		Leakage and															
	Trans- actions (12)	Misreads ETC (12)	Violations (12)	Leakage (12)	Veteran Discounts (12)	Discounts (12)	D	E	F-1	F-2	G	Total D, E, F, G	Total D	E	F-1	F-2	G	Total D, E, F, G
2014 (1)	89.1%	5.8%	5.0%	3.7%	0.8%	4.4%	35	433	-	-	-	468	\$ 104	\$ 438	-	-	-	\$ 542
2015 (2)	89.3%	5.9%	4.8%	3.5%	0.8%	4.3%	53	721	-	-	-	774	170	762	-	-	-	932
2016 (3)	89.5%	5.9%	4.6%	3.4%	0.8%	4.1%	58	854	313	495	756	2,476	203	955	335	553	645	2,691
2017	89.7%	5.9%	4.4%	3.2%	0.8%	4.0%	65	949	502	760	1,180	3,456	225	1,085	499	875	1,044	3,728
2018 (4)	89.9%	5.9%	4.2%	3.1%	0.8%	3.9%	67	1,005	589	902	1,392	3,955	238	1,179	607	1,066	1,266	4,356
2019 (5)	90.1%	5.9%	4.0%	3.0%	0.8%	3.7%	70	1,061	652	1,010	1,545	4,338	253	1,288	700	1,228	1,453	4,922
2020 (6)(7)	90.2%	5.9%	3.9%	2.8%	0.8%	3.6%	71	1,104	705	1,075	1,615	4,570	266	1,374	848	1,344	1,551	5,383
2021	90.4%	5.9%	3.7%	2.7%	0.8%	3.5%	70	1,150	740	1,112	1,671	4,743	281	1,470	927	1,427	1,648	5,753
2022 (8)	90.5%	5.9%	3.5%	2.6%	0.8%	3.4%	70	1,203	771	1,143	1,727	4,914	294	1,573	984	1,505	1,756	6,112
2023	90.7%	5.9%	3.4%	2.5%	0.8%	3.2%	71	1,260	804	1,177	1,793	5,105	314	1,691	1,033	1,593	1,880	6,511
2024	90.8%	5.9%	3.2%	2.4%	0.8%	3.1%	71	1,316	836	1,206	1,850	5,279	330	1,811	1,081	1,675	2,000	6,897
2025 (9)	91.0%	5.9%	3.1%	2.3%	0.8%	3.0%	71	1,364	884	1,241	1,887	5,447	346	1,921	1,214	1,770	2,094	7,345
2026	91.1%	6.0%	3.0%	2.2%	0.8%	2.9%	69	1,374	894	1,236	1,882	5,455	356	1,979	1,273	1,809	2,153	7,570
2027	91.2%	6.0%	2.8%	2.1%	0.8%	2.8%	70	1,378	898	1,222	1,868	5,436	364	2,025	1,311	1,837	2,207	7,744
2028	91.3%	6.0%	2.7%	2.0%	0.8%	2.8%	66	1,426	872	1,204	1,875	5,443	377	2,151	1,266	1,858	2,304	7,956
2029	91.4%	6.0%	2.6%	1.9%	0.8%	2.7%	66	1,449	866	1,193	1,875	5,449	388	2,239	1,278	1,890	2,386	8,181
2030	91.5%	6.0%	2.5%	1.8%	0.8%	2.6%	65	1,462	871	1,183	1,872	5,453	400	2,312	1,306	1,922	2,461	8,401
2031	91.6%	6.0%	2.4%	1.8%	0.8%	2.5%	65	1,472	872	1,171	1,868	5,448	410	2,380	1,343	1,957	2,538	8,628
2032	91.7%	6.0%	2.3%	1.7%	0.8%	2.4%	62	1,479	877	1,166	1,861	5,445	423	2,445	1,390	1,996	2,613	8,867
2033	91.8%	6.0%	2.2%	1.6%	0.8%	2.4%	62	1,488	886	1,155	1,856	5,447	430	2,513	1,437	2,032	2,694	9,106
2034	91.9%	6.0%	2.1%	1.5%	0.8%	2.3%	63	1,496	893	1,147	1,849	5,448	445	2,585	1,490	2,072	2,775	9,367
2035 (10)(11)	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	61	1,494	900	1,135	1,950	5,540	448	2,595	1,621	2,067	2,914	9,645
2036	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	62	1,524	923	1,161	2,041	5,711	464	2,687	1,726	2,147	3,071	10,095
2037	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	67	1,562	949	1,190	2,110	5,878	487	2,816	1,830	2,252	3,240	10,625
2038	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	70	1,598	973	1,220	2,171	6,032	511	2,960	1,932	2,370	3,415	11,188
2039	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	70	1,638	997	1,248	2,224	6,177	538	3,109	2,032	2,488	3,589	11,756
2040	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	72	1,671	1,016	1,273	2,270	6,302	561	3,250	2,124	2,602	3,752	12,289
2041	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	71	1,706	1,037	1,300	2,314	6,428	588	3,399	2,221	2,720	3,923	12,851
2042	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	72	1,739	1,058	1,326	2,360	6,555	616	3,554	2,321	2,844	4,101	13,436
2043	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	72	1,773	1,079	1,353	2,409	6,686	643	3,716	2,429	2,972	4,289	14,049
2044	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	75	1,807	1,100	1,381	2,457	6,820	671	3,885	2,537	3,109	4,483	14,685
2045	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	77	1,836	1,116	1,400	2,493	6,922	699	4,041	2,641	3,233	4,664	15,278
2046	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	78	1,862	1,135	1,420	2,531	7,026	729	4,203	2,747	3,365	4,852	15,896
2047	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	79	1,892	1,152	1,444	2,569	7,136	758	4,373	2,857	3,499	5,047	16,534
2048	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	82	1,920	1,167	1,464	2,608	7,241	789	4,550	2,972	3,641	5,251	17,203
2049	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	82	1,947	1,185	1,486	2,645	7,345	820	4,734	3,093	3,789	5,465	17,901
2050	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	82	1,969	1,198	1,502	2,674	7,425	847	4,903	3,204	3,922	5,657	18,533
2051	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	83	1,988	1,209	1,516	2,700	7,496	877	5,074	3,315	4,059	5,856	19,181
2052	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	84	2,007	1,222	1,530	2,726	7,569	909	5,252	3,432	4,203	6,062	19,858
2053	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	84	2,027	1,233	1,547	2,753	7,644	940	5,437	3,552	4,350	6,276	20,555
2054	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	84	2,048	1,247	1,561	2,781	7,721	974	5,630	3,679	4,505	6,499	21,287
2055	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	85	2,057	1,252	1,570	2,797	7,761	1,003	5,800	3,789	4,640	6,694	21,926
2056	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	87	2,069	1,258	1,576	2,809	7,799	1,033	5,973	3,902	4,780	6,895	22,583
2057	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	88	2,078	1,265	1,585	2,824	7,840	1,065	6,153	4,021	4,925	7,102	23,266
2058	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	88	2,090	1,271	1,594	2,837	7,880	1,096	6,339	4,141	5,072	7,315	23,963
2059	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	89	2,099	1,277	1,600	2,852	7,917	1,131	6,531	4,266	5,227	7,539	24,694
2060	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	89	2,110	1,285	1,609	2,867	7,960	1,165	6,727	4,395	5,382	7,765	25,434
2061	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	90	2,121	1,290	1,618	2,882	8,001	1,199	6,929	4,527	5,546	7,998	26,199
2062	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	89	2,131	1,296	1,626	2,895	8,037	1,236	7,138	4,664	5,710	8,239	26,987
2063	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	90	2,144	1,305	1,633	2,911	8,083	1,272	7,352	4,807	5,884	8,488	27,803
2064	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	91	2,151	1,310	1,644	2,924	8,120	1,311	7,574	4,948	6,060	8,742	28,635
							3,753					309,601	\$31,997					\$685,327

Notes:

Source: CDM Smith Estimates, May 2013

The following interchanges are assumed to be operational by:

- | | | | |
|------|--|-----------------------------------|-------------------------|
| (1) | January 1st 2014 opening date of Segments D and E. First month of operation (January) is assumed to be toll free. | Bridgeland Creek Pkwy | Jan. 2014 (Segment E) |
| (2) | January 1st 2015 opening date for Tomball Tollway. | Tuckerton Rd | Jul. 2016 (Segment E) |
| (3) | January 1st 2016 opening date of Segments F-1, F-2 and G as well as Phase I of US 290 Reversible Managed Lanes and the Fort Bend Westpark Extension. First month of operation of Segments F-1, F-2 and G (January) is assumed to be toll free. | N Bridgeland Lake Pkwy | Jan. 2017 (Segment E) |
| (4) | January 1st 2018 opening date of Phase II of US 290 Reversible Managed Lanes. | Cumberland Ridge Dr | Jan. 2017 (Segment F-1) |
| (5) | January 1st 2019 opening date of Segments C-1 and C-2 (in Scenarios with other Segments built). | West Rd | Jan. 2028 (Segment E) |
| (6) | January 1st 2020 opening date of SH 288 Managed Lanes US 59 to SH6 and Hardy Connector. | Louetta Rd | Jan. 2028 (Segment E) |
| (7) | January 1st 2020 opening date of Segments H, I-1 and I-2-2 (in Scenarios with other Segments built). | DCs to and from the West at IH 10 | May 2014 (Segment E) |
| (8) | January 1st 2022 opening date of Segments B-1 and B-2 (in Scenarios with other Segments built). | No interchanges are assumed for: | |
| (9) | January 1st 2025 opening date of HCTRA Post Oak Extension. | Mason Rd | (Segment F-1) |
| (10) | January 1st 2035 opening date of Fort Bend Parkway Extension South. | Riverwalk Dr | (Segment G) |
| (11) | January 1st 2035 opening date of IH45 North. | | |
| (12) | Leakage is based on violations only. Misreads of ETC transactions are assumed to be recovered. The relative shares are assumed to be constant after 2035 since all vehicles are assumed to be equipped with transponders. | | |

Non-collectible transaction and revenue potential annual totals represent a summation of rounded monthly values. Small differences due to rounding may occur.

revenue losses are estimated to range from \$2.7 million in 2016 to \$9.6 million in 2035. The percentages used to estimate Valid ETC transactions, violations, leakage and veterans' discounts are based on experience from other comparable facilities. There is a potential that revenue from fines and administrative fees would cover uncollectible violation losses. Since the administrative fees and fines are dependent on the business rules it is uncertain at this point as to what amount of the potential leakage could be recovered. The estimates in Table 6-9 therefore do not include such recovery potential.

The traffic and revenue stream is also shown for fiscal years (FY) for September 1 through August 31 in Table 6-10. The FY 2064 transaction and revenue estimates include a portion of the calendar year 2065 transaction and revenue estimates. Therefore the column totals differ from the calendar year tables. The resultant leakage estimates for fiscal years (FY) are shown in Table 6-11.

Toll Sensitivity Analysis

Toll sensitivity analysis tested a series of toll rates to determine how price affects demand taking into account future characteristics of the transportation network and future willingness-to-pay tolls. In general, a toll sensitivity curve suggests that when toll rates increase, a portion of travelers will divert from the toll facility in favor of other routes. Therefore, as the toll rate increases, transactions tend to decrease. However, as the toll rates increase, toll revenues increase until a point where a maximum revenue is generated after which additional toll rate increases tend to generate a reduction in toll revenues. Toll sensitivity analysis was conducted for the model year 2015 assuming Segments D, E, F-1, F-2 and G were open to traffic. Figure 6-14 illustrates the daily toll sensitivity curves for this year showing estimated weekday transactions and revenue as a total for the Grand Parkway. Toll rates, in nominal year dollars, ranging from \$0.10 to \$0.45 per mile were used to estimate the resultant transactions and revenues.

The toll sensitivity analyses results indicate that the proposed toll rates for the Grand Parkway are well below the estimated theoretical revenue maximization point. This demonstrates that there is considerable potential for revenue enhancement through toll increases above current rates and the escalated rates assumed for forecasting purposes if the need arises. The nominal revenue-maximizing per mile toll rate is estimated to be approximately \$0.30 per mile in 2015. The rate used as basis for the traffic and revenue analysis in 2015 is \$0.19 per mile.

Table 6-10
Estimated Annual Fiscal Year Transactions and Nominal Gross Toll Revenue (thousands) - SH 99 Segments D, E, F-1, F-2 and G

Fiscal Year	Transactions ('000s)					Total D, E, F, G	Revenues (\$'000s)					Total D, E, F, G	
	D	E	F-1	F-2	G		D	E Contri- bution to D	Total D	E	F-1		F-2
2014 (1)	465	5,877	-	-	-	6,342	\$ 222	\$ 1,193	\$ 1,415	\$ 5,934	-	-	\$ 7,349
2015 (2)	1,110	14,446	-	-	-	15,556	508	2,975	3,481	15,028	-	-	18,509
2016 (3)	1,381	19,596	4,532	7,155	10,955	43,619	635	4,026	4,660	21,435	4,843	9,345	48,309
2017	1,587	22,950	10,982	17,007	26,281	78,807	748	4,713	5,460	26,288	11,282	22,884	85,300
2018 (4)	1,685	25,346	14,610	22,023	34,203	97,867	802	5,213	6,016	29,381	14,702	25,845	106,816
2019 (5)	1,796	27,694	16,854	26,107	40,052	112,503	875	5,717	6,592	33,245	17,881	31,442	126,398
2020 (6)(7)	1,909	30,049	18,757	28,917	43,851	123,483	950	6,254	7,203	37,141	21,216	35,795	143,263
2021	2,008	32,225	20,907	31,447	47,019	133,606	1,023	6,793	7,817	40,782	26,429	40,007	160,919
2022 (8)	2,072	34,926	22,481	33,390	50,352	143,221	1,093	7,466	8,560	45,313	28,440	43,611	176,610
2023	2,144	37,869	24,226	35,616	54,053	153,908	1,173	8,202	9,375	50,414	30,999	47,775	194,691
2024	2,200	40,940	26,035	37,734	57,736	164,645	1,252	8,994	10,244	55,852	33,604	51,970	213,490
2025 (9)	2,251	43,939	28,054	39,959	61,172	175,375	1,332	9,791	11,125	61,436	37,235	56,494	233,706
2026	2,312	46,268	30,237	41,872	63,469	184,158	1,413	10,514	11,927	66,087	42,979	60,733	253,490
2027	2,359	47,828	31,165	42,634	65,065	189,051	1,469	11,126	12,596	69,810	45,169	63,472	267,141
2028	2,418	50,269	31,885	43,545	67,187	195,304	1,534	11,867	13,400	75,074	46,768	66,566	283,188
2029	2,461	53,822	32,011	44,363	69,737	202,394	1,596	12,714	14,308	82,611	46,571	69,660	300,953
2030	2,512	55,728	33,147	45,311	71,575	208,273	1,660	13,462	15,123	87,442	49,458	73,042	318,181
2031	2,562	57,853	34,278	46,286	73,528	214,507	1,731	14,269	16,001	92,854	52,370	76,599	336,712
2032	2,615	60,044	35,632	47,411	75,669	221,371	1,808	15,152	16,959	98,537	55,879	80,548	357,094
2033	2,668	62,172	36,973	48,463	77,708	227,984	1,885	16,054	17,940	104,316	59,538	84,528	377,935
2034	2,727	64,560	38,475	49,681	80,029	235,472	1,969	17,061	19,030	110,754	63,614	88,959	401,142
2035 (10)(11)	2,782	66,592	39,961	50,697	84,109	244,141	2,055	17,899	19,954	115,984	69,150	92,531	424,621
2036	2,838	67,772	41,165	51,568	91,109	254,452	2,139	18,329	20,468	118,442	76,613	94,600	445,923
2037	2,909	69,329	42,122	52,842	93,477	260,679	2,249	19,207	21,457	124,121	80,406	99,261	467,782
2038	2,985	71,076	43,237	54,207	96,477	267,982	2,370	20,204	22,576	130,528	85,212	104,437	493,339
2039	3,063	72,912	44,358	55,607	99,036	274,976	2,494	21,249	23,742	137,267	89,680	109,838	518,963
2040	3,142	74,771	45,490	57,026	101,559	281,988	2,622	22,334	24,958	144,295	94,274	115,460	545,532
2041	3,186	75,859	46,152	57,856	103,040	286,093	2,728	23,229	25,953	150,056	98,037	120,070	567,313
2042	3,249	77,337	47,050	58,981	105,044	291,661	2,847	24,270	27,121	156,794	102,439	125,463	592,794
2043	3,316	78,959	48,037	60,220	107,250	297,782	2,983	25,399	28,381	164,086	107,206	131,299	620,361
2044	3,388	80,692	49,093	61,541	109,602	304,316	3,124	26,605	29,729	171,878	112,293	137,530	649,815
2045	3,446	82,032	49,909	62,565	111,425	309,377	3,255	27,725	30,979	179,112	117,020	143,321	677,165
2046	3,497	83,277	50,664	63,513	113,114	314,065	3,387	28,850	32,237	186,374	121,765	149,130	704,620
2047	3,544	84,362	51,324	64,339	114,588	318,157	3,517	29,955	33,471	193,520	126,434	154,850	731,640
2048	3,594	85,556	52,050	65,252	116,209	322,661	3,655	31,139	34,793	201,162	131,427	160,963	760,530
2049	3,647	86,844	52,836	66,234	117,960	327,521	3,804	32,398	36,201	209,292	136,738	167,470	791,269
2050	3,700	88,066	53,578	67,166	119,619	332,129	3,954	33,673	37,627	217,542	142,129	174,070	822,460
2051	3,740	89,016	54,157	67,889	120,909	335,711	4,094	34,888	38,984	225,389	147,254	180,350	852,124
2052	3,775	89,883	54,683	68,551	122,090	338,982	4,239	36,110	40,351	233,280	152,410	186,663	881,959
2053	3,797	90,412	55,006	68,956	122,807	340,978	4,372	37,232	41,599	240,522	157,141	192,458	909,333
2054	3,843	91,486	55,659	69,773	124,264	345,025	4,532	38,611	43,147	249,449	162,974	199,602	943,092
2055	3,870	92,168	56,073	70,295	125,191	347,597	4,682	39,875	44,554	257,594	168,298	206,119	973,885
2056	3,904	92,892	56,516	70,846	126,175	350,333	4,836	41,192	46,028	266,112	173,861	212,935	1,006,086
2057	3,911	93,138	56,664	71,034	126,508	351,255	4,970	42,336	47,306	273,500	178,686	218,846	1,034,014
2058	3,927	93,488	56,877	71,300	126,983	352,575	5,113	43,556	48,670	281,385	183,841	225,157	1,063,833
2059	3,942	93,855	57,100	71,582	127,485	353,964	5,261	44,820	50,081	289,550	189,173	231,689	1,094,696
2060	3,969	94,479	57,479	72,053	128,326	356,306	5,429	46,243	51,672	298,742	195,180	239,046	1,129,453
2061	3,985	94,902	57,737	72,378	128,905	357,907	5,591	47,614	53,202	307,593	200,961	246,126	1,162,909
2062	4,015	95,601	58,164	72,915	129,856	360,551	5,771	49,164	54,936	317,611	207,509	254,144	1,200,793
2063	4,036	96,036	58,427	73,244	130,446	362,189	5,943	50,623	56,565	327,040	213,665	261,686	1,236,430
2064	4,043	96,258	58,562	73,412	130,745	363,020	6,105	52,008	58,113	335,984	219,513	268,846	1,270,254
	150,285					12,731,819			\$ 1,344,087				\$ 28,984,184

Notes:

Source: CDM Smith Estimates, May 2013

The following interchanges are assumed to be operational by:

- | | | | |
|--|-----------------------------------|-----------|---------------|
| (1) January 1st 2014 opening date of Segments D and E. First month of operation (January) is assumed to be toll free. | Bridgeland Creek Pkwy | Jan. 2014 | (Segment E) |
| (2) January 1st 2015 opening date for Tomball Tollway. | Tuckerton Rd | Jul. 2016 | (Segment E) |
| (3) January 1st 2016 opening date of Segments F-1, F-2 and G as well as Phase I of US 290 Reversible Managed Lanes and the Fort Bend Westpark Extension. First month of operation of Segments F-1, F-2 and G (January) is assumed to be toll free. | N Bridgeland Lake Pkwy | Jan. 2017 | (Segment E) |
| (4) January 1st 2018 opening date of Phase II of US 290 Reversible Managed Lanes. | Cumberland Ridge Dr | Jan. 2017 | (Segment F-1) |
| (5) January 1st 2019 opening date of Segments C-1 and C-2 (in Scenarios with other Segments built). | West Rd | Jan. 2028 | (Segment E) |
| (6) January 1st 2020 opening date of SH 288 Managed Lanes US 59 to SH6 and Hardy Connector. | Louetta Rd | Jan. 2028 | (Segment E) |
| (7) January 1st 2020 opening date of Segments H, I-1 and I-2-2 (in Scenarios with other Segments built). | DCs to and from the West at IH 10 | May 2014 | (Segment E) |
| (8) January 1st 2022 opening date of Segments B-1 and B-2 (in Scenarios with other Segments built). | No interchanges are assumed for: | | |
| (9) January 1st 2025 opening date of HCTRA Post Oak Extension. | Mason Rd | | (Segment F-1) |
| (10) January 1st 2035 opening date of Fort Bend Parkway Extension South. | Riverwalk Dr | | (Segment G) |
| (11) January 1st 2035 opening date of IH45 North. | | | |

Revenue and transaction numbers do not include deductions for leakage. These potential deductions are shown in Table 6-9. Revenue is shown in fiscal years for Sept. 1 through August 31.

Table 6-11
Estimated Annual Fiscal Year Baseline Transaction and Nominal Toll Revenue Leakage (Thousands) - SH 99 Segments D, E, F-1, F-2 and G

Fiscal Year	Share of Total Transactions						Non-Collectible Transaction Potential ('000s)						Non-Collectible Gross Revenue Potential (\$'000s)					
	Valid ETC Transactions	Misreads ETC	Violations	Leakage	Veteran Discounts	Leakage and Discounts												
	(12)	(12)	(12)	(12)	(12)	(12)	D	E	F-1	F-2	G	Total D, E, F, G	Total D	E	F-1	F-2	G	Total D, E, F, G
2014 (1)	89.1%	5.8%	5.0%	3.7%	0.8%	4.4%	20	261	-	-	-	281	\$ 62	\$ 263	-	-	-	\$ 325
2015 (2)	89.3%	5.9%	4.8%	3.6%	0.8%	4.3%	48	626	-	-	-	674	150	650	-	-	-	800
2016 (3)	89.5%	5.9%	4.6%	3.4%	0.8%	4.2%	58	819	188	297	454	1,816	194	895	200	331	387	2,007
2017	89.7%	5.9%	4.4%	3.3%	0.8%	4.0%	64	928	444	687	1,058	3,181	219	1,063	457	781	922	3,442
2018 (4)	89.9%	5.9%	4.2%	3.1%	0.8%	3.9%	66	988	569	858	1,332	3,813	235	1,144	572	1,006	1,201	4,158
2019 (5)	90.1%	5.9%	4.0%	3.0%	0.8%	3.8%	68	1,042	635	982	1,506	4,233	247	1,250	671	1,182	1,400	4,750
2020 (6)(7)	90.2%	5.9%	3.9%	2.9%	0.8%	3.6%	71	1,092	680	1,051	1,594	4,488	262	1,350	771	1,302	1,524	5,209
2021	90.4%	5.9%	3.7%	2.8%	0.8%	3.5%	70	1,131	734	1,105	1,650	4,690	276	1,433	928	1,405	1,610	5,652
2022 (8)	90.5%	5.9%	3.5%	2.6%	0.8%	3.4%	70	1,185	760	1,133	1,710	4,858	288	1,537	967	1,479	1,719	5,990
2023	90.7%	5.9%	3.4%	2.5%	0.8%	3.3%	71	1,243	796	1,167	1,773	5,050	309	1,655	1,018	1,566	1,841	6,389
2024	90.8%	5.9%	3.2%	2.4%	0.8%	3.2%	71	1,298	826	1,197	1,832	5,224	324	1,770	1,066	1,649	1,961	6,770
2025 (9)	91.0%	5.9%	3.1%	2.3%	0.8%	3.1%	71	1,348	861	1,226	1,878	5,384	341	1,887	1,144	1,733	2,069	7,174
2026	91.1%	6.0%	3.0%	2.2%	0.8%	3.0%	70	1,375	899	1,244	1,885	5,473	353	1,964	1,277	1,805	2,133	7,532
2027	91.2%	6.0%	2.8%	2.1%	0.8%	2.9%	69	1,376	896	1,226	1,873	5,440	362	2,009	1,299	1,827	2,186	7,683
2028	91.3%	6.0%	2.7%	2.0%	0.8%	2.8%	69	1,401	889	1,213	1,870	5,442	372	2,091	1,303	1,855	2,267	7,888
2029	91.4%	6.0%	2.6%	1.9%	0.8%	2.7%	66	1,453	863	1,197	1,881	5,460	386	2,230	1,258	1,880	2,369	8,123
2030	91.5%	6.0%	2.5%	1.9%	0.8%	2.6%	65	1,458	868	1,185	1,872	5,448	396	2,288	1,294	1,911	2,434	8,323
2031	91.6%	6.0%	2.4%	1.8%	0.8%	2.5%	65	1,466	870	1,173	1,867	5,441	405	2,355	1,327	1,942	2,509	8,538
2032	91.7%	6.0%	2.3%	1.7%	0.8%	2.5%	63	1,477	875	1,168	1,863	5,446	419	2,421	1,375	1,982	2,587	8,784
2033	91.8%	6.0%	2.2%	1.6%	0.8%	2.4%	62	1,484	882	1,158	1,857	5,443	427	2,489	1,420	2,019	2,666	9,021
2034	91.9%	6.0%	2.1%	1.6%	0.8%	2.3%	63	1,496	893	1,151	1,854	5,457	440	2,566	1,475	2,062	2,753	9,296
2035 (10)(11)	92.0%	6.0%	2.0%	1.5%	0.8%	2.3%	61	1,500	899	1,142	1,893	5,495	450	2,611	1,559	2,082	2,858	9,560
2036	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	61	1,511	915	1,150	2,032	5,669	457	2,640	1,708	2,107	3,028	9,940
2037	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	67	1,546	939	1,177	2,086	5,815	478	2,768	1,794	2,212	3,178	10,430
2038	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	67	1,585	965	1,210	2,151	5,978	504	2,909	1,899	2,330	3,358	11,000
2039	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	70	1,625	989	1,240	2,207	6,131	528	3,061	1,999	2,450	3,532	11,570
2040	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	72	1,667	1,014	1,270	2,264	6,287	556	3,217	2,102	2,574	3,713	12,162
2041	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	71	1,693	1,029	1,290	2,297	6,380	579	3,344	2,187	2,678	3,861	12,649
2042	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	72	1,726	1,049	1,314	2,340	6,501	605	3,498	2,283	2,798	4,035	13,219
2043	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	72	1,760	1,071	1,343	2,392	6,638	634	3,658	2,391	2,927	4,223	13,833
2044	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	75	1,798	1,095	1,374	2,443	6,785	661	3,833	2,503	3,067	4,423	14,487
2045	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	76	1,828	1,112	1,395	2,485	6,896	691	3,994	2,610	3,195	4,610	15,100
2046	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	78	1,856	1,130	1,415	2,521	7,000	721	4,154	2,715	3,327	4,796	15,713
2047	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	79	1,880	1,146	1,436	2,555	7,096	747	4,314	2,819	3,451	4,978	16,309
2048	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	80	1,909	1,160	1,455	2,591	7,195	777	4,485	2,930	3,588	5,176	16,956
2049	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	81	1,935	1,177	1,477	2,629	7,299	809	4,666	3,048	3,734	5,386	17,643
2050	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	82	1,964	1,195	1,498	2,667	7,406	840	4,851	3,169	3,882	5,599	18,341
2051	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	83	1,985	1,208	1,514	2,696	7,486	868	5,026	3,285	4,020	5,800	18,999
2052	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	84	2,004	1,219	1,527	2,722	7,556	899	5,202	3,397	4,162	6,003	19,663
2053	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	84	2,015	1,226	1,538	2,737	7,600	928	5,361	3,504	4,290	6,188	20,271
2054	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	84	2,039	1,242	1,555	2,769	7,689	962	5,561	3,635	4,450	6,420	21,028
2055	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	85	2,054	1,251	1,567	2,793	7,750	993	5,744	3,752	4,596	6,630	21,715
2056	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	87	2,072	1,259	1,579	2,813	7,810	1,026	5,933	3,876	4,746	6,849	22,430
2057	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	87	2,076	1,264	1,583	2,821	7,831	1,056	6,096	3,984	4,881	7,037	23,054
2058	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	88	2,085	1,268	1,590	2,831	7,862	1,084	6,275	4,099	5,020	7,240	23,718
2059	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	89	2,092	1,273	1,595	2,842	7,891	1,118	6,455	4,216	5,166	7,452	24,407
2060	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	90	2,106	1,282	1,606	2,861	7,945	1,154	6,662	4,352	5,331	7,689	25,188
2061	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	89	2,116	1,288	1,615	2,876	7,984	1,187	6,857	4,481	5,488	7,916	25,929
2062	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	89	2,132	1,296	1,625	2,896	8,038	1,225	7,081	4,626	5,665	8,172	26,769
2063	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	90	2,143	1,303	1,633	2,910	8,079	1,261	7,292	4,766	5,835	8,417	27,571
2064	92.0%	6.0%	2.0%	1.5%	0.8%	2.2%	91	2,145	1,307	1,638	2,915	8,096	1,298	7,490	4,894	5,992	8,646	28,320
							3,724					306,930						\$675,828

Notes:

Source: CDM Smith Estimates, May 2013

(1) January 1st 2014 opening date of Segments D and E. First month of operation (January) is assumed to be toll free.

(2) January 1st 2015 opening date for Tomball Tollway.

(3) January 1st 2016 opening date of Segments F-1, F-2 and G as well as Phase I of US 290 Reversible Managed Lanes and the Fort Bend Westpark Extension. First month of operation of Segments F-1, F-2 and G (January) is assumed to be toll free.

(4) January 1st 2018 opening date of Phase II of US 290 Reversible Managed Lanes.

(5) January 1st 2019 opening date of Segments C-1 and C-2 (in Scenarios with other Segments built).

(6) January 1st 2020 opening date of SH 288 Managed Lanes US 59 to SH6 and Hardy Connector.

(7) January 1st 2020 opening date of Segments H, I-1 and I-2-2 (in Scenarios with other Segments built).

(8) January 1st 2022 opening date of Segments B-1 and B-2 (in Scenarios with other Segments built).

(9) January 1st 2025 opening date of HCTRA Post Oak Extension.

(10) January 1st 2035 opening date of Fort Bend Parkway Extension South.

(11) January 1st 2035 opening date of IH45 North.

(12) Leakage is based on violations only. Misreads of ETC transactions are assumed to be recovered. The relative shares are assumed to be constant after 2035 since all vehicles are assumed to be equipped with transponders.

Transactions and revenue are shown in fiscal years for Sept. 1 through August 31.

Non-collectible transaction and revenue potential annual totals represent a summation of rounded monthly values. Small differences due to rounding may occur.

The following interchanges are assumed to be operational by:

Bridgeland Creek Pkwy Jan. 2014 (Segment E)

Tuckerton Rd Jul. 2016 (Segment E)

N Bridgeland Lake Pkwy Jan. 2017 (Segment E)

Cumberland Ridge Dr Jan. 2017 (Segment F-1)

West Rd Jan. 2028 (Segment E)

Louetta Rd Jan. 2028 (Segment E)

DCs to and from the West at IH 10 May 2014 (Segment E)

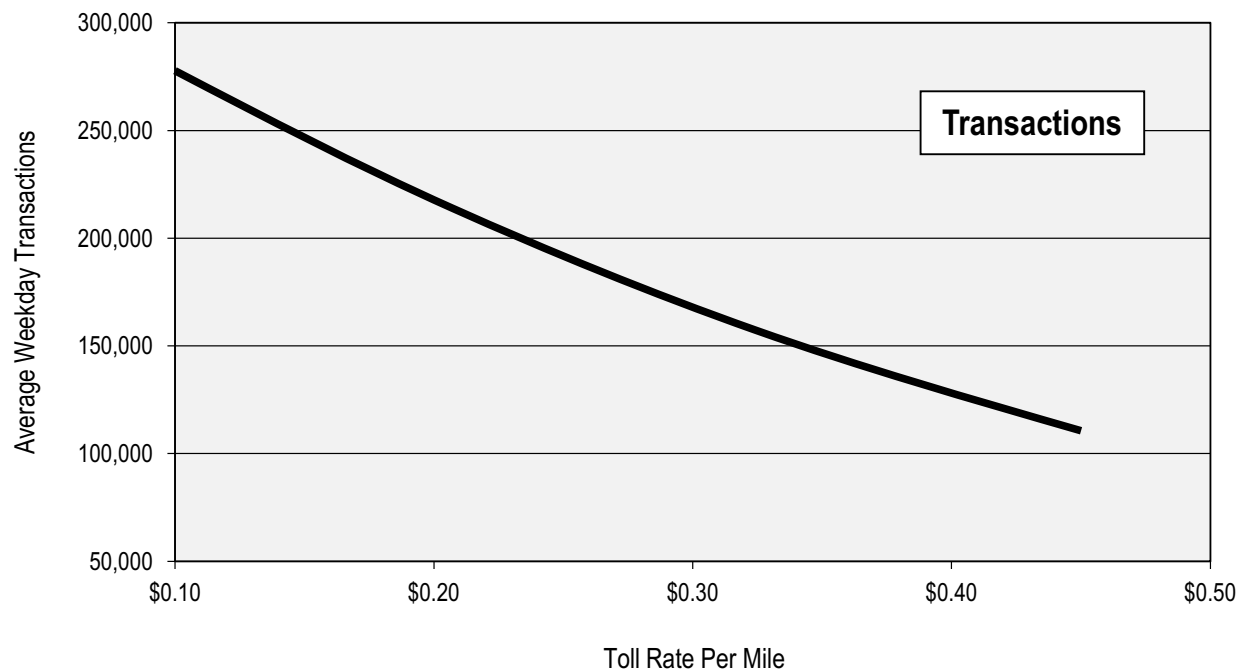
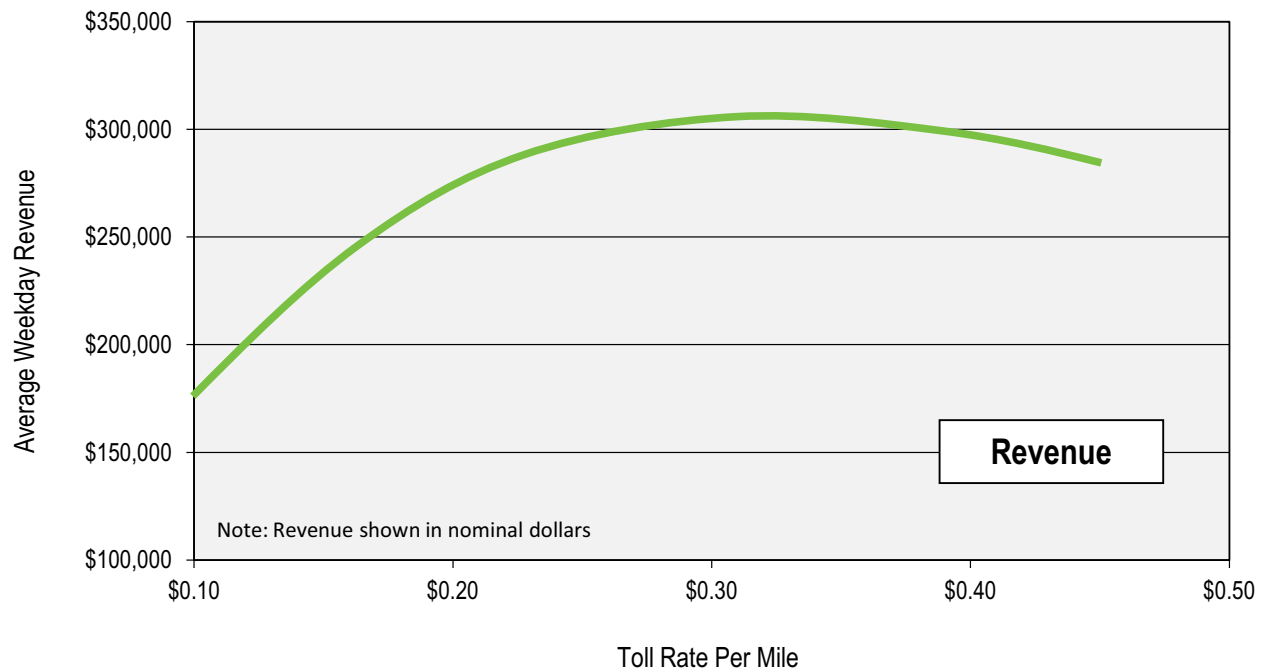
No interchanges are assumed for:

Mason Rd (Segment F-1)

Riverwalk Dr (Segment G)

Grand Parkway (SH 99) Segments D Through G
Comprehensive Traffic and Revenue Study Update 2012

TX 91973 / Apr 2013.pptx / 4-5-13



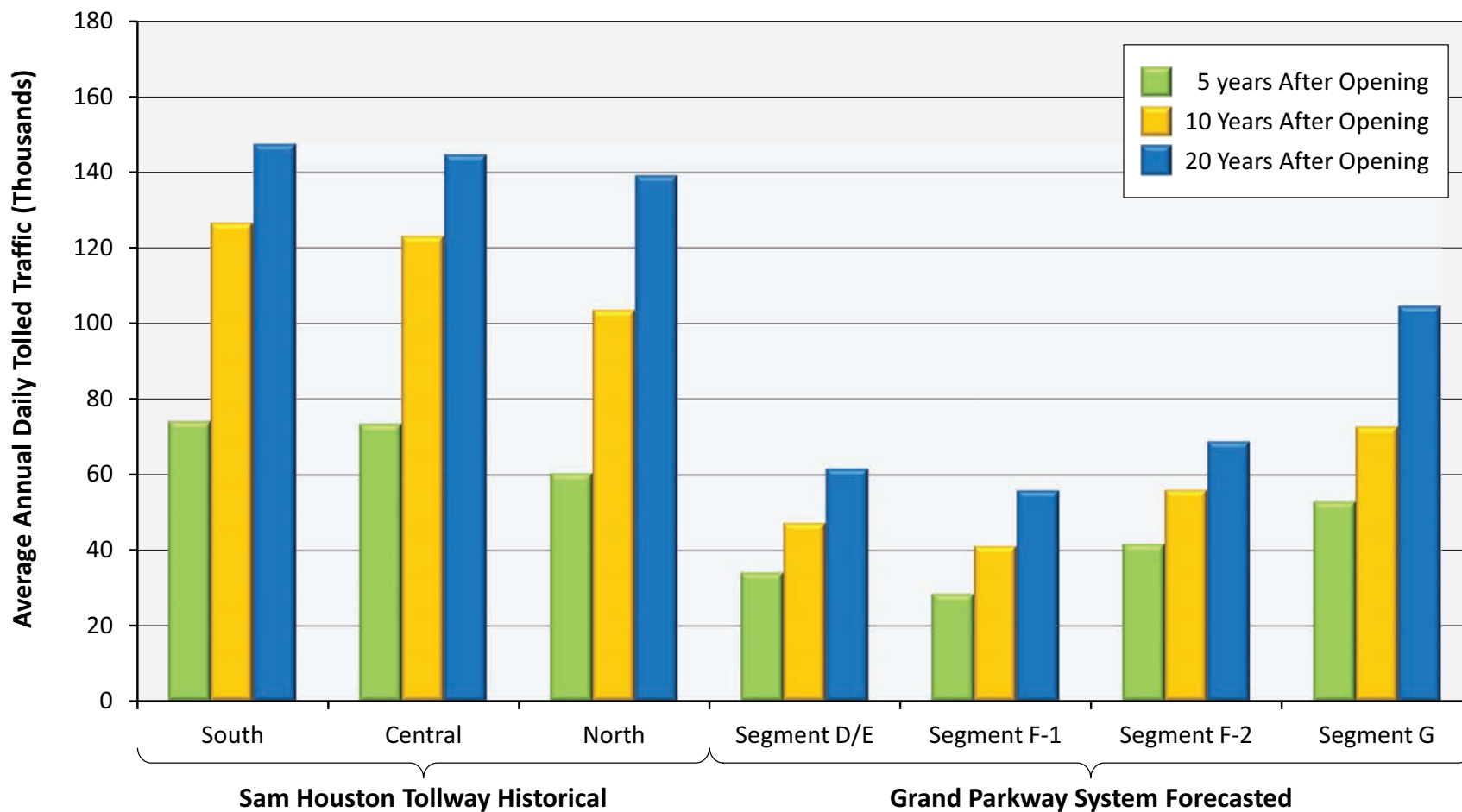
2015 AVERAGE WEEKDAY TOLL SENSITIVITY
SEGMENTS D, E, F, AND G

Reasonableness Comparison of Results

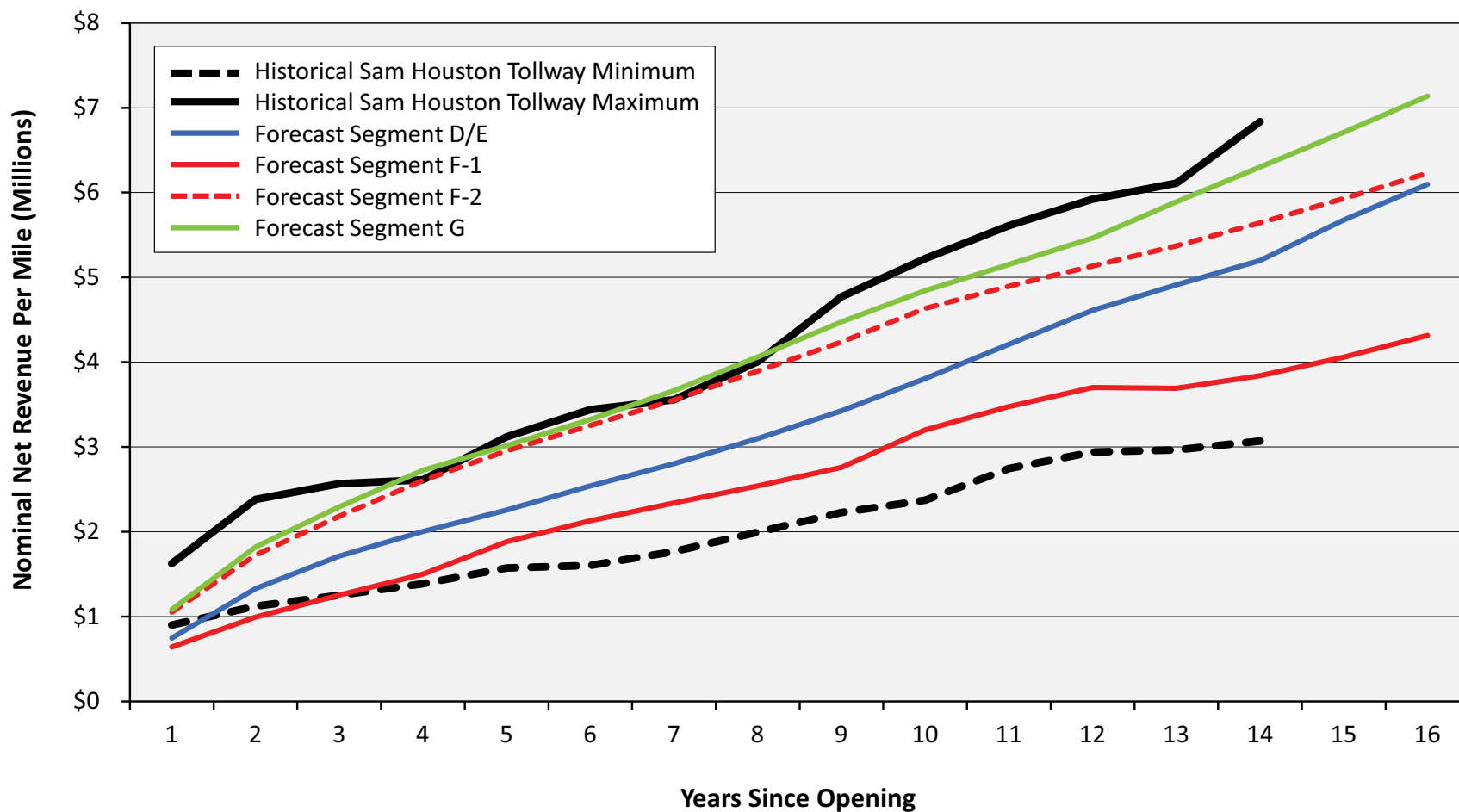
The Sam Houston Tollway (SHT) is a current circumferential tolled facility with three to four lanes in each direction and three continuous frontage road lanes running alongside the tolled facility in each direction. This facility opened in phases with the 8.6-mile South segment (US 59 to IH 10) opening June 1988, the 6.3 mile Central segment (US 59 to US 290) in June 1989, and the 12.5 mile North segment (US 290 to IH 45) opening in July 1990. Between 1990 and 2010, the Harris County population grew by 1.3 million at an average annual rate of 1.9 percent and employment grew by 0.5 million at an average annual rate of 1.3 percent. Five years after the opening of these segments (1996), the average daily vehicular tolled traffic ranged between 60 and 74 thousand vehicles. Twenty years after their opening (2011), these segments were processing between 139 and 148 thousand daily tolled vehicles. Figure 6-15 provides a comparison summary of the forecasted daily vehicular traffic expected to be captured along the various segments of the Grand Parkway by the 5th, 10th and 20th year after the opening of the respective segments. The ranges show that the forecasted daily traffic will range between 28 and 53 thousand by the 5th year of operation growing to 56 to 105 thousand by the 20th year from opening. It is worth noting that historically the North segment of the SHT while low in the early years has seen the highest growth in traffic as a result of the tremendous growth that has occurred in Montgomery County.

A similar comparison was undertaken to evaluate the magnitude of capture revenues on a per mile basis observed historically along all the SHT segments (for the South, Central, North mentioned above and the remaining Southeast, Southwest, East and Northeast segments). A nominal minimum and maximum revenue per mile profile since the opening of each segment was compiled as a proxy to reflect the levels of actual nominal revenues that were realized along each segment over time. This profile was then compared to the nominal revenues per mile forecasted for the Grand Parkway segments, as shown in Figure 6-16. It is worth noting that the toll escalation and growth since the opening of the Sam Houston Tollway has tracked fairly close to the consumer price index /inflation growth trends – similar to the toll rate escalation assumptions embedded within the Grand Parkway forecasts – therefore these nominal revenue ranges serve as a somewhat conservative proxy to the forecasted revenue realization of the Grand Parkway System (i.e. if these per mile ranges were summarized to reflect real 2013 dollars, the forecasted Grand Parkway real revenues per a mile results would track closer to the minimum range of the observed historical real revenues per mile captured). Figure 6-17 provides a summary of the nominal revenues per mile captured for the entire length of the Grand Parkway System compared to the equivalent SHT segments between US 59 and IH 45.

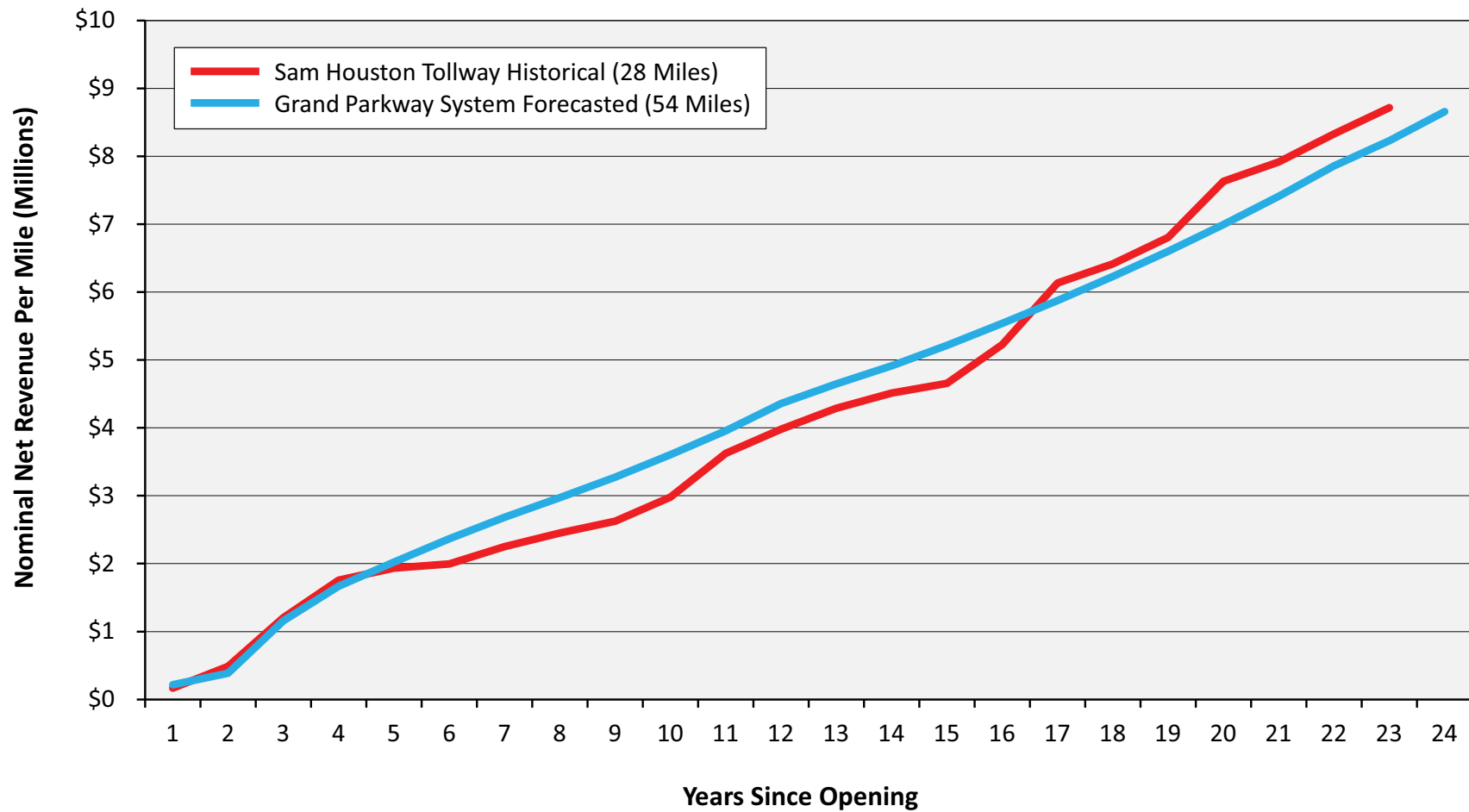
Chapter 7 presents several useful analyses that quantify the impact of varying key future assumptions that differ from the base case assumptions.



**DAILY TRANSACTION GROWTH COMPARISON
SAM HOUSTON TOLLWAY VERSUS GRAND PARKWAY SYSTEM**



NET REVENUE PER MILE RANGES
SAM HOUSTON TOLLWAY VERSUS GRAND PARKWAY SYSTEM



Chapter 7

Sensitivity Testing

Base case traffic and toll revenue forecasts for the proposed Grand Parkway Segments D through G were presented in Chapter 6. As mentioned in that chapter, the base case forecast assumes construction of Segments D, E, F and G of the Grand Parkway only.

This chapter presents a series of sensitivity tests by providing comparisons of the toll revenue estimates at select future year levels compared to the base case forecast in those years. The sensitivity tests relate to hypothetical variability in the following key parameters:

- Future gasoline prices;
- Future economic growth; and
- Values of time.

In addition, this chapter presents alternative toll revenue estimates for Segments E through G in 2025 and 2035 for the following scenarios:

- Construction of additional Grand Parkway Segments B, C, H and I; and
- Expansion of the Base Case 4-lane assumption to 6-lanes on Segments D, E, F and G.

CDM Smith has also tested the combined impact of not constructing the following two future projects on the T&R for Segments E, F and G in 2020 and 2035:

- Hempstead Tollway and SH 249 Managed Lanes.

Finally, sensitivity tests were conducted for the following alternative interchange configurations and tolling schemes:

- Base Case with all interchanges on Segment E (2014);
- Base Case with Mason Road and Riverwalk Drive interchanges (2015, 2020, 2025, 2035);
- Base Case and ramp tolls at IH 45 interchange (2020, 2025, 2035);
- Base Case and ramp tolls at IH 45 interchange and increased mainline tolling distance on Segment F-2 (2020, 2025, 2035); and
- Base Case without future interchanges on Segment E (2015, 2020, 2025, 2035).

All future annual toll revenue estimates included as part of the sensitivity testing are provided for Segments E through G only at the selected model years.

Sensitivity Tests

The base case forecasts for the Segment D, E, F and G portion of the Grand Parkway corridor are based on certain assumptions of future economic growth, assumed gasoline prices and other factors. As noted previously, any forecast of the future is subject to considerable uncertainty. As such, most traffic and revenue forecasts to be used in support of project financing typically include sensitivity tests; in general these are intended to provide a general measure of the potential impact on the revenue forecasts associated with hypothetical changes in certain basic assumptions. These sensitivity tests provide a comparison with the previously presented base case toll revenue forecasts.

All the non-infrastructure sensitivity tests (growth, VOT, fuel prices) were run for three forecast years 2015, 2020, and 2035 while the remaining sensitivity tests (added infrastructure or capacity) were run at two forecast years. Each sensitivity test is described in more detail below.

Higher Gas Prices

The United States experienced a significant increase in motor fuel prices in the summer of 2008, with prices reaching on average, higher than \$4.25 per gallon nationally. Average gas prices again experienced an increase during 2011 nearing the \$4.00 level, before falling back to current levels of around \$3.40 per gallon. Houston area gas prices averaged under \$3.00 for some time before exceeding \$3.00 in March 2011 and reached a maximum of \$3.85 during late April 2011. Since then, fuel prices have fallen back down to an average of about \$3.25 in Houston.

The T&R study assumed in the base case and alternate case that gas prices would gradually return to about \$3.00 and then increase in proportion to inflation thereafter. However, a sensitivity test was performed assuming that gas prices increase to \$5.00 in real terms in 2015 and 2035. Vehicle operating cost factors were adjusted accordingly. More importantly, it was assumed that \$5.00 gasoline prices would also result in a reduction in total regional travel of approximately 4.0 percent for purposes of this test.

Increased Long-Term Economic Growth

CDM Smith also tested the sensitivity of traffic to higher economic growth assuming a 30 percent higher rate of economic growth throughout the region in 2015, a 35 percent higher economic growth throughout the region in 2020, and a 50 percent higher rate of economic growth in 2035 relative to the base case forecasts.

The rate of growth between 2010 and 2015 was adjusted upwards by 30 percent from the base case economic growth developed from the socioeconomic forecasts provided by CDS. Similarly, the rate of growth between 2010 and 2020, and between 2010 and 2035 was adjusted upwards by 35 percent and 50 percent, respectively.

Reduced Long-Term Economic Growth

The base case forecasts were predicated upon the regional socio-economic growth forecasts developed by the independent economist, CDS Market Research. These forecasts were reviewed for reasonableness and determined to provide an acceptable basis of expected long-term traffic projections on the future Grand Parkway corridor. However, CDM Smith also tested an alternative

economic growth scenario assuming a 30 percent lower rate of economic growth throughout the region in 2015, a 35 percent lower rate of economic growth in 2020, and a 50 percent lower rate of economic growth in 2035. This sensitivity test was performed relative to the base case forecasts.

These hypothetical cases were simulated by adjusting the rate of growth in trip tables developed from CDS socioeconomic forecast in each of the analysis years. Specifically, the rate of growth between 2011 and 2015 was adjusted down by 30 percent from the base case traffic growth forecast developed from socioeconomic forecasts provided by CDS. Similarly, the rate of growth between 2010 and 2020, and between 2010 and 2035 was adjusted down by 35 percent and 50 percent, respectively.

Higher Value of Time

Value-of-time is an important input parameter in estimating motorists' willingness-to-pay tolls. For this study, values-of-time was derived from stated preference surveys conducted in the study area and are a function of income and the number of households across each of the respected traffic zones used in the analysis. A hypothetical 30 percent increase in the value-of-time was tested. This test was performed at 2015, 2020 and 2035 levels.

Lower Value of Time

Similar to the higher value-of-time test, a hypothetical 30 percent decrease in the value-of-time was run. This was tested at 2015, 2020 and 2035 levels.

H-GAC Socio-Economics

As mentioned previously, the base case T&R forecasts are based upon the regional socio-economic growth developed as a result of an independent analysis by CDS. In addition to providing County level forecasts of population and employment, CDS allocated these forecasts to the small area and traffic analysis zones within each county reflecting future developments and infrastructure projects such as the Grand Parkway project. CDM Smith tested an alternative socio-economic growth scenario based on the regional forecasts as adopted by H-GAC in their last update from December 2010. We understand that H-GAC has had no further updates to their socio-economic assumptions and that their next model version will generally trend closer to the growth distributions as predicted by CDS.

To perform this analysis the 2015, 2020, and 2035 base case trip tables were replaced by those generated from the 2010 H-GAC regional socio-economic forecast.

Impact of Hempstead Tollway and SH 249 Managed Lanes

This sensitivity test considers the impact of not constructing the Hempstead Tollway project and not improving the SH 249 corridor. The analysis is run in the first model year in which both projects were assumed to be first open, namely 2020.

Other Grand Parkway Segments Completed

CDM Smith tested the T&R impacts to Segments E through G resulting from constructing the entire Grand Parkway for years 2025 and 2035. This scenario is based on the necessary network refinements required to represent the build-out of additional Segments B (2022), C (2019), H (2020), and I (2020).

Expansion to Six Lanes

The base case T&R analysis is based on the assumption that the project will be configured as a four-lane toll facility with intermittent frontage roads. To review the impact of constraining levels of service to four lanes, CDM Smith tested the impact of a six-lane configuration in 2025 and 2035.

Base Case with All Interchanges on Segment E

For the base case it is assumed that certain interchanges on Segment E are phased in over time based on current county funding priorities for the construction of several cross streets. In order to gauge the impact of this phased approach, the travel demand model was run at the 2014 level assuming all future interchanges and cross streets are built and operational by opening day of Segment E.

Base Case with Mason Road and Riverwalk Drive Interchanges

This sensitivity test assumes that the Mason Road and Riverwalk Drive interchanges are operational in addition to the base line configuration upon opening of Segments F and G. The analysis was performed for 2015, 2020, 2025 and 2035 levels.

Base Case and Ramp Tolls at IH 45 Interchange

The building of the Hardy Toll Road direct connectors warranted that a revised toll configuration be established with an additional mainline tolling point between the IH 45 and the Hardy Toll Road interchanges to ensure the facility operated as a closed toll system. An alternative scenario was tested replacing this mainline tolling point with tolling points on the ramps to and from the east at the IH 45 frontage road and the ramps to and from Holzwarth Road. Under this configuration the through traffic between Segment F-2 and Segment G would not be tolled for approximately 1.2 miles. This scenario captures revenue for movements between Segment G and the SH 99 frontage roads and the IH 45 frontage roads on the ramps instead of the mainline tolling point. The analysis was performed at 2020, 2025 and 2035 levels.

Base Case and Ramp Tolls at IH 45 Interchange and Increased Mainline Tolling Distance on Segment F-2

This scenario is based on the ramp toll scenario at the IH 45 interchange as described in the sensitivity test above but increases the tolling distance for the mainline tolling point on Segment F-2 east of Gossling Road to cover the distance between Hardy Toll Road and the IH 45 interchange to account for the 1.2 miles in tolls that were previously not captured. This increase will also capture revenue for movements between Segment F-2 and Hardy Toll Road that would be otherwise un-tolled in the IH 45 ramp toll scenario without this modification. The impacts are shown for 2020, 2015 and 2035.

Base Case without Future Interchanges on Segment E

Due to the fact that several interchanges on Segment E will not be in operation on opening date of this segment, an alternative case was tested where none of the future interchanges would be implemented. The impact of not implementing these interchanges is shown for 2015, 2020, 2025 and 2035 levels.

Summary of Sensitivity Results

A concise summary of the results of the sensitivity tests is provided in Table 7-1. The upper line in the table shows the total base case toll revenue forecast for Segments D, E, F and G at 2014, 2015, 2020, 2025 and 2035 levels.

For each of the sensitivity test scenarios described above, an alternative toll revenue forecast is shown for each year, together with a calculation of the net impact on toll revenue and the percentage impact on toll revenue - plus or minus - relative to the base case.

Table 7-1 indicates that the gas price scenario results in an estimated reduction in toll revenues by 5.8 percent in 2015, 5.4 percent in 2020, and 3.3 percent in 2035. Toll revenues are estimated to reduce to \$20.5 million in 2015 compared to \$21.8 million in the base case forecast in the year 2015 and to \$418.3 million from \$432.5 million in the year 2035.

Testing an increase in economic growth using 30 percent higher growth in 2015 and 50 percent higher growth in 2035 have a 19.7 percent positive impact and a 40.0 percent positive impact on Segments E through G toll revenue, respectively.

Reductions in long-term economic growth assumptions result in a 19.0 percent reduction in toll revenues in 2015. In this scenario, Segments E is estimated to have a total of \$17.6 million in toll revenues in 2015, observing a net impact of \$4.2 million from the Base Case. An impact of 45.3 percent was estimated for the decreased long-term growth scenario for 2035. The total revenue on Segments E through G is estimated to reduce to \$236.8 million, reflective of the net impact of \$195.7 million versus the Base Case.

The impacts of higher and lower values of time (VOT) are also shown in Table 7-1. In 2015 the impacts of higher and lower VOT are a little in excess of +11.4 percent/- 16.3 percent, whereas in 2035 the impacts are +10.3 percent/-19.4 percent.

The sensitivity test run with the trip-tables based on H-GAC socio-economic growth forecasts predicts approximately \$9.4 million lower toll revenue in 2015 and \$116.4 million lower in 2035. This translates to a negative impact of 43.3 percent and 26.9 percent in years 2015 and 2035, respectively, as compared to the base case forecast.

Not constructing Hempstead Tollway and SH 249 would be expected to have a slightly positive impact on the Grand Parkway with a revenue impact of 2.1 percent in 2020 and a revenue neutral outcome in 2035.

Completion of the other Segments of the Grand Parkway results in an additional 3.0 percent in toll revenue in 2025 and an additional 2.6 percent in 2035.

Expanding the Grand Parkway facility to six lanes also has a positive impact on toll revenues resulting in an additional 6.4 percent in 2025 and an additional 12.7 percent in 2035 as capacity constraints are alleviated.

Implementing all interchanges on Segment E ahead of schedule in 2014 is estimated to increase gross toll revenue by 15.5 percent due to toll revenue from the additional interchanges.

Table 7-1
Sensitivity Tests - Impact on Annual Toll Revenue
Totals for Segments D, E, F and G

Scenario	Total Annual Gross Toll Revenue (\$ Thousands)				
	2014	2015	2020	2025	2035
Base Case Forecast	12,236	21,799	149,797	241,826	432,496
Higher Gasoline Prices		20,529	141,747		418,276
Difference vs. Base		-1,270	-8,050		-14,220
% Impact vs. Base		-5.8%	-5.4%		-3.3%
Higher Economic Growth		26,089	203,427		605,326
Difference vs. Base		4,290	53,630		172,830
% Impact vs. Base		+19.7%	+35.8%		+40.0%
Lower Economic Growth		17,649	100,627		236,786
Difference vs. Base		-4,150	-49,170		-195,710
% Impact vs. Base		-19.0%	-32.8%		-45.3%
High VOT		24,289	168,717		477,246
Difference vs. Base		2,490	18,920		44,750
% Impact vs. Base		+11.4%	+12.6%		+10.3%
Low VOT		18,249	122,147		348,636
Difference vs. Base		-3,550	-27,650		-83,860
% Impact vs. Base		-16.3%	-18.5%		-19.4%
H-GAC Trip Tables		12,359	90,717		316,116
Difference vs. Base		-9,440	-59,080		-116,380
% Impact vs. Base		-43.3%	-39.4%		-26.9%
Nobuild Hempstead/SH249			152,907		432,506
Difference vs. Base			3,110		10
% Impact vs. Base			+2.1%		+0.0%
Other Segments Build				249,056	443,546
Difference vs. Base				7,230	11,050
% Impact vs. Base				+3.0%	+2.6%
Six Lanes on Segments D, E, F & G				257,236	487,596
Difference vs. Base				15,410	55,100
% Impact vs. Base				+6.4%	+12.7%
Base Line With All Interchanges on Segment E	14,136				
Difference vs. Base	1,900				
% Impact vs. Base	+15.5%				
Base Line with Mason Rd and Riverwalk Dr Interchanges		19,979	150,757	241,846	436,096
Difference vs. Base		-1,820	960	20	3,600
% Impact vs. Base		-1.2%	+0.6%	+0.0%	+2.4%
Base Line and Ramp Tolls at IH 45 Interchange			147,127	236,596	426,986
Difference vs. Base			-2,670	-5,230	-5,510
% Impact vs. Base			-1.8%	-3.5%	-3.7%
Base Line and Ramp Tolls at IH 45 Interchange and Increased Mainline Tolling Distance on Segment F-2			149,087	240,496	434,026
Difference vs. Base			-710	-1,330	1,530
% Impact vs. Base			-0.5%	-0.9%	+1.0%
Base Line But No Future Interchanges on Segment E		12,539	143,327	230,706	413,616
Difference vs. Base		-9,260	-6,470	-11,120	-18,880
% Impact vs. Base		-6.2%	-4.3%	-7.4%	-12.6%

Source: CDM Smith Estimates, May 2013

Note: Does include Ramp-up. Annualized Revenue is 325 Days per Year

Implementing interchanges at Riverwalk Drive and Mason Road has a slightly negative impact on revenue in the earlier years (2015: -1.2 percent) and is expected to have a positive impact by 2035 of 2.4 percent. The impacts from Mason Road will be revenue positive due to the increase in tolled travel distance to and from the east and additional movements through the mainline plaza east of Mason Road. The Riverwalk Drive interchange will reduce revenue expectations due to a shifting of traffic from the FM 1314 interchange to the Riverwalk Drive interchange with a lower toll charge.

The alternative tolling concept at the IH 45 interchange using ramp tolls instead of the mainline toll plaza is expected to reduce revenues by -1.8 percent and -3.7 percent in 2020 and 2035, respectively. This is caused by the fact that in this scenario, the through-movements between Segments F-2 and G are only tolled at the mainline plaza east of Hardy Toll Road and at a lower rate than in the Base Case. Also, trips from Hardy Toll Road traversing into Segment F-2 are not subjected to paying a toll for this short section compared to the Base Case where an additional minimum toll charge at the mainline tolling point is applicable.

When ramp tolling at the IH 45 interchange is complemented by an increase in influence area and thus toll rates at the mainline tolling point on Segment F-2 East of Gossling Rd, the expected revenue impact is still slightly negative in the earlier years (-0.5 percent in 2020) and becomes slightly positive by 2035 with 1.0 percent additional revenue. The increase in revenue from the through-movements from Hardy Toll Road and Segment G is outweighed by the reduction of revenue at other tolling locations due to the reduced travel demand caused by the higher toll at the F-2 mainline plaza location in the earlier years. With the increase of traffic over time that impact becomes positive. The total revenue impact ranges from a reduction of \$0.7 million in 2020 to an increase in revenue of \$1.5 million by 2035.

The sensitivity test omitting all future interchanges on Segment E shows negative impacts of 6.2 percent and 12.6 percent on revenue in 2015 and 2035, respectively. This reduction in toll revenue is the direct result of reduced access to the northern section of Segment E over an extend period of time.

**Attachment A: Stated Preference Travel
Survey Report, by RSG Inc.**



Houston Grand Parkway Stated Preference Travel Survey Report

**Prepared for Wilbur
Smith Associates**

March 2011

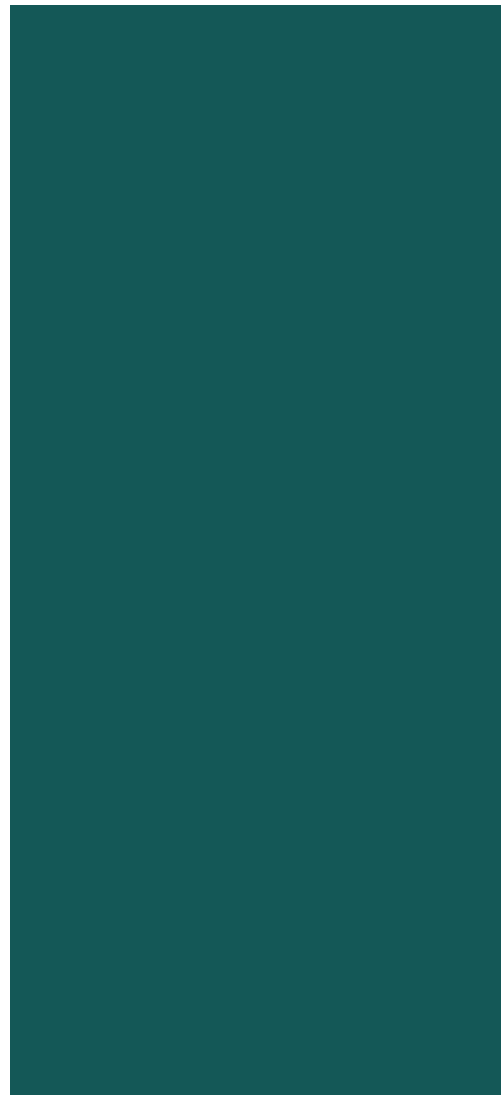


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1.0 INTRODUCTION

State Highway 99, also referred to as the Grand Parkway, is a proposed circumferential highway traversing seven counties and encircling the Greater Houston region over a distance of approximately 180 miles. For planning purposes, the project is organized into eleven distinct segments. As of the time of this project, segment D, a 19.5 mile section between US 59 in Sugar Land and IH 10 in Katy, is complete and open to traffic.

Wilbur Smith Associates (WSA) is currently evaluating the traffic and revenue potential of segments D through G of the proposed facility. This section covers approximately 70 miles from US 59 near Sugar Land to US 59 near Humble. As part of this work, Resource Systems Group, Inc. (RSG) conducted a stated preference (SP) survey for automobile drivers in the greater Houston area. RSG collaborated with WSA to design and conduct the survey for the results to be used in WSA's travel demand forecasting for Fort Bend, Harris, and Montgomery Counties.

The primary purpose of the Houston Travel Study was to estimate values of the toll sensitivity, or value of time (VOT) of travelers who are candidates for using segments D through G of the Grand Parkway. This includes travelers who currently use segment D, as well as travelers who make trips within or through the corridor of segments E through G. Estimates of travelers' time and cost sensitivities are used to support estimates of highway traffic and toll revenue.

RSG developed and implemented a stated preference survey questionnaire that gathered information from automobile travelers in the greater Houston area. The questionnaire collected data on current travel behaviors, presented respondents with information about the proposed Grand Parkway updates and extensions, and used stated preference experiments to collect data that were used to estimate travelers' VOT and propensity to use the proposed Grand Parkway under a range of possible future conditions.

The survey approach employed a computer-assisted self-interview (CASI) technique developed by RSG. The stated preference survey instrument was customized for each respondent by presenting questions and modifying wording based on respondents' previous answers. These dynamic survey features provide an accurate and efficient means of data collection and allow presentation of realistic future conditions that correspond with the respondents' reported experiences. The customized, proprietary software was programmed for online and in-person administration to targeted audiences.

This report documents the development and administration of the survey questionnaire, presents survey results, and summarizes the discrete choice model estimation methodology and findings. The full text of the survey questionnaire, survey screen captures, response tabulations, and respondents' comments about the project appear as appendices to this report.

2.0 SURVEY QUESTIONNAIRE

The survey questionnaire was designed to collect information about a recent trip that the respondent made in the greater Houston area and to find out how they might alter their trip given the proposed updates to and extensions of the Grand Parkway. The survey questions were grouped into four main sections:

1. Screening and trip characteristic questions
2. Stated preference questions



3. Debrief and opinion questions
4. Demographic questions

The complete text of the questionnaire is included in Appendix A and example survey screens are included in Appendix B.

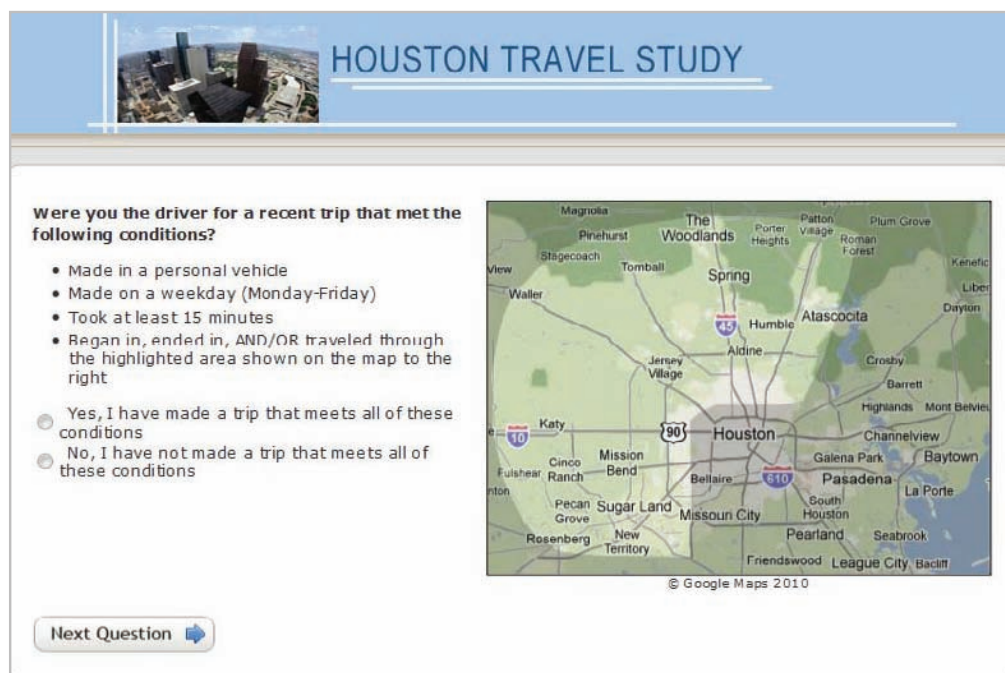
2.1 Screener and Trip Characteristic Questions

After being presented with basic instructions about how to navigate the computer-based instrument and a brief introduction to the purpose of the study, respondents answered a set of screening questions. To qualify for the survey, respondents must have entered a home ZIP code from the state of Texas, and they must have made a recent automobile trip that met the following conditions:

- Began in, ended in, and/or traveled through the highlighted area shown in Figure 2.1
- Made in a personal vehicle
- Made on a weekday
- Took at least 15 minutes

Respondents who indicated that they had not made a trip that met all of these criteria were terminated from the survey.

Figure 2.1: Survey Sample Screen: Trip Qualification Question



HOUSTON TRAVEL STUDY

Were you the driver for a recent trip that met the following conditions?

- Made in a personal vehicle
- Made on a weekday (Monday-Friday)
- Took at least 15 minutes
- Began in, ended in, AND/OR traveled through the highlighted area shown on the map to the right

☐ Yes, I have made a trip that meets all of these conditions

☐ No, I have not made a trip that meets all of these conditions

Next Question

The map shows the Houston area with a highlighted region in the center, including areas like Spring, Humble, and The Woodlands. Major highways like I-10, I-25, and I-610 are visible. The map is credited to Google Maps 2010.

Qualifying respondents were asked to focus on their most recent trip that met all of the screening criteria as they continued through the survey. This most recent trip, referred to as the respondent's reference trip, formed the basis for the rest of the survey. Respondents were asked to think of the one-way portion of their trip, rather than the entire round trip, and were asked a series of questions regarding the specific details of their reference trip, including:



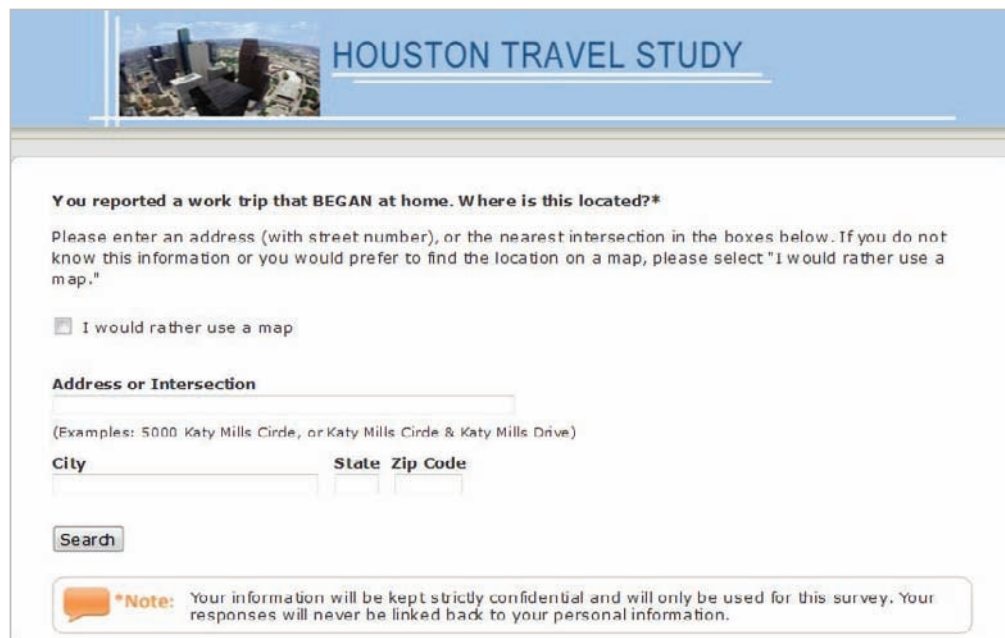
- Day of week trip was made
- Trip purpose
- Beginning and ending locations
- Major roads used on the trip and tolls paid
- Trip start time
- Total trip travel time and travel delays
- Vehicle occupants
- Ownership of electronic toll collection (ETC) transponder
- Trip frequency

The specifics of these questions are described in detail below.

After qualifying, respondents were first asked to select the day of the week and the primary purpose of their trip. Focusing on their trip in one direction only, respondents were asked to report the general type of locations where their trip began and ended by selecting home, work, or another place. If a respondent selected that their trip both began and ended at home, or both began and ended at work the respondent was asked to clarify whether these locations are physically distinct locations to ensure that a one-way trip was reported.

In addition to general location type, all respondents were asked to report the specific locations where their trip began and ended. Respondents identified their origin and destination by either entering a business name, a street intersection, or a full address (Figure 2.2), or by using an interactive map (Figure 2.3).

Figure 2.2: Sample Survey Screen: Beginning Location Address Form



HOUSTON TRAVEL STUDY

You reported a work trip that BEGAN at home. Where is this located?*

Please enter an address (with street number), or the nearest intersection in the boxes below. If you do not know this information or you would prefer to find the location on a map, please select "I would rather use a map."

☐ I would rather use a map

Address or Intersection

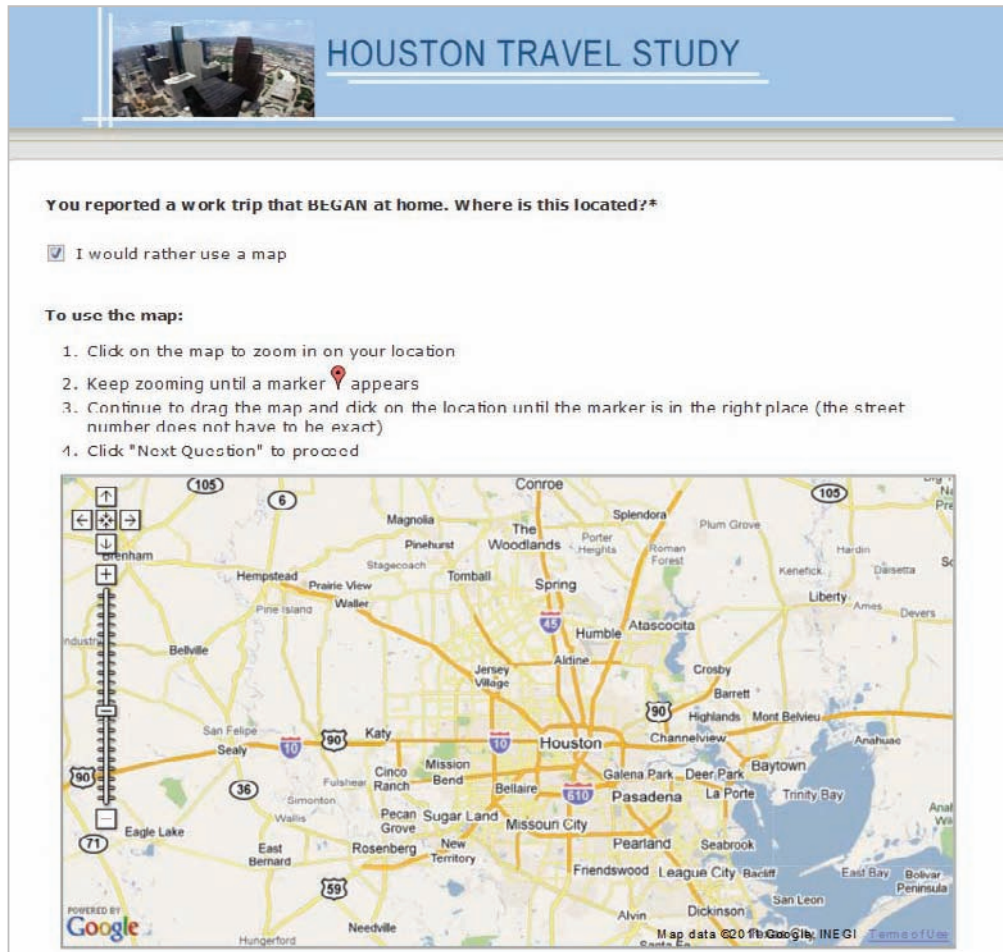
(Examples: 5000 Katy Mills Circle, or Katy Mills Circle & Katy Mills Drive)

City **State** **Zip Code**

***Note:** Your information will be kept strictly confidential and will only be used for this survey. Your responses will never be linked back to your personal information.



Figure 2.3: Sample Survey Screen: Ending Location Interactive Mapping Interface




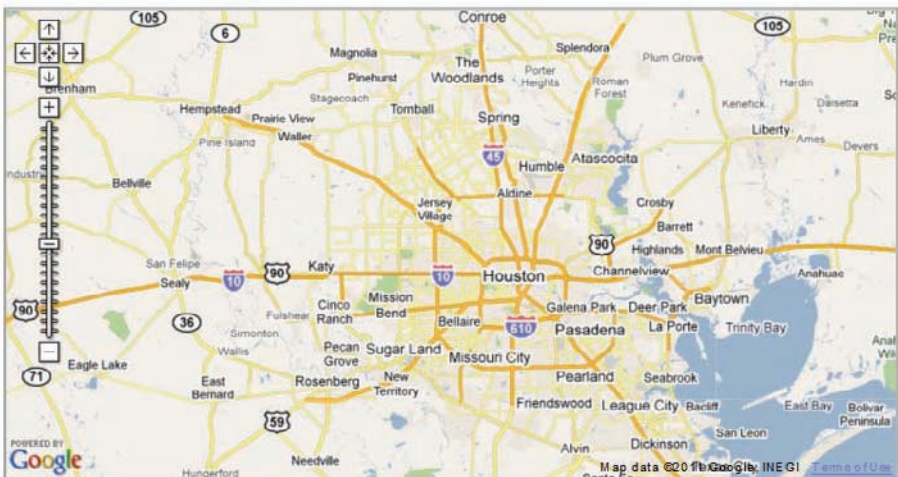
HOUSTON TRAVEL STUDY

You reported a work trip that **BEGAN** at home. Where is this located?*

☒ I would rather use a map

To use the map:

1. Click on the map to zoom in on your location
2. Keep zooming until a marker  appears
3. Continue to drag the map and click on the location until the marker is in the right place (the street number does not have to be exact)
4. Click "Next Question" to proceed



Map data ©2016 Google, INEGI

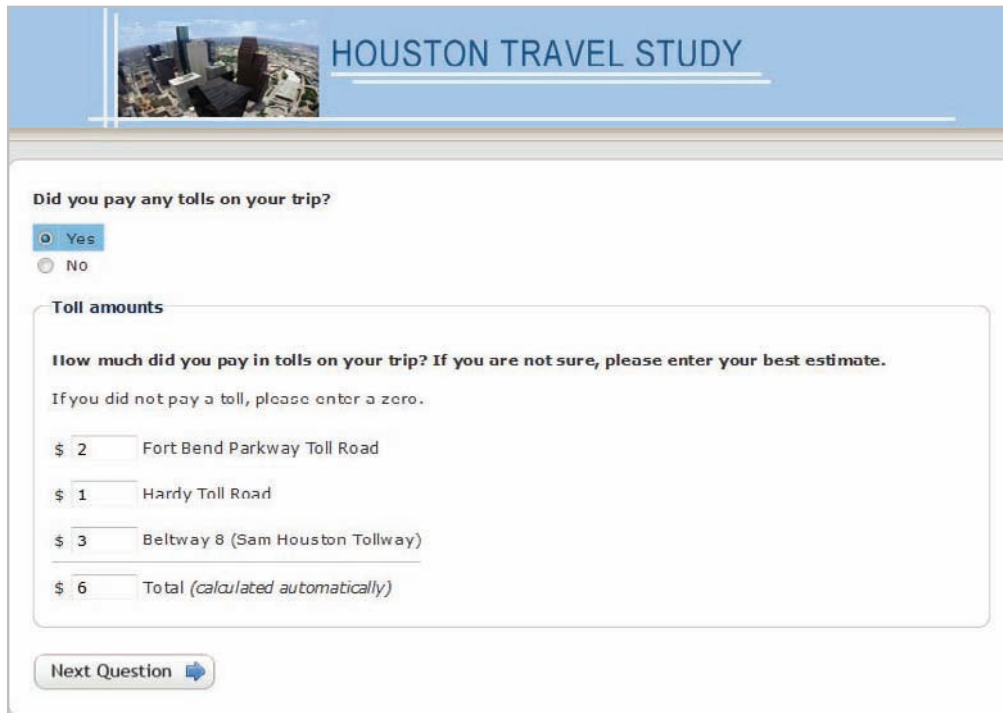
These locations were geocoded using a Google Maps™ application programming interface to provide a latitude and longitude for both the trip origin and destination. The latitude and longitude coordinates were used to verify that the trip began and ended in two different locations in the study corridor and to determine which respondents would benefit from the potential extension of the Grand Parkway. Trip distance and estimated travel time were calculated so that they could be compared to the reported travel times. If the locations suggested an invalid trip, respondents were reminded to describe a one-way portion of the trip and asked if they needed to change the beginning or ending location. Respondents who reported an invalid trip and did not change their origin or destination were thanked and terminated from the survey.

Additionally, these coordinates were used to assign respondents' origins and destinations to traffic analysis zones, or TAZs, that were provided from the regional travel demand model. The TAZs and accompanying skim data from the travel demand model were used to identify the entrance and exit ramps along the proposed Grand Parkway that minimized total travel time. These ramp locations were then used to calculate an estimated Grand Parkway highway distance and an estimated Grand Parkway travel time that were used as inputs in the stated preference section of the survey.



Following the mapping questions, respondents were asked to select which major roads they traveled on during their trip from a select list of local highways. Respondents who selected at least one toll road from this list were asked to state whether they paid any tolls on their trip. Those who paid a toll reported the amount paid on each of the toll roads that were used during the trip (Figure 2.4).

Figure 2.4: Survey Sample Screen: Amount Paid in Tolls



The screenshot shows a survey interface for the 'HOUSTON TRAVEL STUDY'. The main heading is 'HOUSTON TRAVEL STUDY' in blue text. Below it, the question 'Did you pay any tolls on your trip?' is displayed. There are two radio button options: 'Yes' (selected) and 'No'. Below the options, a section titled 'Toll amounts' contains the instruction: 'How much did you pay in tolls on your trip? If you are not sure, please enter your best estimate. If you did not pay a toll, please enter a zero.' This section includes four input fields with pre-filled values and labels: '\$ 2 Fort Bend Parkway Toll Road', '\$ 1 Hardy Toll Road', '\$ 3 Beltway 8 (Sam Houston Tollway)', and '\$ 6 Total (calculated automatically)'. At the bottom of the form is a 'Next Question' button with a right-pointing arrow.

Next, respondents entered their trip departure time and the time they spent traveling, door-to-door, between their origin and destination. Additionally, respondents were asked if they encountered delay, and if so, how long their trip would have taken had they not encountered delay (Figure 2.5). Reported travel times were compared to skim data from the regional travel demand model, as well as travel times obtained from a Google Maps™ driving directions algorithm, an online map service created and maintained by Google™. Respondents who entered comparably longer or shorter travel times were asked to confirm or correct their trip duration.



Figure 2.5: Sample Survey Screen: Delay Experienced on Trip Due to Traffic Congestion

HOUSTON TRAVEL STUDY

Did you encounter any delay due to traffic congestion during your trip?

☒ Yes
☐ No

Travel time without delay

You reported your trip took **1 hour** with some delay due to congestion.

How long would this trip take if there were **NO** delays due to congestion?

With no delay, my trip would take: **40 minutes**

30 mins 2 hours 4 hours

Next Question ➔

This section concluded as respondents were asked to detail the number of passengers in their automobile during their trip, whether or not they owned a transponder for electronic toll collection (ETC), and how frequently they make this same one-way trip.

2.2 Stated Preference Questions

The stated preference questions were designed to construct quantitative experiments to estimate respondents' travel preferences and behavioral response under hypothetical future conditions. The details of each respondent's reference trip were used to build a set of eight stated preference scenarios that included two travel alternatives for making their trip in the future:

1. Current route
2. Grand Parkway or other unspecified tolled route

All respondents saw both alternatives, although the label of the second alternative was customized depending on the respondent's specific trip. If a respondent reported a trip that could reasonably use the proposed Grand Parkway, the second alternative was labeled as the Grand Parkway, otherwise the second alternative was labeled as a generic toll route. To determine whether the respondent's trip could reasonably use the Grand Parkway, their reported travel time on their current route was compared to the time that was calculated for their trip using the Grand Parkway. Trips that would be more than 15 minutes longer if they used the Grand Parkway or trips that would less than 2 miles of the Grand Parkway were assigned the generic toll alternative. A buffer of 15 minutes was used to account for variations in reported travel times and the skim data that was used to calculate the travel time using the Grand Parkway.

Each alternative was described by two attributes: travel time and toll cost. The respondent's current trip was generally shown as toll-free, although current toll costs were displayed for those respondents who paid a toll on their reported trip. The values of the attributes varied across the eight questions, and respondents were asked to select the alternative they preferred the most under the conditions that were presented. Figure 2.6 is



an example of a question where the Grand Parkway is the tolled route alternative. Figure 2.7 is an example of a stated preference question with a generic tolled route alternative. In order to avoid potential bias associated with the layout of the alternatives, the order of these alternatives was randomized for each respondent. Additional examples of stated preference exercises can be found in Appendix B.

Figure 2.6: Sample Survey Screen: Stated Preference Question with Grand Parkway Alternative

Below are 2 different travel options for your trip. These options include information on travel time and toll cost. Please assume that all other travel costs are the same as they are now.

If these options were the only options available for your trip, which would you choose?

Click on one of the two boxes below to select your preferred choice.

Information in **bold** will vary from screen to screen.

	Current Route	Grand Parkway
	Travel time (door-to-door): 51 mins.	Travel time (door-to-door): 39 mins.
	Toll free	Grand Parkway toll: \$2.10
	<input type="radio"/> I prefer this option	<input type="radio"/> I prefer this option

Question 1 of 8

Next Question

Figure 2.7: Sample Survey Screen: Stated Preference Question with Generic Tolled Route Alternative

If these options were the only options available for your trip, which would you choose?

Note: information in **bold** may have changed.

	Current Route	Grand Parkway
	Travel time (door-to-door): 54 mins.	Travel time (door-to-door): 40 mins.
	Toll free	Grand Parkway toll: \$0.85
	<input type="radio"/> I prefer this option	<input type="radio"/> I prefer this option

Question 2 of 8

Next Question



The attribute values presented in each question varied around a set of base values. To ensure that the scenarios were realistic, the trip characteristics of each respondent's reference trip were used to calculate the base values for travel time and toll cost. The base values for the attributes were varied by multiplying or adding one of several factors to give the level required by the experimental design for that particular scenario. By varying the travel time and toll cost shown in each experiment, the respondent was faced with different time savings for different costs, allowing them to demonstrate their travel preferences across a range of values of time. Table 2.1 details the formulas that were used to calculate the attribute values.

Table 2.1: Stated Preference Attribute Levels

Attribute	Level #	Alternative 1: Current Toll Free Route		Alternative 2: Grand Parkway or Other Generic Tolled Route	
		Description	Level	Description	Level
Travel Time	1	Reported Travel Time + Level	0.00	Reported Travel Time - (Estimated Highway Distance * Level)	0.25
	2		2.00		0.40
	3		4.00		0.55
	4		6.00		0.70
Toll Cost	1	Toll Free		Estimated Highway Distance * Level	0.050
	2				0.075
	3				0.100
	4				0.125
	5				0.150
	6				0.200
	7				0.250
	8				0.300

The specific levels used in each stated preference experiment were determined by using an orthogonal experimental design, which ensured that information was collected from respondents in a statistically efficient manner. This technique is commonly used in constructing experimental plans. The experimental design for this survey contained 64 experiments which were divided into eight groups of eight. One of the eight groups was randomly chosen for each respondent and the eight experiments were shown to the respondent in a randomized order.

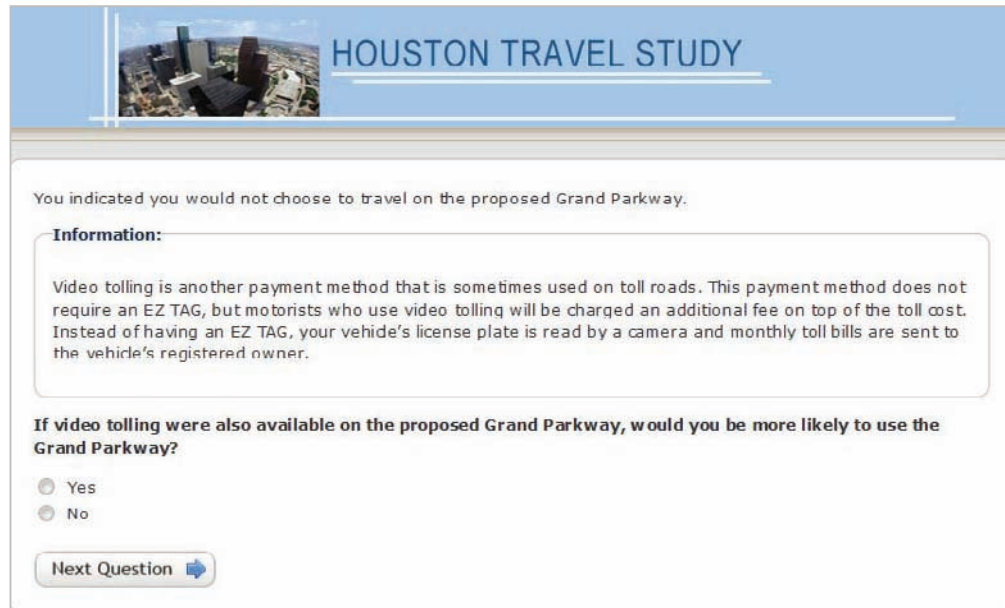
2.3 Debrief Questions

After completing the eight stated preference scenarios, respondents answered a series of questions to assess underlying rationales for their choices and to identify any potential strategic bias in their responses.

Respondents who never selected a tolled route alternative were asked to select the primary reason for these choices. Additionally, respondents who do not own an ETC transponder and who never selected a tolled alternative were asked to indicate whether the presence of video tolling would increase their likelihood of using the proposed Grand Parkway (Figure 2.8).



Figure 2.8: Sample Survey Screen: Video Tolling



Finally, respondents were asked for their overall opinion of either the proposed Grand Parkway project or toll roads in general, depending on which toll route alternative they saw in the stated preference experiments. Those with a non-neutral opinion were asked a follow-up question to identify why they were either in favor of or opposed to the project or toll roads. Respondents were then asked the degree to which they agreed or disagree with a series of attitudinal statements regarding tolls and changing travel behavior.

2.4 Demographic Questions

To finish the survey, demographic questions were asked in order to classify respondents, identify differences in responses among traveler segments, and confirm that the sample contained a diverse cross section of the traveling population that is served by the proposed Grand Parkway.

All respondents answered demographic questions relating to the following topics:

- Gender
- Age
- Employment status
- Household size
- Number of household vehicles
- Annual household income

Before finishing the survey, respondents were given the opportunity to leave comments about the survey and/or the proposed Grand Parkway. These open-ended comments are provided in Appendix D.



3.0 SURVEY ADMINISTRATION

RSG worked closely with the project team to design an administration plan to produce a generally representative sample of travelers within the proposed Grand Parkway corridor. The sampling plan was designed to include a sufficient range of travelers and trip types to support the statistical estimation of coefficients of a discrete choice model. By collecting data from a range of traveler and trip types, it is possible to identify the ways in which different characteristics affect mode and route choice behavior. These differences can then be reflected in the structure and coefficients of the resulting choice model. It should be noted that the survey sample that supports choice model estimation does not need to be perfectly population proportional as long as:

- Any behavioral differences are properly represented in the model, and
- The model is applied for forecasting using appropriate population proportions and/or sample weights.

The survey instrument was administered in a variety of ways, including:

1. Onsite intercepts using laptop computers at various locations along the study corridor
2. An email campaign to travelers who had previously completed an origin-destination survey and expressed interest in participating in additional travel studies in the Houston area
3. Businesses and organizations located near the Grand Parkway study corridor
4. An online market research panel

RSG began administration on February 11, 2011 and concluded on March 15, 2011. A total of 1,816 surveys were completed during this time. The administration methods and number of complete surveys are presented in Table 3.1.

Table 3.1: Survey Administration Methods

Data Source	Completed Surveys
Onsite intercept	597
Area businesses/organizations	489
Email campaign	428
Online research panel	302
Total	1,816

3.1 Onsite Intercepts

RSG assembled a team that traveled to the greater Houston area to intercept local travelers to take the stated preference questionnaire. The onsite intercept locations were distributed throughout the study corridor, ranging from Richmond, TX at the southwest corner to New Caney, TX at the northeast section. The RSG team set up sites for local travelers to take the survey at a variety of locations in the study corridor including libraries, gyms, municipal buildings, grocery stores, and colleges. Table 3.2 provides a breakdown of the number of completes for each of the intercept sites.



Table 3.2: Completed Surveys by Field Intercept Location

Intercept Location	Completed Surveys
Libraries	
Katherine Tyra Library	44
Lone Star College/Tomball Library	56
Cinco Ranch Branch Library	33
Baldwin Boettcher Branch Library	50
RB Tullis Library	27
Katy Library	28
Maud Smith Marks Library	60
Barbara Bush Library	35
Municipal Buildings	
Fort Bend County Tax Office #1	41
Fort Bend County Tax Office #2	42
Grocery Stores	
Hodges Food Basket	27
Kroger	29
Gyms	
Spring Fitness	6
Legends Sports Complex	25
Colleges	
University of Houston – Sugarland (2 days)	94
Total	597

3.2 Email Campaign

RSG was provided with a list of approximately 1,200 emails addresses of people who had previously completed an origin-destination travel study in the Houston area and had indicated that they would be willing to participate in future studies. Each traveler was sent an email with a link to the survey. This administration method yielded a total of 428 completes. Respondents who completed the survey were offered an incentive in the form of a gift card.

3.3 Online Research Panel

RSG contracted with online market research panel Research Now to provide 300 complete responses. Panel members were targeted by county of residence, and qualifying members were sent an email invitation to the stated preference survey that contained a link with a unique identifier. Respondents completed the survey on RSG's server before being redirected back to the panel provider's website. Research Now provided a cash incentive dependent on their internal compensation system for those panel members who successfully completed the survey. The online panel yielded a total of 302 completes.



3.4 Businesses and Organizations

RSG contacted a number of local businesses and community organizations with the purpose of distributing the survey link to their employees or members. Sample organizations whose employees and members completed the survey are Jones & Carter, Inc., Greater Tomball Area Chamber of Commerce, and the City of Tomball. This administration method yielded 489 completes. No monetary incentive was offered for these respondents.

4.0 SURVEY RESULTS

A total of 1,816 respondents completed the survey before it was closed. The number of records was reduced to 1,687 after completing data checks and outlier analysis during the model estimation work, which is described in more detail in Section 5.0 (Model Estimation) of this report. The descriptive analysis of the data presented in this section of the report is based on the 1,687 respondents who were included in the model estimation and is provided in four sections: trip characteristic questions, stated preference questions, debrief questions, and demographic questions.

For the purposes of statistical modeling, respondents were grouped into two segments:

1. Peak period trips (6:30 AM to 8:30 AM or 3:30 PM to 6:30 PM)
2. Off-peak period trips (8:30 AM to 3:30 PM or 6:30 PM to 6:30 AM)

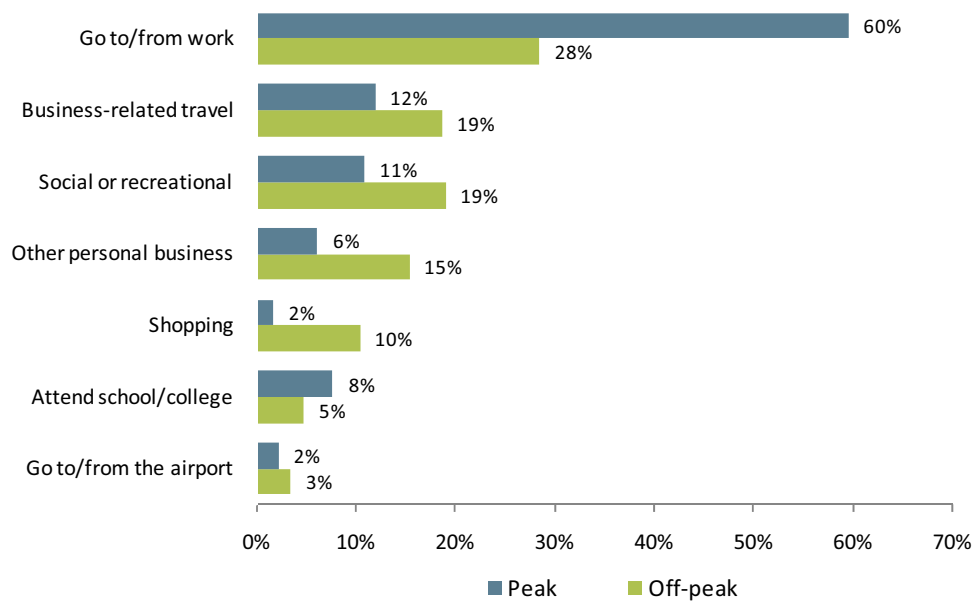
Many of the tabulations presented in the remainder of this report and in the appendices are segmented by these categories. A complete set of tabulations of survey questions by segment is shown in Appendix C.

4.1 Trip Characteristic Questions

At the beginning of the trip characteristic section, respondents were asked about their most recent trip in the Grand Parkway corridor. Forty-three percent of respondents in the aggregate reported a trip to/from work, 16% reported a business-related trip, and 6% reported a shopping trip (Figure 4.1). The trip purposes of respondents varied by segment; shopping, social, and personal business trips were each reported by over 10% of off-peak respondents, whereas peak trips were composed of a majority (60%) of commute trips.



Figure 4.1: Primary Trip Purpose by Segment



A significant majority (86%) of trips began at home. The most commonly reported trip originated at home and ended at a location other than home or work. This particular trip type categorized 45% of respondents. Table 4.1 describes the distribution of beginning and ending locations.

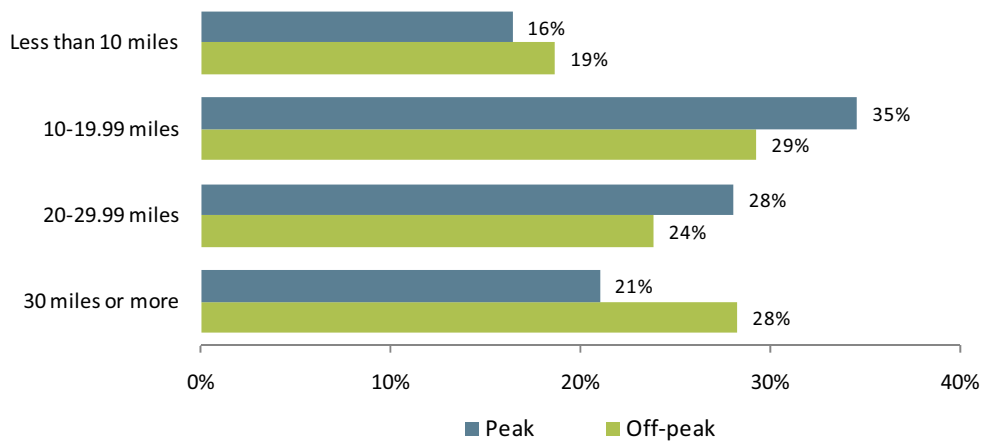
Table 4.1: Distribution of Trip Origins and Destinations

		Destination			Total
		Home	Work	Another place	
Origin	Home	1%	40%	45%	86%
	Work	4%	1%	6%	11%
	Another place	2%	0%	1%	3%
	Total	6%	41%	52%	100%

The latitude and longitude coordinates for each origin-destination pair were used to calculate the trip distance using a Google Maps™ travel direction algorithm. The median trip distance was 20.3 miles. The distance traveled during reported trips varied by trip time of day as shown in Figure 4.2. Off-peak respondents had a greater likelihood of travelling distances of over 30 miles.

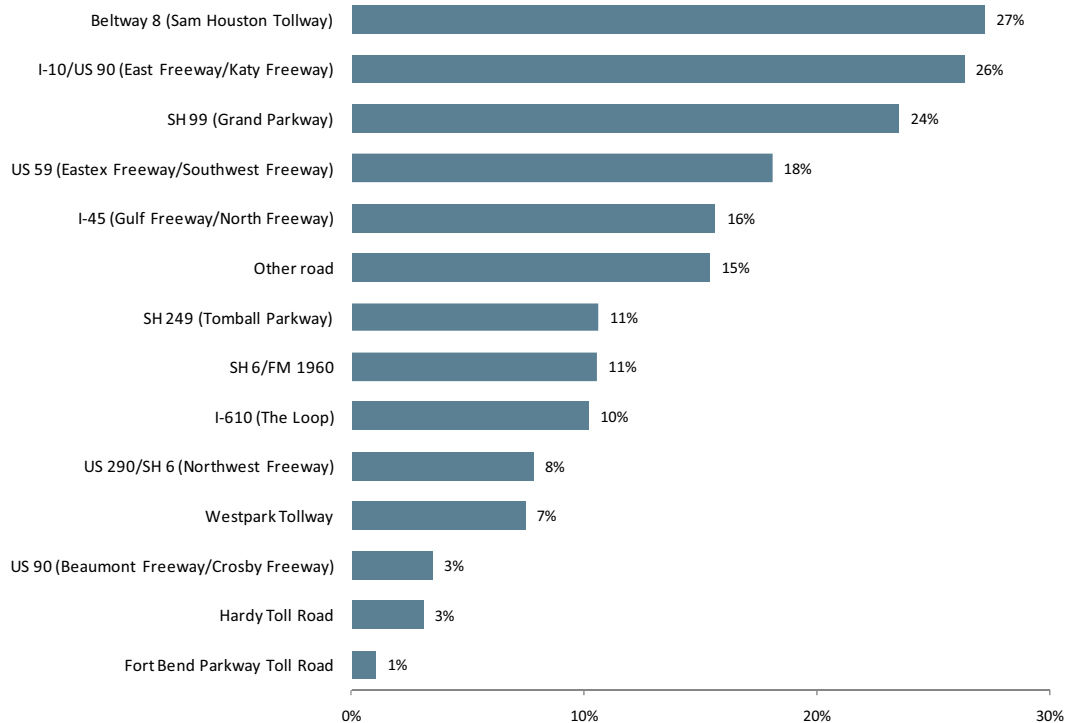


Figure 4.2: Calculated Trip Distance by Segment



Respondents reported the roads that they used during their trip and Beltway 8 and I-10/US 90 were each selected by over one-quarter of respondents (27% and 26% respectively). The percentage of respondents who reported using each of the major roads in the greater Houston area is shown in Figure 4.3.

Figure 4.3: Roads Used (Select All That Apply¹)

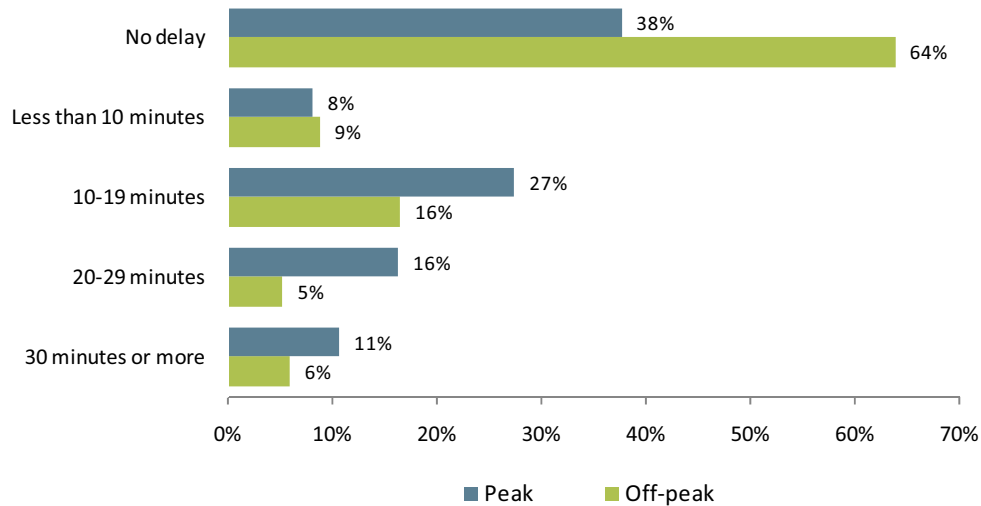


¹ Select all that apply. Total sums to more than 100%



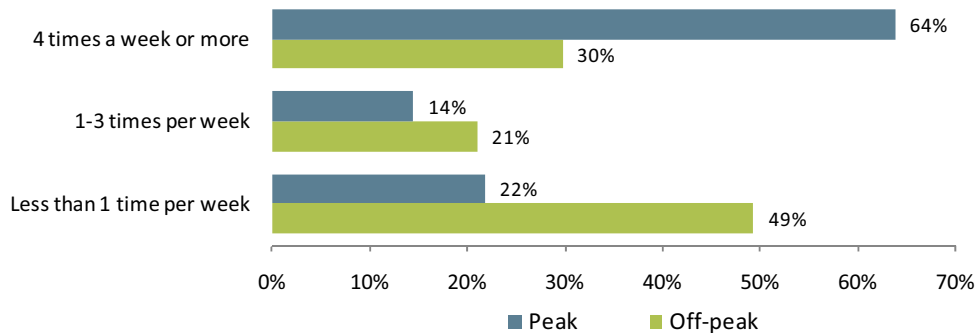
Overall, 48% of respondents reported a delay due to traffic congestion during their reported trip, with significant variation by time of day. Sixty-two percent of peak trips experienced delay, while only 36% of off-peak trips experienced delay due to traffic congestion. In addition to experiencing delays more frequently, respondents who traveled during peak hours also reported longer delays as shown in Figure 4.4.

Figure 4.4: Delay due to Traffic Congestion by Segment



Sixty-four percent of all peak trips are made four or more times per week. Off-peak trips were made less frequently, which can be explained by the fact that only 28% of off-peak trips were commute trips (Figure 4.5).

Figure 4.5: Trip Frequency by Segment

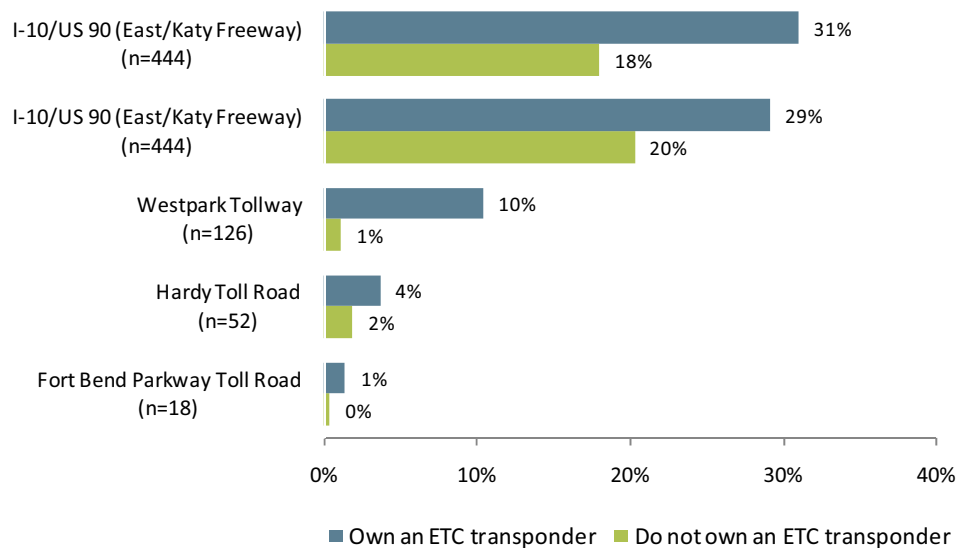


Peak trips had a mean occupancy of 1.38 with over one-quarter (26%) of respondents traveling in a high occupancy vehicle (HOV) with two or more occupants. Off-peak trips had a mean occupancy of 1.48 and about one-third (33%) of respondents traveled in an HOV with two or more occupants.

More than two-thirds (68%) of the aggregate sample reported owning an electronic toll transponder; 70% of peak travelers reported owning an EZ TAG transponder and similarly 67% of off-peak travelers reported owning an EZ TAG transponder. Electronic toll transponder ownership was more common for travelers who used a toll road in the greater Houston area as shown in Figure 4.6.



Figure 4.6: Toll Road Usage by ETC Ownership



4.2 Stated Preference Questions

Respondents chose the current route alternative in approximately 64% of stated preference scenarios, and the Grand Parkway/Tolled Route alternative in 36% of scenarios (Table 4.2).

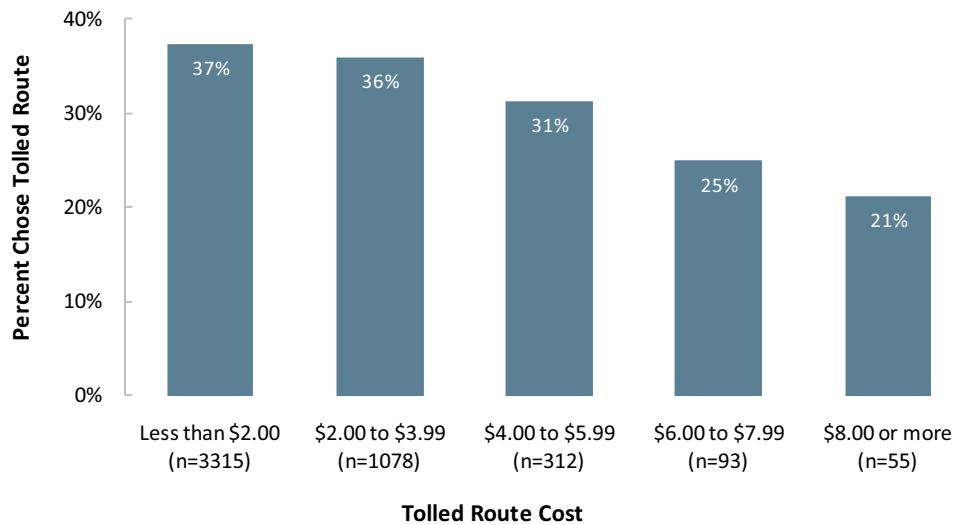
Table 4.2: Stated Preference Choice by Choice Availability

Alternative	Number of Experiments Shown	Number of Experiments Selected	Percent Selected
Alternative 1: Current Route	13,496	8,463	64%
Alternative 2: Tolled Route	13,496	4,853	36%

As a general rule, respondents were less likely to choose the Grand Parkway/Tolled Route alternative as the toll cost increased. Figure 4.7 presents the percentage of time the Grand Parkway/Tolled Route was chosen in the stated preference experiments at different toll rates. Because each respondent was presented with eight questions, the total number of choice observations is 13,496. Analysis of the stated preference data will be described in more detail in the Model Estimation section of this report.



Figure 4.7: Percent of Time Grand Parkway/Tolled Route Selected by Toll Cost



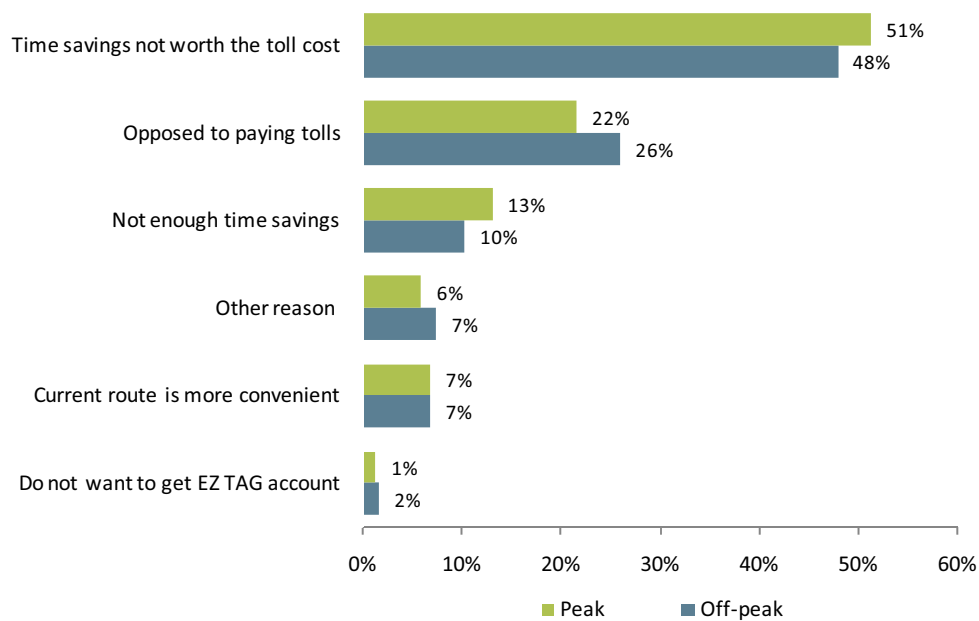
4.3 Debrief Questions

Upon completing the stated preference experiments, respondents were asked to answer a series of debrief questions to better understand the underlying reasons for their choices in the eight stated preference questions.

If a respondent never chose the Grand Parkway/Tolled Route alternative in the stated preference scenarios, they were asked to select the primary reason they did not select the tolled alternative. The option most frequently cited (49% of 597 respondents who never selected the tolled alternative) was that the time savings presented in the experiments was not high enough to justify the toll cost (Figure 4.8).



Figure 4.8: Main Reason for Not Selecting Tolled Route Alternative



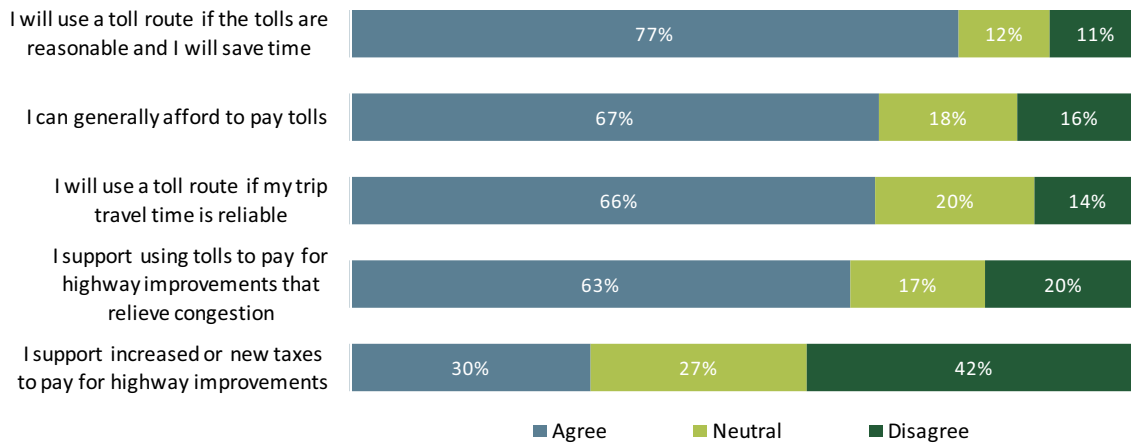
Over half of both peak and off-peak respondents were in favor of either the Grand Parkway project or toll roads in general, and less than one-quarter of these respondents opposed the project or toll roads. Of the 626 respondents who could reasonably use the Grand Parkway for their reported trip, 54% favored the project, whereas 27% opposed the project. Of those who favored the project, the most frequently cited reason for favoring the project was the faster travel times that would result from the Grand Parkway (25% of 337 respondents). Conversely, the most commonly expressed reason for opposing the project is a general opposition to paying tolls, which was cited by 13% of those opposing the Grand Parkway project (145 respondents).

Respondents who own an ETC transponder are almost twice as likely as non-owners to favor the proposed Grand Parkway project. Of those who reported that they do not own a transponder and did not choose a tolled route alternative in the stated preference section (253 respondents), only 7% indicated that they would be more likely to use the Grand Parkway if video tolling was instituted.

When presented with a series of questions regarding their attitudes regarding tolls, respondents were most likely to agree that they will use a toll route if the tolls are reasonable and that they will save time. Conversely, respondents were most unlikely to support next taxes to pay for highway improvements (Figure 4.9).



Figure 4.9: Attitude Statements

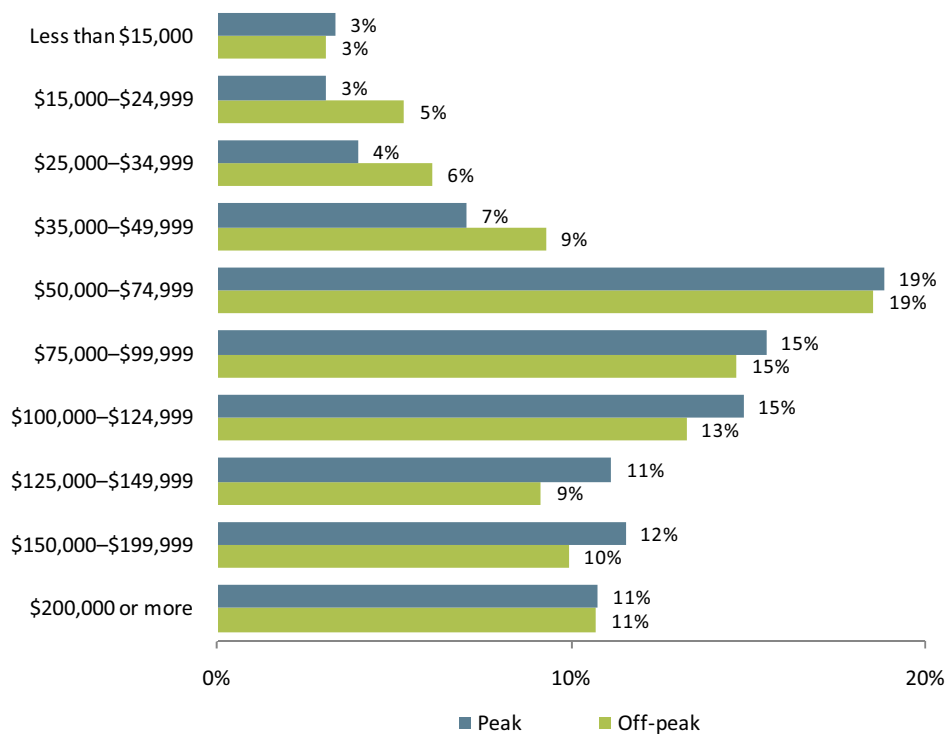


4.4 Demographic Questions

Of the 1,687 respondents, slightly over half were male (52%), and the median age of the sample fell in the 45-54 year old category. Thirty-seven percent of respondents live in a two-person household (the most commonly selected category) and a majority (54% of all respondents) have two household vehicles. A majority of respondents (62%) are employed full-time, while 8% reported self-employment, and only 3% reported that they are not currently employed. The median household income of respondents was in the \$75,000-\$99,999 income category (Figure 4.10).



Figure 4.10: Annual Household Income by Segment



5.0 MODEL ESTIMATION

Statistical analysis and discrete choice model estimation were carried out using the stated preference survey data. Responses from the stated preference scenarios were expanded into a dataset containing eight observations for each respondent.

5.1 Methodology and Alternatives

The statistical estimation and specification testing were completed using a conventional maximum likelihood procedure that estimated a set of coefficients for a multinomial logit (MNL) model² and a mixed-multinomial logit (MMNL) model for two market segments. The model coefficients provide information about the respondents' sensitivities to the attributes that were tested in the tradeoff scenarios. The sensitivities will

² The multinomial logit model has the general form $p(i) = \frac{e^{U_i}}{\sum_{AllModes} e^{U_j}}$, where $p(i)$ is the probability that mode i will be

chosen and U_i is the "utility" of mode i , a function of service and other variables. See, for example, M. E. Ben-Akiva and S. R. Lerman, *Discrete Choice Analysis*, MIT Press, 1985 for details on the model structure and statistical estimations procedures.



serve as inputs into the travel demand model to forecast behavioral response, traffic, and revenue for the proposed Grand Parkway.

In each stated preference scenario, the following three alternatives were presented for making a future trip in the area:

1. Current route
2. Grand Parkway or other tolled route

Respondents who reported a trip that could use the proposed Grand Parkway saw the Grand Parkway tolled route, otherwise respondents saw a generic tolled route option. The alternatives presented to each respondent are described in more detail in Section 2.2.

5.2 Identification of Outliers

The choice data were screened to ensure that all observations included in the model estimation represented realistic trips and reasonable trade-offs in the stated preference exercises. Several variables were used for screening purposes, including an examination of total survey duration, stated preference duration, and inconsistent or irrational choice behavior.

After reviewing these variables and the effects that extreme values had on the models, it was determined that respondents who met the following conditions should be excluded from the final analysis (the categories are not mutually exclusive):

- Respondents demonstrating inconsistent or irrational choice behavior in the stated preference exercises. For example, respondents who established a certain dollar amount for willingness to pay for time savings and then rejected paying less money for equal or more time savings (38 respondents, 304 choice observations).
- Respondents whose implied speed for their trip was greater than 85 mph or less than 5 mph or whose total trip delay was more than 60 minutes (32 respondents, 256 choice observations).
- Respondents whose travel time was more than three hours (27 respondents, 216 choice observations).
- Respondents who completed the entire survey in less than five minutes or who completed the SP section of the survey in less than 24 seconds, or 3 seconds per SP experiment (26 respondents, 208 choice observations).
- Respondents who reported a total toll amount paid of fifteen dollars or more (6 respondents, 48 observations).

Based on this outlier analysis, a total of 1,687 respondents (13,496 observations) were used to estimate the models presented in this report.

5.3 Segmentation

Automobile traveler segment models were estimated for two market segments based on trip travel time:

1. Peak period trips (6:30 AM to 8:30 AM or 3:30 PM to 6:30 PM)
2. Off-peak period trips (8:30 AM to 3:30 PM or 6:30 PM to 6:30 AM)



This final segmentation scheme was chosen based on the behavioral differences observed between the segments, expected application of the choice models, and the reasonableness and intuitiveness of the segmented results. The same model specification was developed for each of the individual segments.

5.4 Multinomial Logit (MNL) Model Estimation and Specification

Several utility equation structures were tested using the variables included in the stated preference scenarios, as well as trip characteristics, attitudinal indicators, and demographic variables. The general structure of these specifications was similar to the final specifications used; however, other variables were introduced, one at a time, to test potential interactions with the toll cost and travel time coefficients. These model specifications were developed to determine whether other characteristics of the respondents' trip or demographic information significantly influenced their choices in the stated preference scenarios. The variables that were tested included:

- Travel time
- Time of day
- Trip Purpose
- Opinion
- Income
- Trip distance
- Trip frequency
- Delay
- Occupancy
- Data source
- ETC ownership
- Roads used during trip

After reviewing the significance of each variable, the final model specification was chosen based on model fit, the intuitiveness and reasonableness of the model coefficients, and the expected application of the model results. In addition to the variables included in the stated preference scenarios, household income was found to be statistically significant.

The final model specification includes variables for travel time and toll cost. A non-linear transformation of the toll cost coefficient by household income was estimated to capture the relationship between toll cost sensitivity and household income. Finally, two alternative specific constants were included for the tolled route alternative:

- A constant for respondents who used a toll road during their reported trip and
- A constant for respondents who did not use a toll road during their reported trip.

These separate constants are essentially a proxy for toll road familiarity and acceptance, and they capture the different choice behaviors of the two groups of respondents. Figure 5.1 describes the utility equations used in the MNL models, including the income and trip distance transformations applied to the toll cost variable.



Figure 5.1: Utility Equations

$U(\text{Current Route}) =$	$\beta \text{TravelTime} * a1\text{TravelTime}$
$U(\text{Tolled Route}) =$	$\beta \text{TravelTime} * a2\text{TravelTime} + \beta \text{TollCost} * (\beta a2\text{TollCost} / \log(\text{IncomeCategory Midpoint} / 1000)) + \beta \text{NonTollUserConstant} + \beta \text{TollUserConstant}$

5.4.1 Model Coefficients: MNL

The coefficient values, robust standard errors, robust t-statistics, and general model statistics are presented for the aggregate sample as well as each model segment in Table 5.1 through Table 5.3. The statistics included for each model are the number of observations, Log Likelihood at zero, at constants only, and at convergence, the number of estimated parameters, Rho-Squared (model fit measure), and adjusted Rho-Squared (another model fit measure that incorporates the number of estimated parameters). In addition to these model statistics, the mean income midpoint and the mean trip distance are included for each segment.

Table 5.1: Multinomial Logit - Aggregate Model Coefficients

Aggregate Trips Model Parameters					
Parameters	Units	Description	Value	Robust Std. Error	Robust t-stat
$\beta \text{TravelTime}$	Minutes	Travel time	-0.144	0.00493	-29.18
$\beta \text{TollCost}$	Dollars	Toll cost*	-2.65	0.0928	-28.5
$\beta \text{NonTollUserConstant}$	(0,1)	Toll constant for non-toll road users	-1.64	0.0436	-37.72
$\beta \text{TollUserConstant}$	(0,1)	Toll constant for toll road users	0.576	0.0622	9.27
Model Statistics					
Number of estimated parameters:		4			
Number of observations:		13496			
Number of individuals:		1687			
Init log-likelihood:		-9354.714			
Final log-likelihood:		-6742.008			
Rho-square:		0.279			
Adjusted rho-square:		0.279			
Mean income category midpoint (\$)		87,500			

* The toll cost variable is divided by the natural log of household income in thousands of dollars



Table 5.2: Multinomial Logit - Peak Period Trips Model Coefficients

Peak Model Parameters					
Parameters	Units	Description	Value	Robust Std. Error	Robust t-stat
$\beta_{TravelTime}$	Minutes	Travel time	-0.160	0.00723	-22.15
$\beta_{TollCost}$	Dollars	Toll cost*	-2.70	0.135	-19.96
$\beta_{NonTollUserConstant}$	(0,1)	Toll constant for non-toll road users	-1.69	0.065	-26.03
$\beta_{TollUserConstant}$	(0,1)	Toll constant for toll road users	0.417	0.0929	4.49
Model Statistics					
Number of estimated parameters:		4			
Number of observations:		6248			
Number of individuals:		781			
Init log-likelihood:		-4330.784			
Final log-likelihood:		-3165.666			
Rho-square:		0.269			
Adjusted rho-square:		0.268			
Mean income category midpoint (\$)		87,500			

* The toll cost variable is divided by the natural log of household income in thousands of dollars

Table 5.3: Multinomial Logit - Off-Peak Period Trips Model Coefficients

Off-Peak Model Parameters					
Parameters	Units	Description	Value	Robust Std. Error	Robust t-stat
$\beta_{TravelTime}$	Minutes	Travel time	-0.13	0.00672	-19.31
$\beta_{TollCost}$	Dollars	Toll cost*	-2.58	0.127	-20.38
$\beta_{NonTollUserConstant}$	(0,1)	Toll constant for non-toll road users	-1.62	0.0588	-27.47
$\beta_{TollUserConstant}$	(0,1)	Toll constant for toll road users	0.711	0.0834	8.52
Model Statistics					
Number of estimated parameters:		4			
Number of observations:		7248			
Number of individuals:		906			
Init log-likelihood:		-5023.931			
Final log-likelihood:		-3563.92			
Rho-square:		0.291			
Adjusted rho-square:		0.290			
Mean income category midpoint (\$)		87,500			

* The toll cost variable is divided by the natural log of household income in thousands of dollars

5.4.2 Values of Time: MNL

One way to evaluate the sensitivities that are estimated in the MNL models is to calculate the values of time for the different model segments. The marginal rate of substitution of the travel time and toll cost coefficients provides the implied value that travelers place on their time in terms of their willingness to pay a toll for travel time savings offered on the Grand Parkway. The values of time evaluated at each income category midpoint are shown below in Table 5.4. The median income for each segment is \$87,500.



Table 5.4: Multinomial Logit Models – Values of Time by Segment and Income

Income	Aggregate VOT	Peak VOT	Off-Peak VOT
\$10,000	\$7.51	\$8.19	\$6.96
\$22,500	\$10.15	\$11.07	\$9.41
\$30,000	\$11.09	\$12.09	\$10.28
\$42,500	\$12.22	\$13.33	\$11.34
\$62,500	\$13.48	\$14.70	\$12.50
\$87,500	\$14.58	\$15.90	\$13.52
\$112,500	\$15.40	\$16.79	\$14.28
\$137,500	\$16.05	\$17.51	\$14.89
\$175,000	\$16.84	\$18.36	\$15.61
\$225,000	\$17.66	\$19.26	\$16.37

5.5 Mixed Multinomial Logit (MMNL) Model Estimation

In general, there are two main ways of dealing with taste heterogeneity in logit models. The first involves the deterministic or systematic representation of taste heterogeneity. This type of taste heterogeneity can be captured through model specification and segmentation of the choice data. However, some taste heterogeneity cannot be explained deterministically; there are actual random variations of taste among individuals. This random representation of taste heterogeneity can be captured using mixed multinomial logit (MMNL) models.

In the MMNL model, one or more of the coefficients can be specified as random parameters. The model produces two coefficient estimates for each random parameter – a mean (μ) and a standard deviation (σ) – that describe the shape of the distribution for that random parameter. The distribution of the random parameter represents the taste heterogeneity for that attribute across the survey population.

5.5.1 Model Specification: MMNL

For this study, MMNL models were estimated using a similar specification to that which was identified in the preliminary MNL models for each of the study segments. However, there are a few key differences between the MMNL specification and the MNL specification. First, the travel time and toll cost coefficients were transformed in the utility equation to estimate the value of time, or willingness to pay, directly. Second, random parameters were specified for the willingness to pay and for the alternative-specific constant on the toll alternative.

Different underlying distributions for the willingness to pay and toll constant were tested for each segment, including normal and log-normal. Assuming a log-normal distribution of willingness to pay and a normal distribution on the alternative-specific constant produced the best model fit and the most intuitive and reasonable results for each segment.

As with the MNL models, the toll cost variable was divided by the natural log of household income in thousands of dollars. This transformation allows the distribution of values of time to be calculated for any income level.



5.5.2 Model Results: MMNL

Coefficient values as well as general model statistics are provided for each segment in Table 5.5 through Table 5.7. The t-statistics for the standard deviation estimates show that each of the distributed coefficients are significantly different from zero, indicating that the models are identifying heterogeneity among the respondents with respect to those coefficients.

Table 5.5: Mixed Multinomial Logit – Aggregate Model Coefficients

Aggregate Trips Model Parameters			
Parameters	Value	Robust Std. Error	Robust t-stat
Willingness to pay – mean**	-3.33	0.0556	-59.85
Willingness to pay – standard deviation**	0.742	0.0429	17.28
Toll cost	-9.81	0.554	-17.72
Toll constant – mean	-2	0.2	-10.02
Toll constant – standard deviation	5.06	0.301	16.8
Model Statistics			
Number of Pseudo-random draws:	1000		
Number of estimated parameters:	5		
Number of observations:	13496		
Number of individuals:	1687		
Initial log-likelihood:	-9354.714		
Final log-likelihood:	-4943.142		
Adjusted rho-square:	0.471		

***Divided by natural log of household income in thousands of dollars. In this model, the distribution of willingness to pay was assumed to be log-normal. The parameters reported here are for the underlying normal distribution.*

Table 5.6: Mixed Multinomial Logit – Peak Model Segment Coefficients

Peak Model Parameters			
Parameters	Value	Robust Std. Error	Robust t-stat
Willingness to pay – mean**	-3.31	0.0736	-44.93
Willingness to pay – standard deviation**	0.707	0.0452	15.65
Toll cost	-10	0.8	-12.57
Toll constant – mean	-2.06	0.285	-7.21
Toll constant – standard deviation	-4.94	0.381	-12.98
Model Statistics			
Number of Pseudo-random draws:	1000		
Number of estimated parameters:	5		
Number of observations:	6248		
Number of individuals:	781		
Initial log-likelihood:	-4330.784		
Final log-likelihood:	-2361.927		
Adjusted rho-square:	0.453		

***Divided by natural log of household income in thousands of dollars. In this model, the distribution of willingness to pay was assumed to be log-normal. The parameters reported here are for the underlying normal distribution.*



Table 5.7: Mixed Multinomial Logit – Off-Peak Model Segment Coefficients

Off-Peak Model Parameters			
Parameters	Value	Robust Std. Error	Robust t-stat
Willingness to pay – mean**	-3.35	0.0692	-48.5
Willingness to pay – standard deviation**	-0.758	0.0491	-15.43
Toll cost	-9.8	0.738	-13.27
Toll constant – mean	-2.07	0.268	-7.74
Toll constant – standard deviation	-5.07	0.36	-14.11
Model Statistics			
Number of Pseudo-random draws:	1000		
Number of estimated parameters:	5		
Number of observations:	7248		
Number of individuals:	906		
Initial log-likelihood:	-5023.931		
Final log-likelihood:	-2580.956		
Adjusted rho-square:	0.485		

***Divided by natural log of household income in thousands of dollars. In this model, the distribution of willingness to pay was assumed to be log-normal. The parameters reported here are for the underlying normal distribution.*

5.5.3 Values of Time: MMNL

The distribution of the willingness to pay parameter can be used to generate cumulative distribution curves (toll choice curves), which represent the proportion of travelers with a value of time at or above any given value. This curve is useful for determining what proportion of travelers will use a toll route at any combination of toll and travel time differences compared to competing routes. These toll choice curves were generated by taking 10,000 independent draws from the distribution of willingness to pay with mean μ and standard deviation σ , where μ and σ are the specific distribution parameters for each segment.

The toll choice curves for each segment are provided below. Because the willingness to pay distribution was transformed by household income, the curves are provided for four different household income levels to demonstrate relationship between income and the distribution.

Table 5.8: Mixed Multinomial Logit Models – Values of Time by Segment

Segment	Median VOT* (\$/hr)	Mean VOT* (\$/hr)
Aggregate	\$9.81	\$12.98
Peak Period	\$10.17	\$12.92
Off-Peak Period	\$9.66	\$12.73

**Evaluated at \$87,500, the median household income for the sample*



Figure 5.2: Mixed Multinomial Logit - Aggregate Toll Choice Curve

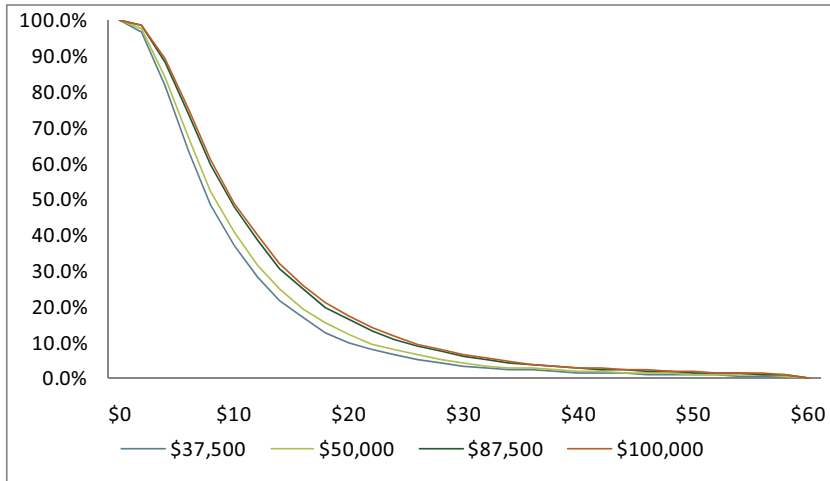


Figure 5.3: Mixed Multinomial Logit - Peak Toll Choice Curve

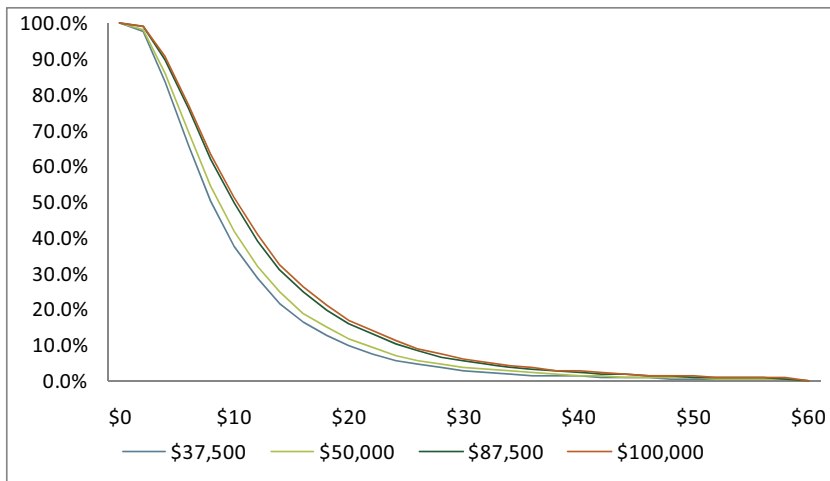
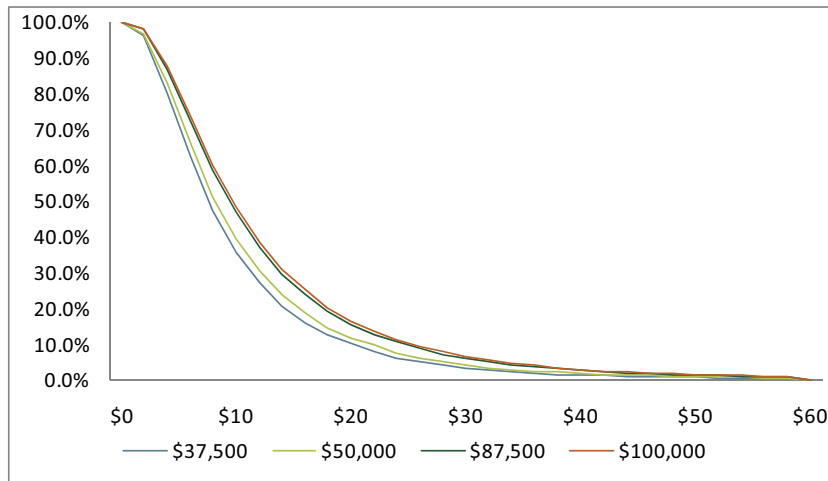


Figure 5.4: Mixed Multinomial Logit - Off-Peak Toll Choice Curve



6.0 CONCLUSION

RSG successfully developed and implemented a stated preference survey questionnaire that gathered information from 1,687 automobile travelers within the corridor of the proposed Grand Parkway. The questionnaire collected data on current travel behaviors, presented respondents with information about the proposed Grand Parkway, and engaged the travelers in a series of stated preference scenarios.

Multinomial logit (MNL) choice models were developed using the survey data to produce estimates of value of time (VOT) of travelers for two market segments: peak and off-peak. The magnitude and signs of the sensitivity estimates are reasonable and intuitively correct, and the values of time that were estimated are within the ranges found in other major metropolitan areas across the country. The values of time varied by time of day and household income, and ranged from a low of approximately \$7 per hour to a high of \$19 per hour.

In addition to the MNL models, mixed multinomial logit models were developed to estimate distributions of values of time. The mixed logit models identified significant heterogeneity in the sample with regards to value of time, with some respondents having very low values of time, others having very high values of time, and the bulk of respondents being somewhere in between. When evaluated at the sample median income, the mean value of time from the mixed logit models was approximately \$10 per hour and the median was approximately \$13 per hour. These values are consistent with the values of time estimated in the MNL models.

The survey and choice model results indicate that the toll amount and travel time savings provided by the Grand Parkway could have a significant impact on travel behavior. The incorporation of these results into the updated regional travel demand model will allow Wilbur Smith Associates to evaluate a wide range of tolling scenarios and travel conditions.



**Attachment B: Economic and
Demographic Forecast Report, by
CDS Market Research**

Grand Parkway Economic/Demographic Projections - Segments D through G

Economic and Demographic Forecast 2012 Update



Prepared for

CDM Smith

Riata Corporate Park Building 5
12357- A Riata Trace Parkway (Suite 210)
Austin, TX 78727

July 16, 2012



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Introduction

This report is an update of the Grand Parkway Economic/Demographic Projections prepared by CDS Market Research for CDM Smith in 2011. In this update, new information on economic and development trends in the past year were investigated and modifications were made in the previous forecast. This report documents those changes as well as the new forecasts.

Recent Houston Metropolitan Area Trends

Overview of 2012 Houston Regional Growth Trends

The Houston Area Economy

Houston's preeminence in the energy industry led to a boom during the energy shortages of the 1970s. But after a period of rapid growth during the 1974-1981 period as crude oil prices climbed, a plunge in the world oil market had a devastating effect on the Houston economy. From 1982 to 1987 Houston lost 221,900 jobs, one out of seven. Of this number, 184,200 jobs were related to oil and gas exploration and production, oil field equipment manufacturing and sales, and pipeline transportation. But with the return to more normal supply/demand conditions in the industry, Houston was able to regain its lost jobs by 1990.

Houston Economy in 2012

The Houston Regional Economy has improved in the past year since the original forecasts were completed. By most measures, Houston leads the nation in recovery from the recent recession. In the 2011 CDS economic and demographic projections, the county and regional forecasts of the University of Houston Institute for Regional Forecasting (UH-IRF) were adopted. After the 2010 Census was released, CDS adjusted the UH-IRF population projections slightly to accommodate the new census population estimates. In the CDS forecasts, the 8-county regional population was expected to increase by 143,900 annually from 2010 to 2040 and the regional employment was expected to increase 56,750 annually over that same period.

Houston Sugar Land Baytown Metropolitan Statistical Area (MSA)



Post-2010 Census data for employment and population comes from two different sources, The Texas workforce commission for employment and the Census Bureau itself for population. According to the Texas Workforce Commission and the U.S. Bureau of Labor Statistics, the Houston region added 88,600 payroll jobs in the 12-months from May 2011 to May 2012. According to U.S. Bureau of the Census estimates, the 8-County region added 139,073 residents between the 2010 Census and their 2011 estimate. Therefore the most recent statistics available do not suggest that the long-term forecasts for the region and the counties are in need of modification.

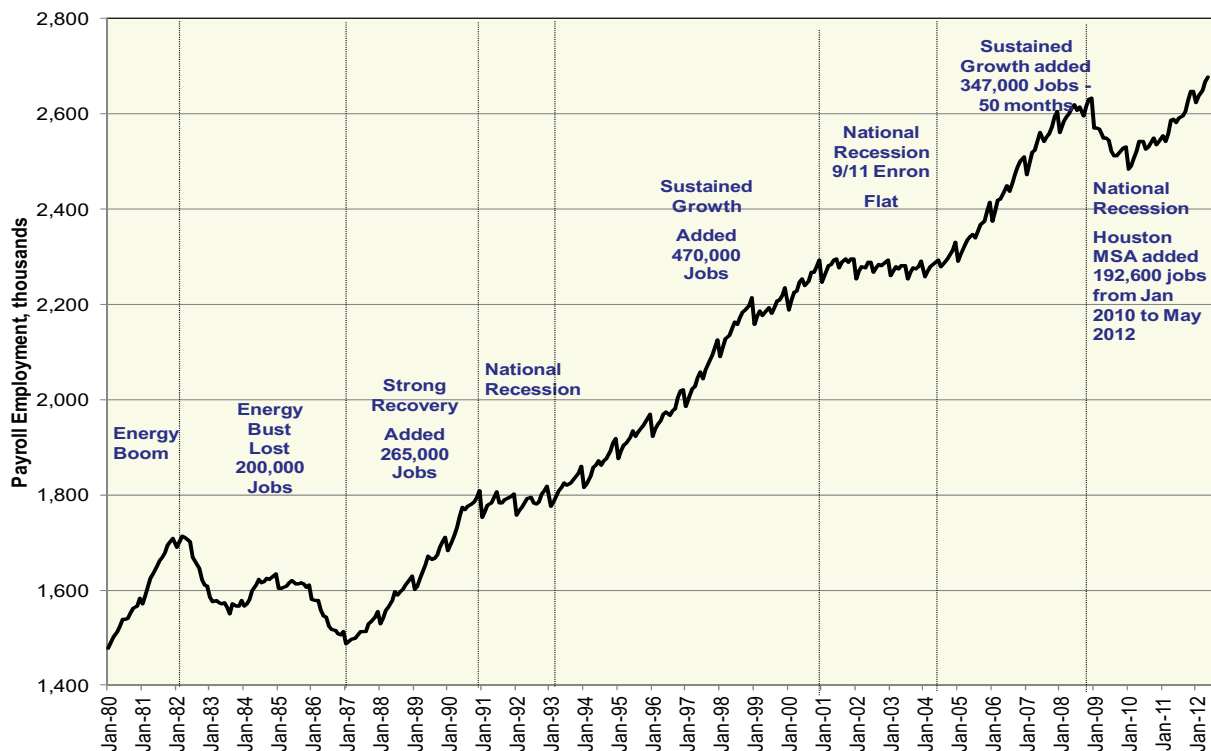
The annual employment growth projection of 56,750 is an average over a long period of time, the one year growth of 88,600 is not out of line with a cyclical trend that would result in the long term average projected by the UH-IRF and CDS.

The chart below presents the employment trends in the Houston region since 1980. Employment is most often used as the best “barometer” to measure the regional economy since the jobs data is readily available, updated monthly, and adjusted to detailed employer records annually. The 25-year historical trend of job growth in the

Comparison - Recent Population and Employment Trends with Forecasts

Measure	CDS-IRF Long Term Projection –Avg. Annual Growth	Most recent 12-month Growth	Actual 1 year Change / Long Term Projection
8-County Regional Employment	56,750	88,600	+47.3%
8-County Regional Population	143,900	139,073	-5.4%

Houston MSA Historical Job Growth Trends



region averages 45,408 annually (a 2.3% compound annual growth rate. The 56,750 average annual growth in the forecasts equates to a 1.7% compound annual growth rate from 2010 to 2040 lower than the last 25 years' and the past year's job growth rate.

For this update, there was no compelling rationale to cause a change in the county-level region level jobs forecasts.

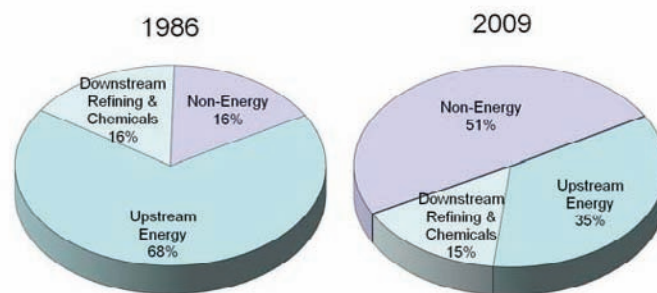
Economic Diversification

As the chart depicting Houston MSA job growth demonstrates, following the strong recovery after 1987, Houston's economy was flat during national recessions in the early 90s and early 00s following the 9/11 attacks but very robust during the intervening and subsequent years up until the current recession of 2008-2012.

Since 1986, the Houston MSA's economy has become diversified thereby lessening dependence on the energy industry as the economic engine for the metropolitan area.

Today, upstream energy sectors account for roughly a third of the region's economic base jobs. Since 1986, the energy-insensitive sectors of Houston's economic base have grown at an annual rate of 6.1%. As a result, the Houston MSA's employment in these sectors grew from less than 2.3% in 1986 to over 50% in 2009, while employment in both upstream energy (exploration and production) and downstream energy (refining and marketing) declined slightly.

Economic Diversification



Source: University of Houston, Institute for Regional Forecasting

Over the years, the Houston MSA's economy has changed from a manufacturing economy to a services based economy. Service-providing organizations now account for 80% of the Houston MSA's jobs and represented 82% of net job growth over the 13 years leading up to 2008. More and more, the Houston MSA is evolving to an economy based on engineering, computer, legal, accounting and administrative services. Houston's diversification and growth in the services sector is reflected in the following charts depicting industry shares of new jobs and employment by industry.

The Houston MSA's economic breadth is further substantiated by the number of large employers in the Houston area. As of 2010, there were 128 companies in the Houston MSA with 1,000 employees or more. In order to grow, the region's employers rely on a substantial local college and university system. There are 17 community college campuses and 16 university campuses within the Houston MSA. Rice University has gained significant national attention with its recent discoveries in the field of nanotechnology.

As a result of the growth of the region's economy, according to the Perryman Group, the Houston MSA's Gross Area Product (GAP) reached \$375.1 billion in 2009. Only 28 nations have GDPs exceeding the Houston MSA's GAP.

At the same time, diversification has brought about more susceptibility to national recessions.

Factors Affecting Future Regional Economic Growth

According to the Greater Houston Partnership, three factors have governed the state of Houston's economy for the past 10 years

- the health of the national economy,
- the value of the U.S. dollar against foreign currencies and
- energy prices.

Recently all of the drivers of the economy have been in decline. Starting in mid 2008, real GDP began to drop, the value of the dollar began to rise and oil prices began a sharp decline. These factors began to have an effect on the Houston economy. Year over year job losses in the Houston region peaked at 101,000 in August of 2009. According to the Greater Houston Partnership, "net over-the-year job losses in Houston continue into '10 even though credit availability has begun to improve." Monthly, year over year, Job growth resumed in August of 2010 and since then almost 73,000 jobs have been added to the regional economy.

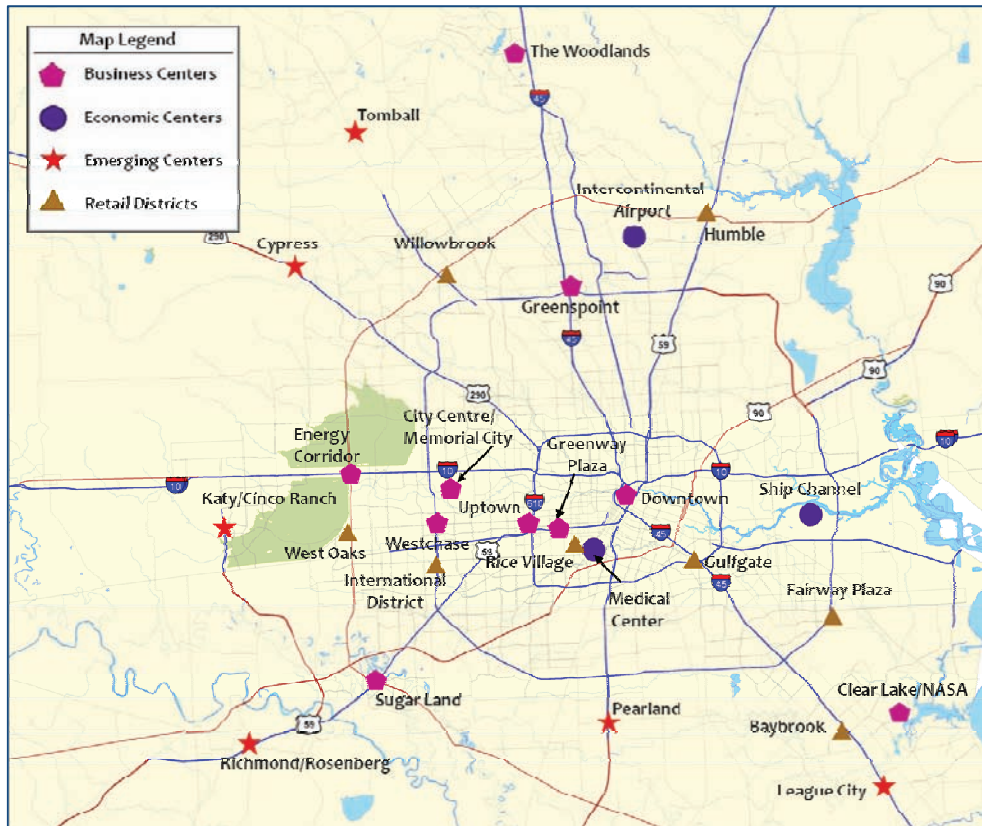
Higher oil and gas prices stimulate demand for oil field equipment and services. Spot market closing prices for West Texas Intermediate began the 00s decade in the \$20-\$30/Bbl range and remained there until 2004 when they began a steady climb, with a brief downward pause in 2006, to a peak of over \$140/Bbl. during the first half of 2008. The sharp rise was attributed to large increases in demand from China, India and the Middle East. However, with the beginning of the worldwide recession in the second half of 2008, accompanied by a fall-off in demand, crude oil prices subsided to levels below \$40/Bbl in late 2008 and early 2009, but have rebounded recently to between \$85 and \$100. Concurrently, natural gas remained under \$10/mm Btu until September 2005, peaking again in early 2008, falling to a low of \$2/mm BTU, before rebounding to around \$4. Recently, the price has ranged between \$3.80/mm BTU and \$4.20/mm BTU.

Economic Geography

The Houston MSA has developed in a low-density suburban form, uninhibited by either natural geographic boundaries or man-made political regulation. Furthermore, the central city does not enforce zoning or any other form of land use regulation. The region's central business district presently accounts for only about 6% of regional employment. Other loosely-defined 'edge cities' comprise a large portion of the region's employment base. These typically are made up of a loose cluster of office, medical office, hotel, and supportive retail land uses. Examples within the Houston area include the Uptown/Post Oak area, the Texas Medical Center, Greenway Plaza, Sugar Land, Westchase, and Greenspoint. The region's heavy industries are largely dependent upon access to highways and waterways, and are clustered around the Houston Ship Channel, stretching from just east of the Central Business District through Pasadena, Deer Park, La Porte, and Baytown, as well as in Texas City and Freeport. Additionally, a significant number of jobs are spread among Houston's suburbs in office parks, retail centers and light industrial and manufacturing facilities.

The following map illustrates the locations of the principal activity centers in the Houston area.

Major Regional Employment & Activity Centers



H-GAC Transportation Management Area

The H-GAC Transportation Planning Region

As described in the previous sections, the Houston Sugar Land-Baytown Metropolitan Statistical Area includes 10 counties. For transportation planning purposes, the Houston-Galveston Area Council (H-GAC) as the Metropolitan Planning Organization (MPO) uses an 8-county region which was the previously defined Houston-Galveston Brazoria Combined Metropolitan Statistical Area (CMSA). Included in that geography are the following counties: Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller. MSA counties which are excluded from this area are the small population counties of Austin and San Jacinto.

For the remainder of this report, the 8-county region will be the focus of the analysis.



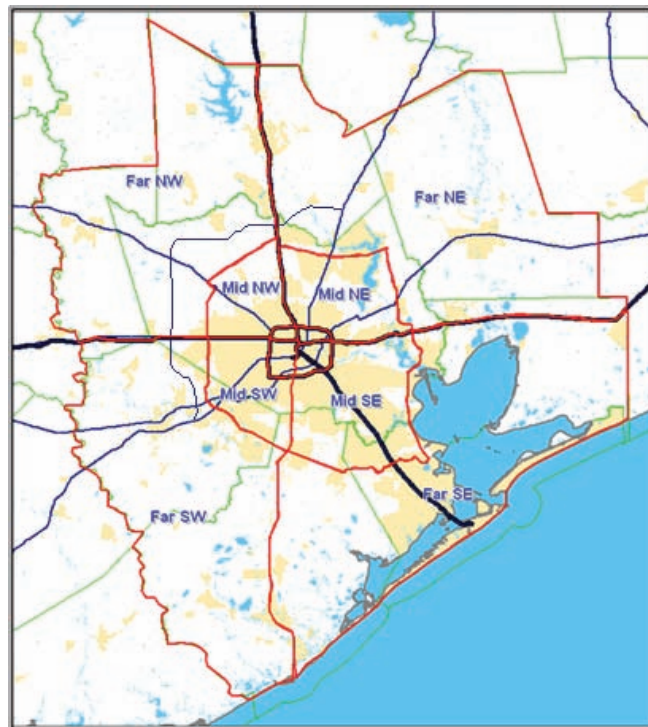
Houston Area Growth Patterns

The Houston region has a history of growth in all areas of the community. Since 1980, the growth has been biased to the Southwest, West and Northwestern areas of the region.

The map on the right shows some geographic areas that are useful for analysis of growth trends. The Inner Ring includes the I-610 Loop and is broken into four quadrants as are all other rings. The Middle Ring extends from the 610 Loop to an area bordered by SH-6 and FM-1960. The Far Ring includes the remainder of the 8-county region.

The tables on the following pages illustrate the recent growth trends by these sectors.

Rings and Sectors for Growth Trends Analysis



The table on the right presents the recent trends of household growth from one source, the Claritas demographic data service. In these estimates, all of the sectors saw household growth during this nine-year period.

Over the period covered in this table, the fastest growing sector (in terms of net households added) was the Far Northwest, followed by the Middle Southwest. These sectors captured largest shares of the overall household growth in the region (23.8% and 16.8% respectively).

The Inner Northeast was the slowest growing sector followed by the CBD, the Inner Northwest and the inner SE.

Considering the Rings, all had respectable growth but the Far Ring had the most net households added 179,291, capturing 51% of the regional growth. However, the Middle Ring was just behind with 150,523 net households added (42.8% of the regional growth). The Inner Ring added 21,728 households.

As mentioned previously, the western side of the region was still outpacing the eastern half, adding 234,612 households while the eastern half added 115,809.

In summary, household growth has been occurring all across the region – faster on the west half but roughly equally balanced north-south.

The historical information on job growth by ring and sector was derived from Claritas data on total jobs by location (daytime population). All sectors, except the Inner Northwest had a net increase in jobs during the 9-year period.

The fastest job-growth sectors were the Middle Northwest, followed closely by the Inner SW. The Middle Southwest and the

Household Trends by Ring and Sector

	Households		Change 2000-2009	
	2000	2009	HHs	% of Growth
CBD	1,496	2,627	1,131	0.3%
Inner SW	81,808	95,292	13,484	3.8%
Inner SE	49,787	54,525	4,738	1.3%
Inner NE	20,992	21,239	247	0.1%
Inner NW	21,878	24,016	2,138	0.6%
Middle SW	325,476	384,572	59,096	16.8%
Middle SE	256,581	301,460	44,879	12.8%
Middle NE	137,737	159,161	21,424	6.1%
Middle NW	216,342	241,466	25,124	7.1%
Far SW	103,443	154,655	51,212	14.6%
Far SE	132,926	141,869	8,943	2.5%
Far NE	121,737	157,315	35,578	10.1%
Far NW	166,142	249,700	83,558	23.8%
Totals	1,636,345	1,987,897	351,552	100.0%

Source – U.S. Bureau of the Census, Claritas

Job Trends by Ring and Sector

	Employment		Change 2000-2009	
	2000	2009	Jobs	% of Change
CBD	118,511	147,161	28,650	4.7%
Inner SW	191,975	286,745	94,770	15.6%
Inner SE	70,466	92,598	22,132	3.6%
Inner NE	23,387	28,184	4,797	0.8%
Inner NW	46,190	40,121	(6,069)	-1.0%
Middle SW	487,307	577,061	89,754	14.8%
Middle SE	300,050	347,259	47,209	7.8%
Middle NE	187,974	227,622	39,648	6.5%
Middle NW	311,679	420,048	108,369	17.8%
Far SW	91,899	140,358	48,459	8.0%
Far SE	164,975	172,363	7,388	1.2%
Far NE	103,844	137,700	33,856	5.6%
Far NW	155,456	244,915	89,459	14.7%
Totals	2,255,713	2,864,144	608,422	100.0%

Source: Claritas Business Facts, PCensus for MapInfo, Tetrad Computer Applications, Inc.

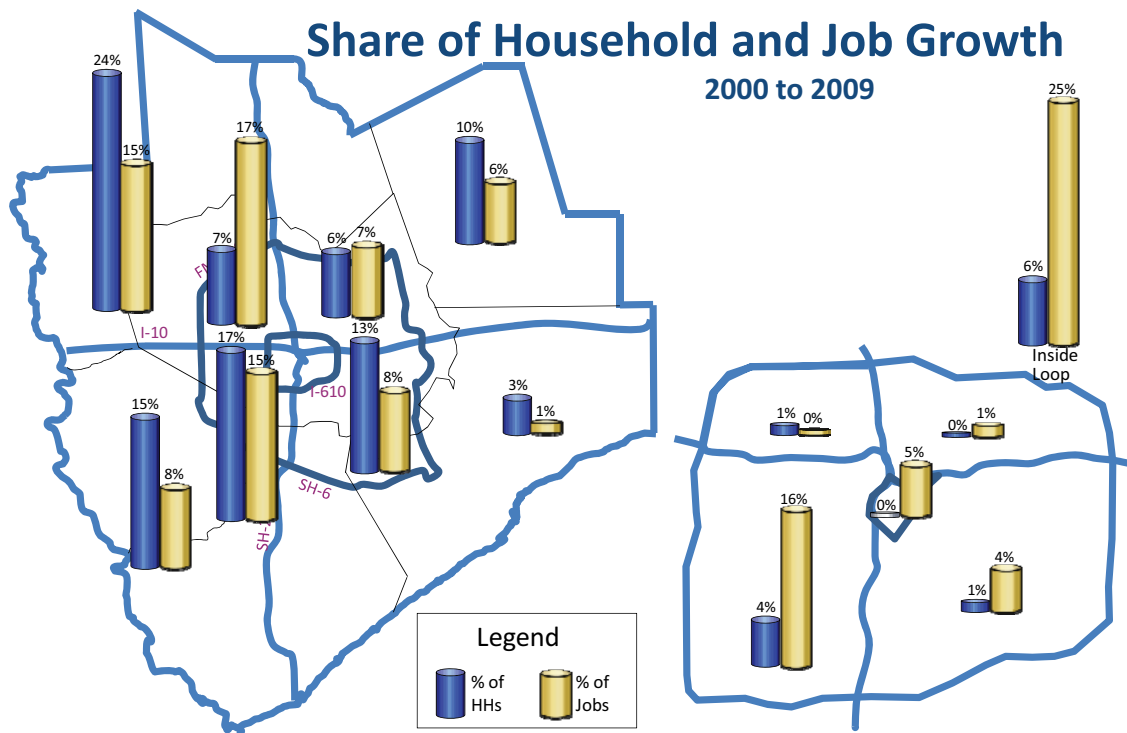
Far Northwest were close behind.

Overall the two Northwest sectors (Middle and Far) captured 197,828 net new jobs (32.5% of the regional job growth). However, the largest growth sector (all three rings) was the Southwest which added 232,983 jobs (38.3% of the regional growth).

Slicing the data by east-west produced even more stunning difference than the household trends. In combination the Western side of the region captured almost 70% of all of the regional job growth, totaling 424,742 net new jobs. The eastern sectors totaled 77,517 net jobs.

Again, the job growth was reasonably balanced north-south.

The shares of household and job growth captured by each sector are illustrated on the following figure.



Population

Historic Growth and Projections

Population growth is one of the principal measures of the economic vitality of any area because increasing population is generally the result of more jobs, a high level of immigration and a stable or expanding economy. The table entitled Population Growth Trends and Projections summarizes historic Census population counts for 1980, 1990, 2000, and 2010, and current population projections for five years (2015) from Claritas.

The Houston Metropolitan Statistical Area has undergone tremendous growth in recent decades – from 3.1 million in 1980 to 4.7 million in 2000. In 2010, total population is estimated to have reached nearly 6 million.

As the table on the right demonstrates, population has grown rapidly in the 8-County region and the counties that comprise the area is projected to continue. The 2010 Census revealed that the population of the region was 5,891,999 slightly higher than previous estimates. Population in the region is projected to reach 6,41 million by 2015, equivalent to an annual average increase of 103,224 persons.

Fort Bend County was the fastest growing county by percentage from 2000 to 2010 adding 324,000 population (91.5%). Montgomery count grew by 162,00 persons (55.1%) in that 10-year period. Harris County grew the fastest in number of net new residents adding 691,000 (20.3%).

Population Growth Trends
Counties 1960 – 2010 (in thousands of persons)

County	Historical Census Population, 1,000s					Census
	1960	1970	1980	1990	2000	2010
Brazoria	76	108	170	192	242	313
Chambers	10	12	19	20	26	40
Fort Bend	41	52	131	225	354	678
Galveston	140	170	196	217	250	291
Harris	1,243	1,742	2,410	2,818	3,401	4,092
Liberty	32	33	47	53	70	76
Montgomery	27	49	129	182	294	456
Waller	12	14	20	23	33	36
Totals	1,581	2,180	3,122	3,730	4,670	5,892

Source: U.S. Bureau of the Census for historical, PCensus for Map Info (Claritas 2010) for estimates and projection.

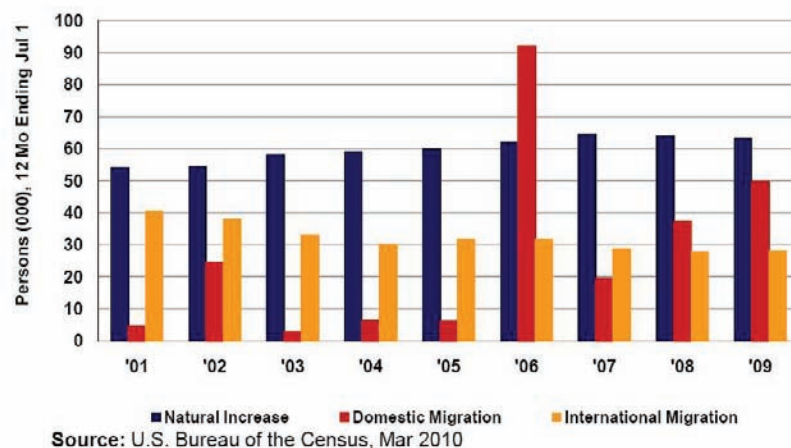
Population Growth Accounted for by In-Migration

Components of change in the population published by the Bureau of the Census are presented in the chart below. Net in-migration, which is calculated based on the number of persons moving in versus the number moving out, has accounted for almost 50% of the growth in MSA population over the 2000-2009 period. Approximately 60% of this net migration has come from outside the U.S., which is not surprising in view of Houston's status as an international trading and business center. In Harris County, international immigration accounted for 45% of population growth over the period, while there was an actual domestic outmigration, much of it to suburban counties. In the suburban counties, immigration was not a major factor.

Net domestic migration on the other hand, accounted for 74%, 69% and 56% of total growth in the case of Montgomery, Fort Bend and Brazoria counties respectively. Domestic migration spiked in 2006 because of New Orleans residents coming to Houston because of Hurricane Katrina and has risen steadily since then, perhaps due to increased employment opportunities in Houston compared to other areas of the country.

Components of Population Change

Houston –Sugar Land Baytown MSA



Source of Image: Greater Houston Partnership

The H-GAC 2040 Regional Growth Forecast

In late 2009, the H-GAC embarked on the preparation of new forecasts for the Houston region. As the MPO for the 8-county Houston Transportation Management Area, the agency prepares regional and small area forecasts that are utilized in transportation and other regional planning efforts. This new effort will replace the 2035 Regional Growth Forecasts which were completed in 2006. In this new forecast process, the H-GAC is using a new approach for the small area forecasts of population and employment. They will be using "a micro-simulation of the real estate development industry which supplies residential and non-residential buildings to accommodate the growing population and employment." The 2035 Forecasts were prepared using a model called UrbanSim. For the new 2040 Forecasts, they made a decision to implement the algorithms and ideas of UrbanSim in SAS, a data management and statistical analysis tool. They are calling their new model HGACSim.

Since the H-GAC is the official provider of transportation planning population and employment forecasts, this report will focus on their forecasts as the basis for the final recommended population and employment data to be used in the Grand Parkway Investment Grade Traffic and Revenue Study.

Regional Population and Employment Projections

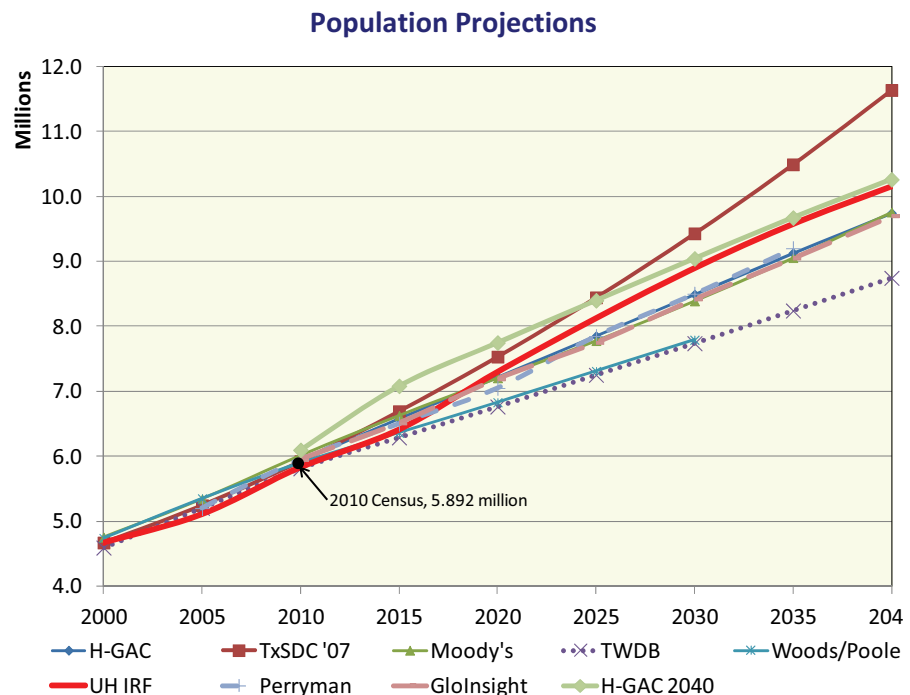
A key element of this report is to evaluate population and employment forecasts for the overall 8-county region. Small area forecasts are most often performed using allocations of regional “control total” values to the small geographies.

In this section, we will investigate alternative forecasts of Houston area population and employment.

Population Projections

The chart on the right illustrates nine forecasts of population growth in the Houston region. The sources are:

- **H-GAC** – the Houston-Galveston Area Council, 2035 Forecasts
- **TxSDC '07** - The Texas State Data Center *2008 Population Projections*, Scenario 2000-2007;
- **Moody's** - *Economy.com Projections*;
- **TWDB** - The Texas Water Development Board, *2011 Regional and 2012 State Water Plan Projections Data*
- **Woods/Poole** - Wood & Poole Economics, Inc., *County Forecasts to 2040*
- **Perryman** - The Perryman Group, *The Perryman Long Term Economic Forecast, 2010*,
- **GloInsight** - IHS Global Insight, *Regional Economic Forecast, and*
- **H-GAC 2040** - The Houston-Galveston Area Council, *2040 Regional Growth Forecast*;
- **UH-IRF** - The most recent forecasts (January 2011) from the UH, Institute for Regional Forecasting



All of the forecasts present the expectation of substantial future growth in the Houston region. From a 2010 population of 5.89 million, the region is expected to grow to between 8.74 and 11.64 million residents by 2040. That range of annual growth is 98,300 to 195,000 new residents annually. As discussed previously, this region added an average of 118,000 new residents annually between 2000 and 2010.

The clutter of the lines on the chart on the previous page makes it difficult to discern the individual forecasts. The following table presents the data for 5-year increments.

Various Population Projections

8-County Houston Region

	Year	H-GAC	TxSDC '07	Moody's	TWDB	Woods & Poole	UH IRF	Perryman	IHS Global Insight	New UH-IRF
Population by Year	2000	4,669,589	4,669,571	4,752,900	4,591,812	4,740,000	4,669,589	4,669,589	4,669,589	4,669,589
	2005		5,244,705	5,343,110	5,202,623	5,350,000	5,175,065	5,200,000		5,109,124
	2010	5,927,141	5,923,035	6,011,070	5,813,433	5,900,000	5,800,127	5,950,000	5,950,000	5,828,839
	2015	6,577,125	6,692,478	6,626,640	6,288,577	6,360,000	6,488,409	6,500,000	6,510,000	6,408,117
	2020	7,217,169	7,531,976	7,204,750	6,763,721	6,830,000	7,355,897	7,050,000	7,190,000	7,294,045
	2025	7,851,463	8,443,169	7,778,000	7,251,082	7,310,000	8,162,308	7,850,000	7,750,000	8,118,189
	2030	8,491,789	9,427,959	8,388,660	7,738,443	7,790,000	8,862,785	8,500,000	8,420,000	8,888,991
	2035	9,128,804	10,491,078	9,053,680	8,240,929		9,492,078	9,200,000	9,050,000	9,567,234
	2040	9,744,611	11,635,521	9,756,080	8,743,414				9,700,000	10,145,645
Annual Average Growth by Period	'00-'10	125,755	125,346	125,817	122,162	116,000	113,054	128,041	128,041	115,925
	'10-'20	129,003	160,894	119,368	95,029	93,000	155,577	110,000	124,000	146,521
	'20-'30	127,462	189,598	118,391	97,472	96,000	150,689	145,000	123,000	159,495
	'30-'40	125,282	220,756	136,742	100,497				128,000	125,665
	'10-'40	127,249	190,416	124,834	97,666				125,000	143,894

A review of these forecasts suggests that they can be grouped. The Texas Water Development Board and Woods & Poole forecasts are virtually identical and represent the low side of potential growth. The H-GAC, Moody's, Perryman, and HIS Global Insight forecasts are virtually identical and represent the mid-range of the projections. The UH Institute for Regional Forecasting forecast to 2035 is slightly higher than the previously mentioned group of four.

The TxSDC's Scenario 2000-2007 is by far the highest. In fact the Texas State Data Center's Scenario 1.0 is even higher, topping out at 12.8 million residents in 2040. At the other end of the spectrum is the TxSDC's Scenario .5 which has the region growing to 8.33 million in 2040. The TxSDC's various scenarios are demographic projections assuming varying levels of foreign immigration to Texas. The .5 Scenario is easily rejected as it begins with a 2010 population of 5.5 million residents, 350,000 fewer than consensus estimates of current regional population.

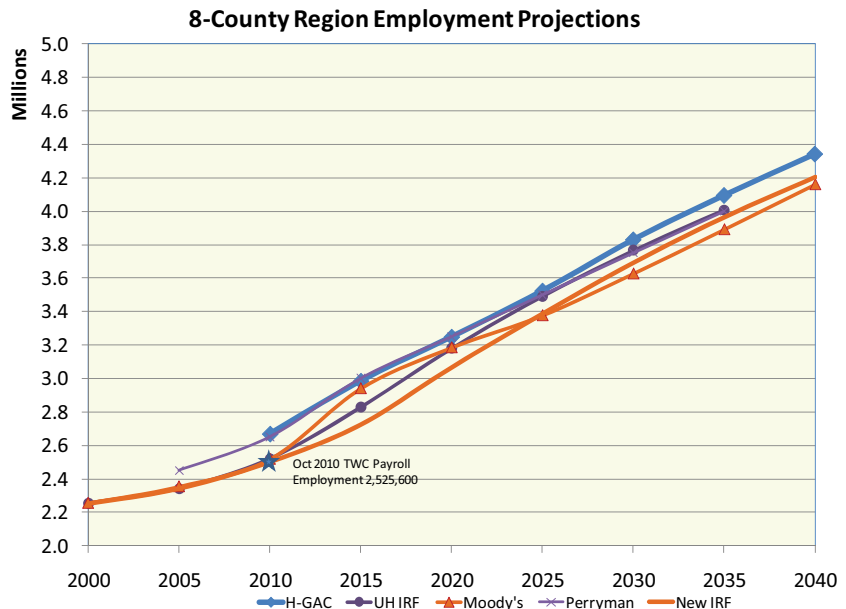
Based on this analysis, it is reasonable to conclude that the H-GAC regional population forecasts would likely represent a strong consensus among the forecasters. The UH IRF forecast may represent the best local knowledge of the underlying strength of the local economy and growth potential given their quality models and knowledge base. So, for this project, the new University of Houston – Institute for Regional Forecasting regional and county population projections were used as the basis for the small area forecasts.

Employment Projections

The chart on the right illustrates five forecasts of employment growth in the Houston region. The sources are:

- The Houston-Galveston Area Council, **2040 Regional Growth Forecast**;
- University of Houston, Institute for Regional Forecasting, **2010 Economic Forecast**
- Moody's *Economy.com*;
- The Perryman Group, *The Perryman Long Term Economic Forecast, 2010*.
- The most recent forecasts from Barton Smith at UH-IRF

Payroll Job Projections



Consistent with the population data, all of the employment forecasts present the expectation of future growth in the Houston region.

From a current employment of 2.52 million, the region is expected to grow to between 4.16 and 4.34 million jobs by 2040. That narrow range of annual employment growth is 54,700 to 60,700 new jobs annually.

One aberration in these projections is that the H-GAC forecast starts at a 2010 job base that is higher than current estimates by more than 150,000 jobs. The net result is that their average annual job growth is 55,700. From December 1986 to December 2008 (before the recession hit Houston) the average annual job growth was 51,000 jobs.

Various Payroll Job Projections

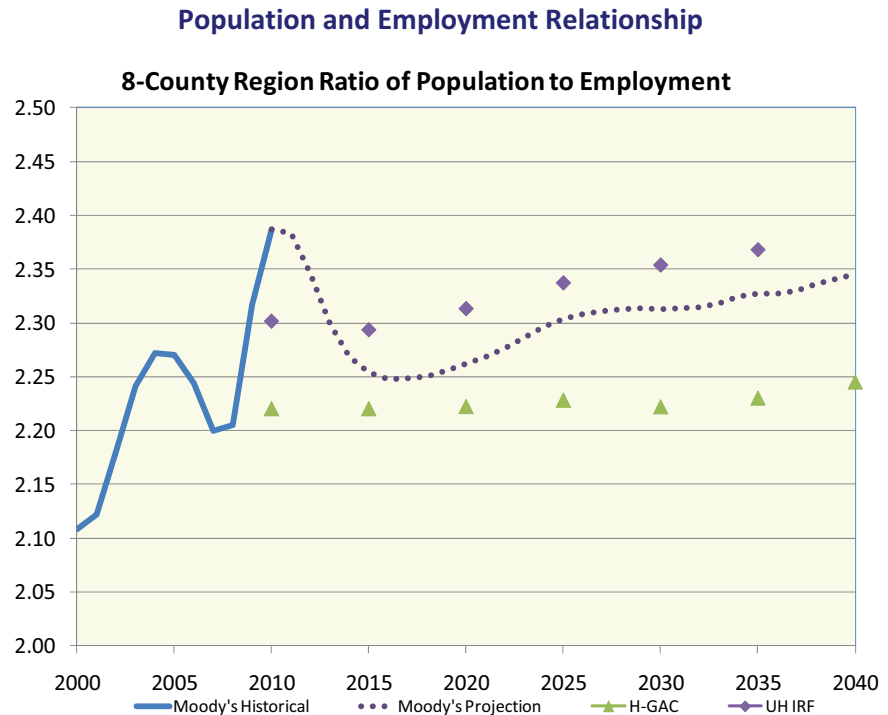
8-County Houston Region

	Year	H-GAC	UH IRF	Moody's	Perryman	New UH-IRF
Jobs by Year	2000		2,252,103	2,254,680		2,252,103
	2005		2,343,072	2,353,780	2,450,000	2,343,072
	2010	2,669,597	2,519,606	2,518,080	2,650,000	2,502,078
	2015	2,985,362	2,828,391	2,940,410	3,000,000	2,724,943
	2020	3,248,372	3,179,449	3,185,000	3,250,000	3,067,722
	2025	3,523,326	3,491,839	3,376,950	3,500,000	3,388,184
	2030	3,829,148	3,765,257	3,626,570	3,750,000	3,693,262
	2035	4,093,896	4,007,937	3,891,070	4,000,000	3,965,090
	2040	4,341,052		4,160,020		4,204,678
Annual Average Growth by Period	'00-'10	266,960	26,750	26,340	265,000	24,998
	'10-'20	57,878	65,984	66,692	60,000	56,564
	'20-'30	58,078	58,581	44,157	50,000	62,554
	'30-'40	51,190		53,345		
	'10-'40	55,715		54,731		

The relationship between jobs and population has varied over time as more or less of the total population enters the workforce. Note in the chart on the right that, according to Moody's Economy.com, the ratio of population to employment has varied substantially in the past 10 years from 2.1 to 2.4 as unemployment has increased and a smaller proportion of the population is employed in wage and salary jobs.

Also shown on that chart are the projected ratios for the Moody's, H-GAC and UH IRF forecasts. H-GAC's have the lowest ratio. That means that, for a given population, there will more jobs. The UH IRF forecast ratio is higher suggesting labor force participation rates near 2009 levels. Moody's projections fall in between the two local forecasts.

It is important to note that the historical ratios are based on imperfect estimates of population and employment. Both of those values are estimates based on surveys and U.S. Census estimates based on state sources.



County Level Population Projections

On this and the following pages, the population projections for the eight counties in the region will be compared. Here, six forecasts that we acquired at the county level will be compared. They are the:

- H-GAC 2035 Forecasts prepared in 2006 [H-GAC 2035];
- Texas Water Development Board (TWDB) Forecasts;
- The 2010 forecasts from the UH-IRF;
- Texas State Data Center, Scenario 2000-2007 (TxSDC);
- The new Version 1 2040 forecasts from the H-GAC; and
- The most recent forecasts (January 2011) from the UH-IRF.

The new H-GAC 2040 small area forecasts are being developed by allocating the regional growth directly to individual land parcels throughout the region. They will then aggregate those parcel forecasts to other geographies including Regional Analysis Zones, Traffic Analysis Zones (TAZ) and counties.

Note: the scale of the following county forecasts charts changes by county.

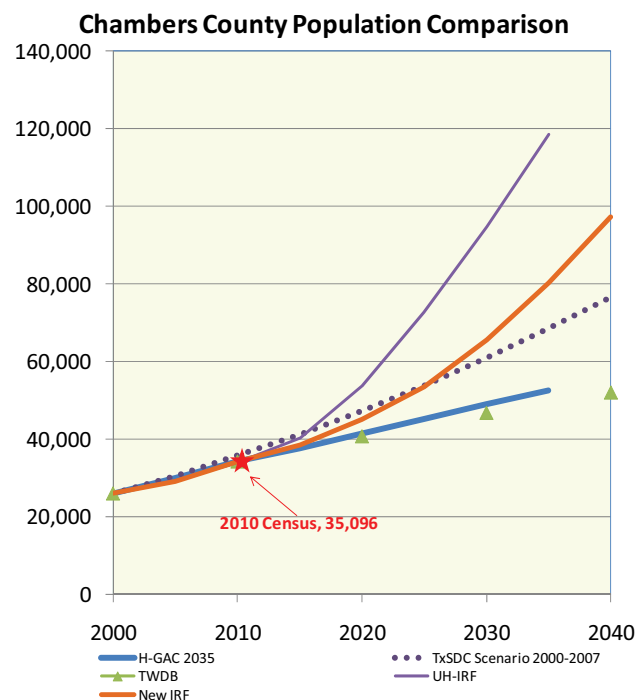
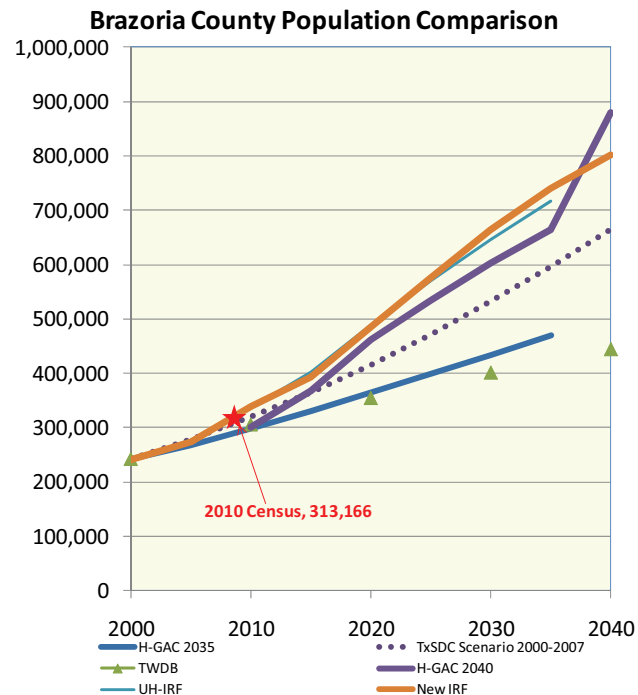
Brazoria County:

The new H-GAC 2040 and New IRF forecasts are much higher for Brazoria than previous forecasts with 2040 population approaching between 800,000 and 900,000.

Chambers County:

The new H-GAC 2040 forecasts do not include Chambers County. The New IRF forecasts are somewhat lower than previous forecasts approaching 100,000 in 2040. The TxSDC forecasts are lower with 2040 population of 77,000.

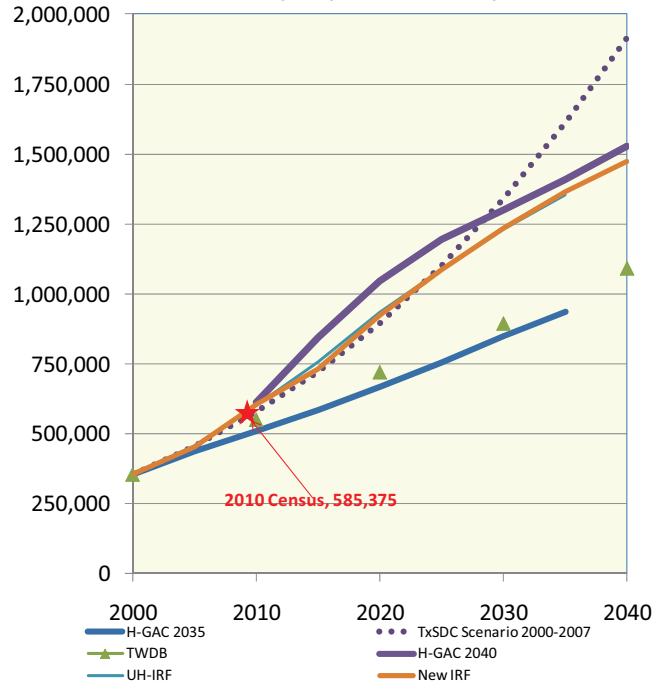
Comparison of Brazoria and Chambers County Population Projections



Fort Bend County:

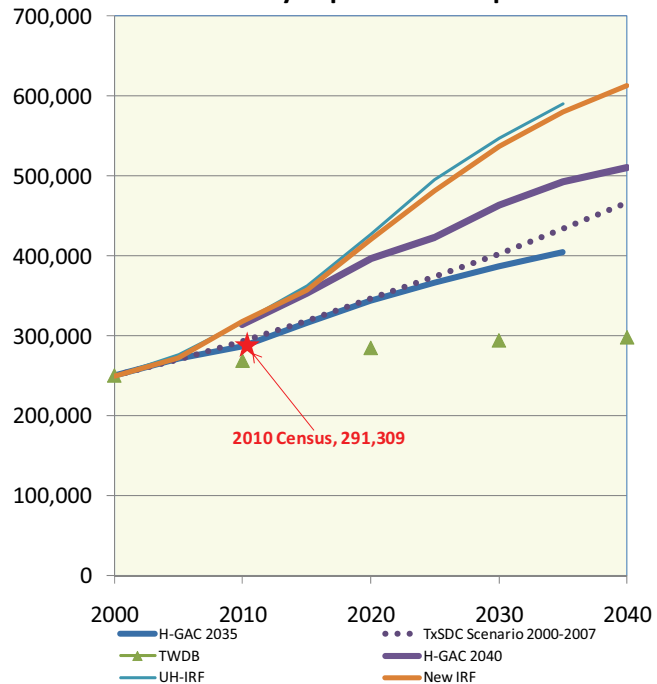
The H-GAC 2040 and the New IRF forecasts are reasonably consistent for Fort Bend – one of the fastest growing counties in the U.S. These forecasts show the 2040 population approaching 1.5 million residents. The TxSDC forecasts are extremely high with county 2040 population of more than 1.9 million.

Fort Bend has been recently growing at a rate of approximately 25,000 residents each year. The H-GAC and New IRF forecasts add between 29,000 and 30,500 annually. The TxSDC forecast increases that growth to almost 50,000 per year.

Comparison of Fort Bend and Galveston County Population Projections**Fort Bend County Population Comparison****Galveston County:**

Galveston County took a population "hit" in 2008 with the devastation of Galveston Island by Hurricane Ike. But northern areas of the county such as League City have been growing rapidly.

In this case, the H-GAC 2040 and the new IRF forecasts vary widely growing to 500,000 and 610,000 by 2040, respectively. The TxSDC forecasts are on par with the previous H-GAC 2035 forecasts, both lower than the most recent projections. TWBD forecasts show slow growth to 295,000 by 2040.

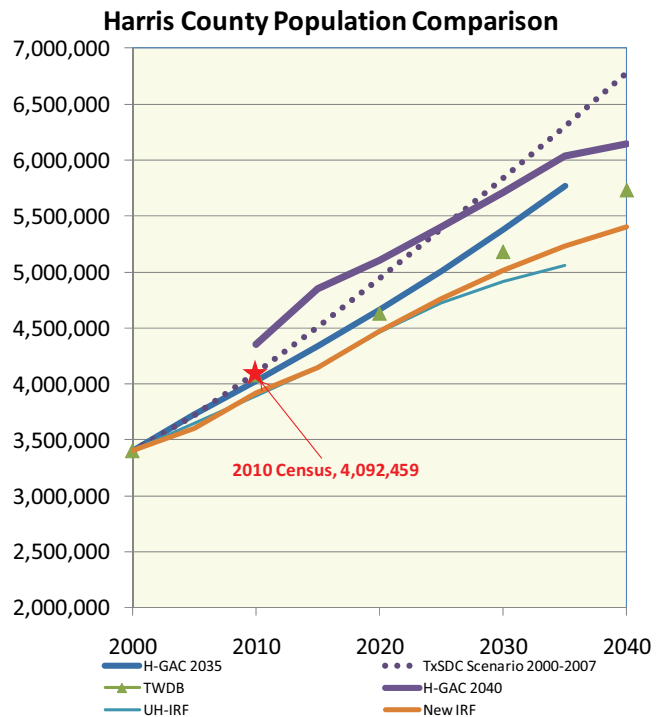
Galveston County Population Comparison

Harris County:

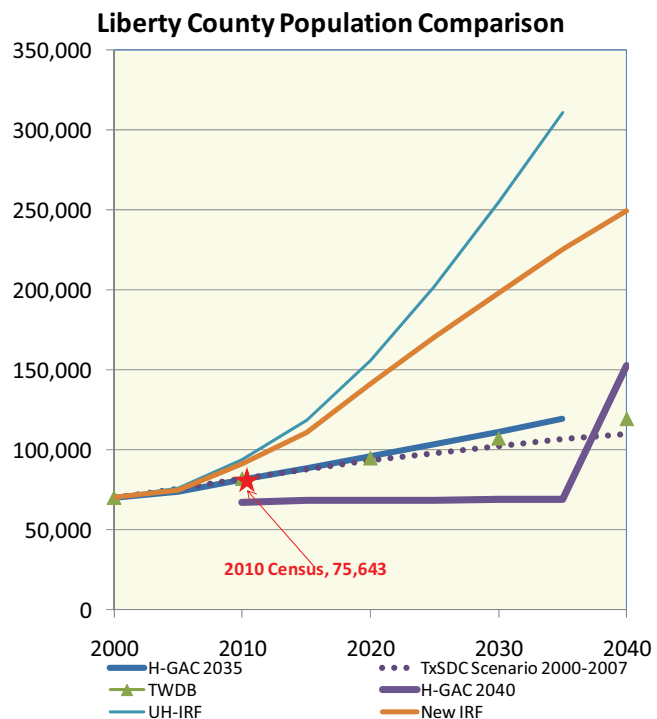
Harris County is by far the largest county in the region with an estimated 4 million residents in 2010. The new H-GAC forecasts predict higher population growth for Harris County than all previous forecasts except the TxSDC – growing to over 6 million residents by 2040.

It is important to note that the H-GAC 2040 forecasts seem to start with almost 400,000 greater population than the Census estimated for the county in 2009.

The New IRF forecasts are similar to their previous predictions showing strong growth but ending up at 5.4 million residents in 2040. All forecasts are showing continued strong growth for Harris, projecting a 2040 population of between 5.4 and 6.8 million population. The H-GAC 2035 forecast would suggest a 2040 population of approximately 6.1 million – clearly in the middle of the other forecasts.

Comparison of Harris and Liberty County Population Projections**Liberty County:**

Liberty County, on the region's east side, has been consistently growing – albeit at a moderate pace. The New IRF forecasts for Liberty – projects out to a 2040 population of 250,000. The TxSDC, TWDB and H-GAC 2035 all are similar projecting about 130,000 population by 2040. Curiously, the new H-GAC 2040 forecast has a significant error, showing no growth in the county until 2035 and then adding almost 90,000 in the five years from 2035 to 2040.



Montgomery County

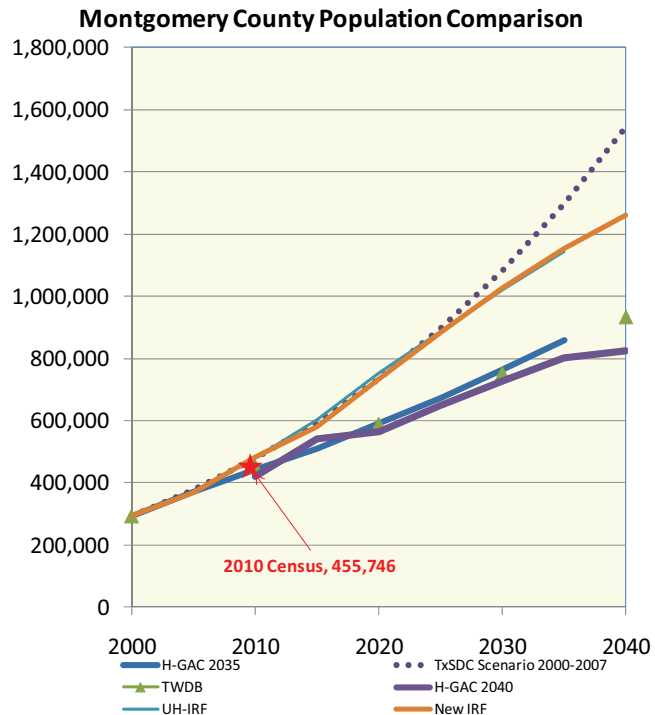
Montgomery County, on the region's north side and home to the Woodlands master planned community and the city of Conroe, is also one of the fastest growing counties in the country.

H-GAC 2035 and the TWDB seem to agree on a 2040 population of 900,000. The TxSDC is projecting 1.54 million residents in the Scenario 2000-2007.

The New IRF forecasts for Montgomery are virtually identical to their previous projections showing a 2040 population in the County of 1.25 million.

The new H-GAC 2040 forecasts for Montgomery are the lowest with a 2040 population estimate of 800,000.

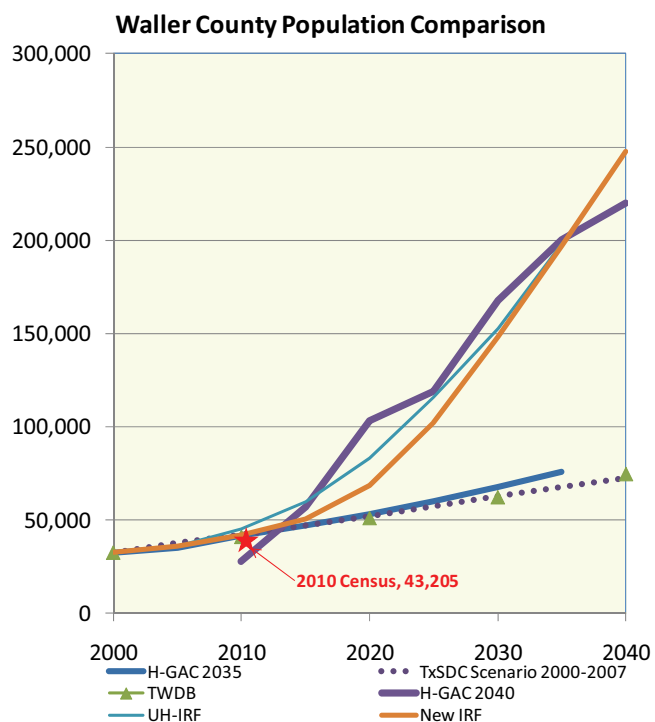
Comparison of Montgomery and Waller County Population Projections



Waller County

Waller County, on the region's northwest, has been growing at a modest pace – with approximately 1,000 new residents each year. Previous forecasts for Waller County (H-GAC 2035, TWDB and TxSDC) continue that trend with H-GAC increasing the annual expected growth slightly.

The H-GAC 2035 forecasts are consistent with the new IRF forecasts – predicting between 220,000 to 247,000 in population growth in 2040 (annual growth rate of 5,700 and 6,500, respectively).



County Level Jobs Projections

On this and the following pages, the jobs projections for the eight counties in the region are compared. Here, four forecasts that we acquired at the county level will be compared. They are the:

- H-GAC 2035 Forecasts prepared in 2006;
- The 2010 forecasts from the UH-IRF;
- The new Version 1 2040 forecasts from the H-GAC; and
- The most recent forecasts (January 2011) from the UH-IRF

Brazoria County:

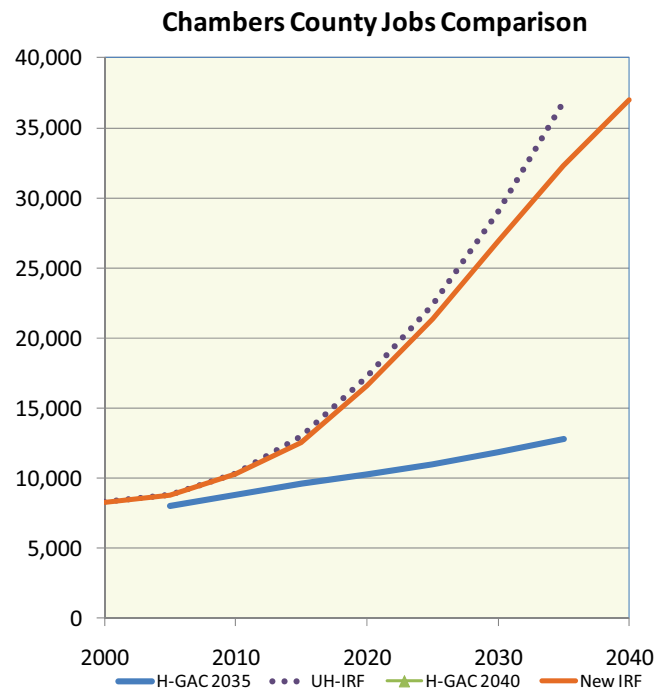
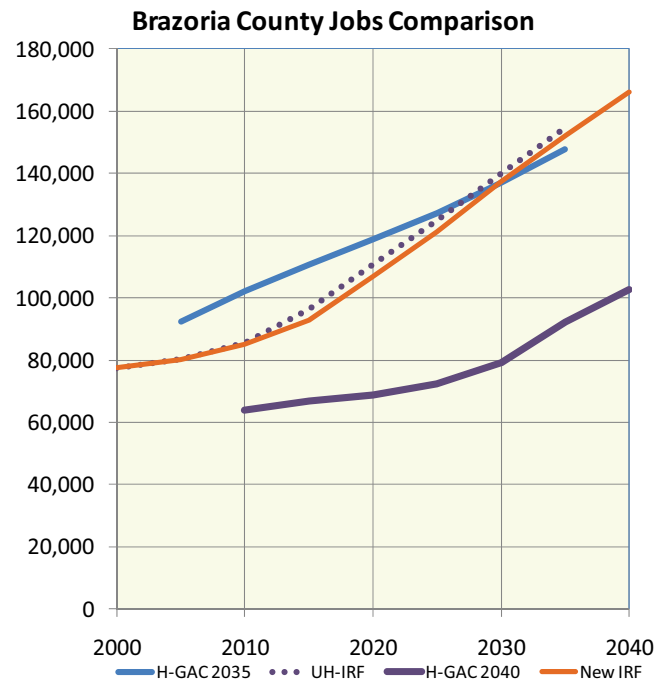
The H-GAC 2035 forecasts and the UH-IRF forecasts show consistent projections from Brazoria County with a trend that takes the jobs to over 160,000 by 2040. The H-GAC 2040 forecasts are much lower – predicting almost no job growth in the county by 2040.

Chambers County:

Again, the H-GAC 2040 forecasts do not include Chambers County. The IRF forecasts, are consistent showing continued growth in county employment – from about 10,000 in 2010 to 37,000 in 2040 much higher with 2040 population of 77,000.

The H-GAC 2035 forecast predicts virtually no job growth for Chambers County. H-GAC did not produce forecasts for Chambers in their new 2040 projections.

Comparison of Brazoria and Chambers County Jobs Projections



Comparison of Fort Bend and Galveston County Job Projections

Fort Bend County:

Fort Bend County has seen substantial recent job growth with corporate relocation and expansion in the US-59 south corridor – primarily in Sugar Land.

From 2000 to 2010, the county added approximately 4,500 jobs each year.

This trend is accelerated in the IRF forecasts with expected average annual job gains of almost 11,000 to the year 2040, ending with 470,000 jobs in the county.

The H-GAC 2035 forecasts predicted annual job growth of 6,000 for Fort Bend. The first version of the H-GAC's 2040 forecasts demonstrates little job growth for Fort Bend, averaging only 1,700 in employment growth annually.

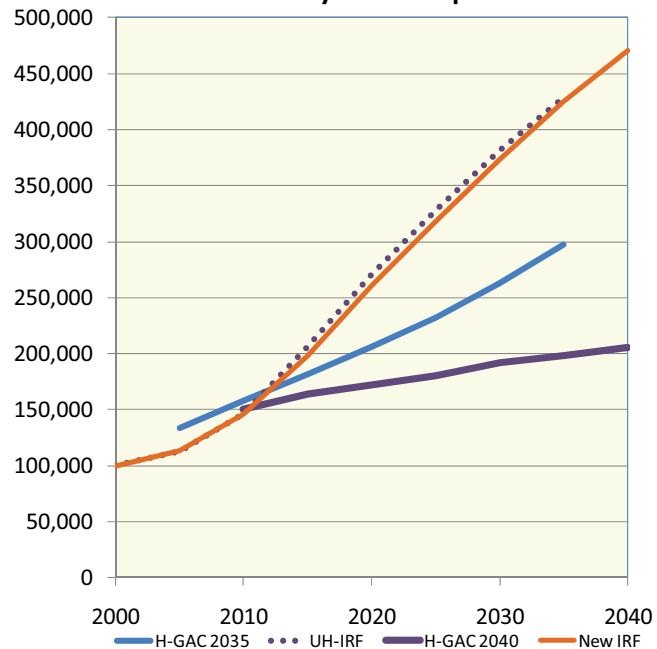
What is curious about those low job forecasts in the new H-GAC 2040 is that their population forecast for the county is very aggressive adding 32,000 new residents annually.

Galveston County:

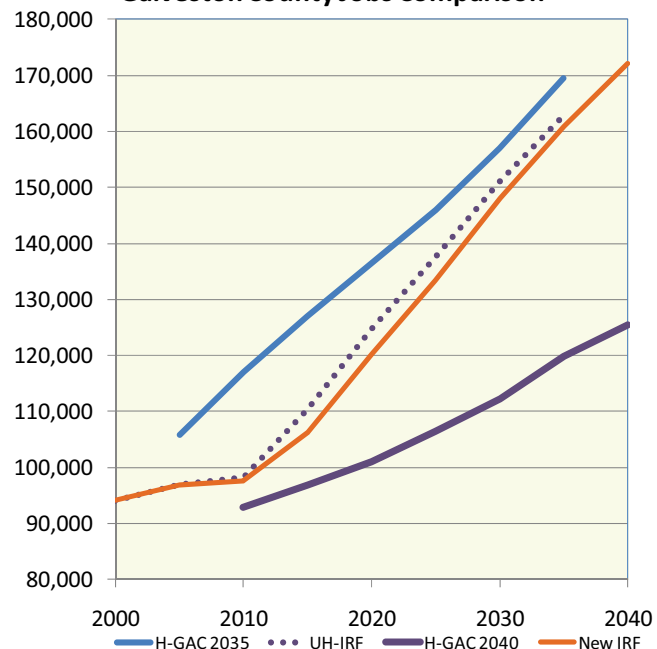
The new H-GAC 2040 forecast show very slow job growth for Galveston County, much lower than their previous forecasts and those of the IRF.

The New IRF forecasts predict 172,000 jobs in the county by 2040 contrasted with only 125,000 for the H-GAC 2040.

Fort Bend County Jobs Comparison



Galveston County Jobs Comparison



Harris County:

On the flip side of the low job growth that the H-GAC 2040 forecasts are showing for the suburban counties of Brazoria, Fort Bend, Galveston and Montgomery. They show accelerating job growth in Harris County

In the past 20 years, Harris County has added jobs at the rate of approximately 22,000 annually. The new H-GAC 2040 forecast ramps that growth more than double – up to 46,000 each year.

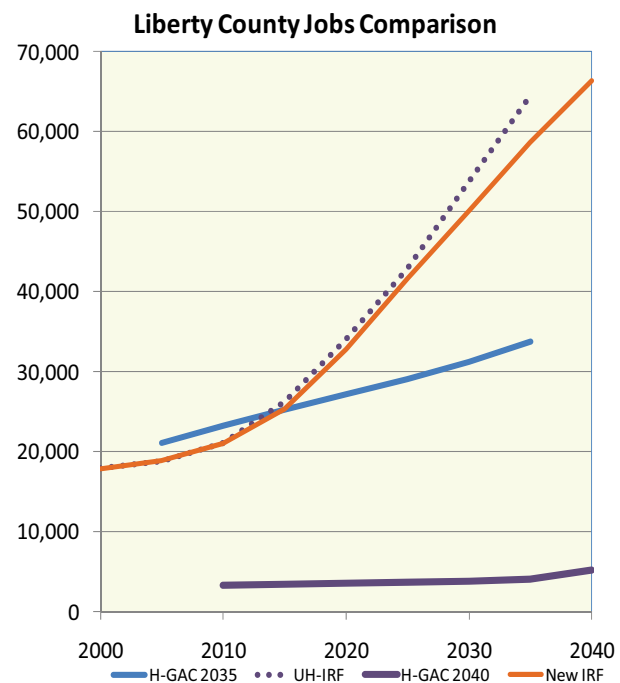
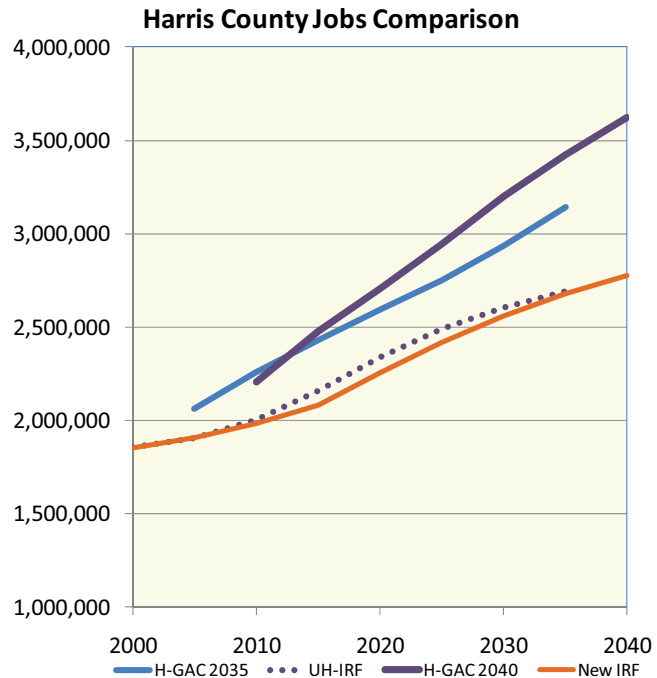
By comparison, the New IRF forecasts predict steady job growth for Harris County of approximately 26,000 annually.

Liberty County:

The New IRF forecasts for Liberty County predict steady growth to 66,000 jobs by 2040, an addition of about 1,500 annually. That forecast is more aggressive than recent trends for Liberty – having added only 350 jobs per year over the past 20 years. However Liberty County is poised for stronger growth in the future as a growth in Northeast Harris County fills available land.

As with the population forecasts, the H-GAC 2040 forecast predicts virtually no growth and does not even capture current jobs in the county.

Comparison of Harris and Liberty County Jobs Projections



Montgomery County

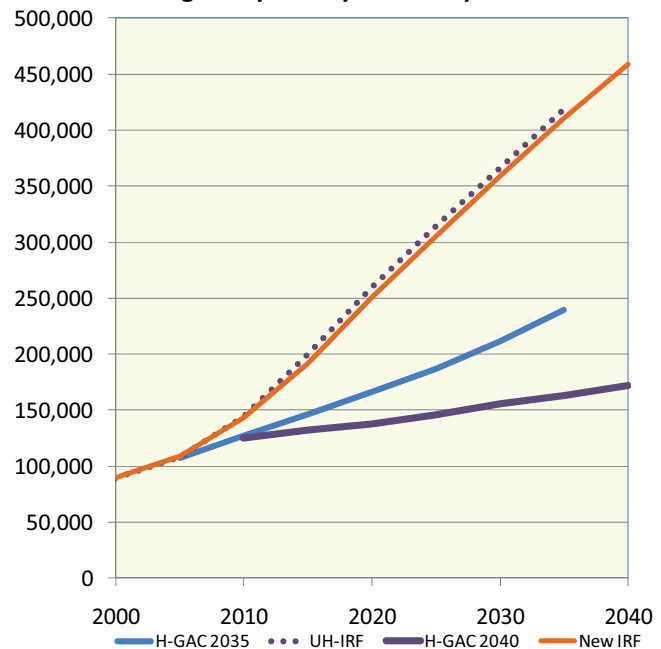
The UH IRF is bullish on job growth for Montgomery County, while the new H-GAC 2040 forecasts predict almost no growth.

Over the past 20 years, Montgomery County job growth has averaged 5,000 net new jobs each year. The New IRF forecasts, essentially identical to their previous predictions, have Montgomery County adding 10,500 jobs each year – ending in 2040 with 458,000 jobs.

The previous H-GAC 2035 forecasts predicted an average of 5,000 jobs added annually. The new H-GAC 2040 forecasts predict only 1,300 jobs added annually – only a fraction of the historical trend.

Comparison of Montgomery and Waller County Jobs Projections

Montgomery County Jobs Comparison

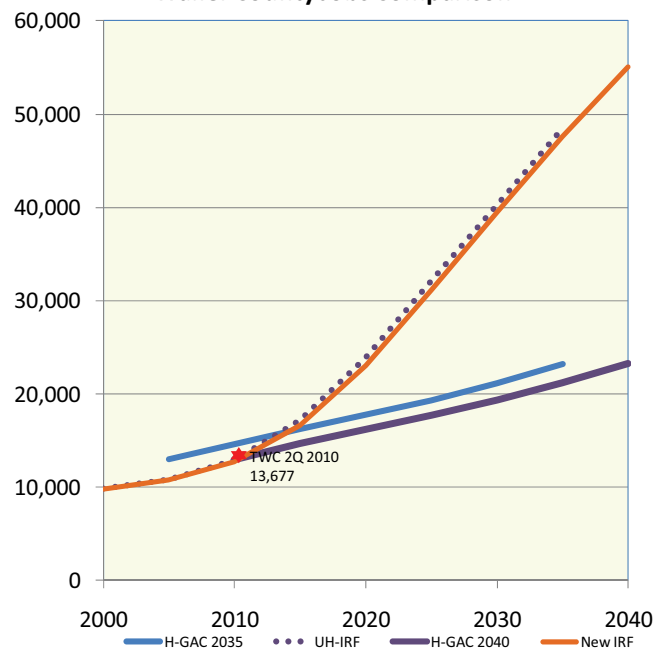


Waller County

The UH-IRF is consistently forecasting accelerating job growth for Waller County. Areas of the county along I-10 are already adding business parks and industrial facilities as the extension of the recent development in western Harris County.

The New IRF forecasts put Waller County jobs at 55,000 by 2040, an addition of 1,400 each year. That figure is substantially higher than the new H-GAC 2040 job forecast which culminates in 23,000 jobs by 2040 – an addition of 360 annually.

Waller County Jobs Comparison



Selection of Appropriate Regional and County-level Forecasts

Long-term economic forecasts are most often a reasonable extension of historical trends into the future. There is no assurance that those trends will be sustained. Future growth is likely to deviate, higher or lower than history would suggest. The historical employment growth of the Houston region presented on page 2 of this report confirms that growth is not likely to follow a straight line or smooth curve into the future. All economies go through periods of growth and recession. For the reasons presented in this report, the Houston region is resilient and oriented to support future growth.

The key factor in evaluating forecasts is: Are they reasonable given all we know today? The best test is to consider multiple independent forecasts and consider which are most likely. Along with H-GAC's regional forecast, this report considered seven independent forecasts of population from respected organizations and three independent forecasts of employment.

The H-GAC's regional forecasts, from which their small area forecasts will be derived, tended to be in the middle of the independent forecasts considered in this project. It is the conclusion of this project team that the H-GAC 2040 forecasts at the "8-county regional level" were reasonable and consistent with other credible forecasts.

However, the small area and county-level forecast being produced in the H-GAC's 2040 Forecast are discordant with recent growth trends. While later versions of the H-GAC 2040 forecast may resolve many of the discrepancies uncovered in the previous analysis, their production schedule does not permit use of their forecasting system because revised more reasonable forecasts may not be ready until summer of 2011.

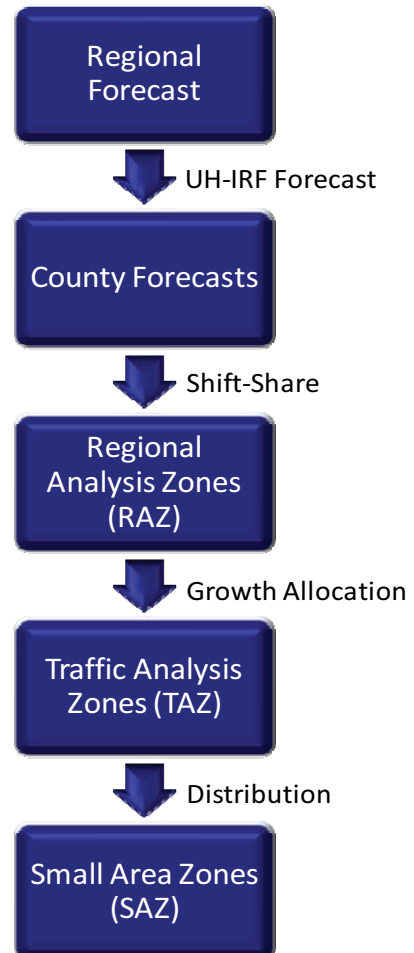
The 2010 Census offered an additional data point for population. While the overall regional population estimates for 2010 were close to what the 2010 Census found, there was substantial variation in the data at the county level.

As a result of analyzing all of those factors, it is the opinion of the CDS team that the **Regional Forecasts** from the University of Houston – Institute for Regional Forecasting (UH-IRF) should be used for future projections. The UH-IRF County **Forecasts** for population were adjusted somewhat to capture the 2010 Census data. The regional forecasts of the UH-IRF and slightly revised county-level forecasts prepared by CDS will form the appropriate basis for this revised set of small area forecasts for the Grand Parkway Investment Grade Traffic and Revenue Study.

Small Area Forecast Method Overview

Initially CDS proposed and pursued an interactive relationship with the team of forecasting experts at the Houston Galveston Area Council (H-GAC). However, once it had been determined that this report could not rely on modified forecasts from the H-GAC's new 2040 model, the team shifted to produce the forecasts internally. In general, the methodology included the following steps.

1. Utilize the new forecasts of county-level jobs and population based on the University of Houston – Institute for Regional Forecasting (UH-IRF) with adjustments to capture the 2010 Census for population.
2. Compile data on historical growth trends from:
 - the central appraisal districts for Harris, Waller, Montgomery and Fort Bend;
 - commercial development data from O'Connor and Associates;
 - PCensus for ArcView, a program that distributes and displays Neilsen/Claritas demographic data which included 1990 and 2000 Census data, estimates for 2005 and 2010 as well as projections to 2015 at the census block level;
 - Historical employment information for 1990 and 2000 from the Census Transportation Planning Package (CTTP); and
 - the 2005 population and jobs estimate from previous the H-GAC forecasting efforts.
3. Evaluate the growth trends in the previous H-GAC 2035 projections and the Version 1 H-GAC 2040 forecasts.
4. Investigate the forecasts of area governmental agencies and private organizations.
5. Evaluate the potential growth inducing effects of the Grand Parkway.
6. Implement a “shift-share” forecasting methodology at the RAZ level which takes into account:
 - the historical trends,
 - the known historical growth areas for housing and jobs;
 - announced major developments;
 - the land available for new development; and
 - likely areas in the community for new development based on locally influence qualitative factors.
7. Disaggregate the RAZ forecast into the smaller zones.



Forecasting Population and Jobs

The new UH-IRF forecasts for population and employment for the counties, adjusted to incorporate the 2010 Census data, was used as the control numbers for allocation of the expected growth to small areas. Those forecasts are illustrated below:

County Level and Region Growth Projections

Yr.	Yr.	CMSA	Brazoria	Chambers	Ft. Bend	Galveston	Harris	Liberty	Montgomery	Waller
Population										
Popu- lation by Year	1970	2,181,316	108,312	12,187	52,314	169,812	1,741,913	33,014	49,479	14,285
	1980	3,118,480	169,587	18,538	130,962	195,738	2,409,547	47,088	127,222	19,798
	1990	3,731,131	191,707	20,088	225,421	217,399	2,818,199	52,726	182,201	23,390
	1995	4,021,841	206,421	21,416	264,235	224,620	3,002,304	57,713	219,190	25,941
	2000	4,669,589	241,767	26,031	354,452	250,158	3,400,578	70,154	293,786	32,663
	2005	5,109,124	273,338	29,122	451,391	272,316	3,604,232	75,104	367,857	35,764
	2010	5,891,999	313,166	35,096	585,375	291,309	4,092,459	75,643	455,746	43,205
	2015	6,408,117	352,076	40,316	678,295	317,407	4,356,592	80,863	534,040	48,529
	2020	7,294,045	432,345	49,194	846,708	370,590	4,757,939	98,591	671,784	66,895
	2025	8,118,189	526,974	58,403	1,011,921	428,414	5,049,667	123,373	809,505	109,933
	2030	8,888,991	623,618	67,885	1,172,062	481,794	5,283,362	153,876	949,722	156,672
	2035	9,567,234	719,714	78,790	1,325,213	530,524	5,436,464	188,683	1,084,922	202,925
	2040	10,145,645	803,767	90,384	1,455,351	567,560	5,547,285	225,719	1,212,168	243,412
Annual Average Pop. Growth by Period	'00-'10	122,241	7,140	907	23,092	4,115	69,188	549	16,196	1,054
	'10-'20	140,205	11,918	1,410	26,133	7,928	66,548	2,295	21,604	2,369
	'20-'30	159,495	19,127	1,869	32,535	11,120	52,542	5,529	27,794	8,978
	'30-'40	125,665	18,015	2,250	28,329	8,577	26,392	7,184	26,245	8,674
	'10-'40	141,788	16,353	1,843	28,999	9,208	48,494	5,003	25,214	6,674
Jobs										
Jobs by Year	1970	904,142	33,873	3,509	14,159	58,934	772,907	7,919	9,403	3,438
	1980	1,616,123	68,052	7,482	37,545	72,799	1,384,104	13,854	26,388	5,899
	1990	1,811,944	70,950	6,048	50,546	80,224	1,539,045	14,251	43,268	7,612
	1995	1,922,608	72,482	6,921	61,908	83,826	1,619,544	14,951	54,602	8,373
	2000	2,252,103	77,472	8,288	99,768	94,138	1,855,051	17,901	89,634	9,851
	2005	2,343,072	80,250	8,787	112,936	96,956	1,906,019	18,862	108,484	10,778
	2010	2,502,078	85,071	10,259	145,621	97,581	1,986,400	21,017	143,369	12,761
	2015	2,724,943	92,921	12,535	198,240	106,273	2,080,631	25,342	192,381	16,622
	2020	3,067,722	106,757	16,566	260,572	120,255	2,257,107	32,825	250,633	23,008
	2025	3,388,184	121,297	21,346	318,150	133,494	2,416,114	41,675	304,937	31,171
	2030	3,693,262	137,389	26,961	374,127	148,100	2,557,953	50,228	358,985	39,518
	2035	3,965,090	152,259	32,315	425,454	160,983	2,677,229	58,683	410,585	47,581
	2040	4,204,678	166,085	37,001	470,503	172,182	2,778,661	66,434	458,730	55,081
Annual Average Jobs Growth by Period	'00-'10	24,998	760	197	4,585	344	13,135	312	5,374	291
	'10-'20	56,564	2,169	631	11,495	2,267	27,071	1,181	10,726	1,025
	'20-'30	62,554	3,063	1,040	11,356	2,785	30,085	1,740	10,835	1,651
	'30-'40	51,142	2,870	1,004	9,638	2,408	22,071	1,621	9,975	1,556
	'10-'40	56,753	2,700	891	10,829	2,487	26,409	1,514	10,512	1,411

Source: University of Houston – Institute for Regional Forecasting, January 2011, adjusted by CDS Market Research using the 2010 Census,

Starting with Historical and Forecast Data at the RAZ

It was beyond the scope of this report and the models available to the project team to produce a complete forecast for the entire Houston metropolitan region and every Traffic Analysis Zone (TAZ) and Regional Analysis Zones (RAZ) from scratch. The team compiled the data on recent trends (1990 to 2010) at the TAZ geographic level and recent forecasts by the H-GAC 2035 and 2040. Those data were evaluated and adjustments were made to the H-GAC forecasts using a variety of methods.

The 2010 Base

The project began by identifying the appropriate 2010 base year data for population and employment.

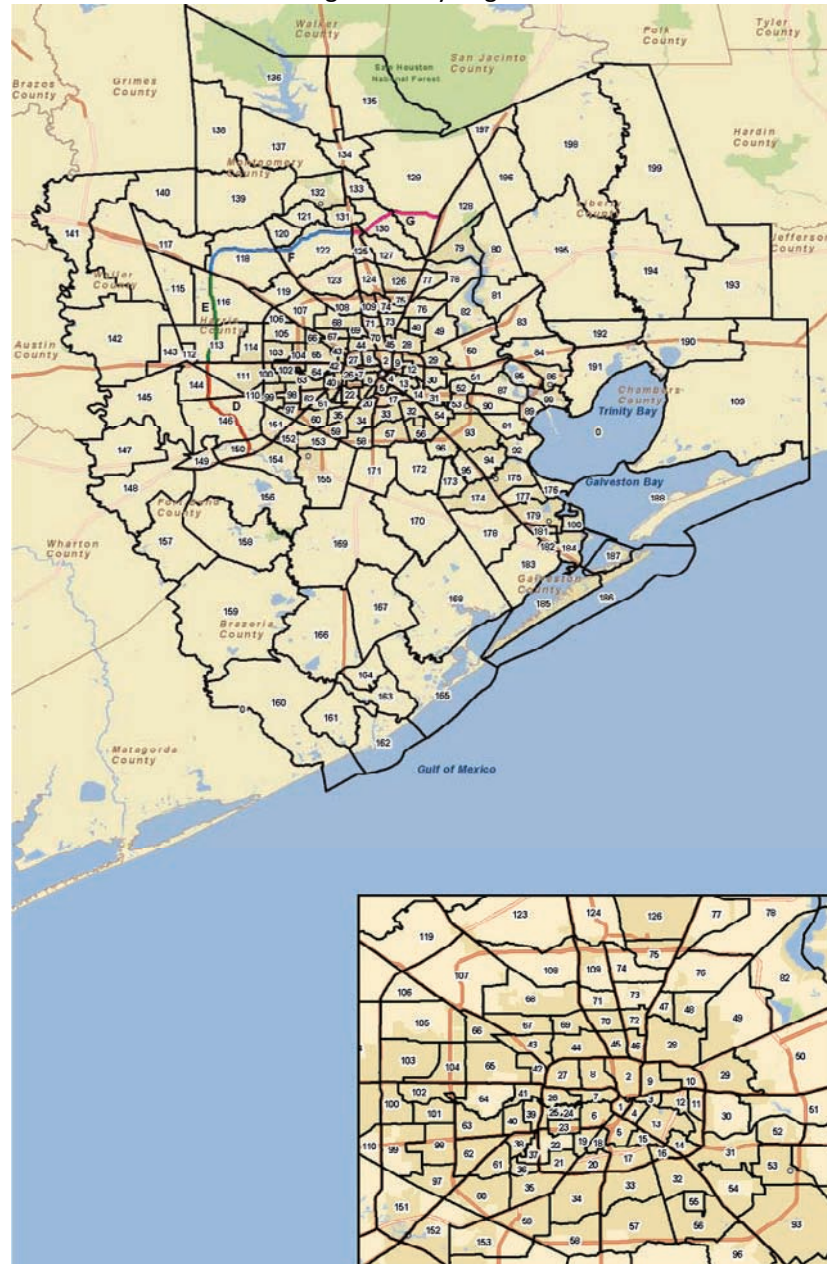
Population

The 2010 population for small areas were based on the housing units and population at the census block from the 2010 Census redistricting data series. .

2010 estimates were made for the TAZ geography and for the even smaller Small Area Zones (SAZ) as requested by CDM Smith based on the Census block data.

Map of Regional Analysis Zones

Eight County Region



Housing unit historical and forecast figures also come from several sources. For RAZ numbers 79, 110 through 122, 125, 127 through 134, 137, 139, 140, 142, 143, 144 through 146, 149, 150, 154, and 156 (CDS' defined "focus area", totaling 35 zones), the 1990-2010 housing unit numbers were calculated using records from Harris, Fort Bend, and Montgomery County appraisal districts and Nielsen/Claritas historical census data. For other zones, the 1990, 2000 and 2005 numbers come from Nielsen/Claritas historical census data and current estimates.

Employment (Jobs)

Determining the 2010 base jobs by RAZ was substantially more difficult than housing and population. The reason is that there are no small area job estimates that are based on reliable data such as the census. The U.S. Bureau of the Census County Business Patterns provides the most verifiable data but the lowest level of geography available is the zip code and the latest data is 2008. For their most recent forecast, H-GAC estimated the number of jobs in small areas for 2008 using the CAD data, augmented by information for the data source, InfoUSA™.

One option that CDS has access to is the Claritas Business Facts® database for very small areas (Census block groups) through PCensus. Claritas Business Facts® is developed using the InfoUSA™ data file as its base source. The InfoUSA™ database of over 12 million U.S. businesses is mined from over 4,900 Yellow Page directories published each year by Regional Bell Operating Companies (RBOC's) and independent phone companies. InfoUSA™ also compiles records from over 500 Business White Pages, regular White Pages, Federal, State and Municipal government Blue Pages, annual reports (publicly-held companies) industrial and regional business journals. InfoUSA™ then processes the information through several routines to ensure that the final product will be dependable for use by salespeople and marketers interested in using its contents for mailing campaigns. That includes calling existing and new businesses at least once each year to verify and collect new information.

Another option for current job estimates is to use the square feet of commercial buildings, office, retail, industrial and institutional buildings from the county appraisal districts to estimate the number of jobs at each facility. CDS applied H-GAC's stated ratios of square feet per job as in the table on the right. Unfortunately that method did not produce consistent results.

Ultimately, the historical and current employment estimates were developed from a variety of sources. The 1990 and 2000 jobs estimates come from the special tabulations of the U.S. Decennial Census (CTTP) provided by the H-GAC. The 2005 estimates of jobs come from the H-GAC's 2005-2035 forecast. The 2010 employment estimate numbers were issued by Nielsen/Claritas based on the InfoUSA data previously described.

In all cases the values for the historical and base-year (2010) data for employment and population were adjusted proportionally to match the county-level totals provided by the University of Houston – Institute for Regional Forecasting. The historical and projected population and jobs data by RAZ is presented in the Appendices of this report.

Square Feet per Employee by Building Activity

Building Type	SQFT Per Employee
Education	1,400
Health Care	350
Lodging	917
Retail	500
Office	225
Public Assembly	1,000
Warehouse	1,000
Industrial	625
Mobile	0

Future Transportation Network Assumption

In preparing the small area forecasts, it is clear that future transportation networks and the accessibility of the small area zones are affected by transportation infrastructure improvements over time. It was beyond the scope of this work to develop sophisticated models that took into account all changes in the transportation network including both highways and public transit. Therefore for this analysis it was assumed that transportation improvements would continue over time to serve the existing and new residents of the community and that any transportation funding crisis, regardless of how real it may seem today, will be ultimately be resolved because of citizen demands. Therefore, for the purposes of this effort, it was assumed that the relative accessibility of the various zones in the region would not significantly change over time. However, new planned facilities such as the Grand Parkway, the Fort Bend and City of Houston Major Thoroughfare Plans, known enhancement to existing facilities such as improvements to US-290, I-45 South and I-45 North, and planned light rail extensions were included.

Contact with Area Agencies and Organizations

In the course of developing Small Area forecasts, CDS sought out the demographic and economic projections used by key public sector agencies serving both the key areas of focus and the Houston region as a whole. CDS' goal was to understand the projections used by these organizations and to account for knowledge and insight gained from conversations with the local organizations. Many of the organizations contacted stated that they did not develop their own projections, instead utilizing those provided for the region by H-GAC. As previously mentioned, H-GAC projections were also considered in CDS' efforts herein. Data from these organizations was collected both by contacting the organizations directly and researching publically available data offered on their websites and other sources.

Among the organizations CDS spoke with or reviewed, Lone Star College provided CDS population, household, and other key demographic data and projections provided by SRC via the *State Sites on Texas* service. This data covered the entire 66 zip code area services by Lone Star College System. CDS spoke with Ray Laughter and Debbie Howle with Lone Star.

CDS also reviewed the data available from various school districts serving the target area. This included a District Master Plan produced by Population and Survey Analysts (PASA) for Klein ISD dated October 2010. Katy ISD offered a map of Projected New Housing Occupancies by small area 2009 through 2019. Both Waller ISD and Conroe ISD offered a report and similar map of Projected New Housing Occupancies by Planning Unit 2007 through 2016. Both were also produced by PASA. CDS also reviewed the current facility location and student attendance zone map produced by Spring ISD to understand school feeder zones within that district. Finally, CDS spoke with Justin Silhavy with Fort Bend ISD, who referred us to the District's Texas Public Information Act officer to request data.

In addition to education providers, data was sought from key counties and municipalities. Population Projections within the Fort Bend County Fiscal Year 2011 Budget were reviewed. This source incorporated data from the US Census Bureau, the UH Center for Public Policy, Woods and Poole, and the Texas State Data Center. Harris County Management Services also provided data from the Population Study within the February 2010 County Budget. This data included US Census data as well as US Bureau of Labor Statistics and county appraisal district data. Finally, data from the City of Tomball 2009 Comprehensive Plan was reviewed. This data was largely from H-GAC and the US Census.

The RAZ Level Forecasts

The Forecasts at the RAZ level of geography were produced using a shift-share forecasting methodology accounting for land availability throughout the process. The methodology involved establishment of county-level forecasts from 2010 to 2040 using the UH-IRF's most recent January 2011 forecast series presented on Page 24. Then the shares of the future county housing units, population and jobs were estimated for each 5-year period. An example of the methodology, for Waller County is below.

Shift Share Analysis Example

RAZ Shares – Share of County Job Growth in Each 5-Year Period

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
140		21.9%	0.8%	13.8%	22.2%	22.4%	22.7%	23.8%	24.3%	24.3%
141		6.9%	4.7%	9.5%	11.1%	10.5%	10.1%	9.7%	9.5%	9.5%
142		67.1%	44.0%	68.1%	33.3%	34.1%	34.1%	34.7%	35.0%	36.0%
143		4.1%	50.5%	8.6%	33.3%	33.0%	33.1%	31.8%	31.1%	30.2%
		100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%

$$\text{Jobs}_{\text{Year } n} = \text{Jobs}_{\text{Year } n-5} + \text{RAZ Share}_{\text{Year } n} \times [\text{County Jobs}_{\text{Year } n} - \text{County Jobs}_{\text{Year } n-5}]$$

Jobs – Total Number of Jobs in the RAZ in the Year Shown

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
140	4,238	4,729	4,737	5,010	5,868	7,297	9,152	11,140	13,102	14,927
141	1,874	2,029	2,072	2,260	2,691	3,361	4,186	4,995	5,760	6,473
142	1,227	2,729	3,137	4,487	5,774	7,951	10,734	13,634	16,458	19,159
143	274	365	833	1,004	2,291	4,400	7,099	9,750	12,261	14,523
Total	7,612	9,851	10,778	12,761	16,623	23,008	31,172	39,518	47,581	55,082

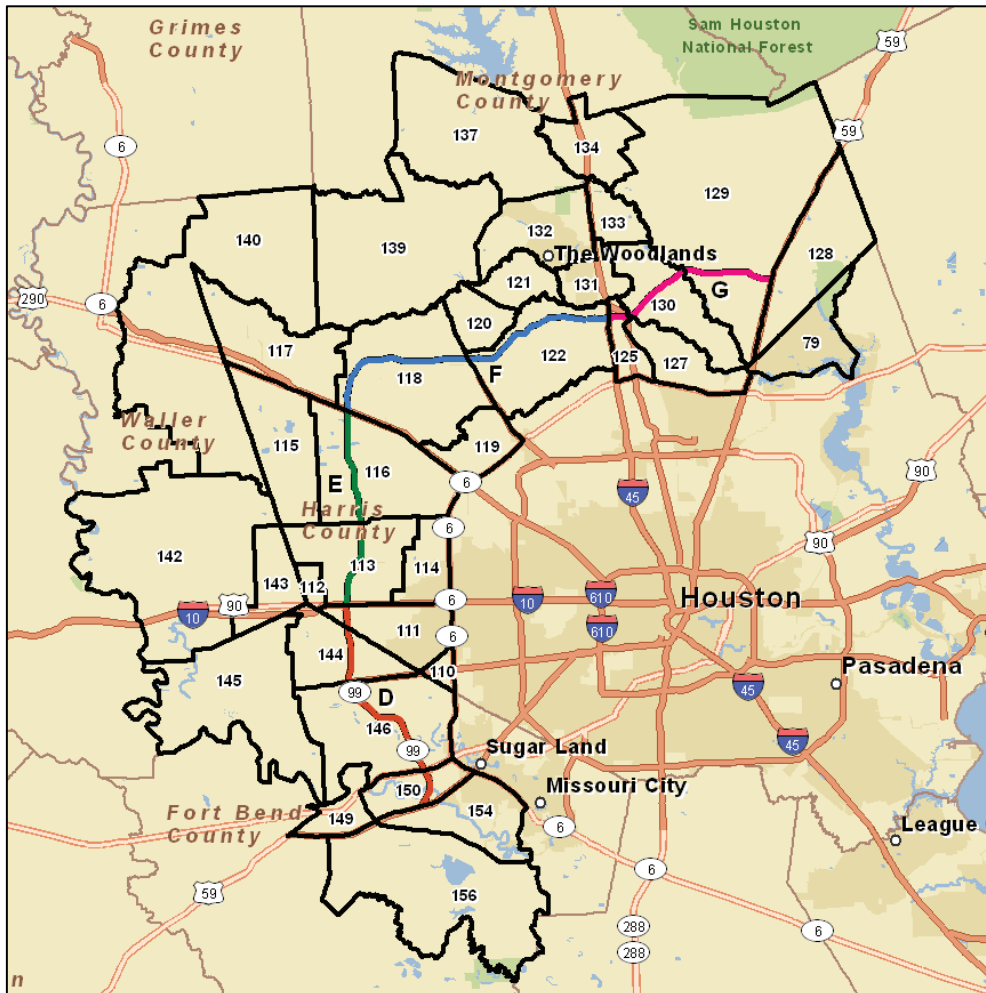
In each case, the shares of future growth were based on:

- recent history of growth capture;
- information on growth from area agencies and organizations;
- expected future capture of the growth; and
- estimation of the capacity of the vacant developable or redevelopable land in the RAZ for new development.

The Focus Area

For this project, the team selected an area of detailed analysis that constituted the geographic areas surrounding the Grand Parkway SH 99 Corridor. Whole RAZ areas were included in the focus area as illustrated by the map below.

RAZ Zones in the Focus Area



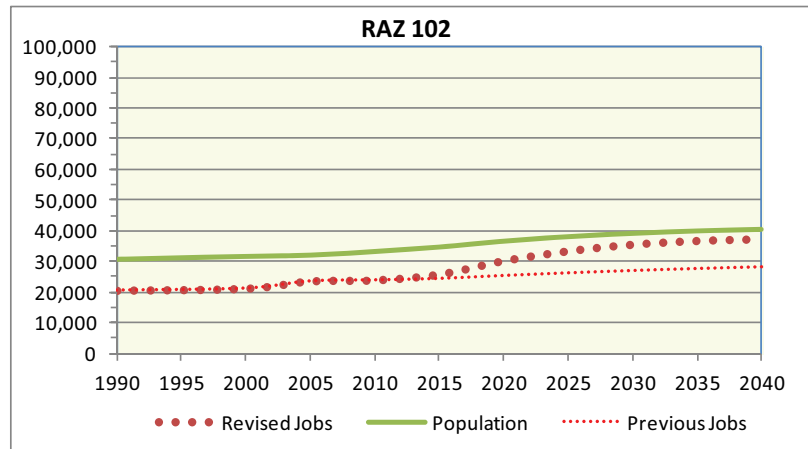
For this project, RAZ and TAZ-level forecasts were developed for the entire 8-County region to allow proper modeling for the investment-grade analysis of the toll traffic and revenues.

However, for the zones within the focus area, special care was taken to insure that the forecasts were reasonable, consistent with trends, cognizant of known development and aware of the likely “build-out” of the area. That care was exercised at the RAZ, TAZ and SAZ levels of geography in the focus area.

The following pages illustrate the RAZ-level forecasts for the 35 zones within the focus area accompanied by a short description of the development trends within each zone.

RAZ 102 (Energy Corridor)**Forecasts RAZ 102**

This zone is outside of the focus area for the Grand Parkway work. However, it was the only area where the job forecasts for the entire RAZ were adjusted in this update. The original jobs forecast for 2040 were 28,130. This new forecast for has the total jobs at 37,051 for 2040, an addition of 8,921 jobs. As discussed previously, this addition is the result of recent announcements of major new office development in the zone:



- Trammel Crow announced three Buildings, totaling 1.5 million square feet at the corner of Eldridge and I-10 and
- City Centre has one 120,000 building under construction and two additional buildings planned.

The addition of 1.86 million square feet of office space in that one zone would add approximately 6,500 new employees necessitating the adjustment in the forecast.

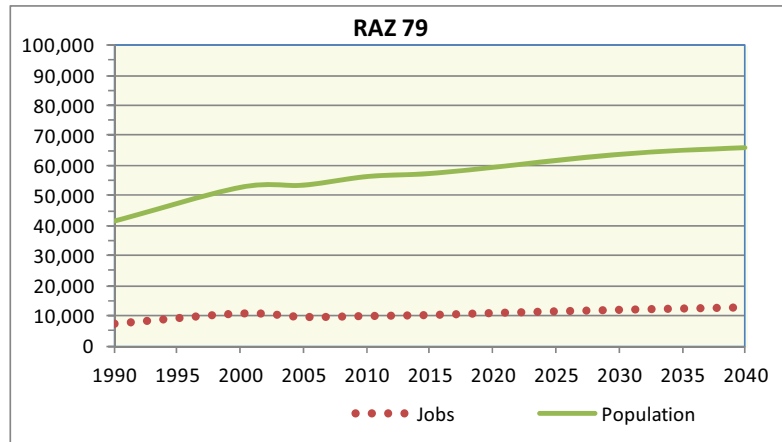
Because the methodology used in this forecast maintained the county control total of jobs, the change in RAZ 102, required rebalancing the growth in all other Harris County RAZs (1 through 127).

The following pages present the RAZ level forecasts for all zones in the focus area.

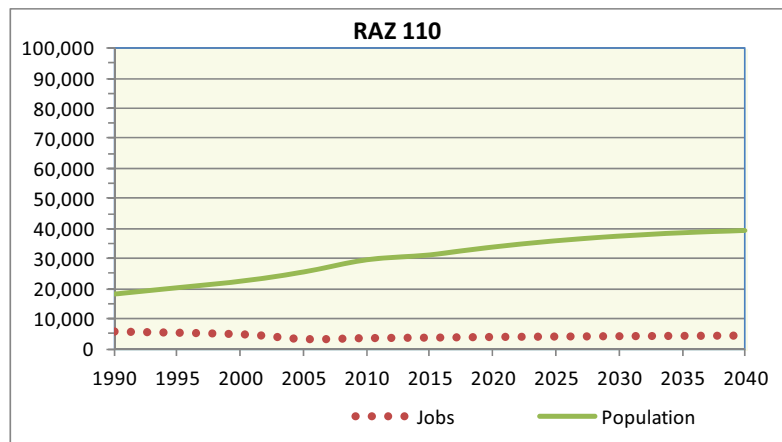
Other Detailed Descriptions of Changes in this 2012 Revision begin in the section: **2012 Grand Parkway Toll Road Study Adjustments on Page 45.**

RAZ 79 (Kingwood Area)

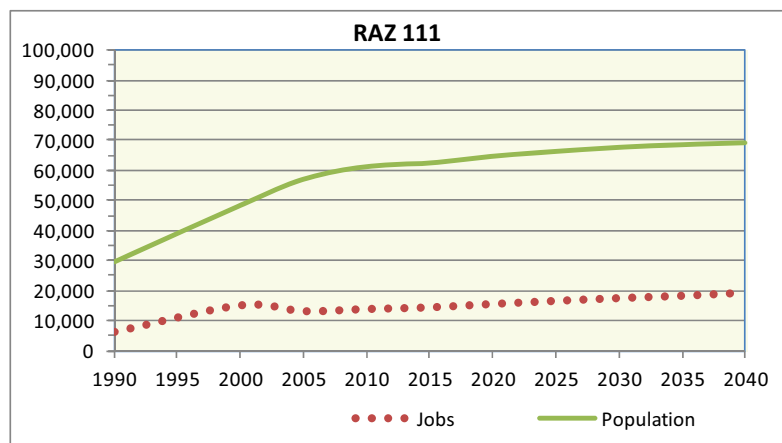
RAZ 79 includes the established and largely built out Kingwood area. Kingwood was one of Houston's first large scale master planned developments. This community includes both apartments and single family homes serving households at a variety of incomes. Population is expected to grow slowly through 2040, exhibiting the largely built out status of the area.

Forecasts RAZ 79 to 111**RAZ 110 (West Oaks / Mission Bend Area)**

RAZ 110 includes the large Mission Bend residential area and West Oaks Mall and adjoining Highway 6 retail corridor. Most of this area was developed in the 1980's to 1990's, and today it is largely built out. This is reflected in the low population and employment growth projected.

**RAZ 111 (Harris County portion of Katy South area)**

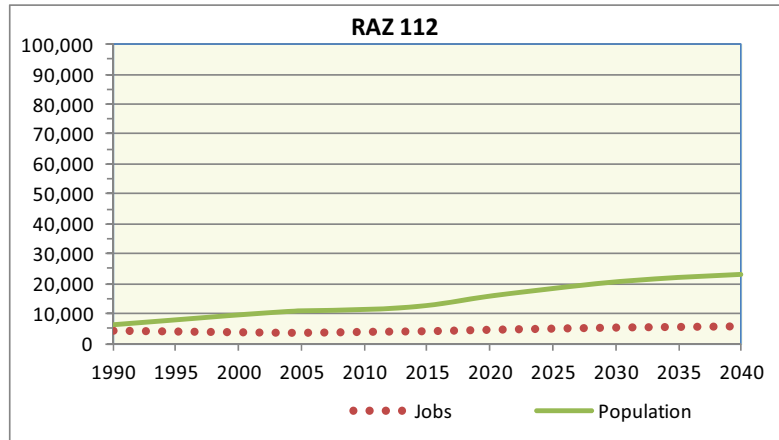
RAZ 111 consists of large scale commercial corridors along I-10, Mason, and Fry Roads, and large residential areas including Green Trails, Oak Park Trails, Kelliwood, and the first sections of the still active Cinco Ranch. It also contains a large portion of the Barker Reservoir, and is largely built out hence slow growth projections



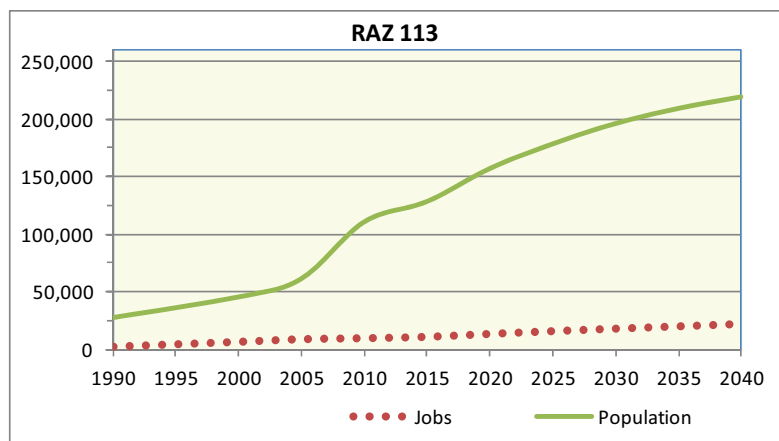
Forecasts RAZ 112 to 114

RAZ 112 (Katy)

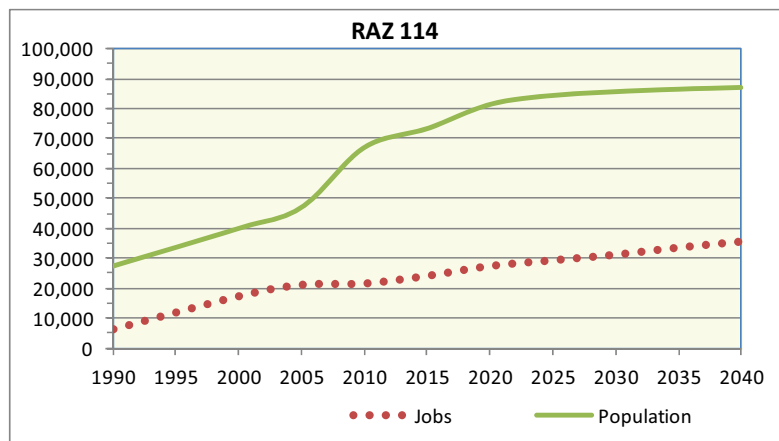
RAZ 112 is largely comprised of the original town site of Katy. This includes commercial and civic uses along Highway 90, I-10, and Avenue D. The area also includes both vintage and newer single family neighborhoods. Most recent subdivisions include Fawn Lake and Victoria Lakes. This area is largely built out, accounting for the slow growth projected.

**RAZ 113 (Katy North)**

RAZ 113 consists of a mixture of newer (built since the 1990's) more moderately priced subdivisions, vacant developable land, and commercial areas with I-10 frontage. The Grand Parkway is projected to extend directly through the area, and the area has significant vacant land, hence the strong population growth projected for the area.

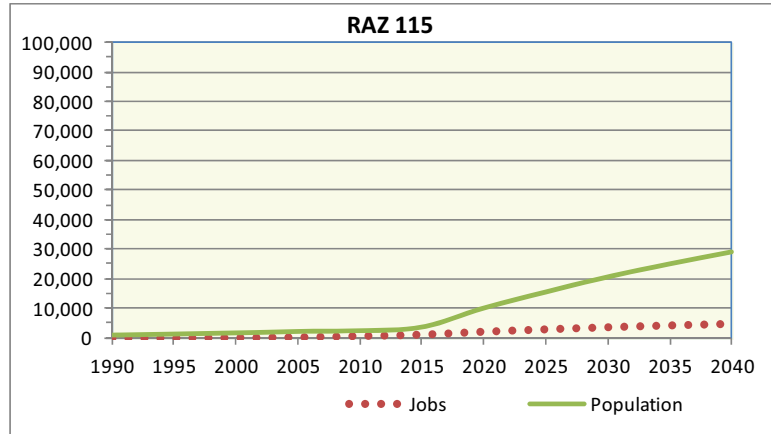
**RAZ 114 (Bear Creek)**

This RAZ consists of a variety of different uses including a large area of undevelopable land within the Addicks Reservoir and Bear Creek Park. It also contains single family subdivisions such as Bear Creek and Lakes of Eldridge that were developed from the 1980's to the 2000's and vacant developable land suitable for some additional population growth.

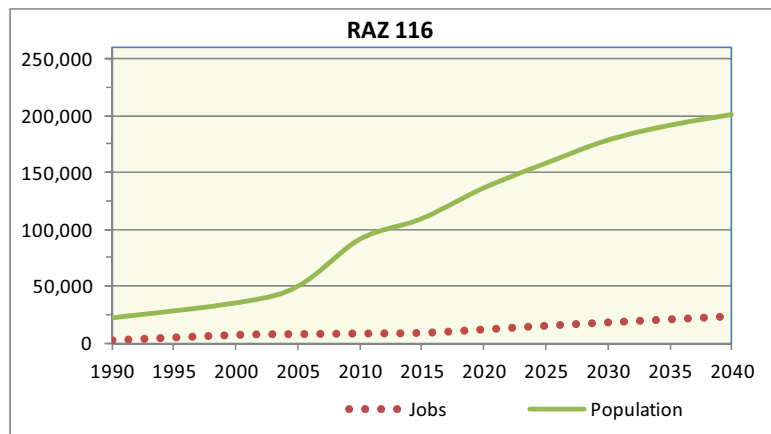


RAZ 115 (Hockley)

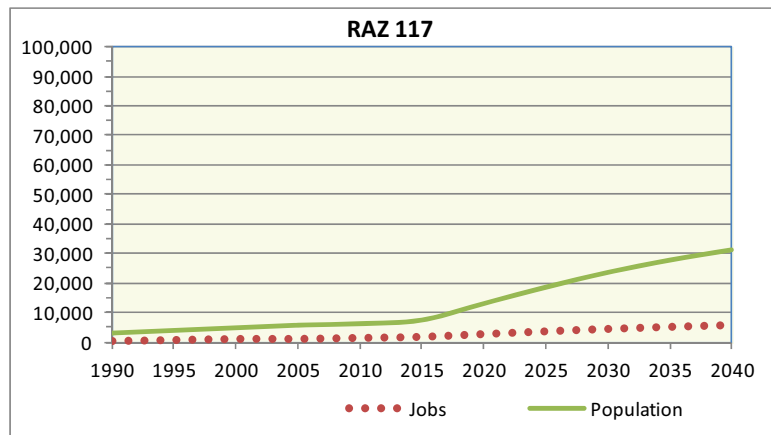
This RAZ contains primarily rural land used for agriculture and large lot, exurban home sites. The area currently has very little commercial development. Because the Grand Parkway is planned to extend just a few miles east of this site, CDS projects some population growth in the out years as suburban development extends westward from the Bridgeland master planned community to the east.

Forecasts RAZ 115 to 117**RAZ 116 (Copperfield / Bridgeland)**

The eastern area of this RAZ contains dense high quality suburban residential and commercial development built from the 1980's through today. The western portion contains a great quantity of vacant developable land, hence the strong growth projections, much of which is controlled by the Howard Hughes Corporation for Bridgeland .

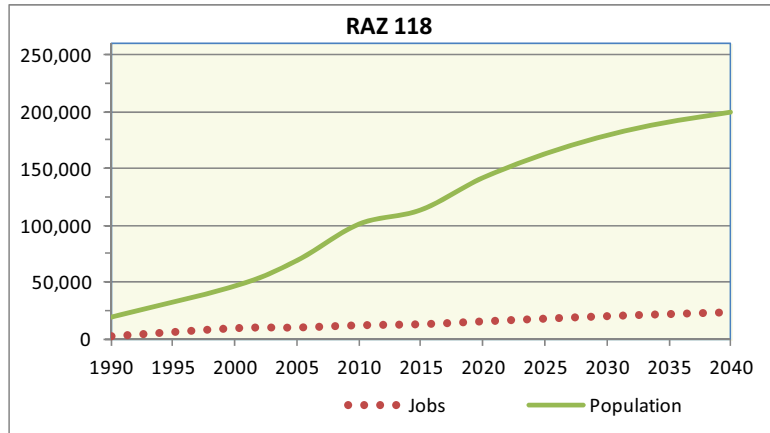
**RAZ 117 (Waller)**

Like RAZ 115, this RAZ contains primarily rural land used for agriculture and large lot, exurban home sites. The area currently has very little commercial development. Because the Grand Parkway is planned to extend just a few miles east of this site, CDS projects some population growth in the out years as suburban development extends westward from Fairfield and north Cypress.

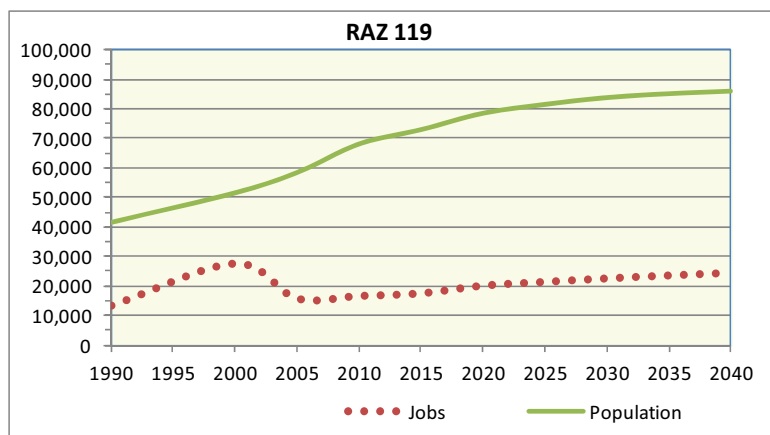


RAZ 118 (North Cypress)

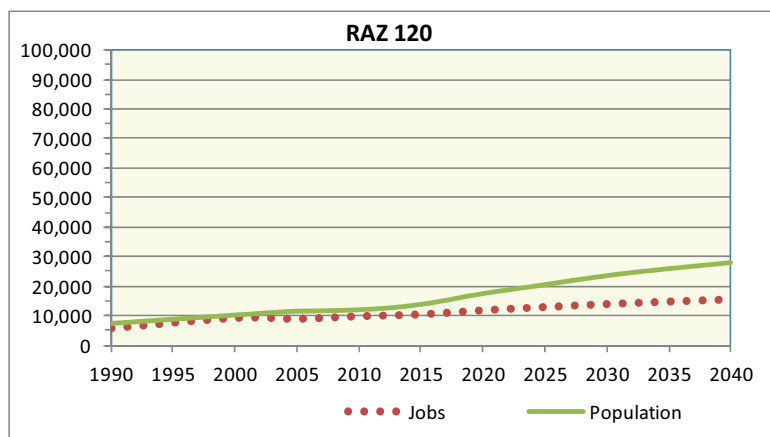
This RAZ consists of the northern edge of current suburban development in NW Harris County. Key developments include Northpointe, Rock Creek, Fairfield, Coles Crossing, and the Houston Premium Outlets Mall. The northern area of the RAZ contains significant developable land through which the Grand Parkway is planned, supporting the strong growth projections.

Forecasts RAZ 118 to 120**RAZ 119 (Lakewood Forest / Coles Crossing area)**

This area consists of established quality suburban residential and commercial development built from the 1970's to the present. The interior is largely residential with commercial on the perimeters along 290, 249, and 1960. This area is primarily built out, hence the slow projection of population and job growth.

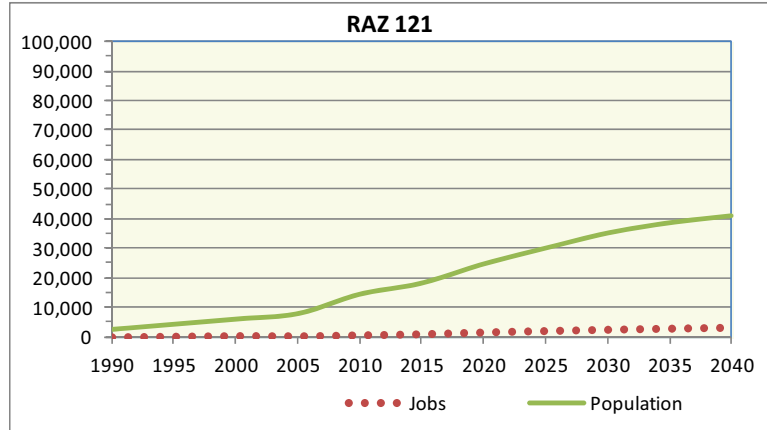
**RAZ 120 (Tomball)**

This RAZ contains the municipality and original townsite of Tomball. Development includes commercial and retail along Highway 249, main street retail along FM 2920, and residential development from throughout the twentieth century at a variety of densities. Readily developable land is available in a limited quantity, supporting the moderate growth projected.

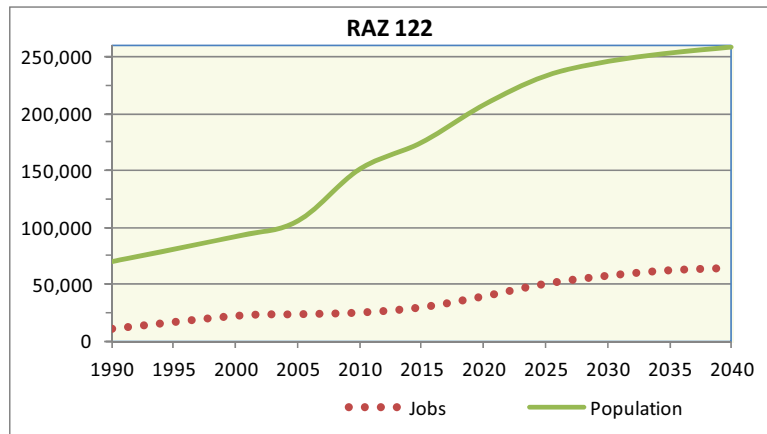


RAZ 121 (Huffsmith area)

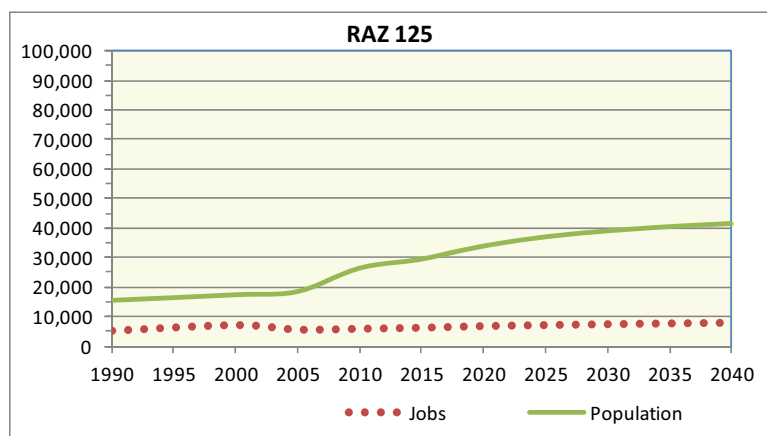
This RAZ contains vacant developable land, some commercial development along FM 2920 and Kuykendahl, and large scale high quality residential development including Augusta Pines, Auburn Lakes, and the final Village of The Woodlands: Creekside Park. Some amount of vacant land is available to support population growth projections.

Forecasts RAZ 121,122, 125**RAZ 122 (Champions area)**

This area contains the established upscale Champions Forest area in the southern portion of the RAZ as well as newer quality suburban developments including Windrose and Gleannloch Farms. Commercial development is focused on I-45, 249, and FM 1960. Significant population and job growth is projected due to the proposed Springwoods Village mixed use development in the northeast corner of the RAZ. The strong job growth in this zone is largely due to the June 2011 announcement of the new ExxonMobil campus.

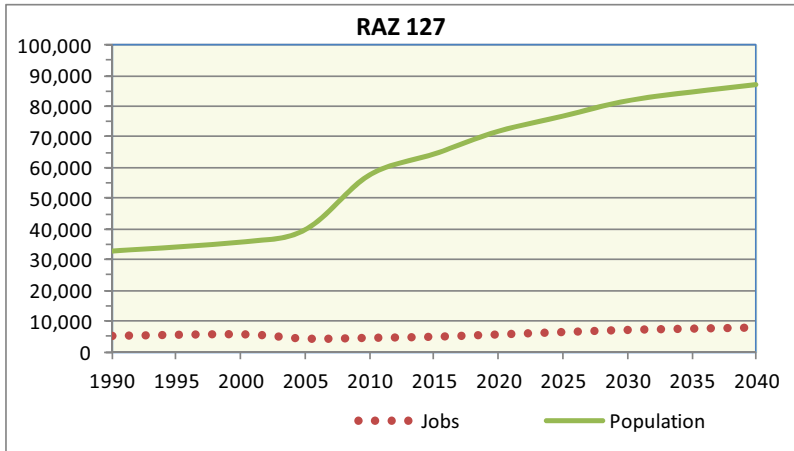
**RAZ 125 (Spring)**

This small RAZ contains most of the original townsite of Spring. Spring contains some vintage housing stock and re-developed main street retail in the Old Town Spring area. More of the area is comprised of retail development along I-45 and large newer subdivisions including Spring Lakes and Northgate Crossing. The area is largely built out hence the low growth projections.

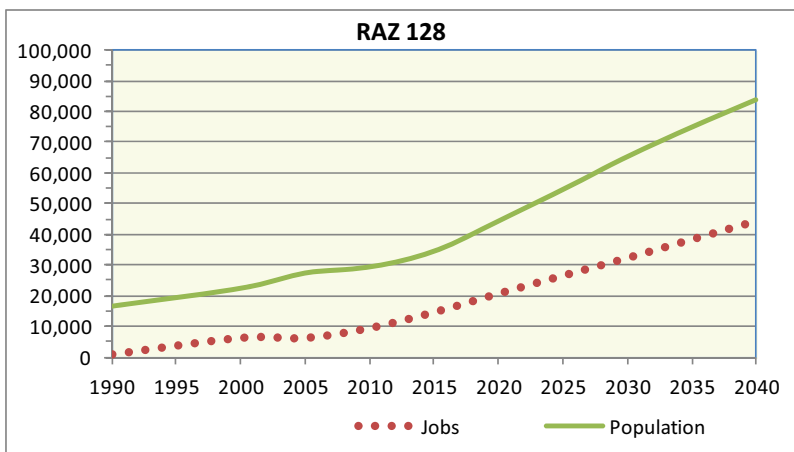


RAZ 127 (Spring east)

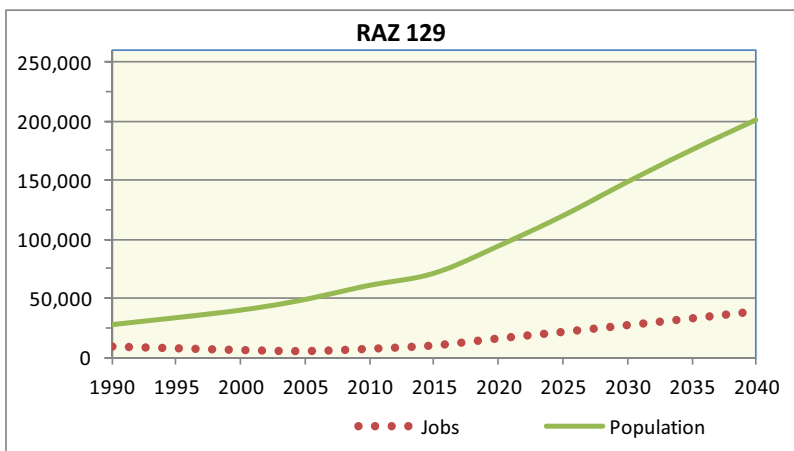
This RAZ primarily contains residential subdivisions along Cypresswood Drive and Aldine Westfield that have been developed from the 1970's to the present. Currently active communities include Bradbury Forest and Park Spring. Retail is clustered along Aldine Westfield and FM 1960. Residual vacant land is available to support growth as it is projected.

Forecasts RAZ 127 to 129**RAZ 128 (Porter / New Caney)**

This RAZ includes primarily exurban commercial and residential development in the Porter and New Caney areas. The southeastern corner of the RAZ contains denser suburban development adjacent to the Kingwood master planned community just to the south of this RAZ. Sufficient vacant developable land exists for growth projected.

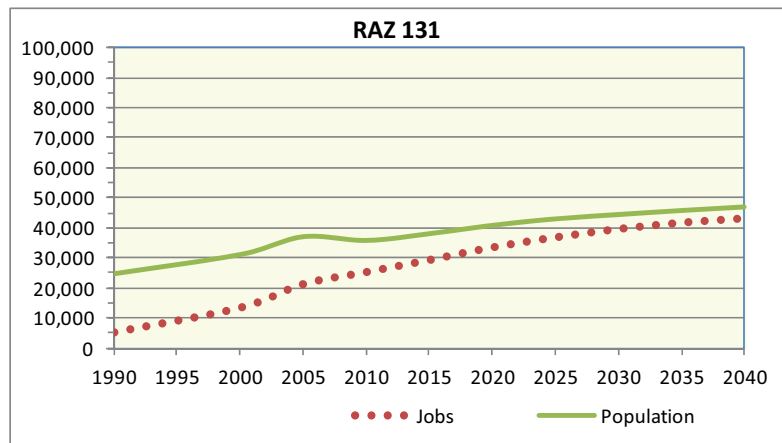
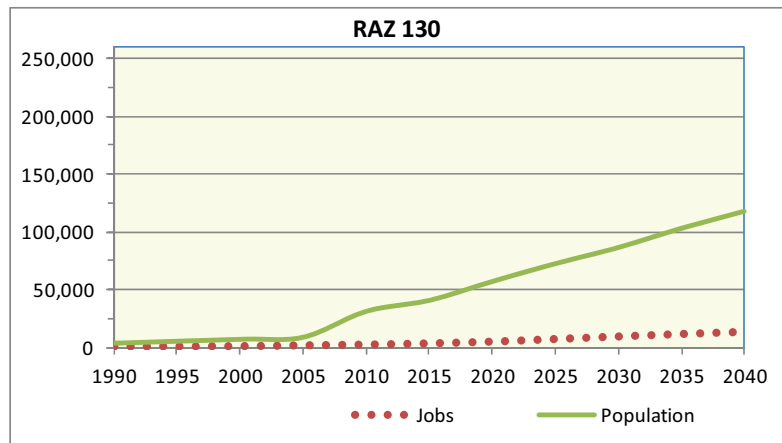
**RAZ 129 (East Montgomery County)**

Vacant developable land and exurban to rural development currently characterize this RAZ. Large scale suburban development is apparent in the southeastern corner of the RAZ at Valley Ranch and Oakhurst at Kingwood, but much of the RAZ contains vacant land sufficient for future significant population growth.

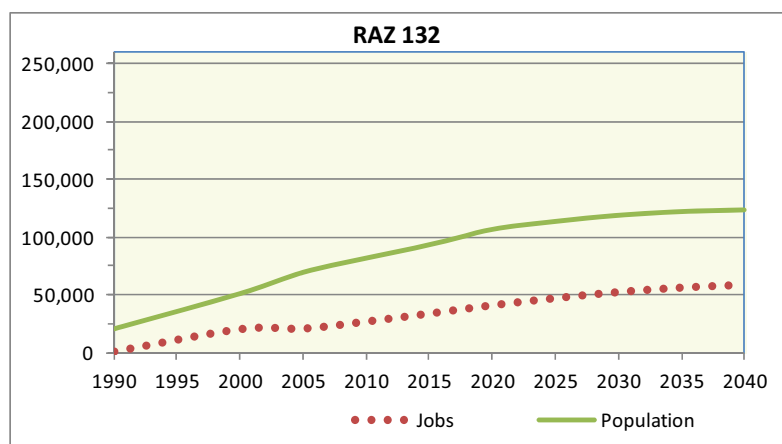


RAZ 130 (Rayford / Riley Fuzel)

The northern portion of this RAZ is characterized by large scale quality residential and commercial suburban development in the Spring Trails, Imperial Oaks, Benders Landing, and Legends Ranch areas along Rayford Road and Riley Fuzel. The southern portion, representing the majority, is undeveloped and although much of it is within the flood plain represents opportunity for significant future population growth.

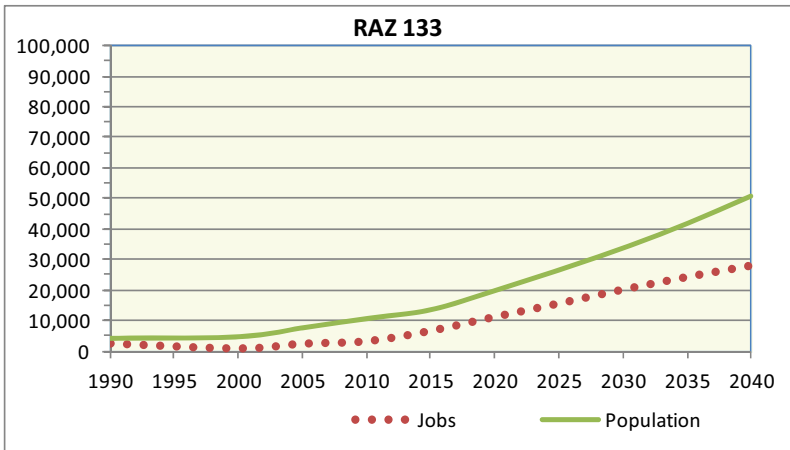
Forecasts RAZ 130 to 132**RAZ 132 (Woodlands Town Center and Villages)**

This RAZ consists nearly entirely of the Villages of Panther Creek, Indian Springs, Alden Bridge, and Sterling Ridge within the Woodlands as well as the densely urbanized Woodlands Town Center. Population and job growth are projected as these portions of The Woodlands get built out and the Town Center and commercial development along I-45 continue to become more dense.

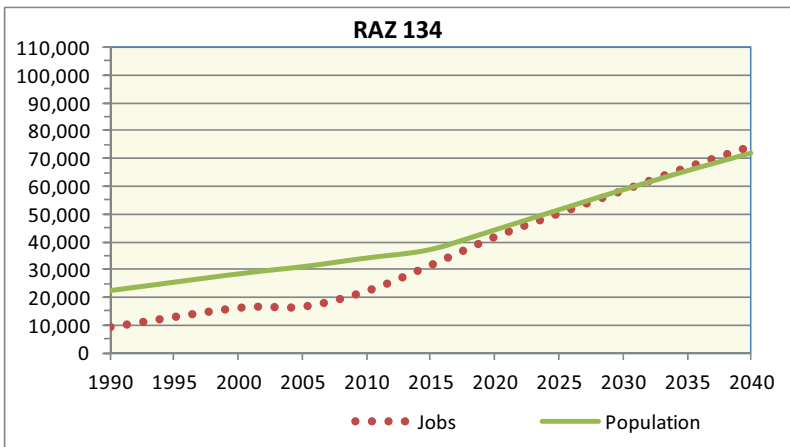


RAZ 133 (South Conroe)

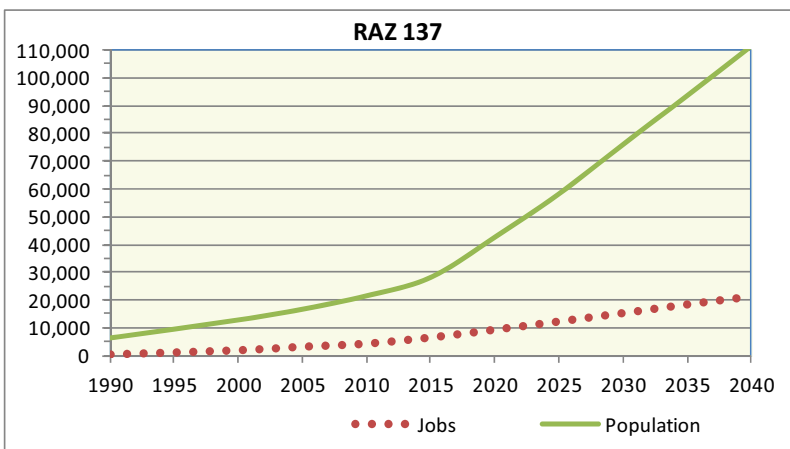
This RAZ is characterized by built out suburban residential development in Woodlands Harpers Landing, Gleneagles, and other subdivisions along the Highway 242 corridor. Commercial development is centered along I-45. Vacant developable land is available sufficient to support growth as it is projected.

Forecasts RAZ 133 to 137**RAZ 134 (Conroe)**

This RAZ contains the majority of the municipality of Conroe. Commercial development is clustered in Downtown Conroe and along I-45 and Highway 105. Residential development both presently active and built throughout the twentieth century is clustered throughout. Vacant land exists along Loop 336 surrounding Conroe to support significant population and job growth.

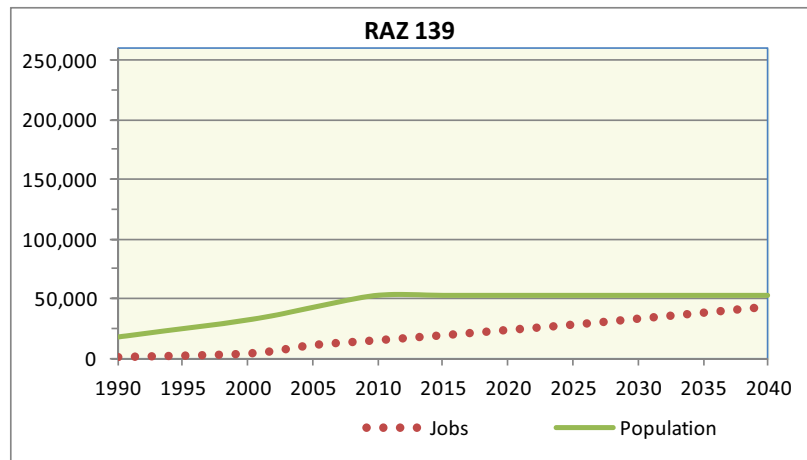
**RAZ 137 (Magnolia Parkway / West Conroe area)**

Exurban and suburban residential development clustered along Highway 105 to the north, FM 1488 to the south, and Honea-Egypt Road in the center characterize this RAZ. Vacant developable land sufficient for significant population and job growth exists within the RAZ, and it is within the path of future development in the area.

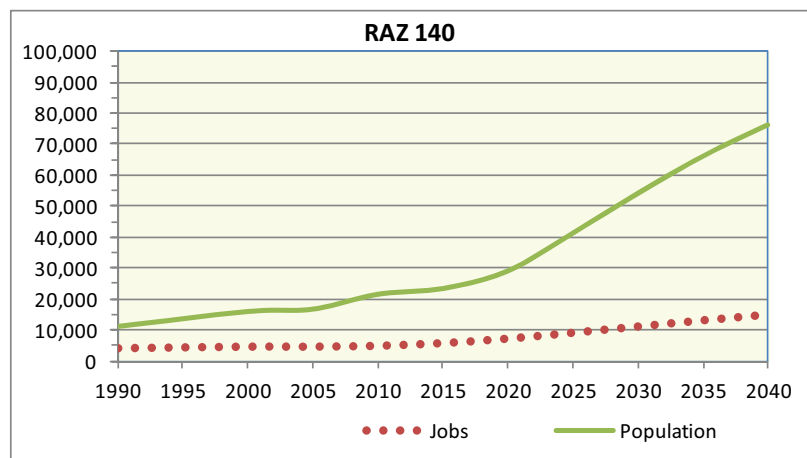


RAZ 139 (Pinehurst / Magnolia)

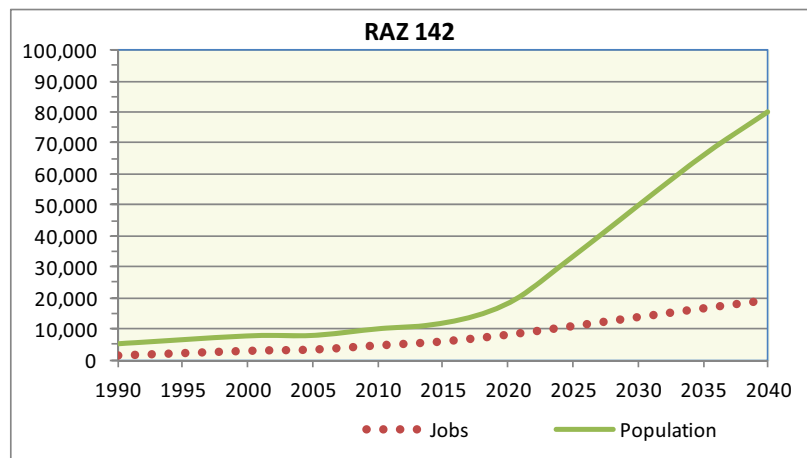
This RAZ currently consists of exurban residential developments such as Lake Windcrest, Thousand Oaks, and Indigo Lake as well as limited commercial / institutional development along FM 1488 and 249/149. Significant vacant land exists to support strong population and job growth as current development expands into the area.

Forecasts RAZ 139 to 142**RAZ 140 (Waller County)**

Most of this RAZ consists currently of vacant rural land. Areas of more dense development exist in the towns of Waller, Hempstead, and Prairie View. This area is currently beyond the path of suburban development, but is projected to see population and job growth in the out years as closer in RAZs build out.

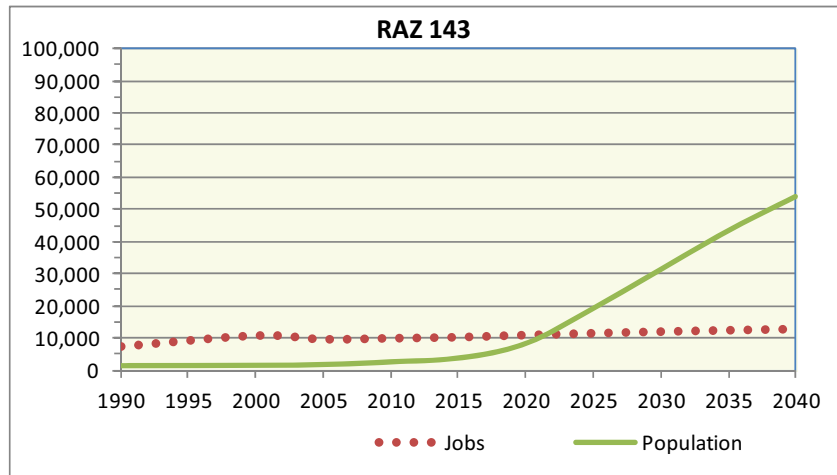
**RAZ 142 (Brookshire)**

Like 140, this RAZ largely consists of vacant rural land with development occurring near the town of Brookshire. Suburban development has recently begun to spread west from Katy to the easternmost area of the RAZ in the form of commercial development such as the Rooms to Go distribution center and the Willow Creek Farms subdivision.

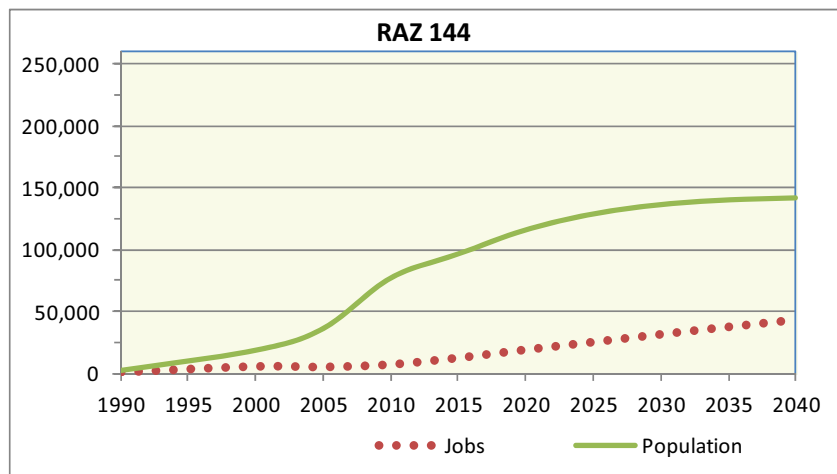


RAZ 143 (West Katy)

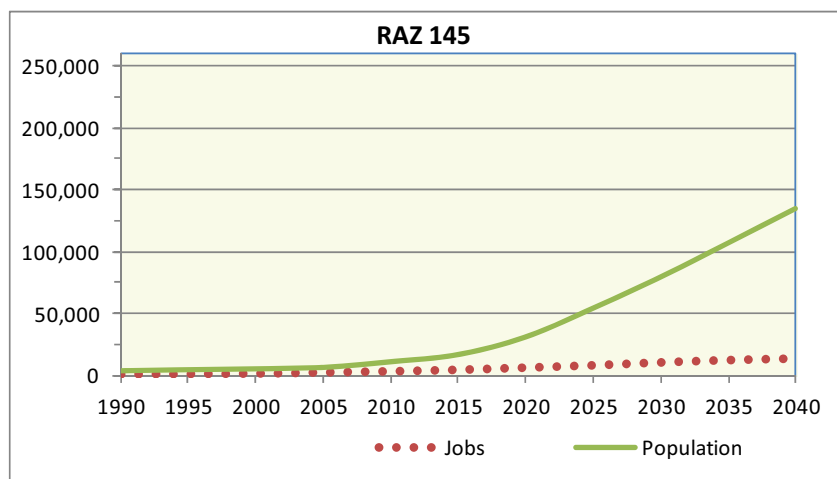
This RAZ consists of the western area of the City of Katy and adjacent unincorporated county. Currently there is little development in the area, but it is in the path of growth and large announced developments such as Cane Island will likely fuel population growth as projected.

Forecasts RAZ 143 to 145**RAZ 144 (Cinco Ranch area)**

This RAZ contains some of the fastest growing master planned developments in the Houston region. Cinco Ranch, Firethorne, and others continue to achieve rapid single family absorption, and generate corresponding commercial development. Sufficient vacant land exists for this trend to continue into the future as projected.

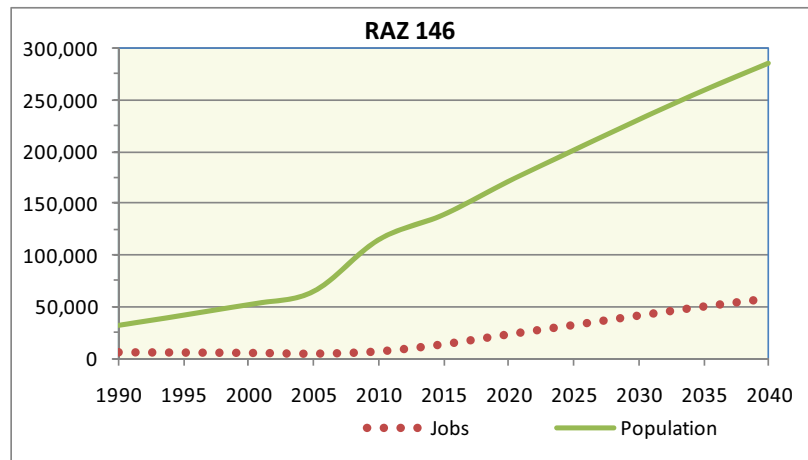
**RAZ 145 (Fulshear)**

This RAZ contains upscale large lot estate subdivisions in and around the town of Fulshear to the North and the northern reaches of Richmond / Rosenberg to the south. Commercial development is centered in the town of Fulshear. Sufficient vacant land, new high end developments, and market desirability will likely drive continued growth.

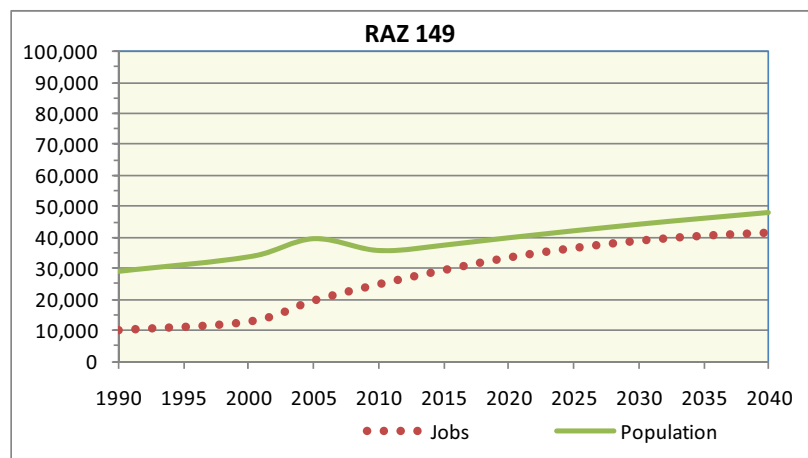


RAZ 146 (North Richmond)

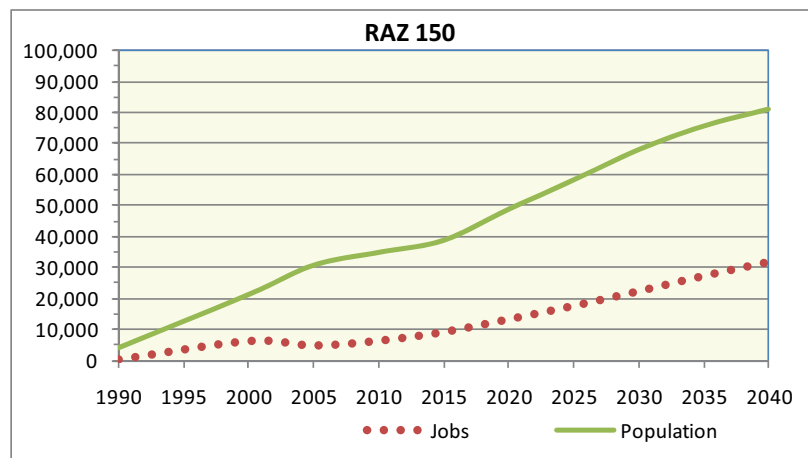
This RAZ is characterized by sufficiently large vacant tracts and new amenitized single family developments along the Grand Parkway (TX 99) and FM 1093 and established neighborhoods of various price points along Highway 6. Key developments such as Aliana, Long Meadow Farms, and Westheimer Lakes have fueled commercial development along TX 99.

Forecasts RAZ 146 to 150**RAZ 149 (Rich - Rose)**

The original townsites of Richmond and Rosenberg comprise most of this RAZ. This area is characterized by older (often historic) residential and commercial development, and contains the county seat of Fort Bend County. Unlike much of Fort Bend County, this area is largely built out and is not projected to see much growth.

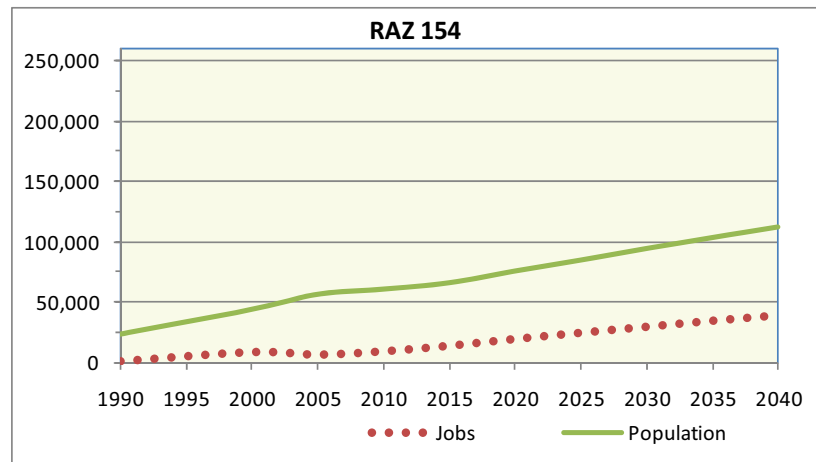
**RAZ 150 (New Territory / Telfair)**

This RAZ consists of vacant land and several large upscale master planned communities, including River Park, New Territory, and Telfair, the last of which has achieved great absorption in recent years. Commercial development is centered on TX 99 and 59. Population growth is likely given past new home absorption in the area.

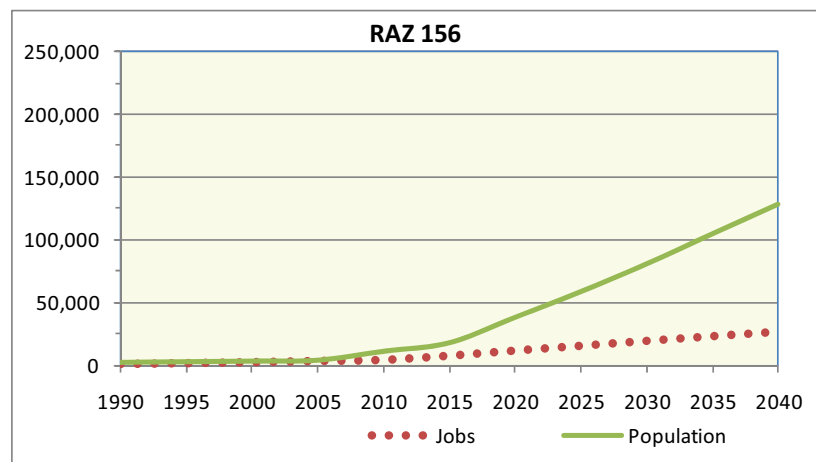


RAZ 154 (First Colony / Greatwood)

This RAZ contains the master planned developments of First Colony, Sugar Land Town Center, and Greatwood. North of the Brazos River is entirely built out, but vacant land south of the river in this area will support new housing and continued population growth.

Forecasts RAZ 154 to 156**RAZ 156 (South Central)**

This RAZ consists largely of undeveloped land situated south and southeast of Richmond-Rosenberg. Current development is primarily made up of smaller single family subdivisions situated in the northwest side of the RAZ, around the intersections of TX 36 and FM 762 with US 59. Also within RAZ 156 are the towns of Pleak and Thompsons, the southern half of the Brazos Town Center retail development, and the Brazos Valley Power Plant.



Distributing RAZ-Level Forecast Data to the TAZ and SAZ

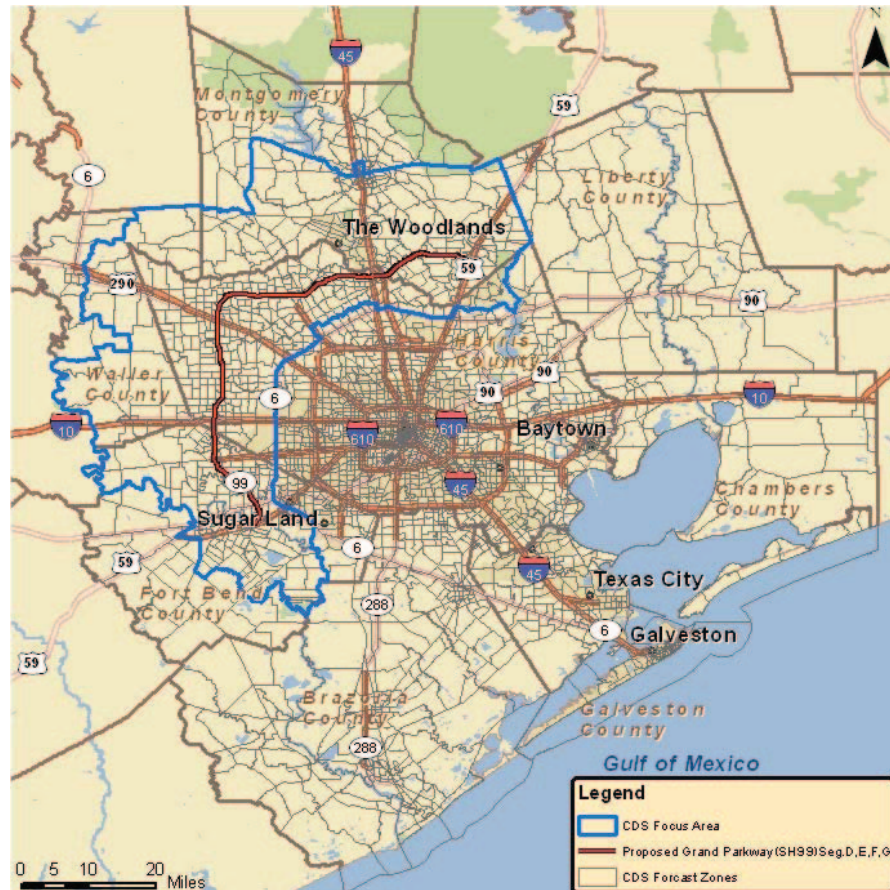
RAZ to TAZ Allocation

The forecasts for the 199 RAZ Zones were distributed to the smaller Traffic Analysis Zones (TAZ), and subsequent SAZ Zones, for the entire 8-county region. The map below illustrates the 3,216 CDS forecast areas in the region.

The methodology for the distribution of the expected growth within the RAZ to the smaller TAZ and SAZ was straightforward but time consuming. For this effort, the CDS team:

1. Reviewed information for each RAZ zone, including aerial photographs, data from the appraisal districts, information from area agencies and previous TAZ-level forecasts prepared by the H-GAC;
2. Made an assessment as to the current distribution of housing units, jobs and population within each TAZ as a percentage of the total RAZ (using the team knowledge of trends and development plans); and
3. Made an assessment of the future growth of housing and jobs in each TAZ of the expected growth of the entire RAZ; and applied those growth percentages to the expected RAZ total growth to produce estimates of future growth of housing, population and jobs in the smaller zones.

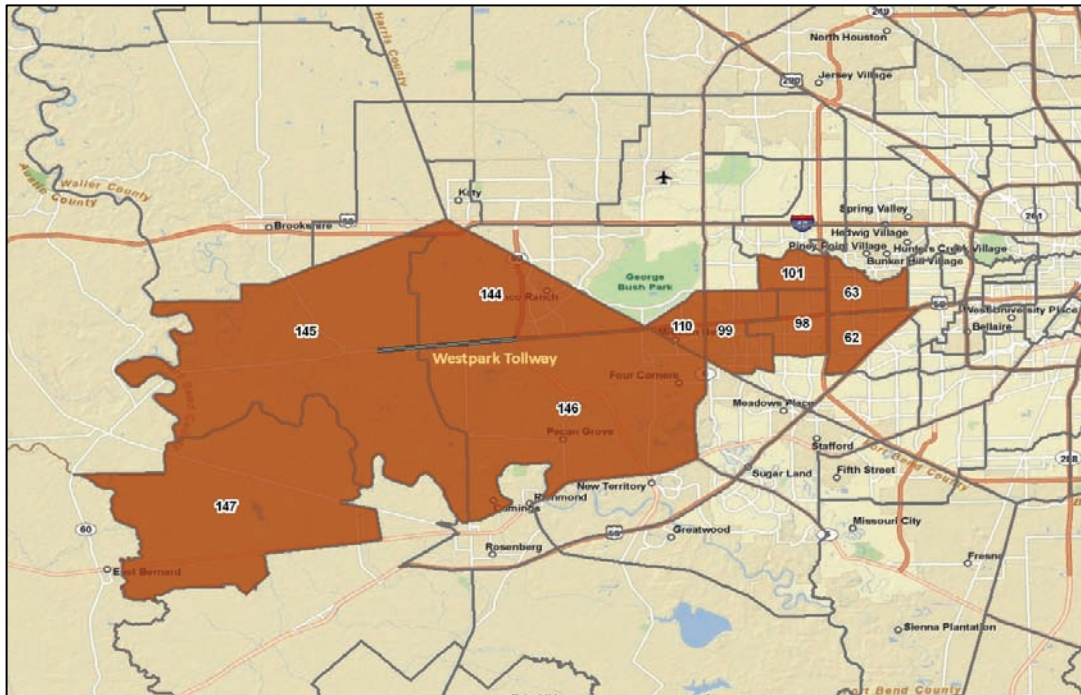
CDS Forecast Areas for the 8-County Region



TAZ to SAZ Allocation

Within the Focus Area (35 RAZs), the CDM Smith team split the TAZ areas into even smaller zones that we call Small Analysis Zones (SAZ). The purpose of this fine grain analysis is to provide the best possible information for use in toll road traffic and revenue.

RAZ Zones in the Westpark Study Focus Area



Source: CDS Market Research

Within the Focus Area, an additional 262 SAZ were added bringing the total number of zones, for which the population and jobs forecasts were produced, to 3,216.

Within each TAZ that was split into the smaller tracts, the team used the same process as with the RAZ to TAZ process described on the previous page.

Care was taken to insure that the total housing units, population and jobs for the 3,216 forecast zones matched the total regional forecast for each period.

Westpark Toll Road Study Adjustments

For this effort CDS was engaged by CDM Smith Associates to specifically analyze the Westpark Tollway Corridor, with an emphasis on the western portion where the roadway is proposed to be expanded and to disaggregate previous TAZ level forecasts into SAZ level forecast areas. RAZ areas 62, 63, 98, 99, 101, 110, 144, 145, 146, and 147 were included in the focus area as illustrated by the map below.

Zones within the focus area were given careful attention to insure that the forecasts were reasonable, consistent with trends, cognizant of known development and aware of the likely “build-out” of the area.

2012 Grand Parkway Toll Road Study Adjustments

For this 2012 Revised Report, CDS investigated new announced development as well as changes in major development plans along the Grand Parkway corridor. CDS identified 36 residential development announcements in the past year and 14 commercial (office, retail, or warehouse) projects.

For each recent announcement, the location is matched to the zones (Regional Analysis Zones (RAZ) or Small Analysis Zones (SAZ) which are often subsets of Traffic Analysis Zones. The growth in the previous CDS forecasts was evaluated to determine if the forecasts are adequate to accommodate expected growth within the planned development.

Announced New Residential Development

Development	Type	County	RAZ/SAZ	Comments
Waterford at Summer Park (196 units)	Apartments	Ft. Bend	156/3107	Forecast is consistent (high)
Dolce Living at Rosenberg (156 units)	Apartments	Ft. Bend	156/3107	Forecast is consistent (high)
Greatwood Lakes (100 acres, 254 lots)	Subdivision	Ft. Bend	154/3091	Forecast is consistent (high)
Telfair Lofts (317 units)	Apartments	Ft. Bend	150/2180	Forecast adjusted up
Avalon at Telfair	Subdivision	Ft. Bend	154/2196	Forecast is consistent (high)
Ball Park at Imperial (254 units)	Apartments	Ft. Bend	151/2220	Forecast is consistent (high)
Brazos Senior Villas (96 units)	Senior Apts	Ft. Bend	149/2282	Forecast is consistent
Watermark at Sienna Plantation (240 units)	Apartments	Ft. Bend	155/2131	Forecast is consistent (high)
Taylor Morrison (100 acres-Broussard Tract)	Subdivision	Ft. Bend	146/2227	Forecast is consistent (high)
Taylor Morrison (15 acres-Parkway Lakes)	Subdivision	Ft. Bend	146/3126	Forecast is consistent (high)
Legend Homes (175 acres)	Subdivision	Ft. Bend	146/3117	Forecast adjusted down
Legends at Cinco Ranch Phase 2 (336 units)	Apartments	Ft. Bend	144/2242	Forecast is consistent (high)
Toll Brothers (180 acres-Reserve at Katy)	Subdivision	Ft. Bend	144/2234	Forecast is consistent (high)
Meritage Homes (117 acres Gustafson Tract)	Subdivision	Ft. Bend	144/2234	Forecast is consistent (high)
Terra Vista (600-acres)	Subdivision	Ft. Bend	146/2207	Forecast is consistent (high)
Lennar (242 acres – Addison Lakes)	Subdivision	Ft. Bend	143/1456	Forecast is consistent (high)
Cane Island (800 acres)	Subdivision	Ft. Bend	143/2319	Forecast is consistent (high)
Watermark at Katy Ranch (260 units)	Apartments	Harris	111/1436	Forecast is consistent (high)
KB Homes (60 acres- Morton Crossing)	Subdivision	Harris	113/3162	Forecast is consistent (high)
Williamsburg Apartments (600 units)	Apartments	Harris	113/3158	Forecast adjusted up
Mariposa at FM529 (180 units)	Apartments	Harris	105/1715	Rate of HH growth adjusted up
Queenston Manor	Apartments	Harris	114/1451	Forecast is consistent (high)
KB Homes (91 lots, Berkshire Crossing)	Subdivision	Harris	114/1452	Forecast is consistent (high)
Sueba Vintage Park Phase 4 (239 units)	Apartments	Harris	122/1801	Forecast is consistent (high)
Sueba-San Antiqua (277 units)	Apartments	Harris	123/1675	Forecast is consistent (low)
Mariposa at Ella Blvd. (180 units)	Apartments	Harris	123/1655	Forecast is consistent (low)
DRHorton/Ryland Homes (127 acres Glenloch Farms)	Subdivision	Harris	122/1800	Forecast is consistent (high)
Meritage Homes (100 acres)	Subdivision	Harris	122/3268	Forecast is consistent (high)
McKenzie Park (193 acres, 294 lots)	Subdivision	Harris	122/3267	Forecast is consistent (high)
Ryland Homes (at Northhampton)	Subdivision	Harris	122/1808	Forecast adjusted up
New Subdivision (600 acres)	Subdivision	Mont.	130/3282	Forecast is consistent (high)
The Woodlands Lodge (300 units)	Apartments	Mont.	131/2399	Forecast adjusted up
The Retreat at Country Club (210 units)	Apartments	Mont.	136/2472	Forecast is consistent (high)
Mansions Woodland Phase 2 (405 units)	Apartments	Mont.	132/2415	Forecast is consistent (high)
Shadow Creek South (161 lots)	Subdivision	Harris	121/1816	Forecast is consistent (high)
Lennar, DRHorton -Whitestone Tract (1,564 acres)	Subdivision	Mont.	128/3317	Forecast is slightly low

Announced New Commercial Development

Development	Type	County	RAZ/SAZ	Comments
Energy Tower III (451,000 sf)	Office	Harris	104/1429	Employment forecast adjusted up
Trammel Crow (3 Buildings, 1.5 million sf)	Office	Harris	102/1416	Employment forecast adjusted up
Parkway Central (228,000 sf)	Office	Harris	104/1426	Employment forecast adjusted up
Skanska Energy Corridor (2 buildings, 700,000 s.f)	Office	Harris	100/1351	Forecast is slightly low
Remington Square Building C (118,000 sf)	Office	Harris	107/1699	Forecast is consistent (high)
City Centre Three (120,000 sf)	Office	Harris	102/1412	Forecast is consistent (high)
Granite Briarpark Green (300,000 sf)	Office	Harris	63/1257	Forecast is consistent (high)
Six Sugar Creek (322,000 sf)	Office	Ft. Bend	151/2178	Forecast is consistent (high)
Research Forests Lakeside (6 bldgs, 358,000 sf)	Office	Mont.	132/2420	Employment forecast adjusted up
3 Waterway Place (152,000 sf)	Office	Mont.	132/2954	Employment forecast adjusted up
Anadarko Tower II (800,000 sf)	Office	Mont.	132/2954	Employment forecast adjusted up
Tanger Premium Outlet Mall (350,000 sf)	Retail	Galv.	178/2779	Employment forecast adjusted up
DCT West Houston Spec Warehouses (267,000 sf)	Warehouse	Harris	124/1647	Forecast is consistent
DCT Northwest Houston Spec Warehouse (267,000 sf)	Warehouse	Harris	105/ 1713	Forecast is consistent

Detailed Discussion of 2012 Update Analysis and Changes

- RAZ 156, SAZ 3107 – new apartment projects including Waterford at Summer Park and Dolce Living at Rosenberg are being developed currently. CDS' forecasts show population growing by 1,420 and housing units growing by 482 from 2010 to 2020, and this new multifamily development is in line with these projections.
- RAZ 154, SAZ 3091 – new single family development called Greatwood Lakes is currently in planning stages. CDS' forecasts show population growing by 5,159 and housing units growing by 1,794 from 2010 to 2040, and this new single family development is in line with these projections.
- RAZ 150, SAZ 2180 – planned multifamily development of 317 units (Telfair Lofts) is currently in planning stages. CDS' previous forecast did not project enough household and population growth to account for this and has been adjusted accordingly. The growth of housing units has increased in SAZ 2180 and reduced growth projections for SAZ 3109.
- RAZ 154, SAZ 2196 – active single family development called Avalon at Telfair is currently on going. CDS' forecasts (869 additional housing units, 2501 additional population) are consistent with that development. In addition, CDS sees this area as a job center due to the UH Sugar Land campus and anticipated surrounding uses.
- RAZ 151, SAZ 2220, 2218 – additional multifamily development (Ball Park at Imperial) will bring 254 additional units on line. This is consistent with CDS' previous projections for growth adding 1,323 people and 489 housing units between 2010 and 2040.
- RAZ 149, SAZ 2282 – additional multifamily development Brazos Senior Villas (96 units) are being added to this area. CDS' forecasts from 2010 to 2040 project growth of 652 housing units and

1,653 additional residents. This new development corresponds to CDS' projections, but CDS is adjusting the projections to show more population growth sooner than previously projected.

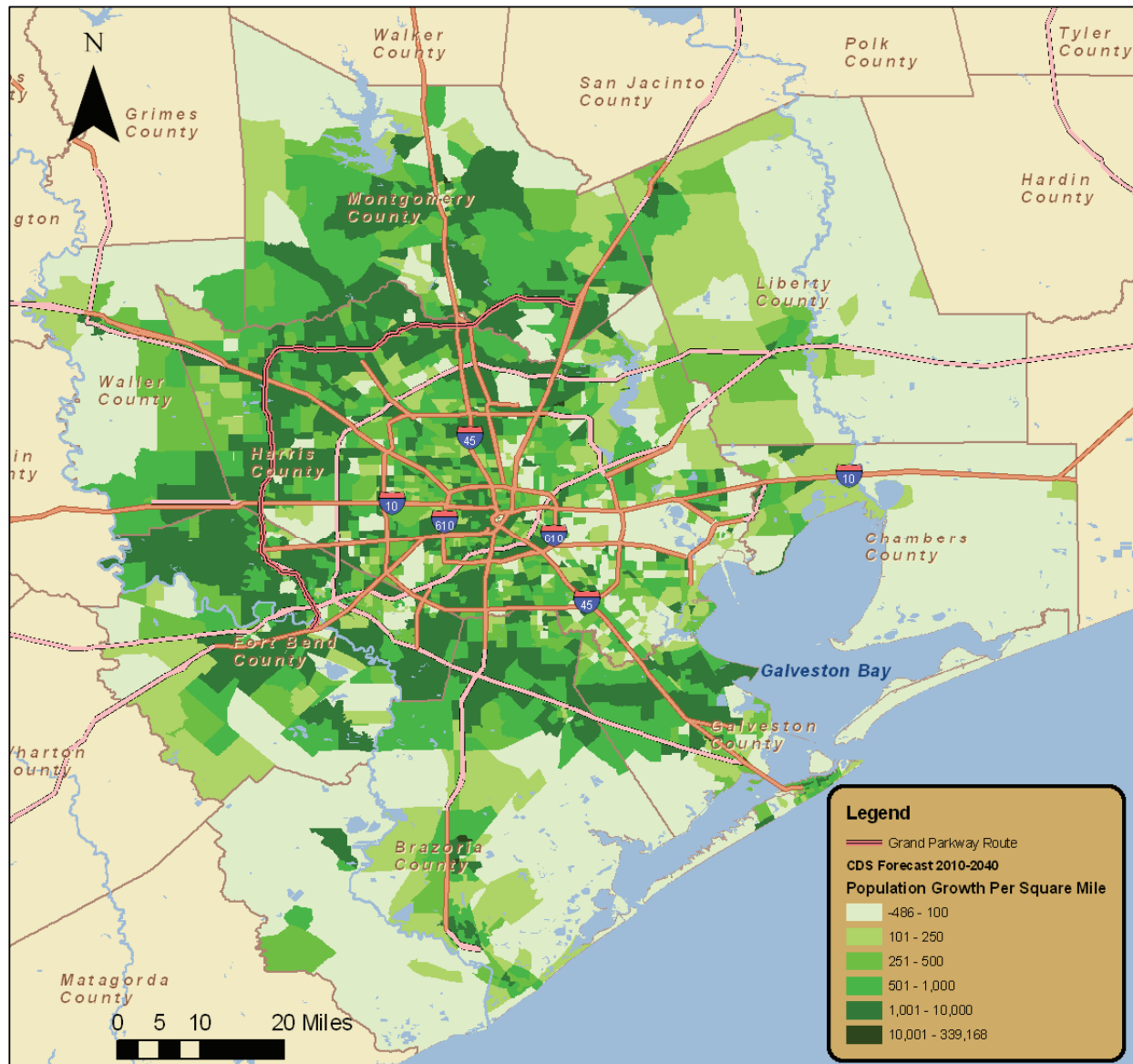
- RAZ 155, SAZ 2131 – Additional multifamily development (Watermark at Sienna Plantation) is currently under construction. CDS' forecast for this area projected 1,056 housing units by 2020 which is consistent with this new development.
- RAZ 146, SAZ 2227 – Taylor Morrison Homes recently closed on the "Broussard Tract" which is 100 acres for single family development. CDS' forecast for this area projected growth of 937 housing units and 2,962 new residents by 2040. CDS forecast is consistent with this new imminent development.
- RAZ 146, SAZ 3126 – Taylor Morrison Homes recently closed on fifteen acres in the existing Parkway Lakes development for single family. CDS' forecast for this area projected growth of 88 housing units and 275 new residents by 2020. This is consistent with this additional development.
- RAZ 146, SAZ 3117- Legend Homes Corporation has recently closed on 175 acres for residential development. CDS' previous forecast for this area includes projected growth of 3,194 people and 1,012 additional housing units for this SAZ. CDS will be adjusting this down from our previous projection because achieving this growth rate would require an unlikely high density of residential development to occur. CDS's adjusted forecast aligns with the new Legend Homes development.
- RAZ 144, SAZ 2242 – Additional multifamily development (Legends at Cinco Ranch Ph. 2) and Villas at Mason will add an approximate 336 additional housing units. CDS' projection of adding 1,224 population and 381 housing by 2020 units aligns with this new development.
- RAZ 111, SAZ 1436 – Additional multifamily development (Watermark at Katy Ranch) will add an additional 260 housing units. CDS' projection of adding 470 housing units and population of 630 by 2020 aligns with this new development.
- RAZ 144, SAZ 2234, 2235, Toll Brothers is developing Reserve at Katy that will be a 180 acre single family development. Meritage Homes has recently closed on the "Gustafson Tract" which will be a 117 acre single family development. The combined growth from these two developments aligns with CDS' growth projections of 15,651 additional population and 4,870 additional housing by 2030.
- RAZ 146, SAZ 2207, The Terra Vista 600 acre land asset is currently under contract to an unidentified developer group. This planned development aligns with CDS' projections of 2,934 housing units and 9,127 additional population growth 2030.
- RAZ 112 and 143 SAZ 1456 and 2318, Lennar has purchased the former Green Meadows Golf Course and is redeveloping it into the Addison Lakes acre subdivision with 242 acres. This planned development aligns with CDS' previous projection of an increase 3,816 people and 1,377 housing units.
- RAZ 143, SAZ 2319, An undisclosed developer group has the 800 acre Cane Island asset under contract. This development could generate approximately 2000 additional housing units which generally aligns with 6,140 population and 2,073 new housing units by 2040.

- RAZ113, SAZ 3162, KB Home has purchased a 60 acre tract to develop into the Morton Crossing subdivision which could have as many as 240 homes. This new development aligns with CDS' projection of adding 1,120 new housing units and 3,673 new residents by 2040.
- RAZ 113, SAZ 3158, New additional multifamily development is planned for this area. The Williamsburg Apartments Phase 1 will add 600 housing units. CDS' previous projections did not account for this growth and are being adjusted accordingly.
- RAZ 105, SAZ 1715, New multifamily is planned in this area. The Mariposa at FM 529 complex is slated to bring on line 180 units. Our forecasts are consistent with this development, however CDS is moving up the rate of new household growth from the previous projections.
- RAZ 114, SAZ 1451, The Queenston Manor planned multifamily development is to bring to market additional housing units into the market. This new development aligns with CDS' projections for the area.
- RAZ 114, SAZ 1452, KB Home has developed the Berkshire Crossing development with 91 homes. This aligns with CDS' projections for the area of 1,214 housing units and 3,300 in additional population by 2020.
- RAZ 122, SAZ 1801, Sueba will be developing the 4th phase of the Vintage Park apartments which will contain 239 units. This is within range of the 727 housing units and 1,819 people that the SAZ was originally projected to add by CDS.
- RAZ 123, SAZ 1675 Sueba will be developing the San Antiqua apartment complex with 277 units. CDS' original projection contained growth of just 44 housing units and 89 people, which was not consistent with this announced development. This growth has been accounted for in CDS' latest adjustments.
- RAZ 123, SAZ 1655 – a new multifamily development, the Mariposa at Ella Blvd, will be developed in this SAZ, bringing 180 units to the market. The original CDS projections contained growth of just 205 people and 100 housing units. The numbers in this SAZ were subsequently adjusted.
- RAZ 122, SAZ 1800 and 3257, DR Horton and Ryland Homes have both purchased vacant tracts adjacent to or within the Gleannloch Farms development. These two tracts make up 127 acres and could result in 250 to 275 additional new homes. The CDS forecast numbers of 2,241 housing units and 5,631 population growth by 2040 remain reasonable.
- RAZ 122, SAZ 3268 - Meritage Homes has acquired a 100 acre tract from El Paso and will be developing it into a single family community with between 250 and 300 homes. CDS' original forecast of 1,471 new housing units and 3,701 population growth by 2030. This development fits reasonably with these numbers.
- Just south of The Woodlands in northern Harris County (RAZ 122, SAZ 3267) a new single family development, McKenzie Park, is to begin development shortly and will have 250 lots. CDS' current projections of 1283 housing units and 3230 population by 2030 reasonably accounts for this additional growth.

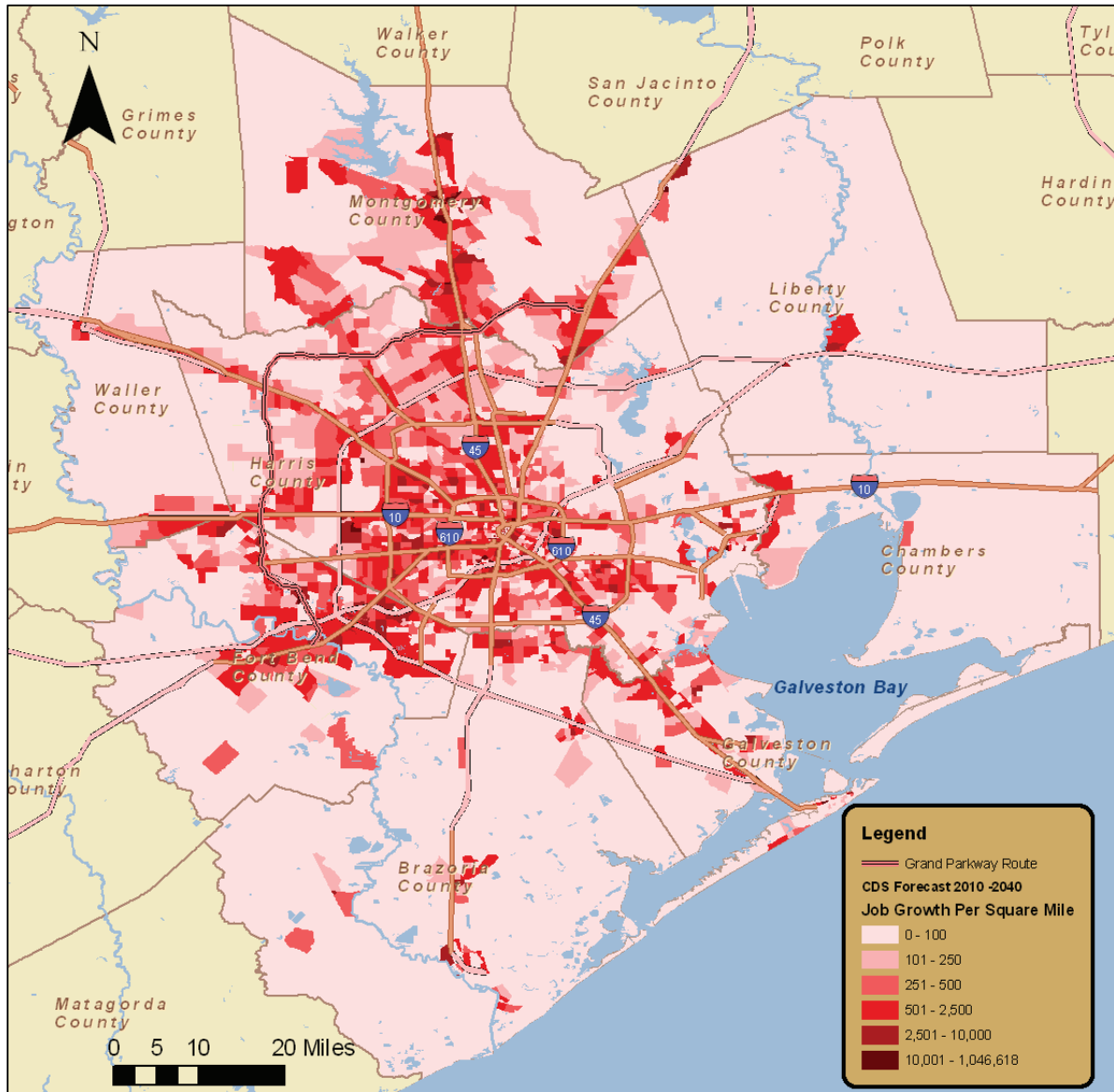
- In northern Harris County just south of The Woodlands (RAZ 122, SAZ 1808) – Ryland Homes is developing a new subdivision called Preserve at Northampton with approximately 150 lots at buildout. CDS' current projections were insufficient to capture this population growth and have been adjusted accordingly.
- In RAZ 130, SAZ 3282, a 600 acre tract is under contract to a developer for a primarily single family development. This could generate as many as 2000 new housing units. CDS' previous projections of 8,862 housing units and population growth of 22,197 by 2040 reasonably account for this growth.
- The Woodlands Lodge multifamily development is under construction on the former Woodlands Athletic Center site (RAZ 131, SAZ 2399) and will deliver 300 apartment units. CDS forecast originally added 47 housing units and 97 people by 2020. Adjustments were made to account for this new unanticipated infill redevelopment in an otherwise completely built out portion of The Woodlands.
- In RAZ 136, TAZ 2472 The Retreat at Country Club apartments is currently under construction and will deliver 210 apartment units. CDS' previous projections adequately account for this growth.
- In Montgomery County the second phase of Mansions Woodland apartments is currently under construction along FM 1488 and will deliver 405 apartment units. (RAZ 132, TAZ 2415) CDS' previous projections adequately account for this growth.
- In Montgomery County in RAZ 137, TAZ 2459, Landmark Magnolia apartments have been announced and will deliver 250 housing units along FM 1488 north of The Woodlands. CDS' previous projections reasonably account for this growth.
- CDS will be adding additional employment growth to RAZ 104, SAZ 1429 to account for an additional large scale Class A office building recently announced by developer and car dealer. Mac Haik at the intersection of I-10 and Kirkwood in the Energy Corridor.
- Core office properties has announced a "value" office development at Beltway 8 and Kempwood to be called Core at Kempwood (RAZ 104, SAZ 1426) CDS' previous projections add 2148 jobs which reasonably accounts for this growth.
- Adjacent to Augusta Pines, the Shadow Creek South planned single family development (RAZ 121, SAZ 1816) is a 161 lot planned single family subdivision. CDS' projections show growth of 2,454 housing units and 6,087 population growth by 2020 so these current projections adequately account for this growth.
- In eastern Montgomery County, the former Whitestone Tract / Earthquest is being repositioned for residential development by Lennar and DR Horton Homes. 1,564 acres with an approximate 3,000 homes. CDS 2040 projections were adjusted to account for this.
- Anadarko Tower II – 800,000 sf second office tower at Woodlands Town Center and Waterway Square 3, 192,000 sf to break ground 2012, (RAZ 132, SAZ 2954) CDS' previous projections were adjusted upward to reflect as many as 10,000 additional employees by 2040

- ARCO / Skanska redevelopment of two 350,000 sf office towers in the Energy Corridor along Memorial Drive (SAZ 1351, RAZ 100). This is consistent with CDS' previous job growth projections.
- City Centre III will see a currently under construction 120K SF office building to deliver in 2012 or early 2013. CDS' previous projections accurately capture the increased employment from this building
- Granite properties has announced development of a 700K square foot class A office development to be called Granite Briar Park in the Westchase area off of Briar Park Drive (RAZ 63, SAZ 1257) CDS' previous projections accurately capture the increased employment from this building.
- An additional office building is planned for the Sugar Creek development near 59 and Dairy Ashford - Sugar Creek Six. (RAZ 151, SAZ 2178) CDS previous projections accurately capture the increased employment from this building
- Denver-based DCT Industrial Trust 267,000-square-foot speculative warehouse on a recently bought 13-acre parcel in west Houston (RAZ 124, SAZ 1647, 1648). CDS' current projections are reasonable to account for job growth associated with this new development.
- DCT will also open another 267,000-square-foot speculative institutional warehouse on Okanella Street near Beltway 8 and Highway 290 (RAZ 105, SAZ 1713) in northwest Houston CDS' current projections are reasonable to account for this additional development.
- Job growth was added to RAZ 132, SAZ 2420 – to account for additional office space announced to be developed in the future phases of the Research Forest Lakeside office complex.
- Additional job growth was added to RAZ 178, SAZ 2779 to account for the recently announced Tanger/ Simon Outlet Mall which will contain over 350,000 square feet of retail at completion.
- CDS increased job growth in RAZ 102 (generally the Energy Corridor in west Houston) to account for increased hiring in this area and significant additional new office space announced to be brought to market in this area. This includes the Trammel Crow Texas General Land Office development site which will see as much as 1.5M sf of new Class A office space developed.

2010 – 2040 Projected Population Growth per Square Mile by Small Area



2010 – 2040 Projected Job Growth per Square Mile by Small Area



Project Deliverables

In addition to this report, the project produced an initial report entitled, ***Regional and County Forecast Report*** which detailed the regional growth historically and various forecasts, evaluated various county-level forecasts including the most recent 2040 Forecasts from H-GAC and concluded with the recommendation to use the University of Houston – Institute for Regional Forecasting most recent forecasts for the region and individual counties as the basis for the small area forecasts in this report.

The detailed data on historical and future housing units, population and jobs for the 3,231 geographic zones in the region was transmitted electronically to CDM Smith in:

1. An Excel spreadsheet file:

CDS Houston 8 County MSA 2010-2040 Forecast.xlsx

2. ARC GIS shape files:

- a. 6_4_12_CDS_Forecast_2010_2040.dbf*
- b. 6_4_12_CDS_Forecast_2010_2040.prj*
- c. 6_4_12_CDS_Forecast_2010_2040.sbn*
- d. 6_4_12_CDS_Forecast_2010_2040.sbx*
- e. 6_4_12_CDS_Forecast_2010_2040.shp* and
- f. 6_4_12_CDS_Forecast_2010_2040.shx*

Appendix A – RAZ-Level Population Forecasts

Harris County Population (RAZ 1 to 127)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
1	7,059	6,733	7,070	4,705	5,912	7,776	9,134	10,253	10,977	11,480
2	34,882	40,537	38,432	40,619	41,367	42,957	43,693	44,202	44,505	44,709
3	3,451	3,310	3,572	3,690	4,193	6,007	7,277	8,351	9,044	9,523
4	5,224	5,819	6,743	7,347	8,834	11,506	13,730	15,795	17,130	18,056
5	23,136	23,668	24,054	22,534	23,743	25,962	27,861	29,525	30,612	31,380
6	30,347	32,828	33,931	36,928	38,407	40,685	42,344	43,950	45,004	45,778
7	10,008	10,263	11,901	15,848	18,363	21,359	24,330	25,594	26,416	26,998
8	32,026	30,313	28,539	29,047	30,053	31,671	32,576	33,843	34,662	35,240
9	31,094	32,503	31,681	27,895	28,265	29,005	29,433	29,796	30,034	30,201
10	5,500	5,171	4,638	4,783	4,955	5,448	5,862	6,233	6,477	6,647
11	4,305	3,948	4,016	3,610	3,955	4,492	4,891	5,229	5,451	5,607
12	9,001	9,230	9,004	8,403	8,575	8,844	9,044	9,213	9,324	9,402
13	53,057	54,171	50,745	45,091	46,059	47,168	47,564	47,900	48,120	48,275
14	22,863	24,108	23,126	21,936	22,697	24,582	25,947	27,116	27,873	28,397
15	6,816	7,133	8,392	9,262	9,480	9,885	10,182	10,435	10,599	10,715
16	7,891	10,180	11,002	10,135	12,070	13,549	14,905	16,264	17,284	18,107
17	23,623	24,055	24,432	25,988	28,003	30,738	32,616	34,193	35,208	35,909
18	4,360	4,387	4,396	5,695	6,918	8,132	9,037	9,797	10,288	10,635
19	13,164	12,918	12,544	14,471	14,955	15,695	16,154	16,567	16,839	17,028
20	16,649	19,881	20,735	21,853	23,236	25,206	26,670	27,911	28,723	29,295
21	17,650	20,123	20,835	22,840	24,291	25,770	26,584	27,044	27,344	27,556
22	21,524	25,383	27,226	27,486	27,733	28,117	28,402	28,644	28,802	28,914
23	11,567	14,906	14,658	18,146	21,049	25,486	26,577	27,037	27,337	27,549
24	5,799	6,304	5,919	6,225	6,397	6,672	7,528	8,737	9,529	10,111
25	7,210	8,413	8,118	7,493	7,493	7,902	8,206	8,463	8,632	8,751
26	4,247	4,315	5,321	6,908	7,537	8,286	8,832	9,292	9,592	9,804
27	16,446	16,375	17,513	20,116	22,777	23,955	24,424	24,714	24,878	24,986
28	36,343	35,346	33,431	32,821	33,305	34,414	35,499	36,943	37,878	38,525
29	17,507	18,981	18,621	18,587	19,579	21,488	22,996	24,268	25,088	25,654
30	22,071	23,223	22,235	23,581	24,090	25,034	25,756	26,385	26,795	27,079
31	36,736	43,658	42,406	41,353	41,546	41,842	42,059	42,240	42,356	42,438
32	43,282	50,987	50,646	49,495	50,185	51,579	52,669	53,626	54,251	54,684
33	42,160	40,988	40,022	42,333	44,401	47,204	49,127	50,742	51,781	52,498
34	13,848	15,958	16,908	22,348	25,251	29,694	35,905	40,517	43,520	45,645
35	31,636	34,003	32,734	32,343	33,087	34,614	35,934	37,024	37,728	38,217
36	12,130	12,633	12,263	12,077	12,128	12,209	12,268	12,319	12,352	12,375
37	7,537	8,327	8,990	8,728	8,851	9,384	9,857	10,287	10,571	10,769
38	32,158	45,475	45,779	42,744	44,195	45,674	46,488	47,394	48,033	48,475
39	10,144	10,860	11,210	15,039	18,425	23,555	27,224	29,489	30,946	31,975
40	28,108	33,039	35,142	39,482	40,721	43,012	44,819	46,425	47,315	47,933
41	8,433	9,898	10,288	9,901	10,020	10,202	10,336	10,448	10,520	10,782
42	4,128	5,086	5,248	4,941	5,458	6,029	6,382	6,667	6,848	6,972
43	27,826	31,932	31,716	30,275	30,759	32,238	32,496	32,760	32,941	33,068

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
44	31,464	32,420	31,728	30,246	31,453	33,135	34,302	35,286	35,920	36,358
45	17,983	21,232	21,035	20,742	21,105	21,872	22,383	22,807	23,079	23,267
46	9,300	10,846	10,753	11,703	11,996	12,401	12,681	12,917	13,069	13,174
47	9,240	9,568	9,669	9,598	9,724	9,927	10,224	10,350	10,432	10,490
48	17,151	16,225	15,761	15,658	16,372	17,500	18,321	19,025	19,481	19,797
49	17,404	21,503	23,153	29,374	31,605	35,041	36,987	38,823	39,713	40,258
50	70,823	84,595	90,484	102,005	106,095	112,394	116,842	119,595	121,523	122,688
51	8,193	9,263	9,232	9,143	9,168	9,207	9,236	9,260	9,276	9,287
52	22	47	67	0	25	106	403	529	611	669
53	53,656	60,887	59,208	61,036	61,036	61,756	62,460	63,116	63,552	63,856
54	53,537	62,017	62,150	63,666	64,359	66,230	67,786	69,176	70,089	70,723
55	60	34	31	33	42	83	113	239	321	379
56	17,586	23,450	27,229	38,284	41,259	44,373	45,848	47,056	47,849	48,431
57	21,080	21,826	22,604	28,213	31,599	37,523	41,574	43,526	44,807	45,389
58	12,928	15,404	16,031	22,378	24,797	29,234	33,303	36,930	38,431	39,469
59	12,759	14,774	17,103	25,657	28,632	32,450	34,952	37,017	38,203	39,026
60	62,877	79,845	82,704	76,730	77,075	78,470	79,698	80,812	81,547	82,059
61	30,861	38,268	39,039	36,085	36,102	36,130	36,150	36,167	36,178	36,186
62	51,030	70,290	72,699	69,472	70,277	71,523	72,445	73,200	73,696	74,084
63	37,548	43,258	44,563	49,107	50,800	54,498	57,468	59,735	61,211	62,047
64	22,154	22,884	23,092	22,809	23,326	24,151	24,757	25,273	25,609	25,846
65	72,139	85,193	86,253	83,084	84,099	86,122	86,716	87,222	87,551	87,784
66	6,814	8,137	8,104	9,692	10,436	11,581	12,415	13,103	13,548	13,857
67	22,112	27,488	27,790	24,670	26,567	29,290	31,202	32,821	33,866	34,588
68	59,259	67,714	66,482	73,112	74,482	76,705	78,373	79,979	81,165	82,091
69	10,621	10,940	11,425	11,807	12,763	14,120	15,069	15,871	16,388	16,745
70	21,482	26,282	26,742	28,983	29,185	29,550	29,817	30,044	30,192	30,296
71	11,795	15,152	15,212	17,462	17,834	18,979	19,813	20,501	20,946	21,255
72	10,895	12,591	12,225	11,997	12,022	12,063	12,093	12,169	12,235	12,293
73	17,838	21,347	23,476	23,032	23,083	23,205	23,324	23,576	23,740	23,856
74	17,412	20,111	20,619	20,083	21,095	22,654	23,789	25,395	26,730	27,759
75	6,373	7,181	7,201	10,991	12,716	14,754	16,978	19,043	20,452	21,481
76	9,999	11,306	11,797	17,063	18,874	20,722	21,813	22,674	23,216	23,588
77	11,110	12,956	12,687	16,002	18,026	21,462	24,242	26,766	28,397	29,632
78	25,001	41,496	51,791	75,032	82,263	90,326	94,935	98,458	100,440	101,652
79	41,486	52,748	53,484	56,346	57,358	59,383	61,760	63,778	65,091	66,017
80	7,404	9,538	10,498	13,819	15,390	17,809	19,571	21,025	21,965	22,617
81	9,955	11,421	12,913	15,978	17,514	19,879	21,602	23,024	23,943	24,581
82	2,682	3,263	4,734	13,160	16,092	19,428	21,530	23,237	24,323	25,070
83	8,368	8,830	9,345	10,045	10,541	11,305	11,861	12,779	13,520	14,138
84	18,022	20,803	22,808	29,524	32,036	36,104	39,088	41,653	43,317	44,469
85	8,937	7,745	7,148	6,447	6,591	6,823	6,994	7,141	7,236	7,302
86	45,135	47,632	47,879	50,685	52,410	55,199	57,244	59,001	60,141	60,930
87	25	32	30	5	5	5	5	5	5	5
88	6,305	6,204	5,917	6,173	6,273	6,494	6,670	6,826	6,928	6,999
89	10,041	9,574	9,319	8,777	9,467	10,679	11,592	12,383	12,898	13,255

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
90	42,301	44,920	45,092	49,695	51,678	55,114	57,338	58,715	59,605	60,223
91	13,449	16,266	17,833	18,774	19,270	20,415	21,527	22,674	23,564	24,285
92	14,593	18,368	19,808	20,970	22,177	24,066	25,436	26,609	27,369	27,895
93	45,634	67,185	71,646	78,699	82,525	85,751	88,100	90,039	91,195	91,922
94	42,359	46,270	45,266	49,701	50,208	51,422	52,610	53,622	54,280	54,746
95	16,485	21,585	23,687	27,040	28,432	29,658	30,306	30,791	31,090	31,293
96	39,003	38,650	41,634	53,862	56,967	59,168	60,092	60,688	61,032	61,260
97	43,968	53,531	53,040	53,673	55,053	57,048	58,453	59,644	60,413	60,944
98	34,559	43,660	46,218	50,507	52,276	55,097	57,169	59,434	61,086	62,419
99	41,111	55,811	61,926	72,046	76,502	80,904	84,162	86,830	88,581	89,866
100	16,362	23,565	25,636	32,605	37,415	42,969	46,479	49,199	50,675	51,719
101	31,343	36,953	37,126	34,196	34,196	34,238	34,299	34,349	34,382	34,418
102	30,719	31,640	32,029	33,201	34,582	36,517	37,863	38,999	39,732	40,238
103	114	543	721	536	2,261	5,705	8,391	10,745	12,282	13,348
104	21,795	25,103	24,799	23,758	24,997	26,906	28,296	29,443	30,184	30,699
105	23,533	36,702	43,344	46,515	48,498	51,934	54,714	57,238	59,017	60,355
106	8,865	12,732	15,906	17,295	18,305	19,311	19,895	20,353	20,640	20,837
107	42,190	67,320	74,873	85,845	91,020	98,990	103,160	106,372	108,300	109,329
108	29,336	38,191	43,196	50,926	53,653	57,871	60,992	63,548	64,374	64,738
109	25,313	30,555	31,360	31,260	32,995	36,049	38,551	40,846	42,477	43,712
110	18,157	22,395	25,462	29,461	31,095	33,725	35,685	37,332	38,397	39,149
111	29,835	48,607	57,263	61,439	62,642	64,863	66,483	67,843	68,729	69,356
112	6,359	9,611	10,964	11,344	12,706	15,806	18,298	20,503	21,947	22,949
113	27,234	45,245	61,276	110,699	128,378	157,158	178,542	196,277	209,429	219,539
114	27,372	39,961	47,008	67,033	73,319	81,411	84,426	85,693	86,512	87,090
115	665	1,392	1,917	2,155	3,364	9,835	15,260	20,390	24,760	28,877
116	21,618	34,912	49,563	91,057	109,162	136,269	157,971	178,356	191,467	200,937
117	3,312	5,084	5,950	6,462	7,671	13,217	18,642	23,625	27,721	31,191
118	18,576	46,091	68,711	100,787	113,348	141,822	162,711	179,382	190,890	199,810
119	41,607	51,629	58,452	68,126	72,964	78,510	81,494	83,802	85,133	85,997
120	7,587	10,429	11,742	12,136	14,020	17,681	20,665	23,743	26,072	28,145
121	2,329	5,813	7,676	14,269	18,037	24,545	29,916	35,046	38,540	40,958
122	69,796	91,845	105,419	150,935	174,333	207,225	232,727	245,381	252,779	258,131
123	93,646	121,457	132,514	150,815	157,526	165,831	170,440	172,956	173,782	174,267
124	13,861	17,941	22,015	44,678	52,214	60,350	66,414	68,948	71,405	72,502
125	15,643	17,505	18,625	26,499	29,516	33,966	36,981	39,019	40,476	41,505
126	2,905	3,638	4,321	4,844	5,598	7,126	8,453	10,287	11,188	11,812
127	32,857	35,788	39,821	57,606	64,395	71,790	76,673	81,696	84,525	86,943
Total	2,818,203	3,400,582	3,604,235	4,092,459	4,356,585	4,757,935	5,049,661	5,283,362	5,436,463	5,547,285

Montgomery County Population (RAZ 128 to 139)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
128	16,590	22,420	27,358	29,343	34,436	44,286	54,512	65,193	74,777	83,712
129	27,814	40,085	49,293	61,080	71,265	94,248	119,812	148,295	175,449	200,766
130	3,633	7,026	8,828	31,213	40,696	57,097	72,486	86,493	103,038	117,930
131	24,567	31,077	37,110	35,851	38,122	40,960	43,155	44,618	45,967	47,195
132	21,022	51,447	69,738	82,025	93,380	106,798	113,615	118,956	122,151	123,640
133	4,263	4,778	7,678	10,690	13,537	19,754	26,454	33,538	41,525	50,460
134	22,636	28,640	31,207	34,328	37,391	44,406	51,605	58,775	65,614	71,983
135	17,623	25,523	30,019	37,212	41,008	49,426	59,505	70,260	80,263	90,105
136	18,028	33,425	41,183	53,917	67,702	83,134	96,092	106,130	114,117	121,100
137	6,171	12,641	16,571	21,359	28,001	42,474	58,062	75,864	93,434	111,305
138	2,612	5,142	6,696	6,405	7,254	9,716	13,125	17,575	21,888	26,356
139	17,244	31,582	42,175	52,321	61,246	79,484	101,081	124,024	146,698	167,613
Total	182,203	293,786	367,856	455,744	534,038	671,783	809,504	949,721	1,084,921	1,212,165

Waller County Population (RAZ 140 to 144)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
140	11,236	16,032	16,776	21,539	23,411	29,044	41,201	53,867	65,881	75,942
141	5,709	7,573	9,539	9,189	9,677	11,555	16,331	21,960	27,967	33,601
142	5,155	7,684	7,833	9,966	11,796	18,137	33,265	49,624	65,779	79,892
143	1,290	1,374	1,616	2,511	3,645	8,160	19,137	31,222	43,299	53,978
Total	23,390	32,663	35,764	43,205	48,529	66,896	109,934	156,673	202,926	243,413

Fort Bend County Population (RAZ 144 to 158)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
144	2,686	19,074	36,706	77,528	96,895	116,411	129,253	136,873	140,559	142,312
145	3,059	4,656	5,759	10,376	16,186	30,507	53,864	79,092	106,708	134,707
146	31,624	51,744	64,485	114,335	138,544	170,766	200,763	230,358	258,560	284,961
147	1,575	1,865	1,867	2,009	2,576	4,034	5,572	7,258	10,472	14,985
148	4,407	5,655	6,060	7,681	9,618	19,741	30,353	41,509	51,675	61,317
149	29,234	33,803	39,546	35,816	37,463	39,898	41,988	44,134	46,022	47,825
150	4,335	21,407	30,825	34,946	38,819	48,774	58,163	67,907	75,488	80,947
151	30,468	40,185	46,897	52,140	55,045	61,687	65,992	70,411	72,409	74,299
152	16,656	30,337	36,540	36,685	38,881	42,940	46,739	50,641	51,640	52,018
153	38,817	45,727	53,196	50,283	51,251	55,679	57,832	58,053	58,253	58,442
154	23,718	44,277	56,870	61,110	66,414	76,172	85,345	94,870	104,085	112,850
155	28,563	41,940	56,918	78,699	93,224	120,076	147,594	170,453	188,883	206,413
156	2,341	3,343	4,073	11,152	17,931	38,153	58,628	80,724	104,698	128,321
157	4,798	5,843	6,591	6,808	8,508	11,829	16,134	21,658	27,651	35,210
158	3,140	4,594	5,057	5,807	6,940	10,040	13,700	18,119	28,108	40,392
Total	225,421	354,450	451,390	585,375	678,295	846,707	1,011,920	1,172,060	1,325,211	1,474,999

Brazoria County Population (RAZ 159 to 172)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
159	11,591	11,937	12,894	12,092	13,402	16,238	19,908	23,852	27,783	31,171
160	16,761	17,949	19,044	17,981	19,151	22,342	26,132	30,055	34,383	38,167
161	2,998	3,026	3,011	2,734	3,179	3,978	4,956	5,472	5,983	6,511
162	6,931	7,131	7,029	6,591	7,036	7,835	8,324	9,356	10,583	11,815
163	9,784	13,052	13,860	13,815	14,705	16,302	18,257	19,289	20,312	21,192
164	31,015	33,090	33,718	33,923	35,703	38,897	42,807	46,935	51,025	54,544
165	1,377	1,785	1,852	1,698	2,244	3,361	4,687	6,060	7,406	8,583
166	10,860	13,137	14,177	14,721	17,450	23,831	31,884	40,712	49,849	57,838
167	18,756	20,668	20,337	21,057	23,786	30,167	38,693	47,521	57,139	65,549
168	1,917	2,297	2,479	2,767	2,990	3,469	4,153	5,185	7,230	9,869
169	11,299	15,111	16,177	17,638	20,868	32,105	47,480	67,563	89,346	112,411
170	31,835	38,268	40,021	41,780	47,026	58,473	73,315	89,276	105,187	118,903
171	8,164	21,190	32,473	65,852	75,945	92,162	109,089	125,067	138,524	147,104
172	28,419	43,126	56,266	60,517	68,591	83,186	97,291	107,277	114,967	120,115
Total	191,707	241,767	273,338	313,166	352,076	432,346	526,976	623,620	719,717	803,772

Galveston County Population (RAZ 173 to 188)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
173	15,214	21,432	25,192	25,534	27,035	29,648	30,744	31,522	32,160	32,636
174	13,089	17,610	24,581	39,026	46,400	61,993	77,297	89,832	99,705	104,656
175	20,133	32,714	40,104	48,302	55,034	65,031	73,872	78,109	79,129	80,278
176	9,641	12,215	12,391	14,376	15,447	18,016	21,314	24,860	28,366	31,174
177	16,382	18,387	18,614	21,180	22,982	26,407	30,424	34,608	38,700	41,966
178	16,471	19,615	20,841	22,067	23,413	28,931	37,260	46,660	56,100	63,701
179	4,059	5,643	5,878	8,902	10,697	14,122	19,600	26,660	34,801	41,787
180	24,800	25,325	26,603	25,927	26,376	27,126	27,236	27,310	27,369	27,412
181	9,756	8,806	9,824	9,513	10,234	10,894	11,290	11,555	11,763	11,916
182	11,848	11,197	11,084	10,728	11,085	12,107	13,489	15,000	16,502	17,707
183	7,786	8,916	9,873	9,838	10,552	13,322	17,325	22,026	27,395	32,000
184	5,006	5,146	5,160	4,659	5,019	5,616	6,270	6,933	7,575	8,086
185	4,661	6,453	6,746	6,828	7,544	9,050	10,163	10,967	11,633	12,132
186	53,504	50,213	49,103	39,610	40,360	41,405	42,842	43,901	44,921	45,687
187	1,740	1,976	2,161	2,401	2,473	3,417	4,955	6,724	8,512	9,954
188	3,310	4,511	4,161	2,418	2,755	3,505	4,334	5,128	5,893	6,468
Total	217,400	250,159	272,316	291,309	317,406	370,590	428,415	481,795	530,524	567,560

Chambers County Population (RAZ 189 to 192)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
189	7,780	9,788	10,429	10,161	10,693	11,518	12,337	13,181	14,194	15,321
190	2,941	3,188	3,407	2,890	3,523	4,505	5,481	6,485	7,691	9,033
191	5,052	7,797	9,532	15,543	18,584	23,691	28,764	33,585	38,893	44,261
192	4,315	5,258	5,754	6,502	7,516	9,480	11,821	14,633	18,011	21,768
Total	20,088	26,031	29,122	35,096	40,316	49,194	58,403	67,884	78,789	90,383

Liberty County Population (RAZ 193 to 199)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
193	545	723	825	817	958	1,539	2,345	3,268	4,336	5,495
194	12,006	12,549	13,054	12,399	12,770	14,179	16,306	19,076	22,560	27,147
195	13,936	24,746	26,869	28,115	30,766	39,222	49,857	62,166	74,359	85,828
196	6,192	8,244	9,180	9,514	10,452	13,539	18,308	25,153	34,254	44,266
197	6,014	7,148	7,332	7,189	7,283	7,798	8,752	10,121	11,941	13,943
198	6,245	7,824	8,810	8,760	9,555	12,374	16,362	20,978	26,203	31,937
199	7,787	8,920	9,034	8,849	9,078	9,940	11,444	13,116	15,032	17,104
Total	52,725	70,154	75,104	75,643	80,862	98,591	123,374	153,878	188,685	225,720

Appendix B – RAZ Level Jobs Forecasts

Harris County Jobs (RAZ 1 to 127)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
1	131,096	143,372	129,297	147,228	151,436	153,984	161,180	167,840	173,509	178,510
2	14,428	14,288	15,389	17,331	19,218	22,666	25,535	28,119	30,314	32,248
3	12,904	4,411	4,211	4,788	4,978	5,050	5,028	4,983	4,937	4,895
4	10,732	10,053	11,064	11,825	12,683	14,337	15,741	17,012	18,095	19,049
5	13,624	12,600	15,133	15,724	16,582	18,359	19,900	21,308	22,508	23,568
6	35,281	34,724	36,975	35,217	35,685	36,665	38,378	39,903	41,190	42,285
7	16,882	17,668	13,177	13,991	14,840	15,789	16,477	16,783	17,042	17,154
8	14,287	13,813	14,981	16,809	17,964	19,615	20,851	21,923	22,821	23,609
9	4,014	3,899	3,758	3,834	4,033	4,491	4,899	5,275	5,597	5,882
10	8,720	8,249	8,059	8,983	9,562	10,384	10,997	11,528	11,972	12,363
11	5,024	4,185	4,485	6,030	6,965	8,925	10,639	12,163	13,450	14,565
12	11,079	10,268	9,987	11,610	12,484	13,559	14,300	14,919	15,431	15,878
13	23,191	21,600	22,682	24,323	25,197	26,272	27,013	27,632	28,144	28,591
14	3,914	3,739	6,297	6,706	6,894	7,274	7,626	7,779	7,908	8,020
15	12,399	8,294	14,642	14,700	15,201	16,445	17,578	18,628	19,529	20,326
16	5,787	4,968	6,552	7,760	8,702	9,651	9,995	10,148	10,277	10,389
17	8,275	7,908	9,850	12,249	13,531	15,096	16,167	17,061	17,799	18,444
18	45,099	60,437	37,708	36,527	37,680	40,772	43,638	46,309	48,603	50,555
19	15,931	15,109	22,250	24,027	24,938	25,998	26,701	27,279	27,753	28,167
20	20,386	24,252	26,727	28,615	30,018	32,958	35,528	37,815	39,745	41,418
21	7,225	4,880	5,793	7,134	7,578	7,753	7,753	7,754	7,819	7,875
22	11,020	8,790	13,400	13,393	13,971	15,460	16,829	18,100	19,192	20,158
23	52,916	64,887	53,149	52,298	52,769	53,718	54,578	55,343	56,636	57,757
24	4,347	4,213	4,138	4,494	4,513	4,551	4,585	4,616	4,642	4,664
25	10,951	12,440	17,060	17,800	18,701	20,482	22,004	23,387	24,565	25,604
26	3,319	4,158	3,939	4,272	4,435	4,615	4,730	4,822	4,897	4,963
27	24,641	21,351	28,221	30,445	32,018	33,738	34,826	35,700	36,412	37,031
28	6,823	5,415	6,136	6,623	6,987	7,571	8,034	8,442	8,788	9,091
29	7,787	9,683	11,373	12,203	12,750	13,556	14,171	14,706	15,156	15,550
30	5,425	7,306	11,871	12,444	12,911	13,698	14,333	14,898	15,377	15,798
31	19,908	17,061	13,304	14,012	14,641	15,747	16,654	17,467	18,156	18,763
32	16,392	15,253	20,927	21,020	21,899	24,088	26,083	27,934	29,521	30,924
33	6,840	5,779	7,635	8,108	8,420	8,880	9,230	9,535	9,792	10,017
34	10,858	10,543	16,085	16,119	17,054	19,407	21,462	23,292	25,222	26,895
35	7,561	7,764	11,726	12,098	12,380	13,140	13,828	14,440	14,828	15,165
36	2,757	2,845	3,081	3,418	3,460	3,545	3,571	3,581	3,586	3,589
37	5,686	7,704	7,902	7,867	8,092	8,694	9,253	9,773	10,220	10,615
38	15,362	14,034	16,702	16,702	16,890	17,270	18,477	19,599	20,562	21,414
39	57,417	65,455	74,551	71,897	73,767	77,688	81,114	84,164	86,737	88,968
40	28,207	29,849	31,939	30,592	31,063	32,012	32,872	33,637	34,284	34,845
41	6,195	7,593	8,001	7,610	7,629	8,578	9,438	9,469	9,495	9,517
42	16,160	22,261	21,164	21,769	22,437	23,715	24,797	25,777	26,610	27,346
43	19,039	25,482	21,921	21,782	22,560	24,658	26,606	28,421	29,981	31,361

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
44	18,672	20,100	19,285	20,201	21,224	23,192	24,859	26,369	27,654	28,788
45	8,097	7,621	8,668	8,689	9,157	10,344	11,431	12,440	13,305	14,070
46	3,072	4,864	3,332	3,479	3,652	3,991	4,280	4,542	4,765	4,962
47	2,181	1,638	3,776	4,109	4,252	4,380	4,447	4,496	4,533	4,565
48	1,693	2,173	2,180	2,239	2,378	2,691	2,970	3,226	3,445	3,639
49	3,466	4,141	5,230	5,544	5,808	6,258	6,624	6,951	7,228	7,472
50	16,632	18,561	19,194	20,402	21,156	22,222	23,017	23,704	24,280	24,785
51	6,754	12,297	15,234	15,190	15,791	17,366	18,819	20,171	21,332	22,359
52	2,645	1,059	1,552	1,460	1,494	1,649	1,805	1,954	2,083	2,197
53	17,293	15,650	21,703	22,347	23,357	25,488	27,347	29,046	30,497	31,778
54	13,992	17,993	23,573	24,859	26,094	28,339	30,205	31,883	33,309	34,566
55	5,382	5,823	2,220	2,147	2,207	2,414	2,614	2,804	2,967	3,112
56	12,243	11,348	12,690	13,490	14,209	15,480	16,525	17,462	18,257	18,957
57	3,172	3,071	4,768	5,504	6,439	8,399	10,113	11,637	12,924	14,039
58	3,063	3,666	4,518	4,865	5,148	5,624	6,009	6,352	6,642	6,897
59	3,626	3,524	4,275	5,071	5,412	5,715	5,871	5,983	6,069	6,143
60	10,970	16,157	12,353	12,807	13,447	14,764	15,904	16,944	17,831	18,614
61	17,964	13,058	21,916	21,660	22,331	23,685	24,911	26,001	26,923	27,723
62	29,433	32,187	34,593	33,681	34,434	36,143	37,691	39,221	41,809	44,174
63	31,034	39,113	42,891	42,251	43,532	46,381	49,561	52,688	55,421	57,948
64	12,549	14,767	16,994	16,354	16,910	18,798	20,629	22,357	23,848	25,169
65	26,716	31,206	33,472	34,532	35,761	38,154	40,189	42,035	43,607	44,994
66	15,903	27,599	26,678	26,735	27,781	30,425	32,843	35,089	37,015	38,718
67	9,398	16,571	17,091	17,566	18,197	19,475	20,576	21,579	22,434	23,189
68	7,959	9,380	11,883	12,834	13,568	14,770	15,728	16,577	17,295	17,927
69	4,609	3,965	5,164	5,450	5,763	6,362	6,869	7,327	7,717	8,061
70	6,038	5,316	5,671	5,952	6,277	6,908	7,446	7,933	8,347	8,713
71	5,785	6,435	5,948	6,020	6,388	7,282	8,091	8,840	9,482	10,050
72	2,991	2,823	4,890	5,559	5,842	6,087	6,210	6,295	6,361	6,417
73	6,566	4,731	4,701	5,148	5,478	6,005	6,420	6,787	7,097	7,369
74	6,439	10,235	12,804	12,869	13,592	14,683	15,522	16,256	16,874	17,417
75	6,094	14,867	13,417	13,304	13,856	15,353	16,746	18,044	19,160	20,147
76	1,535	1,550	2,322	2,789	2,977	3,124	3,188	3,227	3,256	3,279
77	9,531	10,367	9,551	10,461	10,828	11,117	11,244	11,323	11,380	11,427
78	3,450	7,206	9,028	9,395	9,957	11,135	12,161	13,098	13,899	14,605
79	7,462	10,852	9,720	10,021	10,362	11,022	11,582	12,089	12,521	12,902
80	916	1,576	1,178	1,558	1,786	2,100	2,329	2,526	2,691	2,835
81	1,068	1,366	1,168	1,509	1,790	2,378	2,892	3,349	3,992	4,550
82	1,910	993	2,057	2,218	2,309	2,428	2,513	2,585	2,645	2,697
83	1,557	2,890	2,295	2,568	2,804	3,212	3,545	3,844	4,096	4,319
84	7,134	7,814	6,664	7,413	7,920	8,683	9,270	9,783	10,215	10,594
85	6,700	7,091	4,334	4,305	4,458	4,874	5,259	5,618	5,927	6,200
86	17,590	19,394	19,262	20,353	21,125	22,322	23,255	24,076	24,768	25,375
87	18,213	9,220	7,305	6,910	7,089	7,834	8,578	9,287	9,899	10,442
88	449	1,461	1,453	1,691	2,159	3,335	4,534	5,754	6,912	8,027
89	9,472	7,764	5,956	6,518	6,815	7,174	7,417	7,619	7,786	7,932

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
90	6,028	19,940	16,719	17,003	17,653	19,116	20,417	21,614	22,637	23,541
91	5,739	9,865	8,140	7,880	8,205	9,226	10,203	11,121	11,913	12,614
92	3,663	10,075	6,509	6,652	6,934	7,554	8,102	8,604	9,034	9,414
93	14,408	27,825	26,217	28,102	29,313	31,065	32,387	33,534	34,497	35,343
94	44,760	36,687	42,258	41,020	41,020	41,115	41,150	42,298	43,261	44,106
95	5,367	7,378	9,006	9,990	10,317	10,448	10,566	10,671	10,758	10,833
96	5,973	8,476	10,852	11,747	12,309	13,109	13,708	14,225	14,659	15,040
97	12,637	17,139	15,030	15,585	16,234	17,500	18,579	19,557	20,390	21,125
98	16,275	22,769	25,052	25,010	25,622	27,141	28,517	30,047	31,341	32,462
99	9,702	10,929	10,200	10,583	10,990	11,878	12,752	13,818	14,709	15,468
100	9,665	15,192	13,768	23,918	32,572	45,965	56,617	67,395	73,188	76,310
101	10,966	16,968	14,224	14,923	15,354	15,958	16,406	16,793	17,117	17,400
102	29,548	21,214	23,541	23,877	24,348	25,297	26,157	26,922	27,569	28,130
103	879	557	1,419	1,455	1,737	2,687	4,407	5,937	7,231	8,569
104	15,980	27,527	27,687	27,053	27,918	29,593	31,114	32,461	33,620	34,624
105	6,603	22,725	31,149	30,937	31,937	34,658	37,189	39,549	41,577	43,372
106	1,763	7,136	10,583	10,971	11,320	11,936	12,443	12,897	13,282	13,622
107	11,316	31,415	29,074	30,187	31,469	33,961	36,079	38,000	39,635	41,078
108	5,996	15,264	15,492	16,193	16,826	17,948	18,871	19,699	20,401	21,020
109	24,333	33,477	32,591	31,924	33,252	37,143	40,817	44,259	47,221	49,843
110	5,623	4,753	3,233	3,526	3,688	3,892	4,035	4,155	4,255	4,342
111	6,501	15,291	13,360	14,065	14,630	15,769	16,808	17,737	18,513	19,524
112	4,294	3,866	3,722	3,972	4,163	4,562	4,888	5,179	5,362	5,522
113	2,065	6,248	8,497	9,363	10,509	13,104	15,490	17,621	19,641	21,663
114	6,052	17,100	20,920	21,368	23,964	27,312	29,268	31,156	33,533	35,555
115	38	236	387	806	1,283	2,282	3,096	3,823	4,433	4,967
116	2,226	6,849	7,575	8,070	8,643	11,637	14,897	17,802	20,489	23,159
117	171	893	940	1,293	1,675	2,673	3,651	4,522	5,255	5,896
118	1,836	8,867	9,451	11,410	12,365	14,860	17,305	19,484	21,316	22,918
119	13,495	27,605	15,891	16,734	17,635	20,238	21,540	22,714	23,712	24,592
120	5,668	9,165	8,887	9,761	10,429	11,827	12,968	13,984	14,839	15,587
121	48	447	409	711	1,093	1,692	2,181	2,616	2,983	3,303
122	10,178	21,715	23,170	24,669	29,442	39,425	50,833	58,095	62,981	65,117
123	34,009	44,302	50,188	50,714	52,719	56,712	59,482	61,661	63,371	64,653
124	9,575	14,194	18,993	20,040	20,708	21,906	22,558	22,849	23,093	23,200
125	5,168	7,207	5,576	5,888	6,270	6,869	7,241	7,573	7,854	8,102
126	15,816	27,792	12,666	12,895	13,177	13,747	14,263	14,722	15,110	15,447
127	5,374	5,900	4,443	4,701	5,083	5,881	6,696	7,423	7,850	8,228
Total	1,539,045	1,855,054	1,906,018	1,987,400	2,081,631	2,258,108	2,417,114	2,558,953	2,678,229	2,779,662

Montgomery County Jobs (RAZ 128 to 139)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
128	1,058	6,400	6,374	9,570	14,677	20,689	26,496	32,189	38,191	44,097
129	9,741	6,848	5,967	7,872	10,709	16,527	21,971	27,606	33,281	39,166
130	207	527	1,290	1,943	3,078	4,694	7,114	9,495	11,787	13,847
131	5,155	13,348	21,143	25,146	29,152	33,323	36,661	39,430	41,519	42,978
132	879	20,041	20,532	26,531	33,340	40,451	46,500	51,728	55,548	58,000
133	2,571	952	2,507	3,312	6,726	11,288	15,679	20,222	24,374	28,103
134	9,432	16,260	16,681	22,270	31,519	41,607	50,002	58,220	66,464	73,980
135	2,915	6,844	6,300	9,379	15,443	21,793	28,033	34,355	40,307	46,387
136	9,044	11,448	12,601	16,847	20,252	24,864	28,983	33,497	37,860	41,927
137	110	1,668	2,958	4,094	6,364	9,208	12,233	15,311	18,476	21,419
138	651	740	542	726	1,293	1,940	2,545	3,271	4,089	5,070
139	1,505	4,558	11,589	15,679	19,828	24,249	28,720	33,661	38,689	43,756
Total	43,268	89,634	108,484	143,369	192,381	250,633	304,936	358,985	410,585	458,730

Waller County Jobs (RAZ 140 to 144)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
140	4,238	4,729	4,737	5,010	5,868	7,297	9,152	11,140	13,102	14,927
141	1,874	2,029	2,072	2,260	2,691	3,361	4,186	4,995	5,760	6,473
142	1,227	2,729	3,137	4,487	5,774	7,951	10,734	13,634	16,458	19,159
143	274	365	833	1,004	2,291	4,400	7,099	9,750	12,261	14,523
Total	7,612	9,851	10,778	12,761	16,623	23,008	31,172	39,518	47,581	55,082

Fort Bend County Jobs (RAZ 144 to 158)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
144	1,071	5,672	5,265	7,262	10,619	15,352	20,371	25,308	29,886	33,954
145	323	925	1,896	2,793	3,534	4,470	5,358	6,280	7,174	8,006
146	6,359	5,763	5,038	7,210	14,477	24,822	34,639	44,836	54,722	63,926
147	90	365	417	729	1,433	2,322	3,166	4,042	4,891	5,682
148	484	1,948	2,783	4,047	5,925	8,295	10,544	12,880	15,145	17,253
149	10,100	12,870	19,693	24,981	29,919	34,419	37,852	40,531	42,409	43,526
150	609	6,528	5,132	6,633	9,661	14,161	18,968	24,325	29,959	35,543
151	12,881	21,542	21,683	26,003	32,059	36,559	40,679	44,028	46,532	48,444
152	11,046	23,221	27,177	33,189	41,149	51,249	59,996	67,398	73,171	77,009
153	4,103	4,813	7,685	9,463	12,549	16,444	20,140	23,979	27,701	31,167
154	1,159	8,726	6,697	9,408	13,325	17,381	20,518	23,604	26,465	29,008
155	1,348	4,048	4,234	6,721	11,041	15,774	20,166	24,486	28,492	32,051
156	403	1,939	2,972	3,875	7,578	12,252	16,687	21,294	25,761	29,920
157	516	790	1,421	1,909	2,526	3,305	4,044	4,812	5,557	6,250
158	56	619	843	1,398	2,445	3,767	5,022	6,325	7,588	8,764
Total	50,548	99,769	112,936	145,621	198,240	260,572	318,151	374,127	425,454	470,504

Brazoria County Jobs (RAZ 159 to 172)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
159	13,316	3,510	3,239	3,195	3,268	3,832	4,557	5,523	6,059	6,748
160	2,216	3,740	2,267	2,486	2,820	3,504	4,252	4,930	5,615	6,482
161	125	272	181	164	166	246	372	449	470	482
162	9,642	1,429	1,057	1,081	1,199	1,483	1,551	1,708	2,000	2,146
163	9,158	16,650	10,909	11,577	12,378	13,728	15,355	16,445	18,012	19,248
164	9,373	11,582	15,108	15,591	16,592	17,887	18,751	20,134	22,367	24,139
165	191	1,038	418	397	493	551	681	875	981	1,016
166	1,794	4,228	4,703	5,172	5,712	7,195	8,455	10,536	11,802	12,969
167	4,931	6,548	6,379	6,728	7,291	7,839	8,512	9,211	10,175	11,217
168	4,229	1,795	296	361	706	840	1,118	1,245	1,293	1,350
169	89	2,819	1,288	1,311	1,638	1,852	2,503	3,451	3,556	3,816
170	9,330	11,200	10,679	11,431	12,365	13,867	15,617	17,195	18,867	20,972
171	130	1,455	4,707	5,553	6,801	10,496	14,590	18,907	22,533	25,704
172	6,426	11,226	19,019	20,024	21,492	23,438	24,983	26,782	28,528	29,796
Total	70,950	77,492	80,250	85,071	92,921	106,757	121,297	137,390	152,260	166,085

Galveston County Jobs (RAZ 173 to 188)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
173	2,455	5,573	3,417	3,662	4,537	6,011	7,413	8,961	10,332	11,579
174	1,475	3,563	2,122	2,607	4,053	6,369	8,674	11,208	13,447	15,364
175	8,695	9,705	11,520	11,846	12,867	14,471	15,987	17,671	19,157	20,469
176	1,643	2,757	5,161	5,342	5,562	5,762	5,901	6,037	6,152	6,255
177	4,734	4,052	3,327	3,546	4,326	5,644	6,896	8,281	9,505	10,621
178	730	3,643	8,585	8,699	9,241	10,110	10,923	11,818	12,608	13,327
179	2,077	4,584	2,076	2,615	4,088	6,405	8,559	10,922	13,007	14,904
180	6,212	6,454	2,708	2,887	3,245	3,826	4,239	4,545	4,816	4,935
181	965	2,628	1,868	2,068	2,780	3,984	5,127	6,392	7,510	8,529
182	3,240	2,714	1,794	1,806	1,849	1,921	1,990	2,065	2,133	2,194
183	1,155	2,676	5,506	5,660	5,709	5,851	5,983	6,128	6,256	6,373
184	11,834	6,926	5,569	5,427	5,698	6,132	6,539	7,061	7,522	7,881
185	474	2,461	2,568	2,770	2,949	3,239	3,646	4,105	4,511	4,869
186	32,604	32,759	34,664	32,175	32,265	32,412	32,551	32,706	32,842	32,963
187	1,806	3,283	4,878	4,982	5,434	6,303	7,116	8,234	9,222	9,941
188	125	360	1,193	1,489	1,670	1,815	1,950	1,965	1,965	1,977
Total	80,224	94,138	96,956	97,581	106,273	120,255	133,494	148,100	160,983	172,182

Chambers County Jobs (RAZ 189 to 192)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
189	2,174	2,997	1,925	1,294	1,476	1,788	2,154	2,582	2,990	3,347
190	100	197	312	408	476	638	845	1,094	1,334	1,545
191	2,292	2,497	2,781	3,634	4,636	6,401	8,491	10,946	13,286	15,334
192	1,482	2,597	3,769	4,923	5,947	7,739	9,856	12,339	14,706	16,777
Total	6,048	8,288	8,787	10,259	12,535	16,566	21,346	26,961	32,315	37,001

Liberty County Jobs (RAZ 193 to 199)

RAZ	1990	2000	2005	2010	2015	2020	2025	2030	2035	2040
193	1	27	45	51	74	166	294	423	548	663
194	7,233	7,228	7,371	8,382	10,202	13,168	16,621	19,941	23,128	26,001
195	1,826	3,828	4,631	5,009	6,123	7,913	10,016	12,020	13,945	15,692
196	8	1,077	1,007	950	1,187	1,937	2,989	4,074	5,354	6,661
197	3,634	4,828	5,129	5,360	6,213	7,638	9,304	10,889	12,409	13,818
198	985	77	75	65	207	432	695	945	1,185	1,403
199	564	839	603	1,200	1,336	1,571	1,757	1,937	2,114	2,196
Total	14,251	17,901	18,862	21,018	25,343	32,825	41,675	50,229	58,684	66,434

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Attachment C: Additional Information

Additional Information

The following sections provide a summary of recent developments and trends observed within the Houston region based on most current 2013 information and data that is continuously being made available since the independent economic analyses undertaken in 2012. Additional material summarizing relevant statistics in relation to the traffic and revenue results and other key assumptions is also provide and highlighted herein.

General Economic Activity and Rankings

The Houston 8-county region grew by approximately 58 percent between 1990 and 2010 compared to the United States population growth of 24 percent, as shown in Table A-1. Montgomery County in particular, is shown to have grown by over 150 percent during the same period.

Table A-1 Historical Population Trends					
County	1980	1990	2000	2010	1990-2010
US Population	226,542,199	248,718,302	281,421,906	308,745,538	60,027,236
Texas Population	14,225,513	16,986,335	20,851,820	25,145,561	8,159,226
Houston (8-County)	3,118,480	3,731,131	4,669,589	5,891,999	2,160,868
Harris County	2,409,547	2,818,199	3,400,578	4,092,459	1,274,260
Montgomery County	127,222	182,201	293,786	455,746	273,545
Total Growth	1980-1990		1990-2000	2000-2010	1990-2010
US Population	9.8%		13.1%	9.7%	24.1%
Texas Population	19.4%		22.8%	20.6%	48.0%
Houston (8-County)	19.6%		25.2%	26.2%	57.9%
Harris County	17.0%		20.7%	20.3%	45.2%
Montgomery County	43.2%		61.2%	55.1%	150.1%

Source: CDS Report: Economic and Demographic Forecasts 2012 Update, July 16, 2012
 *U.S. Population sourced from U.S. Census, "United States Summary: 2000 & 2010, Population and Housing Unit Counts"
<http://www.census.gov/prod/www/decennial.html>

The population in Texas grew by approximately 910 thousand new residents between April 2010 and July 2012 (a growth of 3.6 percent compared to U.S national growth rate of 1.7 percent). The U.S. Census population estimates for the most recently recorded July 2011 to July 2012, showed that Texas is the second most populous state in the U.S. and ranked first for its increase of 427 thousand residents (1.7 percent), as shown in Table A-2.

Table A-2
Population Rankings for the Ten Largest and Ten Fastest Growing States, July 2012

Rank	State	Population
1	California	38,041,430
2	Texas	26,059,203
3	New York	19,570,261
4	Florida	19,317,568
5	Illinois	12,875,255
6	Pennsylvania	12,763,536
7	Ohio	11,544,225
8	Georgia	9,919,945
9	Michigan	9,883,360
10	North Carolina	9,752,073

Rank	State	Population change (July 2011 - July 2012)	Percentage change (July 2011 - July 2012)
1	Texas	427,425	1.7%
2	California	357,497	0.9%
3	Florida	235,306	1.2%
4	Georgia	107,485	1.1%
5	North Carolina	100,970	1.0%
6	Arizona	85,940	1.3%
7	Virginia	81,483	1.0%
8	Washington	73,745	1.1%
9	Colorado	71,280	1.4%
10	New York	68,645	0.4%
	United States	2,326,224	0.7%

Source: U.S. Census Bureau, Population Division - Table 3. Estimates of Resident Population Change for the United States, Regions, States, and Puerto Rico and Region and State Rankings: July 1, 2011 to July 1, 2012 (NST-EST2012-03)
Release Date: December 2012 (<http://www.census.gov/popest/data/state/totals/2012/index.html>)

The employment in Texas grew by approximately 845 thousand new employees in nonfarm payroll jobs (8.2 percent) between April 2010 and April 2013 (based on preliminary estimates). The U.S. Bureau of Labor most recent employment estimates between April 2012 to April 2013 showed that Texas is the second most employed state and was ranked first for its increase of 331 thousand jobs (3.1 percent) compared to the U.S national growth rate (1.6 percent), as shown in Table A-3.

Rank	State	Nonfarm Payroll Employment
1	California	14,597,400
2	Texas	11,159,600
3	New York	8,884,300
4	Florida	7,557,200
5	Pennsylvania	5,771,000
6	Illinois	5,767,300
7	Ohio	5,174,800
8	North Carolina	4,066,700
9	Michigan	4,045,200
10	Georgia	4,026,900

Rank	State	Employment change (Apr 2012 - Apr 2013)	Percentage change (Apr 2012 - Apr 2013)
1	Texas	331,100	3.1%
2	California	293,400	2.1%
3	New York	121,300	1.4%
4	Florida	116,300	1.6%
5	North Carolina	80,500	2.0%
6	Georgia	69,400	1.8%
7	New Jersey	69,000	1.8%
8	Colorado	61,600	2.7%
9	Washington	55,100	1.9%
10	Arizona	48,300	2.0%
	United States	2,094,000	1.6%

Note: Establishment data not seasonally adjusted and April 2013 reflects preliminary estimates

Source: U.S. Department of Labor - Bureau of Labor Statistics, Employees on nonfarm payrolls by metropolitan area (<http://www.bls.gov/news.release/metro.t03.htm>)

This high growth in population and employment is fueled by the Texas economy that has been growing more rapidly than the national economy, thanks to the relative absence of real estate excesses, the ongoing migration of the population to warmer climates, and the robust global demand for energy¹.

Houston's Recent Socio-economic Trends

The U.S. Census population growth estimates between July 2011 to July 2012 showed that Texas had the top two largest growing metro areas (Dallas and Houston) in the nation and three (Midland, Odessa, and Austin) of the top 10 fastest growing medium-sized metropolitan areas in the country². Table A-4 provides a summary and ranking of the ten fastest growing metropolitan statistical areas (MSA) within Texas. The "Houston MSA" defined here as the Houston-Sugar Land-Baytown (for employment) or Houston-The Woodlands-Sugar Land (for population) is comprised of 10 counties

¹ Source: Regional Perspectives, Texas Outlook Summary, <https://www.chase.com/online/commercial-bank/document/Texas.pdf>

² Source: <http://quickfacts.census.gov/qfd/states/48/4835000.html>

that include Austin, Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery, San Jacinto, and Waller counties.

Rank	Metropolitan Statistical Area	July 2011	July 2012	Population change (July 2011 - July 2012)	Percentage change (July 2011 - July 2012)
1	Dallas-Fort Worth-Arlington, TX	6,569,112	6,700,991	131,879	2.0%
2	Houston-The Woodlands-Sugar Land, TX	6,051,850	6,177,035	125,185	2.1%
3	Austin-Round Rock, TX	1,780,708	1,834,303	53,595	3.0%
4	San Antonio-New Braunfels, TX	2,191,670	2,234,003	42,333	1.9%
5	McAllen-Edinburg-Mission, TX	794,181	806,552	12,371	1.6%
6	El Paso, TX	821,408	830,735	9,327	1.1%
7	Killeen-Temple, TX	412,390	420,375	7,985	1.9%
8	Midland, TX	144,953	151,662	6,709	4.6%
9	Odessa, TX	139,588	144,325	4,737	3.4%
10	Laredo, TX	254,948	259,172	4,224	1.7%

Source: U.S. Census Bureau, Population Division - Table 5. Estimates of Population Change for Metropolitan Statistical Areas and Rankings: July 1, 2011 to July 1, 2012 (CBSA-EST2012-05) Release Date: March 2013 (<http://www.census.gov/popest/data/metro/totals/2012/>)

The Houston MSA is currently the fifth most populous MSA in the nation and more recently between July 2011 and July 2012 grew by 125 thousand residents at a rate of 2.1 percent. This ranked Houston second in total population gains amongst all the U.S. metropolitan areas, as shown in Table A-5.

The Houston MSA is ranked sixth in the nation for employment and the recent growth is ranked second amongst all U.S. MSA as a result of an employment gain of 111 thousand nonfarm jobs (4.2 percent) that occurred between April 2012 and April 2013, as shown in Table A-6.

Table A-5
Population Rankings for the Ten Largest and Ten Fastest Growing Large Metropolitan Areas, July 2012

Rank	Metropolitan Statistical Area	Population
1	New York-Newark-Jersey City, NY-NJ-PA	19,831,858
2	Los Angeles-Long Beach-Anaheim, CA	13,052,921
3	Chicago-Naperville-Elgin, IL-IN-WI	9,522,434
4	Dallas-Fort Worth-Arlington, TX	6,700,991
5	Houston-The Woodlands-Sugar Land, TX	6,177,035
6	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	6,018,800
7	Washington-Arlington-Alexandria, DC-VA-MD-WV	5,860,342
8	Miami-Fort Lauderdale-West Palm Beach, FL	5,762,717
9	Atlanta-Sandy Springs-Roswell, GA	5,457,831
10	Boston-Cambridge-Newton, MA-NH	4,640,802

Rank	Metropolitan Statistical Area	Population change (July 2011 - July 2012)	Percentage change (July 2011 - July 2012)
1	Dallas-Fort Worth-Arlington, TX	131,879	2.0%
2	Houston-The Woodlands-Sugar Land, TX	125,185	2.1%
3	Los Angeles-Long Beach-Anaheim, CA	107,781	0.8%
4	New York-Newark-Jersey City, NY-NJ-PA	101,928	0.5%
5	Washington-Arlington-Alexandria, DC-VA-MD-WV	89,129	1.5%
6	Atlanta-Sandy Springs-Roswell, GA	83,153	1.5%
7	Phoenix-Mesa-Scottsdale, AZ	77,456	1.8%
8	Miami-Fort Lauderdale-West Palm Beach, FL	74,809	1.3%
9	San Francisco-Oakland-Hayward, CA	58,642	1.3%
10	Seattle-Tacoma-Bellevue, WA	54,338	1.6%

Source: U.S. Census Bureau, Population Division - Table 5. Estimates of Population Change for Metropolitan Statistical Areas and Rankings: July 1, 2011 to July 1, 2012 (CBSA-EST2012-05) Release Date: March 2013
(<http://www.census.gov/popest/data/metro/totals/2012/>)

Table A-6
Employment Rankings for the Ten Largest and Ten Fastest Growing Large Metropolitan Areas, April 2013

Rank	Metropolitan Statistical Area	Nonfarm Payroll	
		Employment	
1	New York-Northern New Jersey-Long Island	8,677,000	
2	Los Angeles-Long Beach-Santa Ana	5,350,800	
3	Chicago-Joliet-Naperville	4,386,800	
4	Dallas-Fort Worth-Arlington	3,101,800	
5	Washington-Arlington-Alexandria	3,074,000	
6	Houston-Sugar Land-Baytown	2,780,700	
7	Philadelphia-Camden-Wilmington	2,756,500	
8	Boston-Cambridge-Quincy	2,531,700	
9	Atlanta-Sandy Springs-Marietta	2,394,100	
10	Miami-Fort Lauderdale-Pompano Beach	2,312,000	

Rank	Metropolitan Statistical Area	Employment change	Percentage change
		(Apr 2012 - Apr 2013)	(Apr 2012 - Apr 2013)
1	New York-Northern New Jersey-Long Island	160,100	1.9%
2	Houston-Sugar Land-Baytown	111,200	4.2%
3	Dallas-Fort Worth-Arlington	104,900	3.5%
4	Los Angeles-Long Beach-Santa Ana	103,400	2.0%
5	Chicago-Joliet-Naperville	48,900	1.1%
6	Atlanta-Sandy Springs-Marietta	48,200	2.1%
7	Boston-Cambridge-Quincy	47,300	1.9%
8	San Francisco-Oakland-Fremont	43,300	2.2%
9	Phoenix-Mesa-Glendale	42,800	2.4%
10	Washington-Arlington-Alexandria	41,500	1.4%

Note: Establishment data not seasonally adjusted and April 2013 reflects preliminary estimates

Source: U.S. Department of Labor - Bureau of Labor Statistics, Employees on nonfarm payrolls by metropolitan area (<http://www.bls.gov/news.release/metro.t03.htm>)

Of the ten largest metropolitan areas, the three fastest real GDP growth regions in 2011 were Houston-Sugar Land Baytown, TX (3.7 percent), Dallas-Fort Worth-Arlington, TX (3.1 percent), and San Francisco-Oakland-Fremont, CA (2.6 percent)³. The Houston MSA's real gross domestic product (GDP) grew by 3.7 percent between 2010 and 2011 to \$366 billion, ranking the Houston MSA first in the nation among other major U.S. metropolitan areas, as shown in Table A-7. The Houston MSA demonstrated significant post-recessionary growth of 8.4 percent in nominal terms between 2010 and 2011, as shown in Table A-8. Recent indications show that the high economic growth trend have continued based on current trends in population and employment growth within the Houston region⁴.

³ Source: http://www.bea.gov/newsreleases/regional/gdp_metro/gdp_metro_newsrelease.htm

⁴ See: http://www.bls.gov/ro6/fax/blssummary_houston.pdf

Table A-7
Gross Domestic Product (GDP) Rankings for the Ten Largest
and Ten Fastest Growing Metropolitan Areas, 2011

Rank	Metropolitan Statistical Area	Real GDP (millions) chained (2005) dollars
1	New York-Northern New Jersey-Long Island, NY-NJ-PA	\$1,123,460
2	Los Angeles-Long Beach-Santa Ana, CA	\$663,054
3	Chicago-Joliet-Naperville, IL-IN-WI	\$476,487
4	Washington-Arlington-Alexandria, DC-VA-MD-WV	\$380,714
5	Houston-Sugar Land-Baytown, TX	\$365,560
6	Dallas-Fort Worth-Arlington, TX	\$351,002
7	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	\$308,377
8	San Francisco-Oakland-Fremont, CA	\$303,371
9	Boston-Cambridge-Quincy, MA-NH	\$291,017
10	Atlanta-Sandy Springs-Marietta, GA	\$249,509

Rank	Metropolitan Statistical Area	GDP Percent change 2010-2011
1	Houston-Sugar Land-Baytown, TX	3.7%
2	Dallas-Fort Worth-Arlington, TX	3.1%
3	San Francisco-Oakland-Fremont, CA	2.6%
4	Boston-Cambridge-Quincy, MA-NH	2.4%
5	Atlanta-Sandy Springs-Marietta, GA	2.2%
6	Los Angeles-Long Beach-Santa Ana, CA	1.7%
7	Chicago-Joliet-Naperville, IL-IN-WI	1.4%
8	Washington-Arlington-Alexandria, DC-VA-MD-WV	1.1%
9	Philadelphia-Camden-Wilmington, PA-NJ-DE-MD	1.0%
10	New York-Northern New Jersey-Long Island, NY-NJ-PA	0.8%

Source: U.S. Department of Commerce - Bureau of Economic Analysis
(http://www.bea.gov/scb/pdf/2013/03%20March/0313_gdp-by-metro_area.pdf)

Table A-8
Recent Gross Domestic Product Trends within the Houston Metropolitan Statistical Area (10-County Region)

Measure	2007	2008	2009	2010	2011
GDP by Metropolitan Area (millions of current dollars)	\$373,315	\$395,961	\$352,141	\$387,012	\$419,696
Real GDP by Metropolitan Area (millions of chained (2005) dollars)	\$343,717	\$339,052	\$336,366	\$352,630	\$365,560
Per capita real GDP by Metropolitan Area	\$61,746	\$59,459	\$57,477	\$59,003	\$60,060
Average Annual Growth	2007-2008	2008-2009	2009-2010	2010-2011	
GDP by Metropolitan Area (millions of current dollars)	6.1%	-11.1%	9.9%	8.4%	
Real GDP by Metropolitan Area (millions of chained (2005) dollars)	-1.4%	-0.8%	4.8%	3.7%	
Per capita real GDP by Metropolitan Area	-3.7%	-3.3%	2.7%	1.8%	

Source: U.S. Department of Commerce - Bureau of Economic Analysis (<http://www.bea.gov/regional/downloadzip.cfm>)

Recent trends in population and employment within the 8-county study region for the Grand Parkway system are shown in Tables A-9 and A-10. The 8-county region population grew by 1.9 percent between 2010 and 2012, while the employment grew by 2.7 percent between 2010 and 2011. The majority of growth in both population and employment is shown to be occurring within the Harris, Fort Bend and Montgomery counties.

Table A-9
Recent Population Trends within the Houston 8-County Study Region

County	2007	2008	2009	2010	2011	2012	2010-2012
Brazoria	293,296	301,336	309,236	314,498	319,227	324,769	10,271
Chambers	30,714	31,619	34,230	35,290	35,477	36,196	906
Fort Bend	516,564	542,957	569,130	590,997	607,952	627,293	36,296
Galveston	283,770	288,643	287,428	292,623	295,193	300,484	7,861
Harris	3,863,344	3,938,580	4,034,866	4,107,917	4,173,695	4,253,700	145,783
Liberty	74,515	74,915	75,041	75,840	75,945	76,571	731
Montgomery	411,416	429,818	445,836	459,291	471,704	485,047	25,756
Waller	39,809	40,578	42,087	43,423	44,023	44,357	934
Total 8-County Region	5,513,428	5,648,446	5,797,854	5,919,879	6,023,216	6,148,417	228,538
United States	301,231,207	304,093,966	306,771,529	309,326,225	311,587,816	313,914,040	4,587,815
Average Annual Growth	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012	2010-2012	
Brazoria	2.7%	2.6%	1.7%	1.5%	1.7%	1.6%	
Chambers	2.9%	8.3%	3.1%	0.5%	2.0%	1.3%	
Fort Bend	5.1%	4.8%	3.8%	2.9%	3.2%	3.0%	
Galveston	1.7%	-0.4%	1.8%	0.9%	1.8%	1.3%	
Harris	1.9%	2.4%	1.8%	1.6%	1.9%	1.8%	
Liberty	0.5%	0.2%	1.1%	0.1%	0.8%	0.5%	
Montgomery	4.5%	3.7%	3.0%	2.7%	2.8%	2.8%	
Waller	1.9%	3.7%	3.2%	1.4%	0.8%	1.1%	
Total 8-County Region	2.4%	2.6%	2.1%	1.7%	2.1%	1.9%	
United States	1.0%	0.9%	0.8%	0.7%	0.7%	0.7%	

Source: 2007- 2009 are from US Census Intercensal Estimate (<http://www.census.gov/popest/data/index.html>),
2010-2012 are from US Census 2012 Population Estimate (<http://www.census.gov/popest/data/intercensal/index.html>)

Table A-10
Recent Employment Trends within the Houston 8-County Study Region

County	2007	2008	2009	2010	2011
Brazoria	86,015	87,018	83,743	85,904	88,572
Chambers	9,341	10,379	9,775	9,434	10,453
Fort Bend	123,756	129,185	129,114	130,712	135,858
Galveston	96,208	95,650	92,289	94,160	95,249
Harris	2,013,043	2,059,034	2,003,064	1,987,097	2,036,642
Liberty	17,447	17,640	16,741	16,360	16,603
Montgomery	120,753	126,492	125,717	127,250	133,663
Waller	13,269	13,493	13,216	13,559	14,213
Total 8-County Region	2,479,832	2,538,891	2,473,659	2,464,476	2,531,253
United States	137,645	136,852	130,876	129,917	131,497

Average Annual Growth	2007-2008	2008-2009	2009-2010	2010-2011
Brazoria	1.2%	-3.8%	2.6%	3.1%
Chambers	11.1%	-5.8%	-3.5%	10.8%
Fort Bend	4.4%	-0.1%	1.2%	3.9%
Galveston	-0.6%	-3.5%	2.0%	1.2%
Harris	2.3%	-2.7%	-0.8%	2.5%
Liberty	1.1%	-5.1%	-2.3%	1.5%
Montgomery	4.8%	-0.6%	1.2%	5.0%
Waller	1.7%	-2.1%	2.6%	4.8%
Total 8-County Region	2.4%	-2.6%	-0.4%	2.7%
United States	-0.6%	-4.4%	-0.7%	1.2%

Source: Bureau of Labor Statistics, county employment are from Quarterly Census of Employment & Wages database, national employment are from Current Employment Statistics (<http://www.bls.gov/data/#employment>)

There are currently 26 Fortune 500 companies headquartered within the Houston region, making it the region with the third largest number of publicly-traded companies in U.S. outside of New York City and Chicago. Table A-11 provides a summary of these 26 companies and their respective ranking and current revenues. The current top employers within the Houston region are also shown in Table A-12. Several other major employers located within the vicinity of the Grand Parkway corridor include:

- BP and Anadarko Petroleum (#12) near Segments F-2 and G;
- Direct Energy headquarters near Segments D and E;
- Waste Connections headquarters near Segment G; and
- Bell Trucks U.S. headquarters near Segments F-1 and F-2.

Table A-11
Fortune 500 Companies Headquartered in the Houston Region

ID	Rank	Company Name	Revenue (\$Billions)	Location
				City
1	4	Phillips 66	169.6	Houston
2	45	ConocoPhillips	63.4	Houston
3	64	Enterprise Products Partners	42.6	Houston
4	65	Sysco	42.4	Houston
5	77	Plains All American Pipeline	37.8	Houston
6	106	Halliburton	28.5	Houston
7	135	Baker Hughes	21.4	Houston
8	144	National Oilwell Varco	20.0	Houston
9	167	Apache	17.1	Houston
10	174	Marathon Oil	16.2	Houston
11	200	Waste Management	13.6	Houston
12	207	Anadarko Petroleum	13.4	The Woodlands
13	233	EOG Resources	11.7	Houston
14	265	Kinder Morgan	10.2	Houston
15	310	Cameron International	8.5	Houston
16	314	NRG Energy Inc	8.4	Houston*
17	334	KBR	7.9	Houston
18	343	Group 1 Automotive	7.5	Houston
19	344	CenterPoint Energy	7.5	Houston
20	381	Enbridge Energy Partners	6.7	Houston
21	397	Quanta Services	6.4	Houston
22	417	FMC Technologies	6.2	Houston
23	435	Targa Resources	5.9	Houston
24	451	MRC Global	5.6	Houston
25	459	Calpine	5.5	Houston
26	475	Spectra Energy	5.2	Houston

Note: *Shown to be also headquartered in New Jersey

Source: Houston.org and CNN Money
(http://money.cnn.com/magazines/fortune/fortune500/2013/full_list/index.html)

Table A-12
20 Largest Employers in the Houston Region (2012)

Rank	Organization	# of local employees
1	ExxonMobil	21,500
2	Memorial Hermann Healthcare System	19,500
3	The University of Texas MD Anderson Cancer Center	17,000
4	United Airlines	17,000
5	Schlumberger Limited	15,500
6	Shell Oil Company	13,000
7	The Methodist Hospital System	13,000
8	Kroger Company	12,000
9	National Oilwell Varco	10,000
10	BP America, Inc.	9,537
11	UTMB Health	9,318
12	Baylor College of Medicine	9,232
13	HP	9,000
14	ARAMARK Corp.	8,500
15	Chevron	8,000
16	Pappas Restaurants, Inc.	8,000
17	HCA	7,855
18	Macy's	7,000
19	AT&T	6,900
<u>20</u>	<u>The Dow Chemical Company</u>	<u>6,100</u>

Source: Houston Greater Partnership
 (<http://www.houston.org/assets/pdf/business/ED-Brochure.pdf>)

Examples of other key economic drivers in the Houston region include⁵:

- The Houston region is one of the world's largest manufacturing centers for petrochemicals and was ranked as the #1 Manufacturing City in the U.S. by Manufacturer's News, Inc. in 2012. Houston is also known as the "Energy Capital of the World" with almost half of its economic activity driven by the energy industry.
- The region is served by four ports – Port of Houston, Port of Galveston, Port Freeport and Port of Texas City. As one of the world's busiest ports, the Port of Houston is a large and vibrant

⁵ See: <http://www.houston.org/business/industry-sectors.html>

component of the regional economy and was ranked first in foreign total tonnage and second in domestic total tonnage (in 2012)⁶.

- Houston's Texas Medical Center is the largest medical complex in the world, with 45.5 million square feet of patient care, education and research space.
- Aerospace industry is well established and home to Johnson Space Center, a \$1.5 billion complex housing one of NASA's largest R&D facilities and a source of the nation's best high-tech professionals in science and engineering.

Recent Housing Trends

Home construction has kept pace through the recession and slow recovery, allowing for a variety of industries to flourish. Through the first three months of 2013, several significant emerging trends continue to impact the market and drive new home demand in the Houston area⁷. These include robust job growth, a low resale inventory, and affordability. The recent increase in buyer demand in concert with an ever-shrinking supply has driven the current home prices to all time record highs⁸. The current home sales year-to-date in April has increased by 23.5 percent compared to 2012 and continues to demonstrate strong growth, as shown in Table A-13.

⁶ See: <http://www.portofhouston.com/business-development/trade-development-and-marketing/trade-statistics/>

⁷ See: <http://www.metrostudyreport.com/category/houston-market>

⁸ See: MLS Report for April 2013 <http://www.har.com/mls/dispPressRelease.cfm>

Table A-13
Home Sales in Houston Region

Year	Total Property Sales	Total Dollar Amount (Millions)
2007	83,736	\$16,645
2008	69,336	\$13,997
2009	63,803	\$12,499
2010	61,005	\$12,364
2011	63,606	\$13,013
2012	73,994	\$16,040
2012 (Jan - Apr)	20,154	\$41,469
2013 (Jan - Apr)	24,893	\$55,104
Average Annual Growth		
2007-2008	-17%	-16%
2008-2009	-8%	-11%
2009-2010	-4%	-1%
2010-2011	4%	5%
2011-2012	16%	23%
(Jan - Apr) 2012 - 2013	23.5%	32.9%

Note: Total Property sales includes houses, duplexes, townhomes, condominiums

Source: Houston Association of Realtors®
<http://www.har.com/mls/disPressRelease.cfm>

Building Permit Trends

The Houston region ranked first for the increase in total building permit units between 2011 and 2012 amongst the 15 largest MSA regions in the nation and continues to rank first in the more recent increases between April 2012 and April 2013, as shown in Table A-14.

Table A-14
Building Permit Units Rankings for the 15 Largest MSA Regions, Year to date April 2013 (Preliminary)

Rank+	Metropolitan Statistical Area	New Residential Building Permits (single and multi-family units)			New Residential Building Permits (\$ value, 000s)		
		2011	2012	% Change	2011	2012	% Change
1	Houston-Sugar Land-Baytown, * TX	31,271	43,290	38.4%	\$4,831,152	\$6,439,072	33.3%
2	Dallas-Fort Worth-Arlington, * TX	24,827	35,042	41.1%	\$4,348,698	\$5,713,392	31.4%
3	Phoenix-Mesa-Glendale, * AZ	9,081	15,967	75.8%	\$1,820,815	\$3,365,599	84.8%
4	Seattle-Tacoma-Bellevue, * WA	11,230	17,666	57.3%	\$2,214,497	\$3,533,652	59.6%
5	Atlanta-Sandy Springs-Marietta, * GA	8,634	14,380	66.6%	\$1,400,186	\$2,323,023	65.9%
6	Miami-Fort Lauderdale-Pompano Beach, * FL	7,532	13,261	76.1%	\$1,307,935	\$2,234,004	70.8%
7	New York-Northern New Jersey-Long Island, * NY-NJ-PA	21,539	26,912	24.9%	\$3,252,738	\$3,727,979	14.6%
8	San Francisco-Oakland-Fremont, * CA	5,783	9,163	58.4%	\$1,534,982	\$2,465,738	60.6%
9	Los Angeles-Long Beach-Santa Ana, * CA	14,247	17,447	22.5%	\$2,997,275	\$3,664,436	22.3%
10	Washington-Arlington-Alexandria, * DC-VA-MD-WV	19,657	22,404	14.0%	\$2,937,160	\$3,330,091	13.4%
11	Boston-Cambridge-Quincy, * MA-NH	6,139	8,851	44.2%	\$1,327,032	\$1,886,020	42.1%
12	Philadelphia-Camden-Wilmington, * PA-NJ-DE-MD	6,979	9,270	32.8%	\$966,394	\$1,263,508	30.7%
13	Chicago-Joliet-Naperville, * IL-IN-WI	7,593	9,357	23.2%	\$1,514,928	\$1,950,091	28.7%
14	Riverside-San Bernardino-Ontario, * CA	4,736	5,949	25.6%	\$914,752	\$1,208,404	32.1%
15	Detroit-Warren-Livonia, * MI	3,366	4,525	34.4%	\$708,015	\$1,007,475	42.3%

Rank*	Metropolitan Statistical Area	New Residential Building Permits (single and multi-family units)			New Residential Building Permits (\$ value, 000s)		
		April 2012	April 2013	% Change	April 2012	April 2013	% Change
1	Houston-Sugar Land-Baytown, * TX	12,251	16,869	37.7%	\$1,981,166	\$2,485,481	25.5%
2	Atlanta-Sandy Springs-Marietta, * GA	4,613	7,403	60.5%	\$754,034	\$1,110,988	47.3%
3	Miami-Fort Lauderdale-Pompano Beach, * FL	4,513	7,275	61.2%	\$687,354	\$1,036,493	50.8%
4	Los Angeles-Long Beach-Santa Ana, * CA	5,277	7,327	38.8%	\$1,136,696	\$1,691,777	48.8%
5	New York-Northern New Jersey-Long Island, * NY-NJ-PA	7,724	9,441	22.2%	\$1,049,738	\$1,311,079	24.9%
6	Washington-Arlington-Alexandria, * DC-VA-MD-WV	5,253	6,907	31.5%	\$837,156	\$1,204,272	43.9%
7	San Francisco-Oakland-Fremont, * CA	1,500	2,915	94.3%	\$393,628	\$807,636	105.2%
8	Riverside-San Bernardino-Ontario, * CA	1,822	3,194	75.3%	\$338,186	\$578,861	71.2%
9	Phoenix-Mesa-Glendale, * AZ	4,715	5,622	19.2%	\$1,007,662	\$1,230,137	22.1%
10	Chicago-Joliet-Naperville, * IL-IN-WI	2,128	3,004	41.2%	\$464,582	\$665,584	43.3%
11	Philadelphia-Camden-Wilmington, * PA-NJ-DE-MD	2,827	3,654	29.3%	\$377,256	\$558,062	47.9%
12	Boston-Cambridge-Quincy, * MA-NH	2,792	3,493	25.1%	\$500,570	\$664,946	32.8%
13	Seattle-Tacoma-Bellevue, * WA	4,495	5,104	13.5%	\$917,858	\$1,129,421	23.0%
14	Detroit-Warren-Livonia, * MI	1,068	1,638	53.4%	\$225,166	\$377,733	67.8%
15	Dallas-Fort Worth-Arlington, * TX	9,979	10,317	3.4%	\$1,644,726	\$2,071,319	25.9%

Note: Building Permit units reflects unadjusted new privately owned housing units authorized and valuation reflects (in thousands of dollars)

+ Ranking of actual change in building permits between 2011 and 2012

* Ranking based of actual change in building permits between April 2012 and April 2013

Source: U.S. Department of Commerce - Census Bureau Building Permits Survey
<http://www.census.gov/construction/bps/>

2011-2012 New Announced Development

The CDS independent economic analysis refresh undertaken in mid-2012 included a comprehensive update of the earlier developed August 2011 forecasts. As part of this refresh, the analysis highlighted several new and recently announced developments that had occurred since the last study within the study corridor. These new developments were described and summarized under the heading “2012 Grand Parkway Toll Road Study Adjustments” on page 45 of their report. Table A-15 and A-16 provide a detailed summary of the status of the housing and commercial developments and their anticipated completion dates. Since the update in July 2012, many new developments have continued to be announced within the region to support of the forecasted continued regional growth developed by CDS⁹. Figure A-1 provides a graphic depiction of the various developments.

⁹ See Community Impact News articles on latest announcements (<http://impactnews.com/houston-metro>)

Table A-15
Recently Announced Housing Developments (late 2011 - mid-2012)

RAZ/SAZ	Housing Developments	Type	County	Status	Completion Year
156/3107	Waterford at Summer Park (196 units)	Apartments	Ft. Bend	Open	
155/2131	Watermark at Sienna Plantation (240 units)	Apartments	Ft. Bend	Open	
144/2242	Legends at Cinco Ranch Phase 2 (336 units)	Apartments	Ft. Bend	Open	
156/3107	Dolce Living at Rosenberg (156 units)	Apartments	Ft. Bend	Under Construction	2013
154/2196	Avalon at Telfair	Subdivision	Ft. Bend	Under Construction	2014
149/2282	Brazos Senior Villas (96 units)	Senior Apts	Ft. Bend	Under Construction	2014
146/2207	Terra Vista (600-acres)	Subdivision	Ft. Bend	Under Construction	2014
150/2180	Telfair Lofts (317 units)	Apartments	Ft. Bend	Planned	2014
151/2220	Ball Park at Imperial (254 units)	Apartments	Ft. Bend	Planned	2015
144/2234	Toll Brothers (180 acres-Reserve at Katy)	Subdivision	Ft. Bend	Planned	2015
144/2234	Meritage Homes (117 acres Gustafson Tract)	Subdivision	Ft. Bend	Planned	2015
154/3091	Greatwood Lakes (100 acres, 254 lots)	Subdivision	Ft. Bend	Planned	2016
146/3126	Taylor Morrison (15 acres-Parkway Lakes)	Subdivision	Ft. Bend	Planned	2016
143/1456	Lennar (242 acres – Addison Lakes)	Subdivision	Ft. Bend	Planned	2016
146/2227	Taylor Morrison (100 acres-Broussard Tract)	Subdivision	Ft. Bend	Planned	2017
146/3117	Legend Homes (175 acres)	Subdivision	Ft. Bend	Planned	2017
<u>143/2319</u>	<u>Cane Island (800 acres)</u>	<u>Subdivision</u>	<u>Ft. Bend</u>	<u>Planned</u>	<u>2020</u>
111/1436	Watermark at Katy Ranch (260 units)	Apartments	Harris	Open	
114/1451	Queenston Manor	Apartments	Harris	Open	
123/1655	Mariposa at Ella Blvd. (180 units)	Apartments	Harris	Open	
122/1808	Ryland Homes (at Northhampton)	Subdivision	Harris	Under Construction	2015
122/3267	McKenzie Park (193 acres, 294 lots)	Subdivision	Harris	Under Construction	2016
113/3158	Williamsburg Apartments (600 units)	Apartments	Harris	Planned	2015
114/1452	KB Homes (91 lots, Berkshire Crossing)	Subdivision	Harris	Planned	2015
122/1801	Sueba Vintage Park Phase 4 (239 units)	Apartments	Harris	Planned	2015
123/1675	Sueba-San Antiqua (277 units)	Apartments	Harris	Planned	2015
113/3162	KB Homes (60 acres- Morton Crossing)	Subdivision	Harris	Planned	2016
105/1715	Mariposa at FM529 (180 units)	Apartments	Harris	Planned	2016
122/1800	DRHorton/Ryland Homes (127 acres Glenloch Farms)	Subdivision	Harris	Planned	2016
122/3268	Meritage Homes (100 acres)	Subdivision	Harris	Planned	2016
<u>121/1816</u>	<u>Shadow Creek South (161 lots)</u>	<u>Subdivision</u>	<u>Harris</u>	<u>Planned</u>	<u>2018</u>
131/2399	The Woodlands Lodge (300 units)	Apartments	Mont.	Open	
136/2472	The Retreat at Country Club (210 units)	Apartments	Mont.	Planned	2015
132/2415	Mansions Woodland Phase 2 (405 units)	Apartments	Mont.	Planned	2015
130/3282	New Subdivision (600 acres)	Subdivision	Mont.	Planned	2020
<u>128/3317</u>	<u>Lennar, DRHorton -Whitestone Tract (1,564 acres)</u>	<u>Subdivision</u>	<u>Mont.</u>	<u>Planned</u>	<u>2022</u>

Note: The following list only represents the newly added developments between late 2011 and mid-2012 originally not reflected in the CDS report. This not reflective of the full list of development prior to late 2011 or more recent developments between mid-2012 and mid-2013

* RAZ - Regional Analysis Zones and SAZ - Small Area Zones as defined in CDS report.

Source: Community Development Strategies (CDS), May 2013

Table A-16
Recently Announced Commercial Developments (late 2011 - mid-2012)

RAZ/SAZ*	Commercial Developments	Type	County	Status	Completion Year
<u>151/2178</u>	<u>Six Sugar Creek (322,000 sf)</u>	<u>Office</u>	<u>Ft. Bend</u>	<u>Proposed</u>	<u>2016</u>
<u>178/2779</u>	<u>Tanger Premium Outlet Mall (350,000 sf)</u>	<u>Retail</u>	<u>Galv.</u>	<u>Open</u>	
102/1412	City Centre Three (120,000 sf)	Office	Harris	Open	
124/1647	DCT West Houston Spec Warehouses (267,000 sf)	Warehouse	Harris	Open	
105/ 1713	DCT Northwest Houston Spec Warehouse (267,000 sf)	Warehouse	Harris	Open	
104/1426	Parkway Central (228,000 sf)	Office	Harris	Under Construction	2013
63/1257	Granite Briarpark Green (300,000 sf)	Office	Harris	Under Construction	2013
104/1429	Energy Tower III (451,000 sf)	Office	Harris	Under Construction	2014
102/1416	Trammel Crow (3 Buildings, 1.5 million sf)	Office	Harris	Under Construction	2014
107/1699	Remington Square Building C (118,000 sf)	Office	Harris	Proposed	2015
<u>100/1351</u>	<u>Skanska Energy Corridor (2 buildings, 700,000 s.f.)</u>	<u>Office</u>	<u>Harris</u>	<u>Proposed</u>	<u>2016</u>
132/2954	3 Waterway Place (152,000 sf)	Office	Mont.	Open	
132/2954	Anadarko Tower II (800,000 sf)	Office	Mont.	Under Construction	2013
<u>132/2420</u>	<u>Research Forests Lakeside (6 bldgs, 358,000 sf)</u>	<u>Office</u>	<u>Mont.</u>	<u>Under Construction</u>	<u>2014</u>

Note: The following list only represents the newly added developments between late 2011 and mid-2012 originally not reflected in the CDS report. This not reflective of the full list of development prior to late 2011 or more recent developments between mid-2012 and mid-2013

* RAZ - Regional Analysis Zones and SAZ - Small Area Zones as defined in CDS report.

Source: Community Development Strategies (CDS), May 2013

Several other major developments within the vicinity of the Grand Parkway corridor include:

- The Exxon Mobil 385-acre corporate campus located near the intersection of IH 45 and Segment G: Construction of the ExxonMobil Houston campus began in 2011 and employees will transition in phases as the buildings are constructed, beginning in early 2014. Full occupancy for employees is expected by 2015 and will house approximately 10,000 employees. The campus will include the consolidation of several Exxon Mobil facilities into a single office campus and is expected to include 8,000 relocated employees from the Houston region and over 2,000 out-of-state employees from Fairfax, Akron and Baytown¹⁰.
- Springwoods Village located near the intersection of IH 45 and Segment G: The project is a planned 1,800 acre mixed-use development that is under construction, and the first development parcel is expected to be complete in 2015. Over the next 15 years, Springwoods is intended to support a population of 50,000 residents and workers in single- and multifamily homes, corporate campuses, retail shops, restaurants, hotels, schools, hospitals, libraries, churches, and community centers¹¹.
- Valley Ranch located near US 59 and Segment G: The first phase of this development is already underway and this 1,374 acre mixed-use master-planned community is expected to open in

¹⁰ See: <http://news.exxonmobil.com/print/node/11659>

¹¹ See: <http://www.springwoodsvillage.com>

TX 91973 / Graphics - May 2013 / New Dev Map.mxd / 06-10-13



FIGURE A-1

phases in 2013 – 2016. The planned development will result in 4,000 single family homes and approximately 1,000 multi-family apartment units upon completion¹².

Additional Traffic and Revenue Result Summaries

Table A-17 provides a summary of the 2035 expected travel time savings during the peak and off-peak periods of travel. Table A-18 also provides a summary of the percentage of travelers expected to utilize the Grand Parkway system during the peak and non-peak periods.

Table A-17 Estimated 2035 Travel Time Savings			
Segment	Description	Peak	Non-Peak
D / E	IH 10 to US 290	25-34 min	8-12 min
F-1	US 290 to SH 249	10-11 min	2-4 min
F-2	SH 249 to IH 45	19 min	3-6 min
G	IH 45 to US 59	47-48 min	11-13 min

Table A-18 Temporal Composition of Grand Parkway Travel Markets					
Segment	Description	2015		2035	
		Peak	Non-Peak	Peak	Non-Peak
D / E	IH 10 to US 290	62.5%	37.5%	64.4%	35.6%
F	US 290 to IH 45	64.2%	35.8%	68.2%	31.8%
G	IH 45 to US 59	61.5%	38.5%	55.1%	44.9%

Toll Rate Level Comparison

The following Figure A-2 provides a toll rate per mile comparison summary of the proposed Grand Parkway system with other tolled facilities within Texas and the United States. The proposed toll rate levels reflect the current per mile rates observed for the existing Harris County Toll Road Authority system in the Houston region and are shown to be within a reasonable range compared to other tolled facilities nationwide.

Congestion Ranking Characteristics

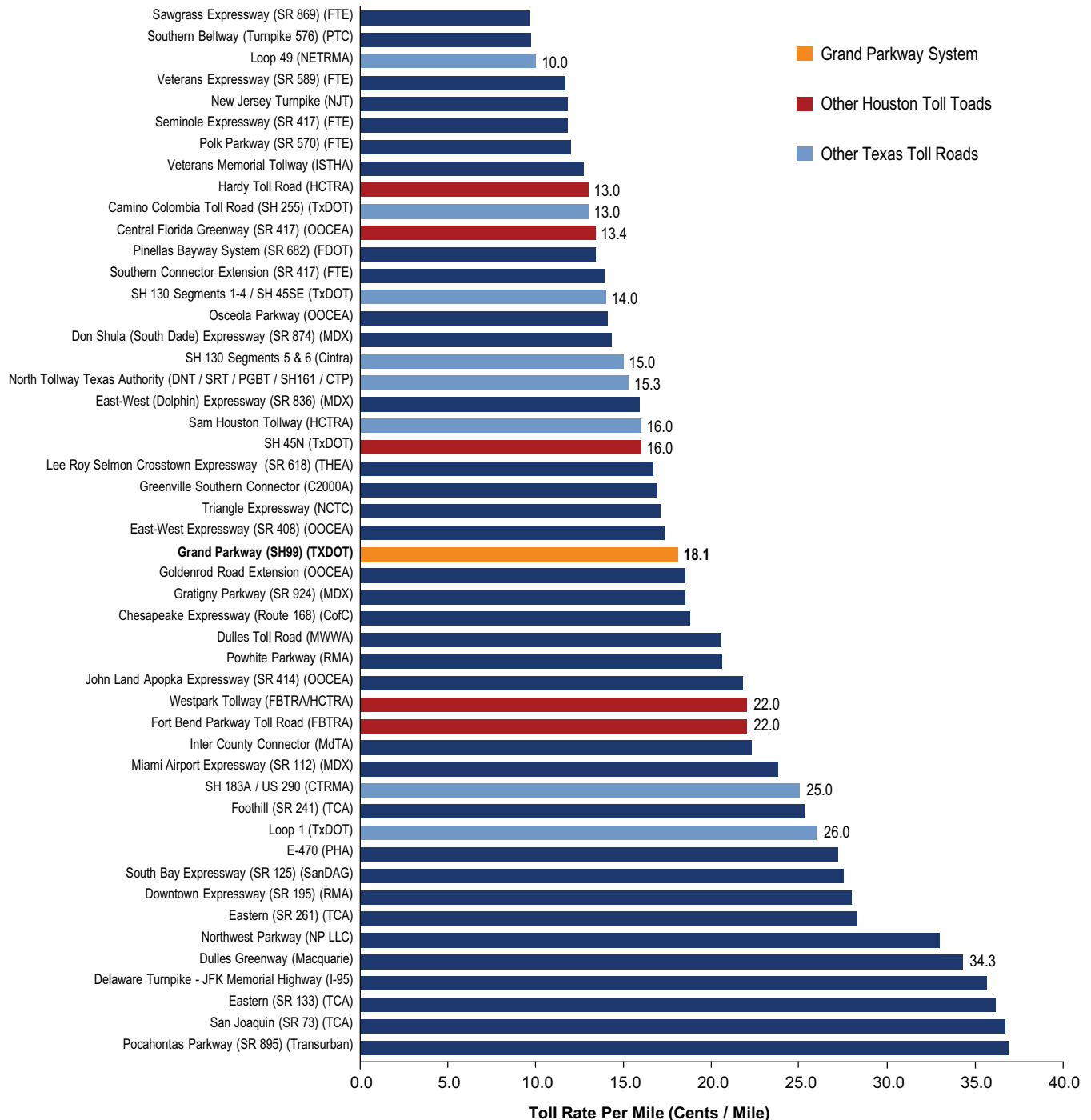
The Texas Transportation Institute (TTI) Urban Mobility Report provides a summary of the congestion and travel time information using hundreds of speed data points on almost every mile of major road in urban America for almost every 15-minute period of the average day¹³. The following Table A-19 summarizes the ranking for Houston congestion characteristics between the 2011 and

¹² See: <http://docs.newquest.com/brochures/ValleyRanchTC.pdf>

¹³ See: TTI's 2012 Urban Mobility Report (<http://mobility.tamu.edu/ums>)

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2012 mobility reports. Houston ranked 4th worst large urban areas in overall congestion in 2010 and this has improved in 2011 as a result of transportation improvements that have been introduced recently and congestion relief initiatives such as the opening of the Katy freeway tolled managed lanes and the conversion of recent high occupancy vehicles (HOV) facilities into high occupancy tolled (HOT) facilities.

2010	Hours	Yearly Delay per	Ranking	Excess Fuel per	Congestion Cost
Very Large Urban Area	Auto Commuter	Auto Commuter	Travel Time Index	Auto Commuter	per Auto Commuter
Washington DC-VA-MD	74	1	2	1	2
Chicago IL-IN	71	2	13	2	1
Los Angeles-Long Beach-Santa Ana CA	64	3	1	3	3
Houston TX	57	4	6	4	4
New York-Newark NY-NJ-CT	54	5	3	7	5
San Francisco-Oakland CA	50	7	3	7	7
Boston MA-NH-RI	47	9	20	11	9
Dallas-Fort Worth-Arlington TX	45	10	16	7	11
Seattle WA	44	12	6	6	10
Atlanta GA	43	13	16	12	11
Philadelphia PA-NJ-DE-MD	42	14	20	18	14
Miami FL	38	15	16	16	19
San Diego CA	38	15	23	12	17
Phoenix AZ	35	23	20	12	16
Detroit MI	33	27	37	18	26

2011	Hours	Yearly Delay per	Ranking	Excess Fuel per	Congestion Cost
Very Large Urban Area	Auto Commuter	Auto Commuter	Travel Time Index	Auto Commuter	per Auto Commuter
Washington DC-VA-MD	67	1	4	1	1
Los Angeles-Long Beach-Santa Ana CA	61	2	1	3	2
San Francisco-Oakland CA	61	2	23	6	4
New York-Newark NY-NJ-CT	59	4	3	2	3
Boston MA-NH-RI	53	5	6	4	6
Houston TX	52	6	10	12	8
Atlanta GA	51	7	17	12	7
Chicago IL-IN	51	7	14	8	5
Philadelphia PA-NJ-DE-MD	48	9	10	12	12
Seattle WA	48	9	10	15	10
Miami FL	47	11	14	6	13
Dallas-Fort Worth-Arlington TX	45	13	10	19	15
Detroit MI	40	25	37	30	27
San Diego CA	37	37	37	48	41
Phoenix-Mesa AZ	35	40	37	19	30

Note: Very Large Urban Areas—over 3 million population

- Yearly Delay per Auto Commuter—Extra travel time during the year divided by the number of people who commute in private vehicles in the urban area.
- Travel Time Index—The ratio of travel time in the peak period to the travel time at free-flow conditions.
- Excess Fuel Consumed—Increased fuel consumption due to travel in congested conditions rather than free-flow conditions.
- Congestion Cost—Value of travel time delay (estimated at \$16.79 per hour of person travel and \$86.81 per hour of truck time) and excess fuel consumption (estimated using state average cost per gallon for gasoline and diesel).

Please do not place too much emphasis on small differences in the rankings. There may be little difference in congestion between areas ranked (for example) 6th and 12th. The actual measure values should also be examined. The best congestion comparisons use multi-year trends and are made between similar urban areas.

Source: TTI's 2011 and 2012 Urban Mobility Report (<http://mobility.tamu.edu/ums>)

The Texas Department of Transportation (TxDOT's) 100 Most Congested Road Sections was designed to illustrate the severity and extent of traffic congestion currently observed along the transportation

system in Texas. The assessment calculates congestion performance using data obtained from the TxDOT Roadway-Highway Inventory (RHiNo) traffic volume data by road section and the traffic speed dataset from INRIX for the road sections to highlight average travel speed and total delay. There are 31 roadway sections within the Houston region that fall within the top 100 most congested roadways¹⁴ as shown in Figure A-3 and summarized in detail in Table A-20.

Table A-20
Texas Department of Transportation Top 100 Most Congested Sections in the Houston Region

#	Rank	Roadway	County	From	To	TCI	PTI	CSI
1	3	IH 45	Harris	IH 610	SL 8	1.61	4.84	1.94
2	7	US 59	Harris	IH 10	SH 288	2.00	7.11	2.16
3	8	US 59	Harris	SH 288	IH 610	1.61	4.57	1.96
4	10	IH 45	Harris	IH 10	IH 610 North	1.43	3.36	1.63
5	13	IH 45	Harris	IH 10	IH 610 South	1.45	3.04	1.60
6	16	IH 610	Harris	UA 90	IH 10	1.52	3.01	1.72
7	18	IH 610	Harris	IH 10	IH 45	1.47	4.20	1.64
8	20	US 290	Harris	FM 529	IH 610	1.58	5.30	1.94
9	23	US 59	Harris	IH 610	SL 8	1.38	3.40	1.56
10	25	SH 288	Harris	US 59	IH 610	1.61	4.03	1.91
11	26	IH 10	Harris	SL 8	IH 610 West	1.33	3.12	1.47
12	27	IH 10	Harris	IH 610	IH 45	1.39	4.05	1.47
13	30	IH 45	Harris	SL 8	IH 610	1.38	2.95	1.52
14	34	FM 1093	Harris	SH 6	IH 610	1.34	6.08	1.38
15	38	US 290	Harris	FM 1960	FM 529	1.48	3.61	1.80
16	40	IH 45	Harris	FM 2920	SL 8	1.24	2.70	1.33
17	42	SH 6	Harris	Hempstead Highway	IH 10	1.40	6.10	1.47
18	43	IH 45	Harris	FM 528 / NASA 1	SL 8	1.29	2.14	1.39
19	44	IH 10	Harris	SH 99	SL 8	1.31	2.44	1.47
20	45	IH 10	Harris	IH 45	US 59	1.35	3.92	1.39
21	48	FM 1960	Harris	BF 1960A	1st ST E	1.37	5.61	1.44
22	51	UA 90	Harris	IH 610	SH 288	1.28	4.81	1.31
23	52	US 59	Harris	IH 610 North	IH 10	1.28	2.63	1.40
24	64	SH 288	Harris	IH 610	SL 8	1.37	2.31	1.61
25	66	Eldridge	Harris	FM 1093	Memorial Dr	1.33	2.13	1.39
26	73	FM 1960	Harris	IH 45	Mills	1.25	6.18	1.33
27	75	FM 529	Harris	SH 6	US 290	1.43	9.07	1.53
28	78	IH 610	Harris	FM 521	UA 90	1.18	2.77	1.25
29	80	IH 610	Harris	IH 45	FM 521	1.18	2.25	1.24
30	83	US 59	Fort Bend	SL 8	SH 6	1.19	2.23	1.29
31	88	SH 6	Fort Bend	IH 10	US 59	1.27	4.03	1.30

Note: **CSI**: Commuter Stress Index - the same as the TCI except it is for the peak direction of travel only.

PTI: Planning Time Index - (a reliability measure) ratio of the 95th percent peak period travel time to the free flow travel time. A value of 2.50

means that for a 30 minute trip in light traffic, 75 minutes should be planned.

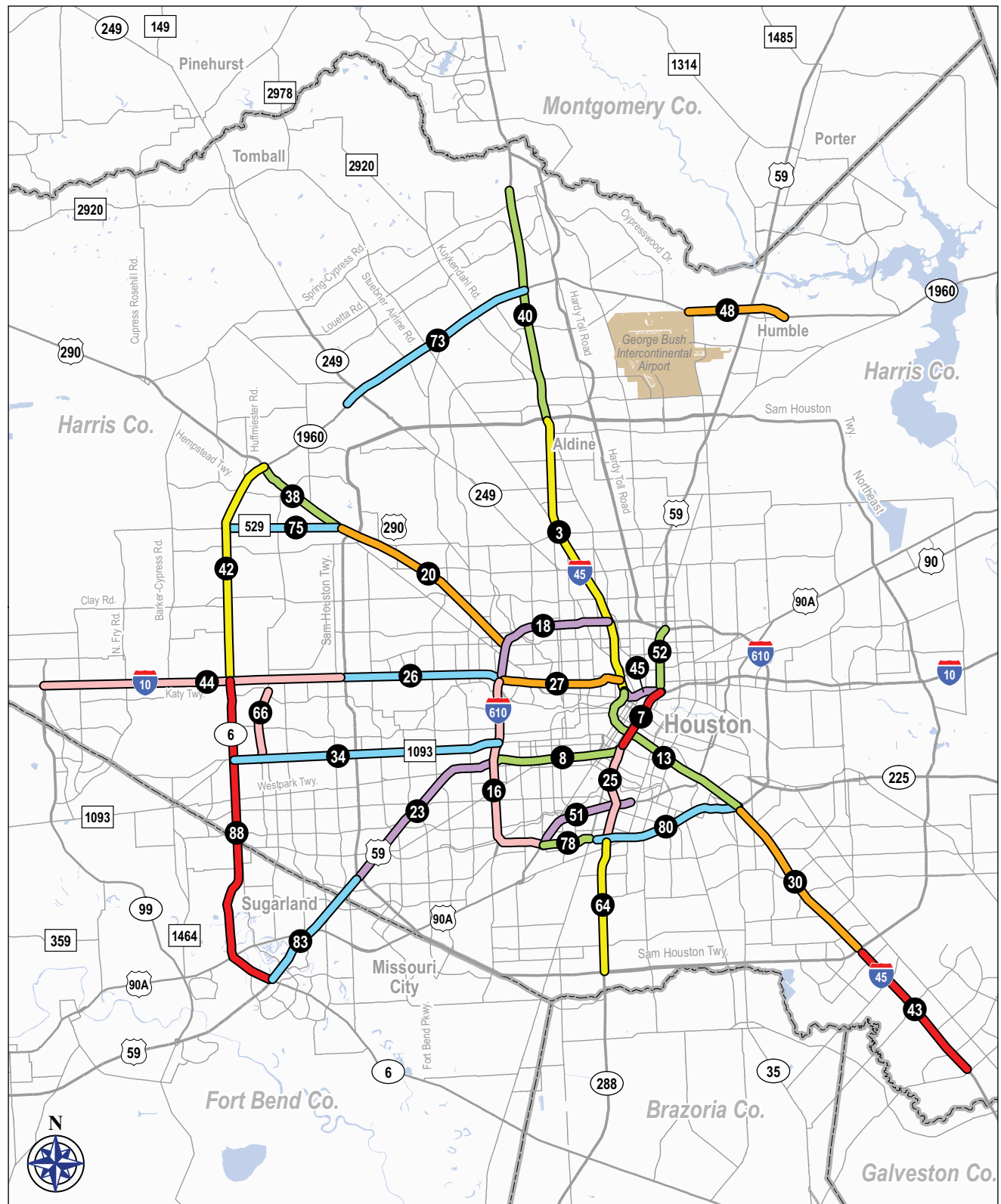
TCI: Texas Congestion Index - ratio of the peak period average travel time to the free flow travel time. A value of 1.20 means that a 30 minute

Source: Texas Department of Transportation - Top 100 Congested Roadways
(<http://www.txdot.gov/inside-txdot/projects/100-congested-roadways.html>)

¹⁴ See Texas Department of Transportation – 100 congested Roadways
<http://maps.dot.state.tx.us/top100/>

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**TEXAS TOP 100 CONGESTED ROADWAYS
IN THE HOUSTON AREA**

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APPENDIX H
ENGINEER'S REPORT

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Grand Parkway Engineer's Report

Date: June 26, 2013

Prepared For:
Texas Department of Transportation



JACOBS

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1 Executive Summary

1.1 Disclaimer

In Jacobs' opinion, the assumptions underlying the study provide a reasonable basis for the project analyzed. However, any financial projection is subject to uncertainties. Inevitably, some assumptions used to develop the projections will not be realized, and unanticipated events and circumstances may occur. There are likely to be differences between the projections and actual results, and those differences may be material. Because of these uncertainties, Jacobs makes no guaranty or warranty with respect to the projections in the Study.

This document, and the opinions, analysis, evaluations, or recommendations contained herein are for the sole use and benefit of the Texas Department of Transportation and the Grand Parkway Transportation Corporation (collectively, the "Contracting Parties"). There are no intended third party beneficiaries, and Jacobs Engineering Group Inc., (and its affiliates) shall have no liability whatsoever to any third parties for any defect, deficiency, error, omission in any statement contained in or in any way related to this document or the services provided.

Neither this document nor any information contained therein or otherwise supplied by Jacobs Engineering Group Inc. in connection with the study and the services provided to the Contracting Parties shall be used in connection with any financing solicitation, proxy, proxy statement, proxy soliciting materials, prospectus, Securities Registration Statement or similar document without the express written consent of Jacobs Engineering Group Inc.

Notwithstanding the foregoing disclaimer, Jacobs Engineering Group Inc. has given consent to the Contracting Parties for the inclusion of the Grand Parkway Engineer's Report as an appendix to the Preliminary Official Statement and the Official Statement to be issued in connection with the offering, sale, and issuance of the Grand Parkway System Toll Revenue Bonds, Series 2013.

1.2 Overview

Jacobs Engineering Group Inc. ("Engineer") was engaged by TxDOT to provide an independent estimate of the cost, construction schedule and operation and maintenance expenses for the Grand Parkway Segments F-1, F-2, and G. The Engineer was asked to review and provide an opinion as to the reasonableness of the bid submitted by the Design-Build contractor ("Developer") that was chosen as the preferred bid, and review and provide an opinion on the electronic toll assembly costs and operations and maintenance estimates for a portion of Segment D in Harris County and of Segment E.

The Engineer's Estimate was found to be greater than the Developer's price by 17% (see Table 1), or, approximately \$180 million, including all construction options. Further, as will be described in more detail in this report, once the Engineer's Estimate was adjusted to reflect the variances in design/engineering features as they appeared in the Developer's

bid, the price differential between the two was reduced (see Table 2). This adjustment indicates that the base construction price submitted by the Developer for Segments F-1, F-2, and G is reasonable.

Table 1 Initial Comparison of Engineer's Estimate to Developer's Price*

DIFFERENCE	Developer	Engineer's Estimate	Difference to Estimate
Total Delivery of F-1, F-2, and G (w/o Options)	\$1,007	\$1,145	\$138
Construction Options	\$37	\$79	\$42
Total Delivery of F-1, F-2, and G (including options)	\$1,044	\$1,224	\$180

* in millions

Table 2 Comparison of Adjusted Engineer's Estimate to Developer's Price*

DIFFERENCE	Developer	Adjusted Engineer's Estimate	Difference to Estimate
Total Delivery of F-1, F-2, and G (w/o Options)	\$1,007	\$934	-\$73
Construction Options	\$37	\$63	\$26
Total Delivery of F-1, F-2, and G (including options)	\$1,044	\$997	-\$47

* in millions

Having established the reasonableness of the Developer's price for Segments F-1, F-2, and G, it should be noted that there are additional costs, estimated by the Engineer, that will be financed by the Grand Parkway Transportation Corporation (GPTC) for the development of these Segments. These costs will include: the costs to construct Electronic Toll Assemblies, the purchase of land for Right-of-Way, administration of the construction contract, mitigation of all environmental impacts and commitments, and construction support including materials testing and construction management. The total price, combining the Developer price and the additional costs, are presented in Table 3.

Additionally, the Engineer estimated the costs of operations and maintenance for Segments F-1, F-2, and G, and for a portion of Segment D in Harris County and Segment E. The Engineer also estimated the capital costs of installing Electronic Toll Assemblies for Segment E (\$9 million). Please reference **Appendices G and H** which outline the Engineer's estimated costs to operate and maintain these Segments for the next 50 years.

Table 3 Total Price of Delivery of Segments F-1, F-2, and G*

ITEM	Developer	Engineer's Estimate	Price
Total Delivery of F-1, F-2, and G (w/o Options)	\$1,007	-	\$1,007
Construction Options	\$37	-	\$37
Electronic Toll Assembly Costs	-	\$14	\$14
Right-of-Way Costs	-	\$366	\$366
Administration Costs	-	\$85	\$85
Mitigation Costs	-	\$44	\$44
Construction Support Costs	-	\$109	\$109
Total Price of Segments F-1, F-2, and G (including options)			\$1,662

* in millions

1.3 Grand Parkway System

Segment D in Harris County, Segment E, and Segments F-1, F-2, and G will be referred to as the "System" in this document. Segments F-1, F-2 and G of the Grand Parkway will be developed under a recently procured Design-Build contract. These segments total approximately 37 miles in length running through Harris and Montgomery Counties, and will include numerous bridges, frontage roads, associated drainage, and utility infrastructure. The initial maintenance of Segments F-1, F-2 and G will be completed under a Capital Maintenance Agreement.

The portion of Segment D in Harris County and Segment E are currently under construction by TxDOT, and the costs of their construction will be included as part of the 2013 financing

1.4 Report Scope

This report presents the location, engineering design features, construction schedule, cost estimate, and operation and maintenance expense estimate for the Grand Parkway Segments F-1, F-2, and G. The Engineer developed an independent estimate of these costs – this report provides a comparison of these estimates with those provided by the Developer. Additionally, the capital cost of electronic toll assemblies, operations and maintenance estimate, and risk components for the Grand Parkway Segment E and a portion of Segment D in Harris County, both currently under construction, are estimated. The Engineer did not prepare a full capital cost estimate of Segments D and E as they are currently under construction and construction budgets are already established and under contract with TxDOT.

The report is divided into the following seven sections:

- Executive Summary
- Scope of Work (including detailed System description and design standards)
- Assessment Methodology for Construction Costs
- Construction Cost Estimates (including an estimate of cost risk and description of risk allocation)
- Assessment of Design-Builder (including a description of key contract terms and construction schedule)
- Toll Collections and Operations and Maintenance
- Summary of Results

1.5 Assumptions/Methodology

This report assumes that the Texas Department of Transportation (TxDOT) will provide the necessary toll infrastructure for these Segments of the Grand Parkway using the Statewide Toll Integrator with the transactions processed using the Statewide Customer Service Center located in Austin. Each customer using the system will be required to have a transponder attached to their vehicle or be considered a violator.

As part of the procurement process, an appropriately qualified TxDOT technical review team analyzed the technical solutions submitted by the various bidders. They deemed the apparent best value bidder to be technically suitable for the contract and compliant with the Segment F-1, F-2, and G's functional requirements. This included an assessment of the bidder's proposed design optimization concepts.

It is anticipated that Segments D and E will open to traffic in December 2013 and Segments F-1, F-2, and G will open in January 2016.

The Engineer's Estimate of the construction costs were based on the schematic layouts provided in the Request for Proposals (RFP). The results of this estimating exercise were then compared to the prices submitted by the Developer. Similarly, the Engineer's Estimate for operations and maintenance costs post-construction were compared to those included in the Developer's Capital Maintenance Agreement submission.

Toll collections will be under the purview of TxDOT's Toll Operations Division. The operations and maintenance for tolling will be undertaken by the Statewide Toll Integrator. Both are ongoing and well-established operations. For operations and maintenance relating to the Capital Maintenance Agreement, the independent Engineer's Estimate for a 15-year period was calculated as approximately \$110 million compared to the Developer's estimate of \$55 million (2012 dollars).

1.6 Cost Risk Allocation

The costs of the various risks and the owner of those risks are summarized as follows:

- **Construction Delays** – dependent on the cause of the delay (see below);
- **Hazardous Materials Mitigation** – \$0-3 million is 100% Developer, \$3-4.5 million is 50/50 Developer/TxDOT, and greater than \$4.5 million is 100% TxDOT;
- **Environmental** – TxDOT will be reimbursed by the 2013 GPTC bond financing for the costs of existing Environmental Permits/Commitments from the original RFP Schematic; the Developer bears cost for any Environmental Permits/Commitment changes due to design revisions;
- **ROW** –TxDOT will bear all risk of ROW purchase price variance. TxDOT will be reimbursed by the 2013 GPTC bond financing for ROW costs. The Developer bears all schedule delay risk except in certain situations when TxDOT delays condemnation proceedings;
- **Utilities** – Developer bears all risk for delays due to negligent utility owners up to 90 days; past 90 days, the cost of delays are shared equally between GPTC and the Developer;
- **Design and Construction** – 100% Developer unless a result of change orders per TxDOT direction or Force Majeure;
- **Geotechnical** – The Developer pays for \$150,000 for each differing site condition, to a maximum of \$2.1 million. GPTC pays above \$150,000 for each condition, and anything above the \$2.1 million maximum.
- **Force Majeure** - 100% GPTC.

The Developer is required to have executed performance bonds and payment bonds in the full amount of the contract price with Powers of Attorney provided. These payment and performance bonds are intended to serve as a guaranty for the protection of the claimants and TxDOT for labor and materials and the faithful performance of the work.

2 Scope of Work

2.1 Report Purpose and Background

The purpose of this report is to present the location, engineering design features, construction schedule, cost estimate, and operation and maintenance expense estimate for the Grand Parkway Segments F-1, F-2, and G. The Engineer developed an independent estimate of these costs – this report provides a comparison of these estimates with those provided by the Design-Build contractor, Zachry-Odebrecht (the Developer). Additionally, the operation and maintenance estimate and construction risk components for the Grand Parkway Segment E and a portion of Segment D in Harris County, both currently under construction, are included.

Houston is the fourth largest city in the United States and continues to grow in population at a significant rate. In fact, the Houston Metro area's population saw a 25% increase since 2000. Along with this type of growth comes traffic and gridlock. According to Inrix Inc., a Kirkland, Washington-based traffic information firm, Houston ranked 23rd on the list of U.S. most congested metro regions over the past year on their Traffic Scorecard¹. Specifically, from October 2011 to October 2012, Houston drivers wasted an average of 25.0 hours per year per vehicle stuck in traffic.

To alleviate the congestion that is being experienced around the country, many departments of transportation are working quickly to design, construct, and open new roads. This is the case in the Houston region as well.

To that end, State Highway 99 (SH 99, the Grand Parkway) is a proposed 186 mile circumferential highway traversing seven counties and encircling the Greater Houston region. This Greater Houston region consists of relatively flat terrain, across which TxDOT has constructed and maintained transportation facilities for decades. TxDOT's long history of development in the region makes them very experienced with building infrastructure projects in the area which respect the native soil types, geotechnical characteristics, and environmental requirements. SH 99 has been shown on governmental planning documents since the early 1950's. The Grand Parkway is divided into 11 segments, A through I-2, each of which is a complete and independently justifiable project (See Figure 2)

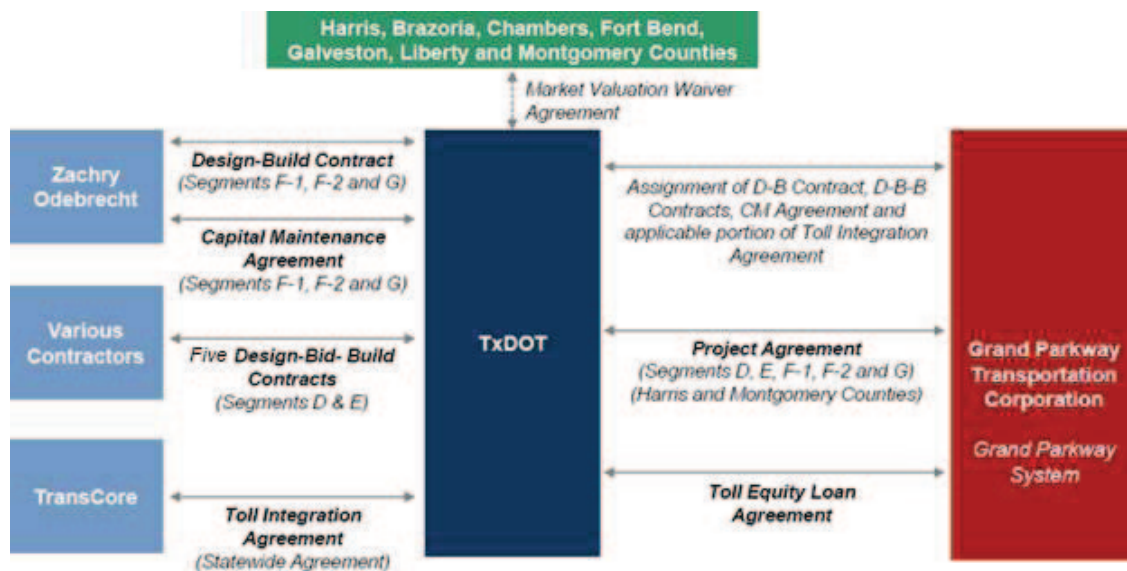
The Grand Parkway will be Houston's third outer highway loop and is being developed to serve the regional mobility needs of the Houston metropolitan area. Early in the planning process, the Grand Parkway Association (see www.grandpky.com) was formed as a distinct entity to be a "friend and supporter" of the Grand Parkway. Its original purpose was to be an intermediary for land holdings. Since its inception, the Grand Parkway Association operates on funds received from various sources including the TxDOT, Houston METRO, Harris County, Fort Bend County, Chambers County, Galveston County, and Brazoria County.

¹ Source - <http://scorecard.inrix.com/scorecard/default.asp>

The Grand Parkway development plan includes a number of distinct activities including the construction of new parkway segments as tolled facilities. As mentioned above, there are several segments encapsulated by the larger Grand Parkway. A portion of Segment D and Phase 1 of Segment I-2 are already open to traffic. The remaining portion of Segment D and Segment E are currently under construction and Phase 2 of Segment I-2 is in the design phase. Grand Parkway, as mentioned in this report, will mean Segment E, F-1, F-2, G, and a portion of Segment D in Harris County unless otherwise noted.

The Grand Parkway Transportation Corporation (GPTC), a public non-profit Texas corporation, was created under the authority of the Texas Transportation Commission to develop and finance Grand Parkway, governed by an agreement (“Project Agreement”) with TxDOT. Figure 1 below illustrates the components of the System and the agreements of the parties involved in its development.

Figure 1: Grand Parkway System Agreements



2.2 Project Description

Grand Parkway Segments E, F-1, F-2, G, and the portion of Segment D in Harris County are described as follows and as shown in Figure 2.

2.2.1 Segment D

- Segment D in Harris County extends north from the Harris County line north of Highland Blvd. to 0.3 miles north of Colonial Parkway.
- The portion of Segment D in Harris County currently under construction is a proposed 0.9-mile, four-lane, controlled access toll road with continuous frontage roads, including six direct connectors, from 0.49 miles north of Kingsland Boulevard to 0.12 miles south of Colonial Parkway.
- The construction of Segment D is broken up into two separate Design/Bid/Build contracts with “adjusted projected contract amounts” of approximately \$48,700,000

and \$31,400,000. In total, GPTC will finance \$80,100,000 of Segment D construction. Two Segment D direct connectors are also being constructed with a Segment E construction contract, and therefore will be included in GPTC's financing of Segment E.

- As of May 2013, the construction contracts for this portion of Segment D are 89% and 51% complete, respectively, and are expected to be open to traffic in December 2013.
- Executed performance bonds and payment bonds in the full amount of the contract price with Powers of Attorney have been provided. These payment and performance bonds serve as a guaranty for the protection of the claimants and TxDOT for labor and materials and the faithful performance of the work.
- Williams Brothers Construction Co., Inc. is the contractor building the first portion of Segment D. Zurich American Insurance Company, Pacific Indemnity Company, and General Insurance Company of America provide the performance and payment bonds for a total of approximately \$49,500,000.
- Lone Star Road Construction, Ltd. is the contractor building four direct connectors of Segment D. Zurich American Insurance Company provides the performance and payment bonds for a total of approximately \$31,200,000.

2.2.2 Segment E

- Segment E is a proposed 15.7-mile, four-lane, controlled access toll road with intermittent frontage roads from US Interstate Highway 10 to US Highway 290 through northwest Harris County. Segment E is currently under construction by TxDOT and is expected to be open to traffic by December 2013.
- The construction of Segment E is broken up into three separate Design/Bid/Build contracts. The "adjusted projected contract amounts" for these three contracts are approximately \$32,400,000, \$124,000,000, and \$116,300,000; for a total of approximately \$272,700,000.
- As of May 2013, the construction progress of the three Segment E Design/Bid/Build contracts are: 83% complete for the contract beginning near Franz Road, 84% complete for the contract beginning near Clay Road, and 77% complete for the contract beginning near Cypress Creek and ending near US 290 (including four direct connectors).
- Executed performance bonds and payment bonds in the full amount of the contract price with Powers of Attorney have been provided. These payment and performance bonds serve as a guaranty for the protection of the claimants and TxDOT for labor and materials and the faithful performance of the work.
- Hassell Construction Company, Inc. is the contractor building the southern section of Segment E. Performance and payment bonds are provided by Liberty Mutual Insurance Company for a total of approximately \$32,300,000.
- J.D. Abrams, L.P. is the contractor building the middle section of Segment E. Performance and payment bonds are provided by Liberty Mutual Insurance Company, National Fire Insurance Company of Hartford, and Continental Casualty Company for a total of approximately \$122,900,000.

- WW Webber, LLC is the contractor building the northern section of Segment E. Performance and payment bonds are provided by Liberty Mutual Insurance Company, XL Specialty Insurance Company, and Greenwich Insurance Company for a total of approximately \$115,700,000.
- GPTC will also finance the installation of Electronic Toll Assemblies on Segment E, estimated at \$9.0 million by the Engineer.

2.2.3 Segment F-1

- Segment F-1 is a proposed 12.1-mile, four-lane, controlled access toll road with intermittent frontage roads from US Highway 290 to State Highway 249 through northwest Harris County.
- Segment F-1 is expected to be open to traffic by January 2016.
- Alternative alignments were developed to fulfill the purpose of the System, to minimize potential environmental impacts, and to respond to public/landowner and resource agency comments.
- A Recommended Alternative Alignment was identified in the Final Environmental Impact Statement (FEIS, June 2009). This selection was based on public and resource agency input, and analysis and comparison of the potential effects on the physical, biological, and human environments of each alternative alignment.
- FHWA issued a Record of Decision on June 12, 2009.
- An FEIS Re-evaluation was approved on May 22, 2012 by FHWA.

2.2.4 Segment F-2

- Segment F-2 is a proposed 12.2-mile, four-lane, controlled access toll road with intermittent frontage roads from State Highway 249 to US Interstate Highway 45(N) through northwest Harris County.
- Segment F-2 is expected to be open to traffic by January 2016.
- Alternative alignments were developed to fulfill the purpose and need of the System, to minimize potential environmental impacts, and to respond to public/landowner and resource agency comments.
- A Recommended Alternative Alignment was identified in the Draft Environmental Impact Statement (DEIS February 2004). This selection was based on public and resource agency input, and analysis and comparison of the potential effects on the physical, biological, and human environments of each alternative alignment.
- After reviewing public comments on the Segment F-2 DEIS, the Grand Parkway Association in coordination with TxDOT and FHWA decided to prepare a Revised DEIS that was released on June 9, 2006.
- Due to public comments, the Revised DEIS included a new alternative alignment, Alignment F, which was analyzed. A Public Hearing was conducted over two nights at Klein Collins High School on July 11 and 12, 2006.
- FHWA issued a Record of Decision on December 31, 2009.
- An FEIS Re-evaluation was approved on May 22, 2012 by FHWA.

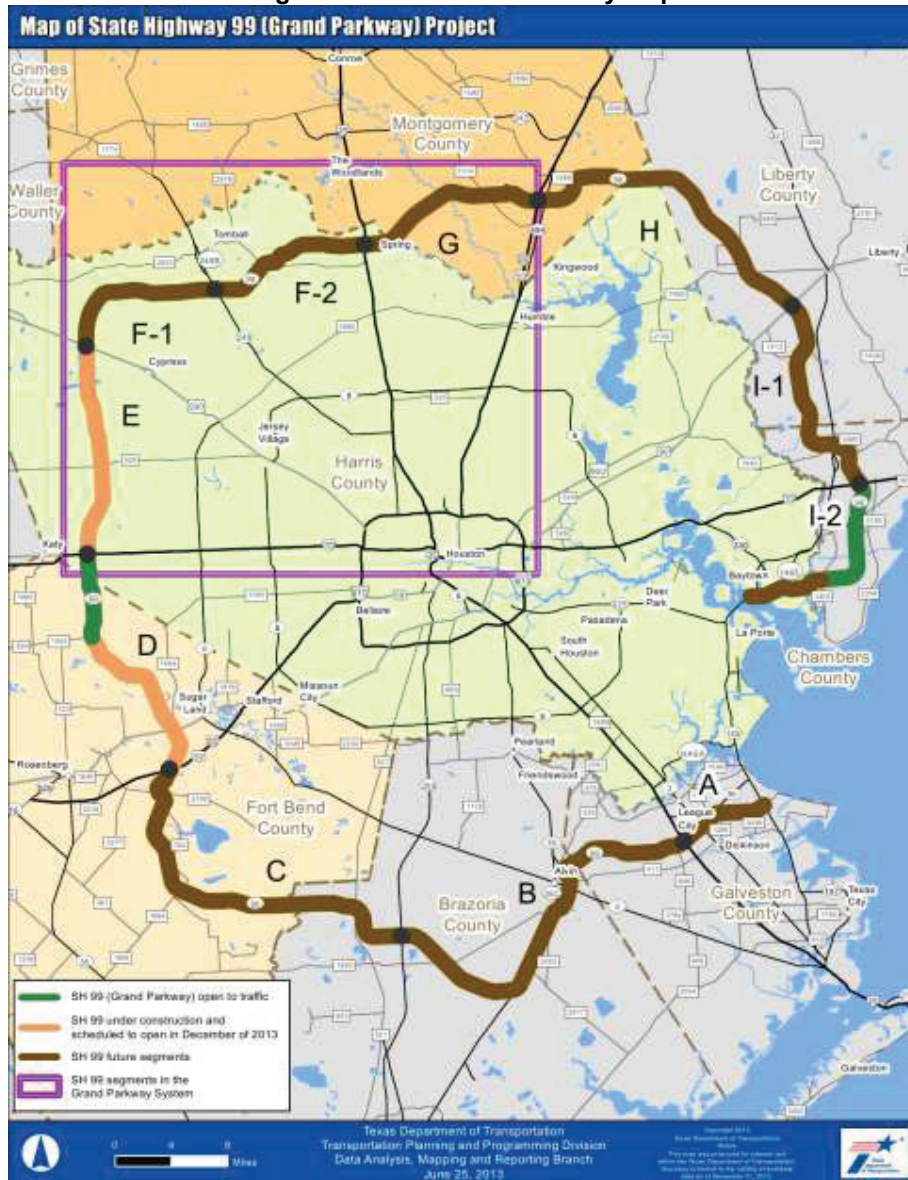
2.2.5 Segment G

- Segment G is a proposed 13.5-mile, four-lane, controlled access toll road with intermittent frontage roads from US Interstate Highway 45(N) to US Interstate

Highway 69(N) through northwest Harris County and southeast Montgomery County.

- Segment G is expected to be open to traffic by January 2016.
- Alternative alignments were developed to fulfill the need for and purpose of the System, to minimize potential environmental impacts, and to respond to public/landowner and resource agency comments.
- FHWA issued a Record of Decision on December 29, 2010.
- An FEIS Re-evaluation was approved on May 22, 2012 by FHWA.

Figure 2: SH99 Grand Parkway Map



2.3 Future Improvements

There is sufficient width within the median for future widening to a 6 lane facility. Additional travel lanes will be contained within the ultimate right-of-way (ROW) limits being acquired with the initial construction.

Future improvements have been planned for the interchanges to construct additional direct connectors as shown on the schematic design. Seven direct connectors will be constructed with the base System at US 290, IH 45, and IH 69, and an additional five direct connectors may be constructed under future optional works. These fully directional interchanges are environmentally cleared and assumed in design at each major interchange.

Future cross streets are planned along the F-1, F-2, and G corridor. Schiel Road, Future Mason Road, Cedar Lane, Huffsmith-Kohrville, Rothwood, Northcrest, Mossy Oaks, Springwoods Village Parkway, Northgate Crossing Boulevard, Nelson Road, East Hardy Road, Spring Creek Trail and Future Road and their associated ramps and U-turn turnarounds are planned for future construction and their ultimate typical sections will be accommodated with the initial build. Additionally, Holzwarth Road and Energy Drive are planned for future construction, by other parties, and the Grand Parkway will be constructed to span the future Energy Drive. Construction options are presented on the System for additional bridges allowing Grand Parkway to span five additional future cross streets, which include Future Bauer Hockley / Grant Road, Future Botkins / Juergen Road, Future Cypress Hill Road, Future Shaw Road, and Max Conrad / Glenwillow Drive.

2.4 Design Status

Table 4 provides the design plan status for Segments F-1, F-2 and G of the Grand Parkway, which were still proposed (not under construction or completed) as of June 2012. A small portion of Segment D and all of Segment E were currently under construction at that time. These are the design assumptions used in this report and from which the cost estimates have been calculated. These do not necessarily represent the current design status of the Segments F-1, F-2, and G, as design revisions are proposed by the Developer.

Table 4 Design Status as of Engineer's Independent Cost Estimate: Segments F-1, F-2, and G

PROJECT SEGMENT	GRAND PARKWAY DESIGN LIMITS	PLAN STATUS
F-1	From US 290 to SH 249	30%
F-2	From SH 249 to IH 45(N)	30%
G	From IH 45(N) to IH 69(N)	30%

Since the preparation of the Engineer's construction cost estimate, the Developer was selected and has continued to prepare revised design plans. As of June 2013, table 5 provides the Developer's design plan status for Segments F-1, F-2 and G of the Grand Parkway as reported by the System's General Engineering Consultant (GEC).

Table 5 Current Status of the Developer's Design: Segments F-1, F-2, and G

PROJECT SEGMENT	GRAND PARKWAY DESIGN LIMITS	PLAN STATUS
F-1	From US 290 to SH 249	60%
F-2	From SH 249 to IH 45(N)	60%
G*	From IH 45(N) to IH 69(N)	60%

*Developer is preparing design plans for Segment G in two parts, package G_a and G_b. 60% plans for Segment G_b have been submitted for review to the GEC, and 60% plans for G_a are expected soon.

2.5 Design Standards

Design criteria for the Grand Parkway System are consistent with the current standards and practices of the American Association of State Highway and Transportation Officials (AASHTO), TxDOT, and the Technical Provisions for the SH 99 Grand Parkway Comprehensive Development Agreement (the "Development Agreement") contract documents. The roadway design criteria are presented in summary form in **Appendix A**.

2.5.1 Roadway

The proposed roadways are designed for safe operations at speeds consistent with those on similar facilities. The designs are based on a 70-mile per hour (mph) design speed for the mainlanes, a 50 mph design speed for ramps and direct-connectors, a 45 mph design speed for frontage roads, and a 40-45 mph design speed for cross streets. These design speeds provide safety in terms of vertical and horizontal alignments and stopping sight distances without significantly increasing costs. All ramps will be designed to provide the smoothest and safest roadway transitions between approaching and departing roadways.

Segment F-1 will provide four lanes of traffic with two lanes each direction (see **Appendix B**). The width of the travel lanes for the mainlanes is 12 feet. One-lane ramp and direct connect lane widths are 14 feet, and ramps and direct-connectors with two or more lanes are 12 feet per lane. Outside shoulder widths for mainlanes are 10 feet, while they are typically 8 feet for ramps and direct-connectors.

Segment F-2 will provide four lanes of traffic with two lanes each direction (see **Appendix B**). The width of the travel lanes for the mainlanes is 12 feet, 14 feet for one-lane ramps and direct connectors, and 12 feet per lane for ramps and direct-connectors with two or more lanes. Outside shoulder widths on mainlanes are 10 feet, while they are typically 8 feet for ramps and direct-connectors.

Segment G will provide four lanes of traffic with two lanes each direction (see **Appendix B**). The width of the travel lanes for the mainlanes is 12 feet. One-lane ramps and direct connector lane widths are 14 feet, and ramps and direct-connectors with two or more lanes are 12 feet per lane. Outside shoulder widths on mainlanes are 10 feet, while they are typically 8 feet for ramps and direct-connectors.

Intersecting local roadways and frontage roads for all the segments will provide local traffic circulation. The frontage roads are discontinuous and will consist of one-way service

with two traffic lanes in each direction. To enhance traffic circulation, some cross streets will have standard Texas U-Turn designs. Refer to **Appendix A** for the cross streets with U-turns. The width of the traffic lanes for the frontage roads will be 12 feet with a 1-foot curb offset.

Pavement lanes will be clearly marked, and overhead lighting, warning signs, and directional signs will be provided to aid in the safety of traffic operations. The points of ingress and egress at ramp terminals will also be marked for safety.

2.5.2 Pavement

The Engineer's Estimate was based on two pavement sections. The mainlane and direct connector pavement design for the Grand Parkway will consist of 12 inches of continuously reinforced concrete pavement over 1 inch of asphalt bond breaker over 6 inches of cement treated base and 6 inches of lime treated subgrade. The frontage road, ramp, and cross street pavement structure for the Grand Parkway will consist of 10 inches of continuously reinforced concrete pavement over 1 inch of asphalt bond breaker over 6 inches of cement treated base and 6 inches of lime treated subgrade.

2.5.3 Bridge Structures

Bridge structures will be designed in accordance with the latest edition of the "Standard Specifications for Highway Bridges" as published by AASHTO. TxDOT's "Bridge Design Guide" will be used to ensure compliance with TxDOT practices. The construction method for bridges and grade separation structures will be determined by economic considerations and functional requirements. The use of either concrete beams or steel girders will be determined as conditions warrant.

The bridge widths will be based on the ultimate sections of approaching roadways with the exception of areas designated for future use or alternate modes of transportation. Traffic lanes on mainlane bridges will be 12 feet in width bounded on the inside with a 4-foot wide shoulder and on the outside by 10-foot wide shoulder with concrete traffic barriers carried throughout the structure except in areas where the inside shoulder is increased for adequate stopping sight distance. Traffic lanes for city street bridges will also be 12 feet wide. Sidewalks will be placed where applicable.

2.5.4 Drainage

As with any limited access facility, it is important to provide a drainage system that will remove storm water from the pavement in a rapid, but efficient manner. The collection of water will be accomplished with a system that includes inlets, pipes, and ditches.

Drainage areas, culvert sizes, number and location of ditches, inlets, and extent of major drainage structures have been determined. All proposed drainage outfalls can be constructed within the proposed ROW or incorporated into existing outfall locations.

Drainage design criteria conform to TxDOT standard practices and procedures, with modifications as required to comply with local conditions and practices (see **Appendix C**).

Complete and comprehensive drainage design, including necessary standards and typical drawings, will be developed before final design.

2.5.5 Illumination

To promote maximum safety, illumination is required. The design criteria for the illumination system will conform to the latest edition of standard or pertinent recommendations contained in the following publications:

1. "The Informational Guide for Roadway Lighting," AASHTO;
2. "The Roadway Lighting Handbook," FHWA;
3. "American National Standard Practice for Roadway Lighting," ANSI/IES RP-8;
4. "IES Lighting Handbook;"
5. "Standard Specifications for Structural Supports for Highway Signs, Luminaries, and Traffic Signals," AASHTO Subcommittee on Bridges and Structures; and
6. "Highway Illumination Manual", TxDOT.

High mast and conventional lighting will be used to illuminate the Grand Parkway.

2.5.6 Signing

Distinctive and adequate signing is a necessity for major highway facilities. Signs will provide a means by which the user can readily determine their location along the route. Large, legible, directional signage, as well as regulatory and warning signs, will be provided.

All signs will conform to the Texas Manual on Uniform and Traffic Control Devices (TMUTCD). They will be constructed to withstand 100mph wind gusts and will be reflectorized to make messages clearly discernible at night. Signs will be both shoulder mounted and overhead bridge mounted, as necessary, for good driver visibility. Existing signs along adjacent highways will be modified as necessary to provide information about access to the Grand Parkway. Special signs in advance of the toll gantries will be used to inform drivers of the upcoming toll point and payment methods. Trailblazer signs will be erected at strategic locations near the System to direct traffic to the Grand Parkway.

2.5.7 Landscaping and Aesthetics

Landscaping will be provided along the System. The combination of planting, hardscape treatments, and structural elements will enhance the attractiveness of the Grand Parkway.

2.6 Right-of-Way

TxDOT has authority to acquire land, real estate easements and other interests in real estate by negotiation, purchase and eminent domain for the construction, operation and maintenance of the System. ROW limits have been established based on construction limits for bridges, roadways, drainage, toll gantries and interchanges. These limits will also permit proper maintenance of the System.

For Segments D and E, all of the ROW parcels have already been acquired with the exception of two parcels, for which payment is in process. For Segments F-1, F-2 and G,

none of the ROW parcels have been acquired, although it is believed that some preliminary work is being done by the Developer “at risk” and TxDOT is working on priority parcels which should help expedite the process. For this ROW process, TxDOT bears the price risk, while the Developer bears the schedule risk.

This process is detailed in the Technical Provisions, Addendum 6, Section 7. The following is a summary of the process:

- *Developer completes all administrative activities and prepares all documentation sufficient to acquire ROW.*
- *Developer obtains TxDOT’s review and prior written approval of all ROW maps and surveys, appraisals, legal descriptions, acquisition documentation, purchase price, requests to acquire ROW, condemnation-related activities, and funding/closing procedures.*
- *TxDOT (i) approves and returns the ROW acquisition documentation, (ii) provides review comments for incorporation by Developer, or (iii) in the case of an Acquisition Package that is deficient, notifies Developer of the deficiency(ies) to be corrected by Developer.*
- *Developer does not proceed with acquisition of the ROW until the NEPA Approval is issued, public involvement procedures have been completed and ROW maps and legal descriptions for the applicable constructible segment as established by the logical termini have been prepared and further approved by TxDOT.*
- *TxDOT provides a separate release for each approved segment.*
- *Developer does not commence any negotiations with landowners nor will TxDOT begin eminent domain proceedings until the specific Acquisition Package for that particular parcel is approved by TxDOT.*
- *If Developer and the landowner cannot negotiate an agreed-upon purchase price, acceptable to TxDOT, TxDOT will commence acquisition of the property through eminent domain proceedings.*
- *Developer is not permitted to commence any condemnation action through the statutory “Declaration of Taking” procedure without the express written consent of TxDOT.*
- *Developer does not begin construction on any parcel of real estate unless property rights for the parcel have been conveyed and recorded in favor of TxDOT, possession has been obtained through eminent domain, or a Possession and Use Agreement has been validly executed and delivered by all necessary parties.*

Currently the total parcel count stands at approximately 455 parcels. This total parcel count will continue to change. At this time in the ROW process there is not a detailed breakdown of the types of parcels that make up the total. However, it is known that most of the parcels are vacant land. The TxDOT Strategic Projects Division’s Right of Way team has developed a progression spreadsheet that will be continually updated with this information.

The ROW estimate, as summarized in the cost estimates, is based on a review of the trends of previous acquisitions by TxDOT. The estimated expenses for legal and court fees and jury awards that are necessary in condemnation proceedings are included in the cost estimates. Relocation assistance payments to property owners and tenants and other land acquisition related expenditures are also included in the ROW cost estimate.

2.7 Utility Adjustments

Utility adjustments and relocations are required for the System. Prices for relocation are shown in the cost estimates.

The Development Agreement for Segments F-1, F-2 and G of the Grand Parkway is a design-build agreement between TxDOT and the Developer. The Developer is responsible for performing or causing to perform at the Developer's expense, each and every adjustment of utilities including all coordination, design, design review, permitting, construction, inspection, payment, maintenance of records, and work necessary for relinquishment of existing utility property interests, preparation of joint use agreements, and acquisition of new property interests.

3 Assessment Methodology for Construction Costs

3.1 Overview

The civil works construction price estimate, otherwise known in this report as the Engineer's Estimate, for Segments F-1, F-2, and G, was based on the scope of work as described in Section 1 of the Technical Provisions and as shown on the State Highway 99 Schematic Layouts dated May 9, 2012 for Segment F-1 provided by the Engineer, May 1, 2012 for Segment F-2 provided by Atkins, and April 20, 2012 for Segment G provided by RS&H. Atkins also provided MicroStation cross-section files that were used to price the earthwork and retaining walls. In addition to the schematic layouts, the "Hydrologic & Hydraulic Analysis for State Highway 99 Grand Parkway Segments F-1, F-2, and G" dated April 12, 2012 prepared by AECOM as provided in the Record of Decision (ROD) was used to price the drainage. The noise wall locations are also provided in the Final Environmental Impact Statements (FEIS). The Civil Works construction also includes eight optional bids, A through H. The Engineer did not prepare a construction estimate of Segments D in Harris County and E because they are currently under construction and construction budgets are already established and under contract with TxDOT.

3.2 Construction

3.2.1 Scope of Civil Works

The team was tasked to develop a quantity summary and cost estimate. The quantities are divided into the following main construction groups:

- *Group A – Surface and Drainage* – This group includes the pavement structure items, such as lime treatment, flexible base, hot-mixed asphalted concrete and concrete pavement. Other surface items such as rails, guardrails and associated end treatments, cable barrier systems, curb and gutter, driveways, sidewalks, and curb ramps are also included in this group. Drainage related items included in this group are concrete box culverts, concrete pipes, manholes and inlets, end treatments, excavation required for drainage construction, trench excavation protection, riprap, pump stations, and detention ponds. Erosion control and temporary drainage are part of this group.
- *Group B – Signage and Lighting Fixture* – This group includes pavement markings, roadway illumination assemblies, high mast illumination, drill shaft foundations, conduit, and electrical service for the roadway illumination and high mast illumination, traffic signals, small sign assemblies, large signs, and overhead sign supports. The traffic control quantity, barricades, signs, and traffic handling, is in this group. ITS conduit and devices are also included in this group.
- *Group C – Concrete Foundation, Poles, and Pylons* – This group includes no items.
- *Group D – Grading, Fill, Turf, and Landscaping* – Excavation and embankment items as well as topsoil and seeding items are included in this group. Removal and demolition are also part of this group. These items include preparation of the ROW

and removals of pavement and barrier, roadway structures such as signs, drainage items and bridges.

- *Group E – Noise Walls* – This group includes the noise wall quantities.
- *Group F – Bridges and Retaining Walls* – All bridges and retaining wall quantities are included in this group. Bridges are quantified individually, by square foot, based on their estimated surface area.
- *Group G – Electronic Tolling Assets* – This group includes the overhead toll gantries, the toll gantry foundations, the conduit, stub ups, and the maintenance pads.
- *Group H – Utility* – Utility adjustment costs are included in this group.
- *Group I – Buildings* – Toll equipment buildings are included under Group G.

Unit prices for construction items were determined using TxDOT's 12-month rolling average low-bid unit prices. It is important to note that these unit prices implicitly include sums for overhead and profit. The general procedure was to use the Houston District unit prices for those items with ten or more uses. If that criterion was not met, the Houston District average unit prices were used. The third option was to use the statewide average unit prices. The selected unit price was then compared to unit prices for similar bid items as a cross check. There were some deviations from this procedure. If an exact bid item was not found, unit prices for similar bid items were utilized. For bridges, square footage costs were determined utilizing TxDOT Bridge Division's averages, supported by input from senior structural engineers experienced with TxDOT bridge design and construction.

4 Construction Cost Estimates

4.1 Overview

The cost estimates broadly consist of the construction costs, the land costs, and the operations and maintenance costs. This section covers the Engineer's Estimate of construction and land costs, the latter having been provided by TxDOT Strategic Projects Division. The operations and maintenance costs are discussed in Section 6.

Construction costs are sub-divided between direct and indirect costs. Direct costs are further sub-divided into nine major categories of costs, Group A through Group I as described in Section 3. Indirect costs are comprised of project management, design and engineering, cost escalation and hazardous materials mitigation. The Engineer's Estimate includes a 15% contingency placed on construction groups A through F which are Developer costs. An 8.8% Agency Contingency has been included with TxDOT and GPTC costs for a total of \$100 million. These contingencies are intended to account for risks, unknown costs, or unaccounted administrative, overhead, and professional service costs.

There are various risks that could impact on the construction completion date and the associated costs. These risks and the risk analysis that was undertaken to assess the potential cost impacts of these risks are discussed in this section.

4.2 Costs for Construction

4.2.1 Direct Costs

4.2.1.1 Group A – Surface and Drainage

The surface price is comprised of the roadway pavement structure and other roadway surface items. The quantities for these surface items were determined using the Segment F-1, F-2, and G schematics, the cross sections, and typical sections. The typical sections consist of four mainlanes (two in each direction), two discontinuous frontage roads (two lanes in one direction per frontage road) and several intersections. The pavement structure for the mainlane and direct connector typical section consists of 12 inches of continuously reinforced concrete pavement over 1 inch of asphalt bond breaker over 6 inches of cement treated base and 6 inches of lime treated subgrade. The pavement structure for the frontage road, ramp, and cross street typical section consists of 10 inches of continuously reinforced concrete pavement over 1 inch of asphalt bond breaker over 6 inches of cement treated base and 6 inches of lime treated subgrade.

The drainage price contains all the quantities related to the proposed drainage. The quantities for the large drainage structures were determined using the Segment F-1, F-2, and G schematics and AECOM's Hydraulics and Hydrology (H&H) analysis. A large portion of the drainage is open ditch drainage systems as provided by AECOM's H&H analysis and the cross sections. Detention basin volumes and pump station locations were also provided by AECOM. At large intersections, quantities for storm pipe with inlets and manholes were determined based on spacing assumptions.

Finally, erosion control and temporary drainage are included in Group A. The price for these items was calculated using 1% of the total construction costs for Groups A through F. This percentage was based on information from past TxDOT Houston District projects.

4.2.1.2 Group B – Signage and Lighting Fixtures

The price for roadway illumination assemblies assumes use of safety lighting at access points. High mast illumination is assumed at major interchanges. Toll signage is included in signing prices. The price for barricades, signs and traffic handling assumes a construction period of 36 months.

4.2.1.3 Group C – Concrete Foundation, Poles, and Pylons

These elements are minimal for this Segments F-1, F-2, and G, and their costs are incorporated in the estimates for bridges and retaining walls, and signage and lighting fixtures.

4.2.1.4 Group D – Grading, Fill, Turf, and Landscaping

The cross-sections provided in MicroStation by Atkins were used to calculate proposed excavation and embankment quantities. Isolated areas were identified that had differences between the vertical roadway profile in the provided MicroStation cross-section files and the most recent schematics. In these isolated areas, excavation and embankment quantities were calculated using the cross-sections, then adjusted by the relative percentage of vertical difference at each location. In all other locations where cross-sections and schematics matched, quantities of excavation and embankment were obtained directly from the cross-sections. Schematic exhibits detailing numerous proposed drainage mitigation basins were used to calculate the additional excavation and embankment quantities required.

Removal quantities (including the removal of existing pavement, existing retaining walls, existing riprap, existing traffic rail, and so on) were calculated using existing topographic survey CAD files provided with the most recent schematics. Online aerial photography of the Segment F-1, F-2, and G corridor was reviewed to calculate removals of existing pavement striping, verify the removal quantities calculated from the topographic survey, and identify any additional necessary removals not evident from the topography.

Seeding and sodding quantities were calculated using both the schematics and cross-sections to delineate the limits of proposed grading within the ROW.

Landscaping was calculated as 1% of the construction costs for Groups A through F. Preparation of ROW was calculated as 5% of the construction costs for Groups A through F. These percentages are based on information from past TxDOT Houston District projects.

4.2.1.5 Group E – Noise walls

The noise wall quantities were determined using the schematics and the locations and heights provided in the FEIS documents as of May 22, 2012.

4.2.1.6 Group F – Bridges and Retaining Walls

Segment F-1 includes four direct connectors, Connector A, Connector B, Connector C, and Connector D, at US 290, plus twenty-six mainlane bridges including those at US 290, overpass bridges, and several creek crossing bridges. Segment F-1 also has two entrance/exit ramp bridges at Willow Creek. There are no direct connectors at SH 249 in the initial build. Segment F-2 includes two direct connectors at IH 45, twenty mainlane bridges including those at SH 249, railroads, overpass bridges, and a creek crossing bridge. Segment F-2 also includes bridges over SH 99 at FM 2920 and Springwoods Village Parkway. Segment G includes one direct connector at IH 69, thirty-two mainlane bridges including those at IH 45, Hardy Toll Road, railroads, overpass bridges, and several creek crossing bridges. Segment G also includes frontage road bridges at IH 45, Woodson Gully, White Oak Creek, and IH 69.

Bridge prices were determined using a price per square foot of bridge for each type of bridge. These bridge prices are based on TxDOT bridge design requirements, including minimum bridge deck thicknesses and maximum beam spacing. A standard bridge for an overpass, railroad or creek is priced at \$50 per square foot (\$50/SF). A steel bridge is \$95/SF, and a third level overpass bridge is \$70/SF. Direct connectors are priced at \$90/SF. The bridge areas were measured using the schematics and the MicroStation files of the schematics. The bridge layouts provided in the Reference Information Documents (RIDs) for the SH 99 Grand Parkway Design-Build contract, roadway profiles, and the schematics were used to determine the bridge types.

The bridge pricing also includes eight optional bids, A through H. Optional Bid “A” is the direct connector for IH 69 Eastbound to Northbound. Optional Bid “B” relates to two direct connectors, Hardy Toll Road North to SH 99 East and Hardy Toll Road North to SH 99 West. Optional Bid “C” also relates to two direct connectors, SH 99 East to South Hardy Toll Road South and SH 99 West to Hardy Toll Road South. Option “D” is the design and construction of new cross-street, Bauer Hockley / Grant Road, including a SH 99 mainlane bridge. Option “E” is the design and construction of new cross-street, Botkins / Juergen Road, including a SH 99 mainlane bridge. Option “F” is the design and construction of new cross-street, Cypress Hill Road, including a SH 99 mainlane bridge. Option “G” is the design and construction of new cross-street, Shaw Road, including a SH 99 mainlane bridge. Option “H” is the design and construction of new cross-street, Max Conrad Drive, including a SH 99 mainlane bridge. These optional bids are priced separately.

Group F includes the retaining wall items for all the segments. These walls were assumed to be Mechanically Stabilized Earth (MSE) walls with rail along the wall length. The retaining wall lengths are shown on the schematics, and the wall heights were determined using both the profile alignments and cross-sections.

4.2.1.7 Group G – Electronic Tolling Assets

The prices associated with this grouping are estimates of the scope of work for TxDOT's Statewide Toll Integrator to install the tolling infrastructure for the all-electronic tolling facility. Two gantries (overhead sign bridges or cantilever overhead sign structures) are assumed at each toll site. Detection equipment will be placed on the gantries to provide full

coverage of the roadway. Computer equipment will be in cabinets adjacent to each toll site and connected to the network communications system.

4.2.1.8 Group H - Utilities

These costs were provided by TxDOT's Strategic Projects Division and based on Subsurface Utility Engineering (SUE) information provided in the RIDs.

4.2.1.9 Group I - Buildings

Toll equipment buildings are included under Group G.

4.2.2 ROW Costs

TxDOT is liable for the condemnation and the purchase price for the needed parcels. The Developer is liable for all other related services.

4.2.3 Indirect Costs

Indirect costs are summarized below.

4.2.3.1 Administration

GEC Management and oversight was calculated as 7.5% of the total construction costs for Groups A through F and H. Included in that amount, is 1% of the total construction costs for Groups A through F and H, which is estimated as TxDOT administration, overhead, and oversight cost. These percentages are typical of recent similar projects.

4.2.3.2 Engineering

Design and engineering, including surveying and geotechnical, has been estimated as 8% of total construction costs of Groups A through F and H. Again, this percentage is typical of that applied to recent similar projects. The Developer is responsible for the cost of design and engineering services.

4.2.3.3 Cost Escalation

The unit prices of the items in the capital cost estimates are for the 2012 fiscal year and were estimated based on recent low bids received by TxDOT for both Statewide and local Houston District projects. However, with inflation and other economic factors, these current unit prices will likely increase during the construction period. A cost escalation study was performed to determine the impact of these factors on capital costs. Through this study, a yearly escalation rate of 4% was estimated to be reasonable based on recent national, State, and regional construction trends.

The Engineer prepared a Contract Time Evaluation study, attached as **Appendix D** to this report, which developed a monthly construction schedule. Using this construction schedule, each capital cost item was organized by time and duration within the 2013 to 2016 construction schedule. The 2012 capital costs were then distributed across the construction schedule according to the beginning and ending months of each item.

With current costs distributed monthly throughout the schedule, each successive month was escalated at a rate of 0.3273%, which equates to a compounded rate equivalent to a

4% yearly escalation. The total escalated capital cost estimate is a sum of these escalated monthly costs.

All capital cost items were escalated with the exception of hazardous materials mitigation and engineering design fees. The fees for these items are assumed to be fully spent within the first year of the schedule.

4.2.3.4 Environmental Mitigation

Stream and wetland mitigation costs are the values currently under contract by TxDOT with other parties to perform the mitigation activities agreed to in the environmental documentation. Hazardous materials mitigation costs are estimated as the maximum out-of-pocket costs to the Developer as stipulated by the Development Agreement. These hazardous mitigation costs have been included in the Engineer's Estimate.

TABLE 6 ENGINEER'S ESTIMATE: PROJECT CAPITAL COSTS*

CONSTRUCTION COSTS*	Segment F-1	Segment F-2	Segment G (H*)	Segment G (M*)	Options	All Segments	Developer Cost
Group A – Surface & Drainage	\$70,453,756	\$101,129,247	\$12,764,450	\$101,305,413	\$7,489,712	\$293,142,577	\$293,142,577
Group B - Signing & Lighting	\$17,771,229	\$19,891,815	\$0	\$20,237,200	\$36,051	\$57,936,295	\$57,936,295
Group C - Concrete Foundations, Poles, & Pylons	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Group D - Grading, Fill, Turf, & Landscaping	\$27,281,036	\$33,440,782	\$5,431,588	\$31,000,547	\$9,341,292	\$106,495,244	\$106,495,244
Group E – Noise Walls	\$0	\$18,103,272	\$2,989,342	\$8,754,987	\$0	\$29,847,601	\$29,847,601
Group F - Bridges	\$155,504,183	\$135,887,068	\$66,262,983	\$136,850,504	\$56,234,032	\$550,738,769	\$550,738,769
Group G – Electronic Toll Assembly	\$4,598,856	\$4,901,622	\$0	\$4,808,186	\$0	\$14,308,664*	-
A-G Construction Costs	\$275,609,059	\$313,353,806	\$87,448,363	\$302,956,836	\$73,101,086	\$1,052,469,150	\$1,038,160,486
Group H - Utility	\$20,503,232	\$52,291,593	\$0	\$24,828,031	\$0	\$97,622,856	\$97,622,856
Group I - Buildings	\$0	\$0	\$0	\$0.00	\$0	\$0	-
ROW	\$81,621,960	\$183,767,771	\$0	\$100,860,320	\$0	\$366,250,050	-
A-I + ROW Costs	\$377,734,251	\$549,413,170	\$87,448,363	\$428,645,187	\$73,101,086	\$1,516,342,056	\$1,135,783,342
ADMINISTRATION							
Non-Reimbursable	\$0	\$0	\$0	\$0	\$0	\$0	-
Feasibility Studies	\$0	\$0	\$0	\$0	\$0	\$0	-
GEC Management & Oversight	\$21,863,507	\$27,055,783	\$6,558,628	\$24,223,251	\$5,482,581	\$85,183,750	-
ENGINEERING							
Environmental/Schematic	\$2,679,123	\$3,354,057	\$800,091	\$2,983,657	\$669,406	\$10,486,334	\$10,486,334
PS&E, Surveying, Geotechnical	\$18,753,863	\$23,478,396	\$5,600,640	\$20,885,599	\$4,685,839	\$73,404,337	\$73,404,337
MITIGATION							
Stream Mitigation	\$13,085,975	\$4,093,850	\$0	\$17,319,015	\$0	\$34,498,840	-
Wetlands Mitigation	\$563,500	\$3,759,000	\$0	\$4,942,000	\$0	\$9,264,500	-
Hazmat	\$1,250,000	\$1,250,000	\$0	\$1,250,000	\$0	\$3,750,000	\$3,750,000
CONSTRUCTION SUPPORT							
Material Testing	\$2,186,351	\$2,705,578	\$655,863	\$2,422,325	\$548,258	\$8,518,375	-
Agency Contingencies	\$25,666,289	\$31,761,672	\$7,699,388	\$28,436,469	\$6,436,182	\$100,000,000	-
AGENCY COST	\$86,048,608	\$97,458,336	\$21,314,610	\$102,462,316	\$17,822,266	\$325,106,136	\$87,640,671
TOTAL COST	\$463,782,859	\$646,871,506	\$108,762,973	\$531,107,503	\$90,923,352	\$1,841,448,192	\$1,223,424,013

* Escalated totals; Group G – Electronic Toll Assembly will include an additional estimated \$9M for Segments D & E; H = Harris County / M = Montgomery County

4.3 The Engineer's Estimate

Based on the various assumptions described above and the broad cost groupings, the Engineer's Estimate is presented in Table 6. A contingency of 15% is included in the costs of Groups A through F.

4.4 Estimate of Risk

A risk workshop with TxDOT was held in July 2012, at which the participants identified the major and minor risk items which could impact construction costs for Segments F-1, F-2, and G. The general risk categories identified during this workshop and subsequent reviews included construction delays, hazardous materials mitigation (hazmat), environmental, ROW acquisition, utility relocation, design errors and construction defects, geotechnical, and force majeure.

The responsibility for each risk category is distributed among the three parties involved in the development of the facility, namely TxDOT, GPTC, and the Developer. Some risks are shared by multiple parties, and some remain the sole responsibility of one. The Development Agreement and the Technical Provisions assign risk responsibilities to either TxDOT or the Developer. The Project Agreement then transfers some TxDOT risks to GPTC. The intent of Project Agreement is to transfer these risks to GPTC with the understanding that GPTC is responsible to the extent that System toll revenues will support a risk event. For each risk category, the burden of risk is as follows for Segments F-1, F-2, and G (based on the Technical Provisions, Book 1, and the Project Agreement):

- **Construction Delays** – dependent upon the cause of the delay (see below).
- **Hazmat** – \$0-3 million is 100% Developer, \$3-4.5 million is 50/50 Developer/TxDOT, and greater than \$4.5 million is 100% TxDOT.
- **Environmental** – TxDOT will be reimbursed by the 2013 GPTC bond financing for the costs of existing Environmental Permits/Commitments from the original RFP Schematic; Developer bears cost for any Environmental Permits/Commitment changes due to design revisions.
- **ROW** – TxDOT bears all risk of ROW purchase price variance; Developer bears all schedule delay risk unless property goes to condemnation and TxDOT does not, a) submit the condemnation package within 105 days, b) deliver payment for the parcel within 45 days of filing with the commission, or c) complete the condemnation within 365 days of the approved condemnation package.
 - *Starting with the 366th day of a delay, the next 100 days of delay are shared between TxDOT/Developer as follows; Developer gets an extra day for every two of delay. Past 100 days, TxDOT is responsible for all delays as follows; Developer gets an extra day for every day of delay.*
- **Utilities** – Developer bears all risk for delays due to negligent Utility Owner up to 90 days; past 90 days of delay (with TxDOT approval that Developer has done everything in its power to move forward) delays are shared between

GPTC/Developer as follows; Developer gets an extra day for every two of Utility Owner delay.

- *Risk is shared for unidentified utilities as follows; Developer pays up to \$25,000 per unidentified utility, \$500,000 maximum out-of-pocket. GPTC pays for excess above \$25,000 per unidentified utility, and 100% of aggregate costs above \$500,000.*
- **Design & Construction** – 100% Developer; Change Orders are only eligible by TxDOT directed changes or Force Majeure.
- **Geotechnical** – The risks for "Differing Site Conditions" fall under the Geotechnical category are shared as follows:
 - Developer pays for \$150,000 for each differing site condition, \$2.1 million maximum out-of-pocket. GPTC pays for excess above \$150,000 for each condition, and excess above the \$2.1 million maximum.
 - Groundwater is not cause for a change order or differing site condition.
- **Force Majeure** - 100% GPTC.

Monte Carlo analysis of the Engineer's Estimate was conducted to obtain a quantitative estimate of the potential risks, which could impact construction costs for Segments F-1, F-2, and G. This analysis was also undertaken for Segments D and E although these segments are currently under construction. The Monte Carlo analysis used repeated random sampling over multiple iterations to estimate a range of possible outcomes. In particular, a Monte Carlo analysis involves the following elements:

- Defined range of possible inputs;
- Randomly generated inputs within a specified probability distribution;
- Deterministic (or predictable) computation of the inputs; and
- Aggregate results of the individual computations.

The @Risk software was used to develop this analysis. Ten thousand iterations were carried out for each risk parameter in the analysis. Table 7 below summarizes the results of the risk analysis for Segments F-1, F-2, and G and includes the additional cost to develop the facility under low (best), base, and high (worst) cases.

Table 7 Summary of the Risk Analysis, Engineer's Estimate: Segments F-1, F-2, and G*

Risk Item	Low	Base	High
Base Cost with Options	\$1,841,448,192	\$1,841,448,192	\$1,841,448,192
TxDOT Risk			
Hazmat	\$262	\$5,130,005	\$10,259,114
Environmental	\$151	\$1,571,501	\$3,142,954
ROW	\$1,849	\$12,359,995	\$24,718,816
TxDOT Risk Total	\$2,262	\$19,061,501	\$38,120,884
GPTC Risk			
Construction Delays	\$(26,571,467)	\$9,428,534	\$55,428,534
Utilities	\$0	\$2,697,665	\$5,895,085
Force Majeure	\$504	\$16,666,651	\$49,511,736
GPTC Risk Total	\$(26,570,963)	\$28,792,850	\$110,835,355
Developer Risk			
Construction Delays	\$(26,571,466)	\$9,428,533	\$55,428,533
Utilities	\$592	\$500,000	\$500,000
Design & Construction	\$9,219	\$1,592,110	\$4,498,829
Geotechnical	\$14	\$200,000	\$399,989
Developer Risk Total	\$(26,561,641)	\$11,720,643	\$60,827,351
Total Risk			
Subtotal Risk	\$(53,130,342)	\$59,574,994	\$209,783,590
Risk Adjusted Total	\$1,788,317,850	\$1,901,023,186	\$2,051,231,782

*Base Cost with Options is escalated

The @Risk analysis as outlined in Table 7 is an example of how a Developer's estimated risk is a significant component of the System price. Using the risk adjustments above, costs could potentially be reduced by some \$53 million, or increased by \$210 million, much of which would be shouldered by the Developer. Some developers may be conservative in their estimation of this risk, and require a higher fee. Other developers, with local familiarity, project experience, and client history, may estimate risks to be low, yielding a reduced price. For more detail regarding the risk analysis for Segments F-1, F-2, and G and Segments D and E see **Appendix E**.

Construction for Segment E and the Harris County portion of Segment D began in September 2011. With respect to the Segment D addition and the construction of all of Segment E, an estimated 80% has been expended to date. As a result, there is an estimated \$72 million remaining that would be at risk for these construction works. Table 8 outlines the risk analysis of the remaining construction of Segments D and E.

Table 8 Summary of the Risk Analysis: Segments D and E*

Risk Item	Low	Base	High
Base Cost with Options	\$352,788,072	\$352,788,072	\$352,788,072
TxDOT Risk			
Hazmat	\$37	\$1,037,771	\$2,075,428
Environmental	\$55	\$317,906	\$635,758
ROW	\$0	\$0	\$0
TxDOT Risk Total	\$92	\$1,355,677	\$2,711,186
GPTC Risk			
Construction Delays	\$731,793	\$1,688,448	\$2,882,463
Utilities	\$0	\$0	\$0
Force Majeure	\$21	\$1,929,651	\$5,751,549
GPTC Risk Total	\$731,814	\$3,618,099	\$8,634,012
Developer Risk			
Construction Delays	\$731,793	\$1,688,447	\$2,882,462
Utilities	\$62,309	\$126,030	\$189,744
Design & Construction	\$1,326	\$322,076	\$915,158
Geotechnical	\$10	\$200,000	\$399,975
Developer Risk Total	\$795,438	\$2,336,553	\$4,387,339
Total Risk			
Subtotal Risk	\$1,527,344	\$7,310,329	\$15,732,537
Risk Adjusted Total	\$354,315,416	\$360,098,401	\$368,520,609

*Base Cost with Options is escalated

The table indicates that the price could be increased by \$1.5 million to \$16 million.

An Agency Contingency of \$100 million has been included in the Engineer's Estimate. This Agency Contingency is provided in the System's budget to account for any additional TxDOT costs including risk events that may occur. Table 9 below summarizes the TxDOT and GPTC risk analyses for Segments D, E, F-1, F-2, and G:

Table 9 Summary of TxDOT and GPTC Risk: Agency Contingency*

Risk Item	Low	Base	High
TxDOT Risk			
Hazmat	\$299	\$6,167,776	\$12,334,542
Environmental	\$206	\$1,889,407	\$3,778,712
ROW	\$1,849	\$12,359,995	\$24,718,816
TxDOT Risk Total	\$2,354	\$20,417,178	\$40,832,070
GPTC Risk			
Construction Delays	(\$25,839,674)	\$11,116,982	\$58,310,997
Utilities	\$0	\$2,697,665	\$5,895,085
Force Majeure*	\$53	\$1,859,630	\$5,526,329
GPTC Risk Total	(\$25,839,621)	\$15,674,277	\$69,732,411
Total Risk			
Subtotal Risk	(\$25,837,267)	\$36,091,455	\$110,564,481

*Force Majeure contingency is 10% of the total Force Majeure risk as its occurrence probability is less than 1%

As shown in Table 9, the TxDOT and GPTC total risk ranges from -\$26 million in the low case to \$111 million in the high case. As the \$100 million Agency Contingency included in the Engineer's Estimate is within this range, this contingency amount can be considered reasonable when compared to the analysis of potential risks.

As **Appendix E** describes, the probability of a Force Majeure event occurring is less than 1%. Since the occurrence probability is so small, Table 9 includes 10% of the total Force Majeure risks from Tables 7 and 8 which is conservative considering the extreme rarity of an event.

5 Design-Builder

As noted earlier, Segments F-1, F-2, and G of the Grand Parkway will be developed as a Design-Build contract under the recently procured Development Agreement. The following section provides a summary of the procurement process which selected the Developer, details of the overriding contract terms, a comparison of the Engineer's Estimate versus that submitted by the Developer, plus commentary on the differences between the two.

5.1 Procurement Process

TxDOT undertook a thorough procurement process which solicited interest and input from the Construction and Engineering industry with regards to the proposed development of the Segments F-1, F-2, and G of the Grand Parkway.

TxDOT began the process with the issue of a Request for Information (RFI) on June 10, 2011, whose purpose was to inform potential respondents of the opportunity and solicit private sector interest and innovation in the delivery of the Segments F-1, F-2, and G. The RFI provided general background information related to the Grand Parkway, communicated to potential private sector partners the objectives for the development of Segments F-1, F-2, and G of the Grand Parkway, provided an opportunity for potential respondents to articulate their interest in participating, and solicited input from industry on a variety of issues, including scope and the delivery method that would have the greatest potential to satisfy the objectives for development of Segments F-1, F-2, and G of the Grand Parkway.

As a result of the interest received from the RFI, and input from interested potential respondents, TxDOT moved forward with the issue of a Request for Qualifications (RFQ) on November 18, 2011. Based on the results of the RFI, TxDOT determined that giving the private sector optimal flexibility to promote innovation was the best way to encourage cost-effective and expedited delivery, achievement of the System goals, and needed congestion relief for the public. Through the RFQ, TxDOT sought Qualification Statements (QS) from private sector developers to deliver Segments F-1, F-2, and G either through one of two delivery methods being considered, a toll concession model or a design-build model.

Qualifications Statements were thoroughly reviewed by TxDOT to judge the experience and capability of the respondents to develop Segments F-1, F-2, and G. Their construction experience, design experience, and financial experience and capabilities were reviewed and scored independently by highly qualified TxDOT review teams. Ultimately, TxDOT selected five respondents who each displayed the experience and capability to deliver Segments F-1, F-2, and by a design-build method.

TxDOT advanced the procurement with the issue of a Request for Proposals (RFP). TxDOT issued the RFP to those five proposers shortlisted for the design-build delivery method based on TxDOT's evaluation of QSs delivered to TxDOT on February 1, 2012. The RFP sought competitive detailed proposals for an entity to develop, design, construct, and

provide capital maintenance for the portions of the SH 99 Grand Parkway System as previously described in this report.

Proposals were thoroughly reviewed by TxDOT to judge each entity's approach, and their ability to deliver on-budget and on-time. Their innovation, technical feasibility, proposed construction schedules, and prices were reviewed and scored independently by highly qualified TxDOT review teams. This thorough review determined Zachry-Odebrecht to be the best-value proposer with the ability, innovative approach, and price to successfully deliver Segments F-1, F-2, and G.

5.2 Development Agreement Contract Terms

5.2.1 Design-Build Scope of Work

The Developer's Design-Build (DB) scope of work includes the following:

- **Design Work** – The Developer is solely responsible for the design. The Developer's design must meet all TxDOT standards. TxDOT's approval is required to deviate from basic configuration requirements (i.e. number of lanes, location of ramps, and interchanges).
- **Construction** – Segments F-1, F-2, and G must be constructed in accordance with the final design.
- **Options** – There are eight options for additional bridges and direct connectors.
- **ROW** – The Developer performs all acquisition services other than condemnation and payment of purchase price for ROW. The cost of construction and land purchase rests with TxDOT. Over 450 parcels must be acquired.
- **Hazardous Materials** – The Developer is responsible for the investigation and remediation of all hazardous materials. Hazardous materials are subject to a change order under certain circumstances (i.e. unknown hazardous materials above a threshold, TxDOT releases or third-party releases).
- **Permits and Approvals** – TxDOT is responsible for obtaining National Environmental Policy Act (NEPA) and US Army Corps of Engineers (USACE) approvals. Developer is responsible for obtaining:
 - All other governmental approvals,
 - Railroad and other third party approvals required by the work, and
 - Modifications to NEPA and USACE approvals resulting from the Developer's design.
- **Utilities** – The Developer is responsible for all utility relocations.
- **Coordination with Other Contractors** – The Developer must coordinate with the toll systems integrator to complete tolling zones prior to substantial completion. The Developer must coordinate with other contractors as needed.

TxDOT will perform oversight. Submittals by the Developer requiring TxDOT approval must be approved or denied within 14 calendar days. Submittals by the Developer requiring TxDOT "review and comment" have no deadline for TxDOT action. Additionally, FHWA retains certain approval rights.

5.2.2 D-B Pricing Terms

The Developer's price may be increased or decreased only by a change order, a value engineering adjustment, or a Force Majeure incident. However, the price is subject to escalation if Notices to Proceed (NTPs) are delayed. The payment schedule includes lump sum pricing to be paid monthly based on the Developer's progress, measured by completion of scheduled activities. A payment for mobilization is allowed. Finally, payments are not to exceed the cumulative amount in the Maximum Payment Curve (provided with the Proposal).

5.2.3 Notices to Proceed

The Development Agreement contemplates four separate NTPs.

- **NTP 1.** Authorizes Developer to complete the Project Management Plan and Project Schedule, and to conduct surveys or site investigations.
- **NTP 2.** Authorizes Developer to perform all other work.
- **NTP 3.** Requires Developer to complete improvements at IH 45 North Interchange within 365 days (at TxDOT's option).
- **NTP 4.** Requires Developer to complete improvements at IH 69 North Interchange within 365 days (at TxDOT's option).

NTP 3 and NTP 4 may not be issued unless the Developer has access to a majority of the parcels required to perform the work and has entered into agreements with Center Point Energy and AT&T for utility adjustment work, as required. NTP 1 was issued on March 22, 2013, and NTP 2 was issued on June 14, 2013.

5.2.4 Project Bonding

The development of Segments F-1, F-2, and G include requirements for both payment and performance bonds; a warranty bond and a retainage bond provided by the Developer. Additionally, there are requirements for a guaranty of minimum net worth. The details for these are as follows:

- **Payment and Performance bonds:**
 - At NTP 1, amount = \$50 million
 - At NTP 2, amount increases to 100% of price allocable to construction work (\$788.9 million is the Developer's construction cost and the amount to be bonded)
- **Warranty bond:**
 - At Final Acceptance = \$100 million (10% of price)
- **Retainage bond:** 4% of price
- **Net worth:** \$200 million
 - Developer must provide a guaranty if net worths of equity members and guarantors fall below the required amount.

Bonds shall be issued by a surety authorized to do business in the State of Texas with a rating of at least A minus (A-) or better and Class VIII or better by A.M. Best Company or rated in the top two categories by two nationally recognized rating agencies, or as otherwise approved by TxDOT in its sole discretion.

5.2.5 Warranty

The Development Agreement requires a warranty ensuring that: all work conforms to good industry practice; the project shall be free of defects, including design errors; the project shall be fit for use for the intended function; materials and equipment furnished for the project shall be of good quality and new, and, the work shall meet all of the requirements of the contract documents. As outlined in the previous section, a \$100 million dollar warranty bond will be provided by the Developer.

The term of the warranty for each segment commences upon substantial completion and remains in effect until one year after final acceptance of the segment. For elements owned by persons other than TxDOT (such as utility owners), the warranty commences with acceptance of the work by the owners and ends one year thereafter. If TxDOT determines that any of the work has not met the required standards at any time within the applicable warranty term, then the Developer shall correct the work, even if corrections extend beyond the warranty term.

The Developer shall bear all costs for work corrections, including additional testing and inspections, and will be required to obtain all permits to complete the work. If TxDOT and the Developer cannot agree on a work correction, then TxDOT will have the right for the corrections to be performed by a third party, and the costs shall be borne by the Developer.

5.2.6 Termination

TxDOT may terminate the Development Agreement for convenience (in whole or in part) at any time. The parties may negotiate a settlement amount not to exceed the contract price (less amounts paid to the Developer and less the price of work not terminated). If the parties fail to negotiate a settlement, a settlement amount will be determined by TxDOT based on reasonable termination costs.

The Developer was afforded an opportunity to terminate the Development Agreement should TxDOT have failed to issue NTPs, however, both NTP 1 and NTP 2 were issued within their required contractual deadlines. Therefore this ability of the Developer to terminate has passed.

TxDOT may terminate the Development Agreement if the Developer defaults on its obligations.

TxDOT may deduct, from amounts owing the Developer for completed work, amounts payable from the Developer to TxDOT, including liquidated damages, termination expenses, costs to correct work, and costs to reprocore. For any non-conforming work,

The Developer must repair non-conforming work at its own cost or TxDOT may elect to accept it and deduct the commensurate value from the price.

Finally, TxDOT may collect liquidated damages for up to one year after the substantial completion deadline due to delays to substantial completion. TxDOT may terminate the Development Agreement without penalty if there is no approved recovery schedule showing completion within 180 days after substantial completion. TxDOT may deduct damages from any amounts owing to the Developer for work performed.

5.2.7 Liquidated Damages

The Development Agreement specifies liquidated damages as follows:

- Delays in Substantial Completion:
 - Segment F-1 = \$39,000 per day
 - Segment F-2 = \$54,000 per day
 - Segment G = \$54,000 per day
- Delays in Final Acceptance: \$1,400 per day for each segment.
- Delays in Completing Toll Zones (areas around gantries): Between \$5,528 and \$5,850 per day (depending on segment).
- Key Personnel:
 - For each time “Key Personnel” are not available = \$29,000 to \$461,000 (depending on position)
 - For each day a Key Personnel position remains unfilled = \$2,900 to \$46,100
- Lane Closures: Assessed for lane closures on connecting roads at major intersections and on the facility after opening to the public.
 - Lane Closures on a connecting road per hour = \$0 to \$4,400 (depending on the intersection as outlined in an agreement schedule)
 - Lane Closures per hour on the Grand Parkway = \$0 to \$2,800 (depending on hourly traffic volumes)

5.3 D-B Contract Costs

The development team of Zachry-Odebrecht (the Developer) has been selected as the best-value proposer. In the selection of the Developer, proposals by development teams were submitted to TxDOT for technical review and scoring. The appropriately qualified TxDOT technical review team determined the Developer to be the best-value proposer with a well-established team fully capable of successfully meeting the technical provisions. Additionally, the Developer's proposal includes design revisions which the technical review team evaluated and determined to be within standards and meeting the technical provisions. This report does not reevaluate the technical aspects of the proposal for validity as this was undertaken by the TxDOT technical review team during the Developer selection process. The concentration here is on a comparison of the Engineer's Estimate to the Developer's price as presented in their proposal.

The price differences are discussed in detail below. It should be noted that many of these differences are largely attributable to the design changes proposed by the Developer in their proposal submission, the unit costs of materials, and differences in the way that risk was assessed by the Developer and the Engineer.

5.3.1 Construction Costs

The Engineer's Estimate of the total price of Segments F-1, F-2, and G, including construction options, is \$1,841 million. Without construction options, which are discussed separately in Section 5.2.2, the Engineer's Estimate of the base price is \$1,751 million, approximately \$90 million less. These prices include escalation. Of this total price, a certain portion is Developer cost, and the remainder a TxDOT cost. The Developer cost includes all construction cost items with the exception of Group G (Electronic Toll Assemblies) and ROW. The Developer cost also includes the costs for engineering and hazardous materials mitigation. Of the \$1,751 million, the portion attributed to Developer cost for Segments F-1, F-2, and G is a total of \$1,145 million.

The Developer's base total price for F-1, F-2, and G is \$1,007 million. Compared to the Engineer's Estimate of \$1,145 million, the Developer's total price is less than the Engineer's Estimate by \$138 million or 12.0%. If the Engineer's Estimate is adjusted to follow the shorter duration of the Developer's proposed construction schedule, the total price is reduced from \$1,145 million to \$1,131 million. With this adjustment taken into account, the Developer's total price is less than the Engineer's Estimate by \$124 million or 11.0%.

The Developer's price breakdown was further evaluated to compare the prices of the major construction groups to those of the Engineer's Estimate to determine the differences which make up this 11.0% difference.

As the price groupings for the various construction items differ in the Engineer's Estimate when compared to the Developer's proposal price, groupings for the Engineer's Estimate were reorganized to better align with the Developer's construction items to assist common comparison. In addition, the Engineer's Estimate includes a 15% contingency placed on

each construction item. Because the 15% contingency is intended to account for risks, unknown costs, or unaccounted for administrative and professional service costs, the contingency was removed from each construction item to compare base item costs.

After reorganization, most groupings closely compared between the Engineer's Estimate and the Developer's price. Three groups in particular were identified as having the largest differences and accounted for the majority of the \$124 million cost difference; Structures, Earthworks, and Lighting and Signing, together, these groups accounted for \$133 million of price difference. The remaining \$9 million of price difference is the total sum of differences of the nine other price groupings.

Analyzing the Developer's proposal revealed several proposed design changes as potential sources of the cost differences in these three groupings. Adjusting these three groupings for the Engineer's Estimate according to these design changes reduces the \$133 million of price difference to \$63 million. The analysis of these cost differences is provided in the following sub-sections.

5.3.1.1 Structures

The Developer's price breakdown included a Structures category. The Engineer's Estimate was reorganized to group all structural items to enable comparison to the Developer's Structures cost. Group F – Bridges was combined with Drainage quantities, wall quantities, and other assorted smaller structural items to aggregate a total structural category in line with the Developer's price breakdown.

The Engineer's Estimate totaled \$478 million for Structural items, compared with the Developer's price of \$283 million, equaling \$195 million of difference. This equates to a 41% lower Developer price than the Engineer's Estimate.

The Developer's technical proposal was studied to determine any potential reasons for this difference in cost. This study revealed that the Developer had proposed 9.3 miles in reductions in bridge lengths from the lengths as shown in the roadway schematics included in the RFP. This equates to a 44% reduction in bridge quantities, which is the likely reason for the Developer's 41% lower structural price. Reducing the Engineer's Estimate of \$478 million by 44% to simulate the lesser bridge quantities results in an adjusted Engineer's Estimate of \$267 million for Structures. The adjusted Engineer's Estimate of \$267 million differs from the Developer's price of \$283 million by -\$16 million, as compared to the unadjusted difference of +\$195 million.

5.3.1.2 Earthworks

The Engineer's Estimate was reorganized to group excavation and embankment along with other items the Developer may have considered early work to be completed with Earthworks. Such items as preparing ROW and electrical conduit, were included with the early Earthworks work.

The Engineer's Estimate totaled \$108 million of Earthworks items, compared with the Developer's price of \$188 million equaling \$80 million of difference. This equates to a 74% higher cost.

The Developer's technical proposal was studied for reasons for this higher cost. The decrease in Structures as previously discussed was a likely factor for a portion of this increased cost. (Roughly 9.3 miles of bridge length was removed which would require a significant increase in earthwork embankment.) Increasing the Engineer's Estimate of \$108 million to simulate the increased earthwork quantities results in an adjusted Engineer's Estimate of \$130 million for Earthworks. The adjusted Engineer's Estimate of \$130 million differs from the Developer's price of \$188 million by \$58 million, as compared to the unadjusted difference of \$80 million.

Other factors that could account for this higher price include higher proposed unit prices for earthwork hauling, additional construction items grouped with Earthworks, a higher assessed risk by the Developer to complete Earthworks than the Engineer, a higher percentage of cement stabilized soils than estimated by the Engineer, and/or the inclusion of some additional earthworks to allow future development of the construction options.

5.3.1.3 Lighting and Signing

The Engineer's Estimate was reorganized to group Lighting and Signing quantities to align with the Developer's Lighting and Signing group. Some typical Lighting and Signing items such as ITS conduit and fiber optic/communication lines were assumed to be grouped with Earthworks.

The Engineer's Estimate totaled \$26 million of Lighting and Signing items, compared with the Developer's price of \$7 million, equaling \$19 million of difference. This equates to a 73% lower cost.

Studying the Developer's technical proposal revealed design changes to the Signing and Lighting plans when compared to the roadway schematics provided in the RFP. These included changing many large overhead signs, proposed as cantilevered signs in the schematic, to ground mounted signs. Additionally, the illumination scope was reduced from the scope assumed in the Engineer's Estimate, and the number of lights was reduced significantly. Using the unit prices as estimated in the Engineer's Estimate, the design

changes result in roughly a \$5 million reduction in signing cost and a \$3 million reduction in illumination cost. Reducing the Engineer's Estimate of \$26 million by \$8 million to reflect the decreased lighting and signing quantities results in an adjusted Engineer's Estimate of \$18 million for Lighting and Signing. The adjusted Engineer's Estimate of \$18 million differs from the Developer's price of \$7 million by \$11 million, as compared to the unadjusted difference of \$19 million.

The remaining \$11 million in cost difference could be attributed to a number of factors including lower proposed unit prices for Signing and Lighting items, a lower assessed risk by the Developer to complete Signing and Lighting than the Engineer, and/or the inclusion of some of the Signing and Lighting items with other construction groups as they would require earlier construction with early work such as Earthworks. Additionally, if these costs have indeed been grouped with Earthworks, this may account for another portion of the Developer's higher Earthwork cost.

5.3.2 Construction Options Costs

The Developer additionally submitted a price proposal to construct eight construction options, Options A through H. Options A, B, and C consist of additional direct connectors at the Hardy Toll Road and IH 69. Options D through H consist of additional Grand Parkway main lane bridges at future cross street locations within the System.

The total options price for the Engineer's Estimate is \$87 million which includes time escalation per the Engineer's draft construction schedule as prepared in the Contract Time Evaluation. Of this \$87 million, the portion attributed as Developer cost is \$79 million with \$8 million Agency Cost.

The Developer's total price for Options A through H is \$37 million (this does not include any Agency Cost estimate). Compared to the Engineer's Estimate of \$79 million, the Developer's total price is less than the Engineer's Estimate by \$42 million or 53%. If the Engineer's Estimate is adjusted to follow the shorter duration of the Developer's proposed construction schedule, the estimated base total price is reduced from \$79 million to \$76 million. With this adjustment taken into account, the Developer's total price is less than the Engineer's estimate by \$39 million or 51%.

As was done with the base price, the Engineer's Estimate groupings were reorganized to better align with the Developer's price groupings. Three groups in particular were identified as having significant differences and accounting for the large majority of the \$39 million cost difference. These Developer price groupings were Structures, Earthworks, and Administrative/Service Costs, which together accounted for just over \$40 million of price difference. The remaining -\$0.8 million of price difference is the total sum of differences from the nine other price groupings.

Analyzing the Developer's proposal revealed several proposed design changes as potential sources of the cost differences in these three groupings. Adjusting these three groupings according to these design changes reduces the Engineer's Estimate of \$76 million, accounting for the reduced construction schedule, to \$63 million. The adjusted Engineer's Estimate of \$63 million differs from the Developer's price of \$37 million by \$26 million, as compared to the unadjusted difference of \$39 million. The analysis of these cost differences is provided in the following sub-sections.

5.3.2.1 Options Structures

The Engineer's Estimate totaled \$44 million of options Structural items, compared with the Developer's price of \$29 million, \$15 million of difference. This equates to a 34% lower cost.

Study of the Developer's proposal revealed significant reductions in bridge lengths for the options. The Developer's proposal included a reduction of 30% in bridge quantities from the lengths as shown in the roadway schematics included in the RFP, which is a likely reason for the 34% lower Structural price.

Reducing the Engineer's Estimate of \$44 million by 30% to simulate the decreased bridge quantities results in an adjusted Engineer's Estimate of \$31 million for Structures. The adjusted Engineer's Estimate of \$31 million differs from the Developer's price of \$29 million by \$2 million, as compared to the unadjusted difference of \$15 million.

5.3.2.2 Options Earthworks

The Engineer's Estimate totaled \$11 million of options Earthworks items, compared with the Developer's price of \$3 million, equaling \$8 million of difference. This equates to a 73% lower cost.

The lower cost could be attributed to a number of factors including: a lower assessed risk used by the Developer to complete Earthworks than used by the Engineer because materials will have already been secured with the base construction; a lower percentage of cement stabilized soils than estimated by the Engineer; and/or the Developer may have assumed that a portion of the options Earthwork cost would be undertaken in the base construction regardless of the options execution. Equipment mobilization, borrow pits, and similar items, would be required by the base construction regardless of option construction. Additionally, some options Earthworks may be planned by the Developer to be completed as part of the base construction to assist their future development, and reduce the further Earthworks necessary to complete them.

5.3.2.3 Options Administrative/Service Groups

The Engineer's Estimate totaled \$20 million of options Administrative/Service Group items, compared with the Developer's price of \$2 million, equaling \$18 million of difference. This equates to an 90% lower cost.

Administrative/Service Groups include items such as Engineering Design and Mobilization. The lower cost could be attributed to a number of factors. The Developer did not include a charge for mobilization costs to construct the options. The Engineer's Estimate includes a mobilization price of 10% of the total construction items. The Developer may have assessed a lower risk than used by the Engineer to complete these tasks because their management and structure will have already been established with the base construction. Additionally, the Developer could have included some options design costs within the base construction, assuming that regardless of options execution, these options would require accommodation within the design to allow for their future development by either the Developer or TxDOT. This accommodation might require preliminary design of the options as part of the base construction to assure they could be added by the Developer or TxDOT at a future date.

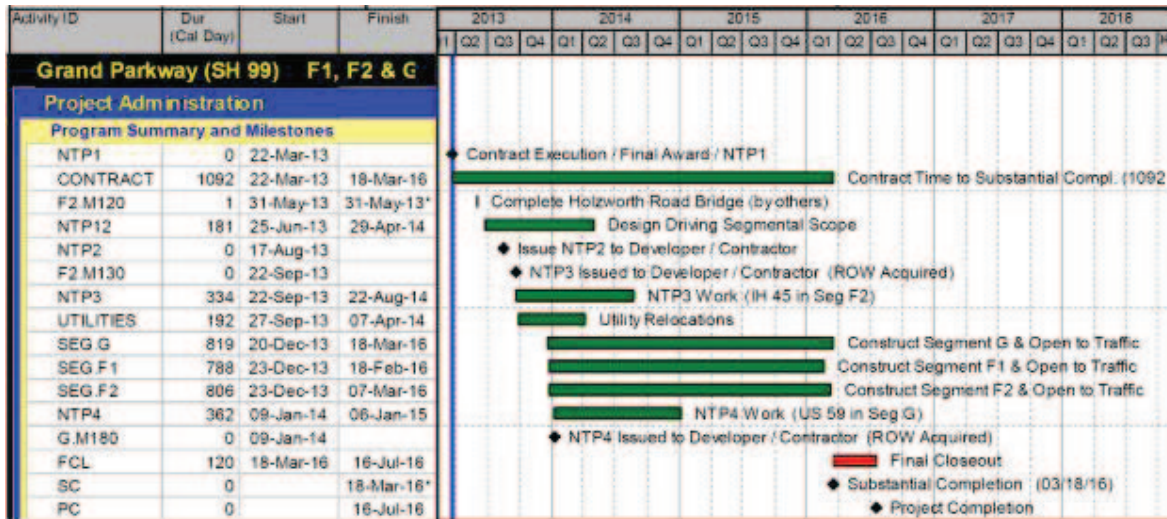
5.4 Construction and Implementation Schedule

A Contract Time Evaluation was performed on the Grand Parkway Segments F-1, F-2 and G. Program documents were obtained and reviewed in order to assemble a proposed construction critical path method (CPM) schedule for the purpose of evaluating reasonable construction duration and assess “driving” resources necessary to successfully execute the scope of work as presented in the documents.

Figure 3 below reflects the summary of the major program elements and final analysis of the program timeline. The timeline was prepared with the issued NTP 1 date of March 22, 2013. Although preliminary engineering drawings and estimates indicate significant volumes of earthwork and pavement to be constructed, the scope of bridge construction is the driving factor for substantial completion. The referenced CPM model reflects concurrent work operations in all segments of construction with the assumption that the Developer will be able to utilize sufficient equipment and labor resources necessary to perform the scope of work within the time frame. One major assumption includes a beam fabrication and erection production of 2,500 linear feet per work day for a continuous period of six months. If production rates cannot be achieved because the beam fabrication and erection assumption proves to be too fast, then the assumed installation rate will not be achievable, negatively impacting program delivery. Additionally, the number of bridge deck work resources is critical to the successful execution of the proposed timeline.

Furthermore, the duration is constrained by real estate acquisition activity of more than 450 parcels and greater than 50 utility relocation providers, which, at any time, could disrupt commencement of subsequent construction activity. For more detail see **Appendix D**.

Figure 3: Summary of Anticipated Timeline



The Developer's submitted construction schedule was, therefore, reviewed and compared to the Engineer's Contract Time Evaluation (CTE) and found to be reasonable. While the Engineer prepared a construction schedule of 1091 days to meet the proposed contract's Technical Provisions, the Developer proposed a shorter construction schedule of 845 days, a 247 day savings. As the CTE found the 1091 day schedule to be aggressive, an analysis of the Developer's construction schedule found numerous possible reasons to account for the Developer's reduced construction estimate, the greatest factor being the considerable design changes proposed by the Developer. These changes and the resulting 247-day savings will allow much greater flexibility to absorb schedule delays and meet the goal of opening for the collection of toll revenues at the start of 2016.

The CTE determined the critical path for the construction to be affected most by the construction of the bridges and the time necessary to manufacture and transport beams and construct bridge decks. Review of the proposal revealed that the Developer has proposed shortening bridges by 44% in the base construction and 30% in the construction options. Bridge lengths have been reduced approximately 48,958 feet from the schematic designs that were included with the RFP.

As noted above, the Developer's construction schedule assumes a 2,500 linear feet per day rate of bridge beam construction. TxDOT standard designs include five bridge beams per bridge for the typical 38 foot wide bridges. This equates to 10 bridge beams at each bridge location for both the northbound and southbound lanes. Accounting 48,958 feet of bridge length reduction proposed by the Developer and ten beams per bridge, this means 489,580 feet of reduced bridge beam length. At the assumed 2,500 linear feet per day of bridge beam construction, the bridge beam length reduction results in 196 fewer days in the critical path of bridge beam manufacturing.

In addition to this potential 196 days of savings in beam manufacturing, the Developer proposed that they will establish their own on-site bridge beam manufacturing facility. Such a facility may allow a further increased rate of bridge beam manufacture, and reduces the distance required to haul beams to each bridge site.

The Developer has also proposed to begin their work at-risk, prior to receipt of NTP 1. Their construction schedule committed to beginning the design and some administrative tasks two months prior to the originally anticipated NTP 1 date of January 1, 2013. Assuming 5-day work weeks for two months, this would result in approximately 40 fewer days in the construction schedule. Together with the 196 days of potential savings of time to the critical path for bridge construction, this equates to a total potential savings of 236 days.

This potential savings of 236 days is almost the 247-day savings proposed by the Developer. Considering the actual NTP 1 date of March 22nd, the Developer has been able to perform several additional months of at-risk work which should add significantly to the potential schedule savings. Additionally, time-saving measures are discussed in the Developer's proposal, such as the ability to mobilize the many construction crews that will be available by the time of NTP 2 because of the impending completion of other major Texas projects; the organization of ROW purchases to facilitate critical path construction items, and, the organization of construction tasks to balance work crews and loads. In addition, the Developer has started at-risk to organize utility conflicts. They state in their proposal that they have already eliminated 369 of 656 potential utility conflicts.

6 Toll Collection and Operations and Maintenance

This section discusses the specifics of toll collection and operations and maintenance related to both the roadway and toll system. It also includes a discussion of the proposed Capital Maintenance Agreement (CMA) between TxDOT and the Developer.

6.1 Toll Collection, Operations and Maintenance

The Grand Parkway will use a computerized toll collection system similar in composition and functionality to those used on other Texas toll roads, including electronic toll collection (ETC) using automatic vehicle identification (AVI). The Grand Parkway toll collection system will be interoperable with the other Texas ETC systems so that customers from other cities such as Dallas and Austin (and vice versa) can use the current transponders on any toll facility in Texas. The toll collection system and equipment will be provided by TransCore, TxDOT's Statewide Toll Integrator.

A closed, all-electronic toll system will be used. Once a driver has proceeded onto the tolled portion of the Grand Parkway, his trip will result in at least one toll. The Grand Parkway Segments D, E, F-1, F-2, and G will include twenty mainline toll gantries and thirty-six ramp toll plazas at specific entrance and exit points. The locations of the various toll facilities in Segments D through G are as shown in **Appendix F**. Each time a vehicle passes under a toll gantry, it will result in a charge to its account.

The mainline toll gantries will be configured for the typical mainline section of two or three high-speed lanes in each direction, as dictated by traffic characteristics. These will be equipped with ETC/AVI for cashless open-road toll collection at normal highway speeds. Ramp toll plazas will have one or two toll lanes configured with ETC/AVI, as dictated by traffic characteristics. Typical gantry hardware includes overhead transponder antennas, violation cameras, strobes, and classification equipment. There are also classification loops cut into the pavement that work with the overhead equipment. Finally, there is roadside equipment housed in a cabinet or hut that includes transponder readers, lane controllers, uninterruptible power supplies, generators, and other computer equipment. All of these components work together as a system at each toll point to record the appropriate data in order to assess a correct and valid toll or violation transaction.

As with other Houston-area tollways, customers will need to obtain a transponder prior to use of the facility. Those using the facility without a transponder will be in violation of the toll policy. Transponder accounts can be established with the Customer Service Center (CSC) in Austin or the local toll authority, as available. The TxDOT transponder program (TxTag) currently offers free sticker-type transponders to its customers when they enroll with autopay. Other transponders that are interoperable with the Grand Parkway include the North Texas Tollway Authority (NTTA) TollTag and the Harris County Tollroad Authority (HCTRA) EZ Tag. Customers without a transponder that drive on the roadway will have an image of their license plates captured by the system and will be mailed a violation notice, through an interface with the Texas Department of Motor Vehicles.

TxDOT maintains an interoperability agreement with other statewide tolling agencies through which each agency processes tolls for the transactions of their own customers' transponders occurring on toll roads owned by other agencies. The agreement provides that the processing agency is paid by the owner of the toll road a fee of 8% of the revenue generated for each interoperable transaction in order to reimburse the costs to process these transactions and managing customer accounts.

Customer service will be managed and overseen by the TxDOT Toll Operations Division (TOD) staff and their program management consultant. TxDOT has executed a contract with a new program management consultant, Xerox, which is anticipated to assume operations in March of 2014. The Engineer has prepared an estimate for Toll Operations which assumes Xerox pricing over the 50-year operations period with normal annual cost escalation factors. The Toll Operations services to be provided by Xerox include accounting and internal audit, customer service, violation processing and enforcement, toll equipment maintenance, quality assurance, and program management.

To estimate the costs of toll operations, the cost to TxDOT has been estimated for each transaction that will occur on the System. Transactions can be categorized into three basic types; transactions using a transponder issued by TxDOT ("Home Transponder" transactions or "TxTag" transactions), transactions using transponders issued in Texas by entities other than TxDOT ("Away Transponder" transactions, for example EZ Tag transactions), and violations, defined as vehicle movements on the toll facility without an accompanying TxTag or interoperable transponder. Xerox will be paid a base fee for each transaction for which they collect a toll. Additional Xerox costs will be incurred for all violations transactions on the System for which they are able to collect a toll.

In addition to these base Xerox fees, TxDOT incurs other fixed costs to operate and maintain its toll roads. These fixed costs include back office systems, facility management, credit card processing fees, postage fees, courtesy patrol, and law enforcement.

The TxDOT Statewide Customer Service Center is located on Loop 1 (MoPac) just north of Parmer Lane in Austin. It is not anticipated that a new TxDOT Customer Service Center will be required to be constructed in the Houston area for the System. For Houston area customers, account management activities for TxTag accounts can be handled through the web or by phone with a representative in Austin. TxDOT's Customer Service Center in Austin will process all TxTag transponder-based toll payments and provide all other back office operations with regard to the transaction processing and customer service of these TxTag transactions and accounts over the 50-year operations period. TxDOT will also process all violations transactions on the System.

As part of the Engineer's cost estimates, the TxDOT costs of maintaining customer accounts, transponder fulfillment, and other costs directly attributed to customer service were allocated to transactions that are expected to be made with the Home Transponder (TxTag). These TxDOT fixed costs have been allocated only to the TxTag and violations

transactions that are expected to occur on the System. None of TxDOT's costs to maintain customer accounts were allocated to transactions paying with transponders using Away Transponders that were not issued by TxDOT such as HCTRA's EZ Tag. The 8% interoperability fee for transaction processing is intended to cover the estimated account management costs for Away Transponder transactions. Therefore, these Away Transponder transactions do not place a burden on the existing TxDOT back office systems, facility management, credit card processing fees, or postage fees.

The Engineer estimated Toll Operations on the System by establishing the costs for Home Transponder, Away Transponder, and Violations transactions in the fiscal year 2018, an early year in which Grand Parkway Segments E through G are all fully operational. FY 2018 toll transaction and revenue projections for the existing TxDOT system were provided by TxDOT Toll Operations Division (TOD), and these values were combined with the FY 2018 transaction and revenues from the Grand Parkway T&R Report to determine the total transactions by type and revenues generated in that year. TOD also provided estimates of the FY 2018 fixed costs, which were then allocated across the three basic transaction types as previously described. To these allocated fixed costs per transaction, the base Xerox fees were applied to the transaction types to determine the cost to TxDOT of each transaction on the System. These per transaction costs were escalated at a 2.5% annual rate through the 50-year term, and applied to each transaction on the System as forecast by the Grand Parkway T&R Report to determine the yearly Toll Operations estimate. Additionally, 8% of the yearly revenue generated by the Away Transponder transactions as forecast by the T&R Report is included in the Toll Operations estimate, as this is an estimate of the interoperability fees to be paid by TxDOT.

Toll maintenance includes all the costs associated with maintaining the toll collection equipment including the electronic toll collection system, the traffic management system, the network control system, and the provision of maintenance transportation. The Statewide Toll Integrator provides this service for a period of up to nine years. Under the current contract, the Statewide Toll Integrator is responsible for ensuring the system meets the performance requirements set forth in its contract during the entire contract period. This includes ensuring that the transponder antennas read the transponders that pass under the gantries with near perfect accuracy and that the classification of the vehicles is highly accurate. In fact, all of the performance requirements for the Statewide Toll Integrator are extremely high and are set so that TxDOT is confident that toll transaction data is correct and highly reliable. If any of the equipment fails or falls below its specified performance threshold, the Statewide Toll Integrator is required to fix and/or replace it at no additional cost beyond the monthly maintenance price. Special considerations exist for force majeure and "one off" situations.

Toll system costs include continual replacement of electronic toll collection systems (ETCS), back office systems, traffic management systems, and network control systems. The system replacement cost relative to the initial construction cost varies over time. Since many of the components of the ETCS will be replaced and/or upgraded throughout

operations as equipment fails or reaches its end of useful life, there is no large expenditure assumed in any single year for a complete system replacement. Additionally, toll system equipment is expected to become less and less expensive and easier to maintain over time. In fact, the future of tolling technology includes GPS-based vehicular miles traveled tolling using original manufacturer's equipment incorporated into the vehicle. This would dramatically reduce or eliminate the cost of in-lane toll systems maintenance in the out years.

Toll operations and maintenance estimates are shown in **Appendix G**.

6.2 Operations and Maintenance Estimates

The System will be maintained in accordance with TxDOT maintenance standards for interstate highways. TxDOT will execute contracts for all maintenance services. These services will include both routine and periodic maintenance.

The Grand Parkway Development Agreement allows TxDOT the option for the Developer to provide periodic maintenance for the first fifteen years of operations under a CMA. The first five years are part of the Development Agreement, followed by two five-year optional periods.

Roadway Operation and Maintenance estimates are shown in **Appendix H**.

6.2.1 Scope of Operations and Maintenance

The Operations and Maintenance (O&M) cost models were developed to:

- ensure that the O&M strategy is in accordance with best practices;
- confirm the quantities and unit prices used to develop the O&M costs;
- confirm the capital maintenance and renewals schedule; and
- ensure all assets are maintained at a high level throughout the 50-year maintenance term.

6.2.2 Roadway Routine Maintenance

Roadway Routine Maintenance (RMM), which accounts for just over \$835MM, or 26% of the total O&M cost over a 50-year period, includes the top 15 maintenance activities presented in Table 10.

Table 10 Top Maintenance Activities as a Percentage of Roadway Routine Maintenance

DESCRIPTION	% of RRM
Litter Pickup	13.9%
Roadway Sweeping	10.5%
Roadway Weed Eating	8.5%
Roadway Mowing	7.5%
Drainage Maintenance	4.0%
Repair Non-Functioning Guardrail	3.5%
Rip Rap Cleaning	3.5%
Herbicide Edging	3.2%
Repair Non-Functioning Attenuator	2.9%
Roadway Crack Sealing	2.8%
Inlet Maintenance	2.5%
Flume Maintenance	2.4%
Brush Trimming and Chipping	2.3%
Repair Functioning Attenuator	2.3%
Repair Functioning Guardrail	1.5%

For a detailed list of all of the activities included in total routine maintenance, see the table in **Appendix I**. Traffic Control is estimated at \$125,000 per year for lane closures due to weather, incidents, and maintenance work.

It is assumed that TxDOT will enter into one or more contracts with a third party to provide routine maintenance and patrolling services for all System Segments.

6.2.3 Major Renewal and Maintenance Works

The cost model assumes concrete pavement will be used for all road segments. Typical strategies and the associated time intervals include pavement restriping, pavement profiling, minor maintenance, rehabilitation, and reconstruction. The maintenance frequency varies by strategy as shown below:

- Restriping – every 5 years;
- Profiling – every 4 years after 1st 10 years;
- Minor Maintenance – every 4 years;
- Rehabilitation – every 7 years after 1st 20 years; and
- Reconstruction – every 50 years.

Traffic control costs will be incurred with respect to major maintenance, rehabilitation, and reconstruction projects.

Pavement life is assumed to be 20 years without significant intervention. The methodology for capital expenditure involves utilizing a series of periodic and routine repair and

rehabilitation strategies to extend the useful life of the pavements. However, the performance of the pavement should be actively monitored against the proposed deterioration during the life of the System to enable the strategies to be revised as necessary.

6.3 Capital Maintenance Agreement Costs

The Development Agreement included a CMA with a term of up to 15 years. The CMA commences at the end of the warranty period (one year after final acceptance) for each segment. It consists of a 5-year term with two 5-year options. Annual lump sum amounts are to be paid monthly in equal installments.

The scope of the CMA services includes:

- Roadway;
- Structures (Bridges); and
- Earthworks (Embankments and Cuttings).

TxDOT is responsible for maintaining all other portions of the System. The Developer is not relieved of liability due to TxDOT's work.

The CMA includes requirements from the Developer for both payment and performance bonds as well as a retainage bond. Additionally, there are requirements for a guaranty of minimum net worth. Those details are as follows:

- **Payment and Performance bonds:**
 - 75% of the aggregate sum of the remaining maintenance price for all years of the maintenance term (but never less than 100% of the annual maintenance price)
- **Retainage bond:** 4% of maintenance price
- **Net worth:** \$200 million
 - Developer must provide a guaranty if aggregate net worth of equity members and guarantors falls below the required amount

The Developer is also subject to liquidated damages under the provisions of the CMA, whereby they must pay quarterly penalties ranging from \$30,360 to \$72,900 for each System element that does not meet required condition specifications.

When comparing the Engineer's CMA estimate to the Developer's, it was clear that different escalation rates were used. It was, therefore, appropriate to compare the two estimates in real terms. On this basis the Engineer's CMA estimate is \$110 million and the Developer's base capital maintenance price is \$55 million, approximately 50% below the Engineer's CMA estimate.

The difference between the two CMA estimates could be attributed to several factors. The design changes affecting capital asset quantities would have an impact and pavement type and design would affect both routine and life cycle costs.

Assumptions such as maintenance cycles, repair quantities, frequencies, unit prices and asset type also could account for a portion of the price difference. Items such as risk level, contingencies, administrative costs, and other miscellaneous costs could contribute, as well. It should be noted that the Developer is liable for all cost overruns in performance of the CMA, and the required bonds and liquidated damages protect against the Developer's failure to perform its obligations, so the difference between the two CMA estimates does not pose a significant risk for TxDOT.

7 Summary Results

The following summarizes the comparative costs and differences between the Engineer's Estimate and the best-value Developer's proposed price for Segments F-1, F-2, and G.

Table 11 Comparison of Engineer's Estimate to Developer's Price*

DIFFERENCE	Developer	Engineer's Estimate	Difference to Estimate
Total Delivery of F-1, F-2, and G (w/o Options)	\$1,007	\$1,145	\$138
Construction Options	\$37	\$79	\$42
Total Delivery of F-1, F-2, and G (including options)	\$1,044	\$1,224	\$180

* in millions

The Engineer's Estimate and the Developer's price differ by \$180 million, 17% of the Developer's total price. Studying the Developer's proposal identified many sources that may reasonably explain the cost differences. The Developer proposed a shorter construction schedule and numerous design changes which provide reasonable justifications for a lower price than that estimated by the Engineer. Key design changes include reduced bridge lengths, increased earthworks as a result of the reduced bridge lengths, and signing and lighting design changes. Table 12 below shows the Engineer's Estimate reduced to reflect to the Developer schedule and design changes.

Table 12 Engineer's Estimate Adjusted for Developer's Schedule and Design Changes*

DIFFERENCE	Difference to Estimate*	Engineer's Estimate	Adjusted Engineer's Estimate	Adjustment Basis
Shorter Construction Time	\$(17)	\$1,224	\$1,207	Time reduction deemed reasonable
Structures Cost	\$(211)	\$478	\$267	9.3 miles less bridge length
Earthworks Cost	\$22	\$108	\$130	Bridge length changes increase earthwork
Lighting and Signing Cost	\$(8)	\$26	\$18	Design changes
Construction Options Cost	\$(13)	\$76	\$63	Design changes
Total Estimate Adjustment	\$(227)			
Total Engineer's Estimate (including options)	\$1,224			
Total Adjusted Engineer's Estimate (including options)	\$997			

* in millions

The adjusted Engineer's Estimate is again compared to the Developer's price proposal below. While differences still remain between individual categories of cost, in aggregate the total difference between the prices is much less. Adjusting the Engineer's Estimate reduces the price differential with the Developer's price from \$180 million to -\$47 million. The percentage difference is reduced from 17% to -5%:

Table 13 Comparison of Adjusted Engineer's Estimate to Developer's Price*

DIFFERENCE	Developer	Adjusted Engineer's Estimate	Difference	Percentage
Shorter Construction Time	\$1,044**	\$1,207**	\$163	16%
Structures Cost	\$283	\$267	\$(16)	-6%
Earthworks Cost	\$188	\$130	\$(58)	-31%
Lighting and Signing Cost	\$7	\$18	\$11	157%
Construction Options Cost	\$37	\$63	\$26	70%
Total Developer Price (including options)	\$1,044	\$997	\$(47)	-5%

* in millions

** aggregate numbers include Construction Options Cost

The percentage difference of -5% between the adjusted Engineer's Estimate and the Developer's is in a typical range for construction projects in which materials unit costs, risk levels, and construction sequencing and invoicing influence prices.

This report finds the price submitted by the Developer for Segments F-1, F-2, and G to be reasonable after study of the Developer's proposal and price comparison to the Engineer's Estimate. Segments F-1, F-2, and G (including construction options) may be reasonably constructed for \$1,044 million, the Developer's price.

Combining the Developer's price with the additional TxDOT costs estimated by the Engineer, the total price to deliver Segments F-1, F-2, and G is as follows:

Table 14 Total Price of Delivery of Segments F-1, F-2, and G*

ITEM	Developer	Engineer's Estimate**	Price
Total Delivery of F-1, F-2, and G	\$1,044	-	\$1,044
Electronic Toll Assembly Costs		\$14	\$14
Right-of-Way Costs	-	\$366	\$366
Administration Costs	-	\$85	\$85
Mitigation Costs	-	\$44	\$44
Construction Support Costs	-	\$109	\$109
Total Price of Segments F-1, F-2, and G			\$1,662

* in millions

** Additional TxDOT costs

In addition, the System financing structure will incorporate elements of Segments E and a portion of Segment D in Harris County. Included will be the capital cost of the Electronic Toll Assemblies for Segments D and E, estimated at \$9 million by the Engineer. The financing structure will also provide for the approximately \$350 million cost of their existing construction contracts, as the risk analysis has determined, are near completion and at a very low risk for adjustment .

Finally, the financing structure will allow for 50 years of operations and maintenance of Segments E, F-1, F-2, G, and a portion of Segment D in Harris County. These long-term maintenance costs have been estimated by the Engineer and are described in **Appendices G and H**.

APPENDIX A – ROADWAY DESIGN CRITERIA

Roadway Design Criteria

	Mainlanes	Frontage Roads	Cross Streets
Functional Classification	Rural arterial	Urban collector	See Cross-Street Design Criteria
Design Speed	70 mph	45 mph	40-45 mph
Horizontal Alignment Criteria:			
Maximum Curvature (Min Radius)	3,405 ft	940 ft	675 ft (40 mph) 940 ft (45 mph)
Superelevation	e(max)= 6%	N/A	N/A
Maximum Curvature (Min Radius) w/o Superelevation	10,750 ft	-	-
Vertical Alignment Criteria:			
Maximum Gradient	3.0%	5.0%	4.0%
Minimum Gradient	0.35%	0.35%	0.35%
K-Value Crest	247	61	44 (40 mph) 61 (45 mph)
K-Value Sag	181	79	64 (40 mph) 79 (45 mph)
Maximum Algebraic Difference w/o Vertical Curve	0.5%	1.0%	1.0%
Min Vertical Clearance - Roadway	16.5 ft	16.5 ft	16.5 ft
Min Vertical Clearance - Railroad	23 ft	23 ft	23 ft
Cross Section Criteria:			
Lane Widths	12 ft	12 ft	12 ft
U-turn width		25 ft	
Inside Shoulder Widths for Curves	4 ft	-	-
Outside Shoulder Widths	10 ft	-	-
Pavement Cross Slope	0.02 ft/ft	0.02 ft/ft	0.02 ft/ft
Side Slopes			
Within Clear Zone	6:1	6:1	6:1
Outside of Clear Zone	6:1 usual 4:1 max	6:1 usual 4:1 max	6:1 usual 4:1 max
Gore Width - Entrance	-	-	-
Gore Width - Exit	-	-	-
Curb Offset	-	1 ft	1 ft where curbed
Clear Zone Width	30 ft	3 ft ³	See Cross-Street Design Criteria
Intersection horizontal and vertical criteria:			
Corner Radii	-	50 ft min	-
Design Vehicle (Intersections)	-	WB-50	See Cross-Street Design Criteria
Preferred Corner Geometry	-	Curve w/ taper	-

Roadway Design Criteria

	Ramps	Direct Connectors
Functional Classification	-	-
Design Speed	50 mph	50 mph
Stopping Sight Distance	425 ft	425 ft
Maximum Curvature (Min Radius)	1055 ft	1055 ft
Superelevation	e(max)= 6%	e(max)= 6%
Maximum Curvature (Min Radius) w/o Superelevation	6,030 ft ⁽¹⁾	6,030 ft ⁽¹⁾
Maximum Gradient	4.0%	4.0%
Minimum Gradient	0.35%	0.35%
K-Value Crest	84	84
K-Value Sag	96	96
Maximum Algebraic Difference w/o Vertical Curve	0.5%	0.5%
Min Vertical Clearance - Roadway	16.5 ft	16.5 ft
Min Vertical Clearance - Railroad	23 ft	23 ft
Lane Widths	14 ft (one) 12 ft (two)	14 ft (one) 12 ft (two)
Inside Shoulder Widths for Curves	4 ft	4 ft ⁽²⁾
Outside Shoulder Widths	8 ft	8 ft ⁽²⁾
Pavement Cross Slope	0.02 ft/ft	0.02 ft/ft
Side Slopes		
Within Clear Zone	6:1	6:1
Outside of Clear Zone	6:1 usual 4:1 max	6:1 usual 4:1 max
Gore Width - Entrance	6 ft min	6 ft min
Gore Width - Exit	6 ft min	6 ft min
Curb Offset	-	-
Clear Zone Width	16 ft	16 ft
Corner Radii	-	-
Design Vehicle (Intersections)	-	-
Preferred Corner Geometry	-	-

Notes:

1. 2° 00' curve may be used at mainlanes and direct connector ramps with mainlane cross slope controlling.
2. In those areas where sight distance criteria is not met, an inside shoulder width of 8 ft and outside shoulder width of 4 ft may be used.
3. 3' for raised curb, otherwise 10' from edge of travel way.

**GRAND PARKWAY
SEGMENT F1**

			INITIAL BUILD														
Intersecting Street	Ultimate Typical Section	Jurisdiction	Roadway Classification	Design Speed (mph)	Position (over/under)	Design Vehicle	EASTBOUND					Turn Lanes	WESTBOUND				
							U-Turn (each)	Clear Zone for Cross Street Thru Lanes	Sidewalk and Min. Usable Width (LF)	Curb and Gutter	Through Lanes		Through Lanes	Curb and Gutter	Sidewalk and Min. Usable Width (LF)	Clear Zone for Cross Street Thru Lanes	U-Turn (each)
Future Cypresswood Dr.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12')	2 (12')	Y	5'	6'	1
Future Cumberland Ridge Cr.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	3 (12')	2 (12')	3 (12')	Y	5'	6'	0
Schiel Rd.	C	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section							10'	0
Future Mason Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	No Initial Build Accommodate Ultimate Typical Section							6'	0
Mueschke Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	2 (12')	N	2 (12')	Y	5'	6'	0
Cypress-Rosehill Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	2 (12')	2 (12') with 8' curbed median	2 (12')	Y	5'	6'	0
Lindsey Ln.	D	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	N/A	N	1 (12')	N	1 (12')	N	N/A	10'	0
Cedar Lane	A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	No Initial Build Accommodate Ultimate Typical Section							6'	0
Telge Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	2 (12')	2 (12') with 8' curbed median	2 (12')	Y	5'	6'	0
Boudreaux Rd.	B	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	1 (12')	2 (12')	1 (12')	Y	5'	6'	1

Assumptions:

Urban - Minimum 5' sidewalk and curb and gutter on all urban roadways. Ped accommodations on y on Urban Facilities. If columns are placed in the median, use 3' minimum offset from face of column.

Rural - No curb and gutter and sidewalk on all rural roadways.

**GRAND PARKWAY
SEGMENT F2**

			INITIAL BUILD														
Intersecting Street	Ultimate Typical Section	Jurisdiction	Roadway Classification	Design Speed (mph)	Position (over/under)	Design Vehicle	EASTBOUND					Turn Lanes	WESTBOUND				
							U-Turn (each)	Clear Zone for Cross Street Thru Lanes	Sidewalk and Min. Usable Width (LF)	Curb and Gutter	Through Lanes		Through Lanes	Curb and Gutter	Sidewalk and Min. Usable Width (LF)	Clear Zone for Cross Street Thru Lanes	U-Turn (each)
			Future Boudreaux Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	(2) 12' with 6' curbed median	2 (12')	Y
Huffsmith-Kohrville Rd.	C	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section							10'	D
Gleannloch Forest Dr.	A	Harris Co.	Local Urban	40	under SH 99	WB-50	0	6'	5'	Y	2 (12')	N	2 (12')	Y	5'	6'	1
Champlens Forest Dr.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	3 (12')	48' curbed median	3 (12')	Y	5'	6'	1
FM 2920	A	TxDOT	Arterial Urban	45	over SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12') with 12' curbed median	2 (12')	Y	5'	6'	1
Boudreaux Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	1 (12') with 2' curbed median	2 (12')	Y	5'	6'	D
Boudreaux Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12') with 6' curbed median	2 (12')	Y	5'	6'	D
Kuykendahl Rd.	A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	2 (12')	2 (12') with 6' curbed median	2 (12')	Y	5'	6'	1
Hildebrandt Rd.	D	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	N/A	N	1 (13')	N	N	N	N/A	30'	C
Northcrest Dr.	C	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section							30'	C
Gosling Rd.	A	Harris Co.	Local Urban	40	under SH 99	WB-50	0	6'	5'	Y	3 (12')	6' curbed median	3 (12')	Y	5'	6'	C
Rothwood Rd.	C	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section							30'	C
Mossy Oaks Rd.	D	Harris Co.	Local Rural	40	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section							30'	C
Springwoods Village Pkwy	N/A	Harris Co.	Local Urban	45	over SH 99	WB-50	0	N/A	Overall Bridge Width = 79' Lane Assignments to be Coordinated with County							N/A	C
Holzwarth Rd	N/A	Harris Co.	Local Urban	45	over SH 99	WB-50	0	N/A	By Others							N/A	C
Energy Drive	N/A	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	By Others SH 99 bridge bents to clear a 100' span centered about Energy Drive							6'	C

Assumptions:

Urban - Minimum 5' sidewalk and curb and gutter on all urban roadways. Ped accommodations only on Urban facilities. If columns are placed in the median, use 3' minimum offset from face of column.

Rural - No curb and gutter and sidewalk on all rural roadways.

GRAND PARKWAY SEGMENT G

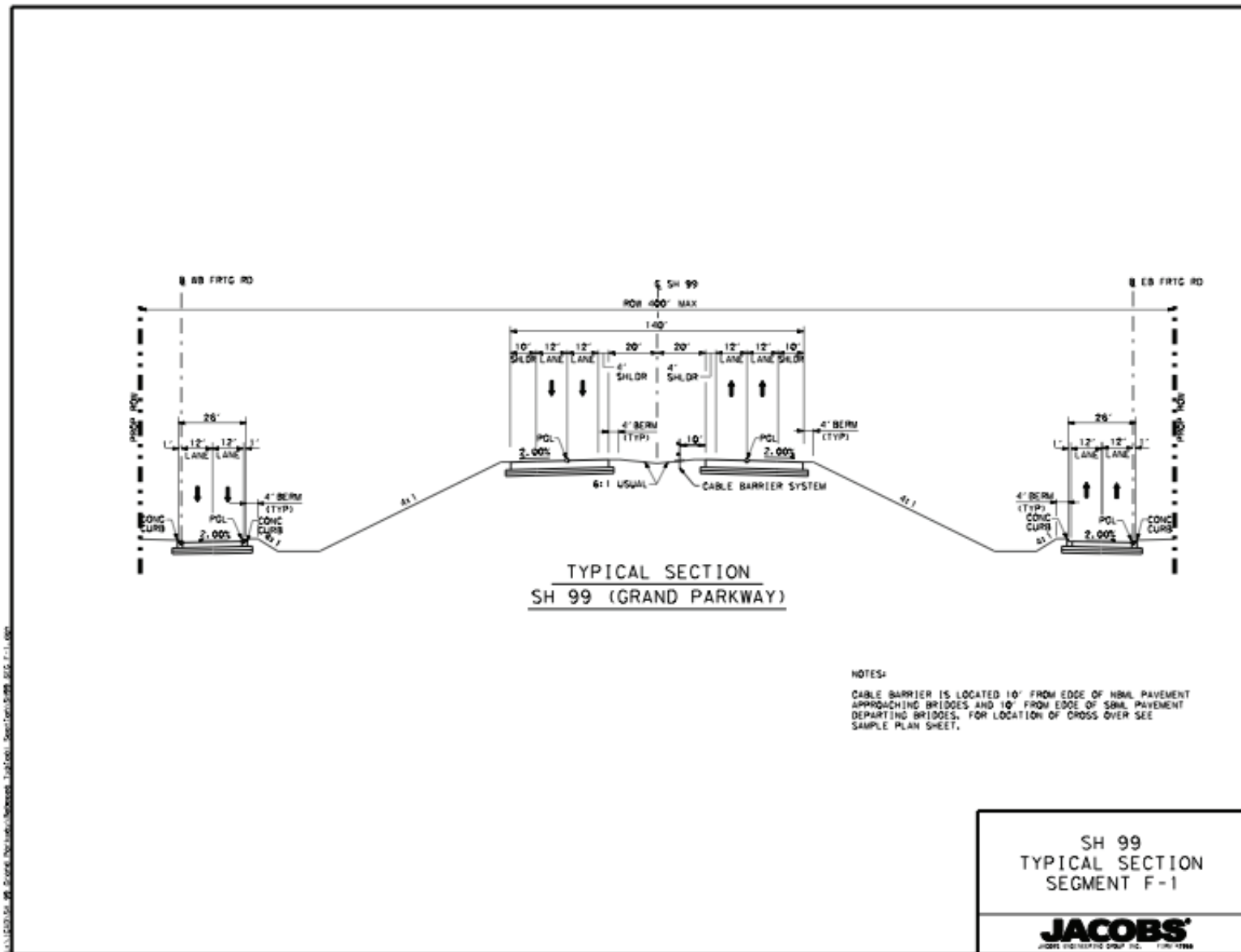
			INITIAL BUILD														
Intersecting Street	Ultimate Typical Section	Jurisdiction	Roadway Classification	Design Speed (mph)	Position (over/under)	Design Vehicle	EASTBOUND					Turn Lanes	WESTBOUND				
							U-Turn (each)	Clear Zone for Cross Street Thru Lanes	Sidewalk and Min. Usable Width (LF)	Curb and Gutter	SB Turn Lanes		NB Turn Lanes	Curb and Gutter	Sidewalk and Min. Usable Width (LF)	Clear Zone for Cross Street Thru Lanes	U-Turn (each)
Northgate Crossing Blvd.	B	Harris Co.	Local Urban	45	under SH 99	WB-50	0	6'	No Initial Build Accommodate Ultimate Typical Section						6'	0	
Nelson St.	D	Harris Co.	Local Rural	45	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section						10'	0	
East Hardy Rd.	D	Harris Co.	Local Rural	45	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section						10'	0	
Riley Fuzzel Rd	D	Montgomery Co.	Local Rural	40	under SH 99	WB-50	1	10'	N/A	N	2 (12')	N	2 (12')	N	N/A	10'	0
Future Rayford Rd	A	Montgomery Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12') with 4' curbed median	2 (12')	Y	5'	6'	1
Birmingham Woods Dr.	A	Montgomery Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12') with 4' curbed median	2 (12')	Y	5'	6'	1
Future Townsen Blvd.	A	Montgomery Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12') with 4' curbed median	2 (12')	Y	5'	6'	0
Future Riverwalk Dr.	A	Montgomery Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	2 (12')	2 (12') with 4' curbed median	2 (12')	Y	5'	6'	0
FM 1314	E	TxDOT	Arterial Rural	45	under SH 99	WB-50	0	10'	N/A	N	2 (12')	2 (12') with 4' curbed median	2 (12')	N	N/A	10'	0
Future Rd.	C	Montgomery Co.	Local Rural	45	under SH 99	WB-50	0	10'	No Initial Build Accommodate Ultimate Typical Section						10'	0	
Valley Ranch Blvd.	A	Montgomery Co.	Local Urban	45	under SH 99	WB-50	0	6'	5'	Y	2 (12')	2 (12') with 4' curbed median	2 (12')	Y	5'	6'	1
Future Rd.	A	Montgomery Co.	Local Urban	45	under SH 99	WB-50	1	6'	5'	Y	2 (12')	2 (12') with 4' curbed median	2 (12')	Y	5'	6'	1

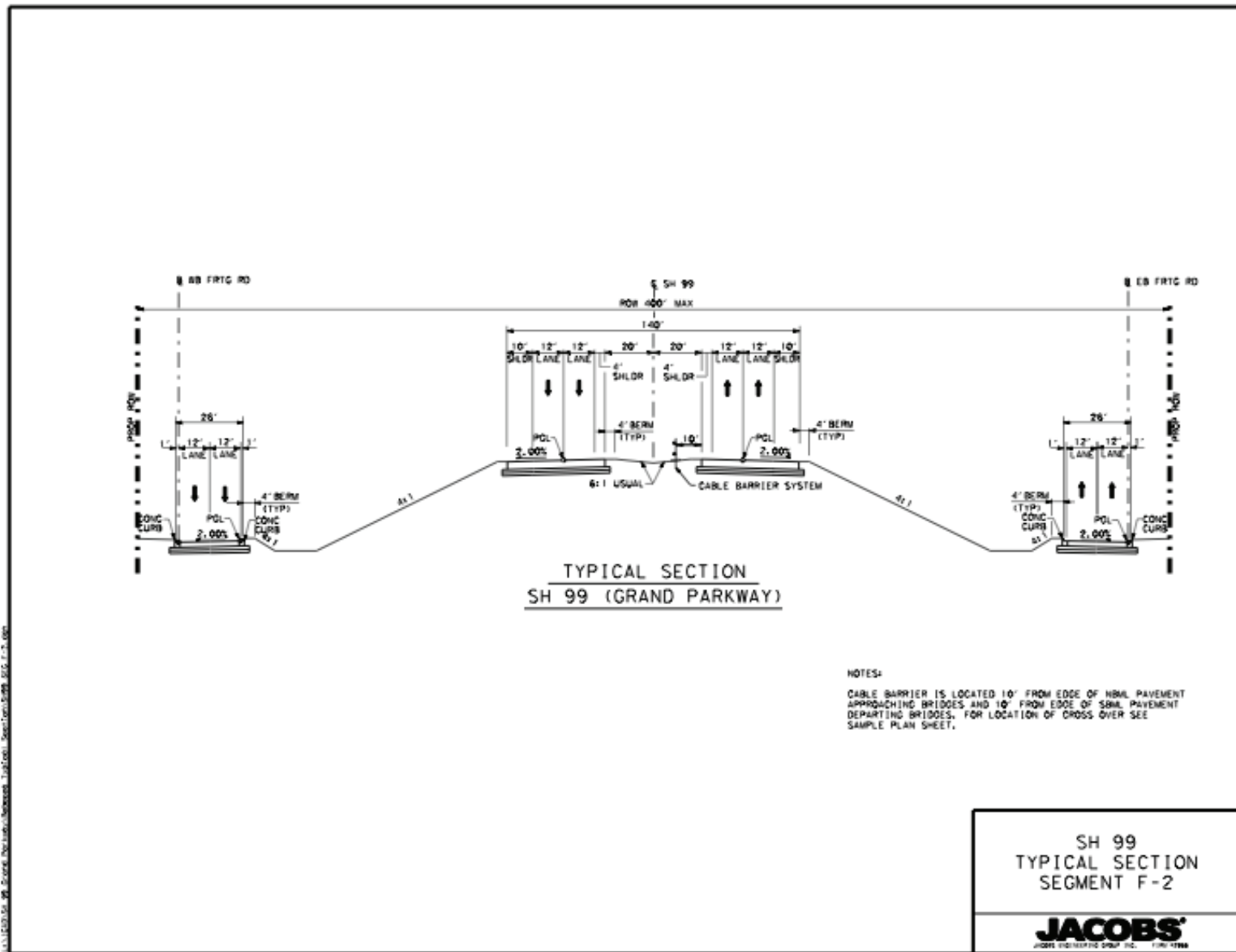
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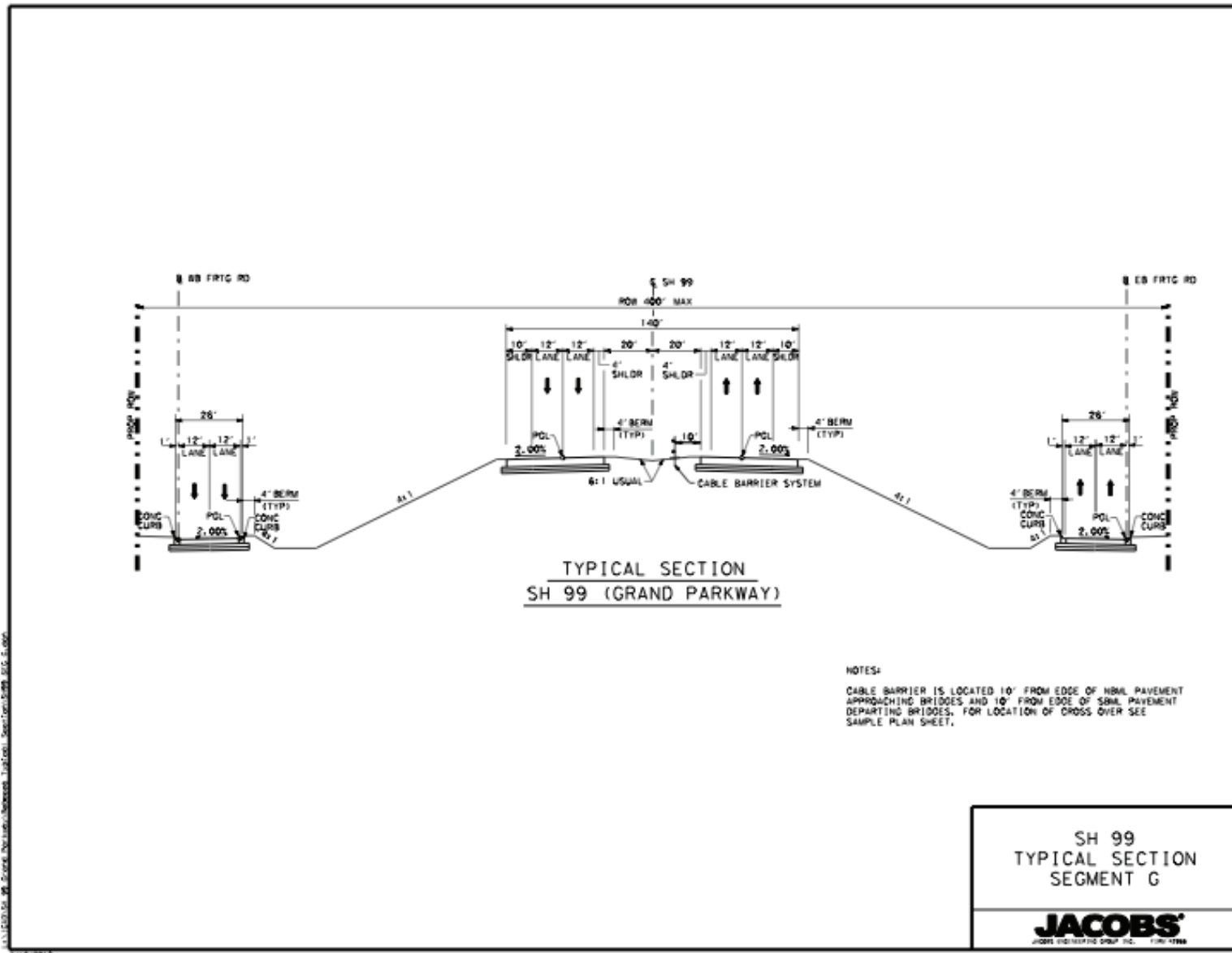
Urban - Minimum 5' sidewalk and curb and gutter on all urban roadways. Ped accommodations only on Urban Facilities. If columns are placed in the median, use 3' minimum offset from face of column.

Rural - No curb and gutter and sidewalk on all rural roadways.

APPENDIX B – TYPICAL SECTIONS







APPENDIX C – DRAINAGE CRITERIA

1 DRAINAGE DESIGN CRITERIA

1.1 General Requirements

Efficient performance of the drainage system is an integral part of the performance of the Project. Developer shall account for all sources of runoff that may reach the Project, whether originating within or outside the Project ROW, in the design of the drainage facilities.

If existing drainage patterns are revised during the Project design, then the Developer shall design and construct a solution that does not adversely impact property owners outside the ROW.

1.2 Administrative Requirements

1.2.1 Data Collection

To establish a drainage system that complies with the requirements and accommodates the historical hydrologic flows in the Project limits, Developer is responsible for collecting all necessary data, including those Elements outlined in this Section 1.2.1.

Developer shall collect available data identifying all water resource issues, including water quality requirements as imposed by State and federal government regulations; National Wetland Inventory and other wetland/protected waters inventories; in FEMA mapped floodplains; and official documents concerning the Project, such as the FEIS or other drainage and environmental studies. Water resource issues include areas with historically inadequate drainage (flooding or citizen complaints), environmentally sensitive areas, localized flooding, maintenance problems associated with drainage, and areas known to contain Hazardous Materials. Developer shall also identify watershed boundaries, protected waters, county ditches, areas classified as wetlands, floodplains, and boundaries between regulatory agencies (e.g., watershed districts and watershed management organizations).

Developer shall acquire all applicable municipal drainage plans, watershed management plans, and records of citizen concerns. Developer shall acquire all pertinent existing storm drain plans and/or survey data, including data for all culverts, drainage systems, and storm sewer systems within the Project limits. Developer shall also identify existing drainage areas that contribute to the highway drainage system and the estimated runoff used for design of the existing system.

Developer shall obtain photogrammetric and/or geographic information system (GIS) data for the Project limits that depicts the Outstanding National Resource Waters and/or impaired waters as listed by the TCEQ. Developer shall conduct surveys for information not available from other sources.

If documentation is not available for Elements of the existing drainage system within the Project limits and scheduled to remain in place, Developer shall investigate and videotape or photograph the existing drainage system to determine condition, size, material, location, and other pertinent information.

The data collected shall be taken into account in the Final Design of the drainage facilities.

Within 30 Days of Substantial Completion of each Segment, Developer shall submit to TxDOT, as part of the Record Drawings, a Drainage Design Report, which shall be a complete documentation of all components of the Project's drainage system. At a minimum, the Drainage Design Report shall include:

- a) Record set of all drainage computations, both hydrologic and hydraulic, and all support data.
- b) Hydraulic notes, models, and tabulations
- c) Storm sewer drainage report
- d) Bridge and culvert designs and reports for major stream crossings
- e) Pond designs, including graphic display of treatment areas and maintenance guidelines for operation
- f) Correspondence file

- g) Drainage system data (location, type, material, size, and other pertinent information) in a suitable electronic format

1.2.2 Coordination with Other Agencies

Developer shall coordinate all water resource issues with affected interests and regulatory agencies. Developer shall document the resolutions of water resource issues.

The Developer shall provide to the local floodplain administrators all information and technical data needed to file Letters of Map Revision (LOMR) with FEMA.

1.3 Design Requirements

Developer shall design all Elements of the drainage facilities in accordance with the applicable design criteria and Good Industry Practice.

The design of drainage systems shall include reconfiguration of the existing drainage systems within the Project limits, and design of new and reconfigured storm drainage systems as required to meet the performance requirements as defined in this Section 1.

Developer shall provide facilities compatible with existing drainage systems and all applicable municipal drainage plans or approved systems in adjacent properties. Developer shall preserve existing drainage patterns wherever possible.

Elements of the existing drainage system within the Project limits scheduled to remain in place must meet hydraulic capacity requirements as detailed in Section 1. If any Elements of the existing system do not comply with the requirements of Section 1 (Drainage), those Elements shall be replaced by Developer.

Developer may make use of existing drainage facilities, provided overall drainage requirements for the Project are achieved and the combined drainage system functions as intended.

Developer shall base its Final Design on design computations and risk assessments for all aspects of Project drainage.

Developer shall design roadside open channels such that the profiles have adequate grade to minimize sedimentation.

The Developer shall provide a drainage system that maintains or improves the existing drainage.

A detailed drainage report has been prepared for the Project and is available in the Reference Information Documents. Vertical datum adjustment information used for the detailed design contained in the drainage report.

1.3.1 Springwood Development Drainage

A portion of the preliminary drainage design for Grand Parkway in Segment F-2 has been coordinated with Springwoods Village to determine the location of three Project drainage outfalls which are intended to direct Project flows to off-site detention facilities. Springwoods Village has agreed to receive Project flows and to provide mitigation volumes within their detention facilities. The outfall locations included in the preliminary drainage design, which are shown in the Final Report in the Reference Information Documents and listed in Table 1-1 below, have received environmental permit approval.

Table 1-1: Proposed Outfall Locations

Outfall I.D.	Location
J-D	STA 3636+23
J-E	STA 3659+00

J-F	STA 3685+50
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The outfalls are recommended for the Developer's use. If the Developer chooses to utilize the permitted outfall locations and detention facilities then coordination of the availability of the facilities to receive Project flow and verification of the detention facility's storage capacity is the responsibility of the Developer. If the Developer elects not to utilize the specified outfall locations then the Developer is responsible for any and all environmental permit modifications and approvals.

1.3.2 Surface Hydrology

1.3.2.1 Design Frequencies

Developer shall use the design frequencies listed in Table 1-2 below.

Table 1-2: Drainage Design Frequencies

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Minimum Roadway Elevation AHW at	100-yr	10-yr	100-yr	10-yr	10-yr	Applies to cross drainage and parallel floodplain WSEL. Does not apply to storm drain HGL
Storm Drain Inlets and Pavement Drainage	10-yr	2-yr	10-yr	2-yr	2-yr	Applies to ponded widths in gutter and inlet capacity.
Storm Drain Conduits	2-yr	2-yr	2-yr	2-yr	2-yr	Size conduit for non-pressure flow; i.e. Design $Q \leq$ Full Flow Capacity Q . Check mainlane storm sewer for 10-year capacity
Cross Drain Culverts	50-yr	10-yr	50-yr	10-yr	Match Exist.	Design upstream WSEL below AHW at low point in roadway profile. Check for 100-year for mainlanes.
Bridge Waterway Crossing	100-yr	10-yr	50-yr	10-yr	Match Exist.	New ML Bridge: 1.5' or greater freeboard for the 100-year. 1.0' may be used with TxDOT's prior concurrence. Other Roadways: Low chord > Design WSEL Small Bridges are less than 50 feet in length.
Storm Water Pumping Stations	50-yr	50-yr	50-yr	50-yr	50-yr	Design WSEL below AHW. Check for 100-year.

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial Cross Street	Application Notes
Outfall Ditches	Design for No Impact to 100-yr WSEL. Use HCFCD and Montgomery County Standard Details for Outfalls and other construction within HCFCD and Montgomery County channels and ponds.					
Separation Ditches	10-yr	10-yr	10-yr	N/A	N/A	
Roadside Ditches	N/A	N/A	N/A	2-yr*	2-yr**	*If required outside curb line. **Or match existing capacity.
Detention Ponds	100-year design. Provide Detention Summary with Area Served, Detention Storage Volume Required, Detention Storage Volume Provided, Maximum Design WSEL, Maximum Outflow Rate Allowed, Maximum Outflow Rate Provided, and Restrictor Size.					Sample plans are available from TxDOT upon request.
Depressed Roadway* Storm Sewer (gravity drainage without pump)	50-yr	10-yr	50-yr	10-yr	10-yr	*Depressed roadway has nowhere for water to drain when curb height is exceeded. Check for 100-yr HGL. Curb height is defined as 5".

1.3.2.2 Hydrologic Analysis

Developer shall design the drainage system to accommodate the roadway improvements within the right of way. Flood damage potential for the completed Project shall not exceed pre-Project conditions.

When determining flow for conduits from outside the right of way the flow shall be the greater of (a) the contributing drainage area at existing development conditions, or (b) the 150' development strip adjacent to the right of way using a runoff coefficient of 0.65. Peak flows from existing development with compensatory onsite stormwater detention should consider the flow reduction benefits of the stormwater detention.

Determination of flows for inlets may differ from storm drain conduits. For frontage road inlets adjacent to undeveloped areas outside the right of way, the inlet drainage area should consider areas within the right of way plus areas within the 150' development strip adjacent to the right of way using a runoff coefficient of 0.65. For frontage road inlets adjacent to developed areas (with internal drainage systems) outside the right of way, contributing drainage areas should consider areas within and outside the right of way.

1.3.3 Storm Sewer Systems

Where precluded from handling runoff with open channels by physical site constraints, or as directed in this Section 1, Developer shall design enclosed storm sewer systems to collect and convey runoff to appropriate discharge points.

Developer shall prepare a storm sewer drainage report encompassing all storm sewer systems that contains, at a minimum, the following items:

- a) Drainage area maps for each storm drain inlet with pertinent data, such as boundaries of the drainage area, topographic contours, runoff coefficients, time of concentration, and land use with design curve number and/or design runoff coefficients, discharges, velocities, ponding, and hydraulic grade line data.
- b) Location and tabulation of all existing and proposed pipe and drainage structures. These include size, class or gauge, catch basin spacing, detailed structure designs, and any special designs.
- c) Specifications for the pipe bedding material and structural pipe backfill on all proposed pipes and pipe alternates.
- d) Complete pipe profiles, including pipe size, type, and gradient; station offsets from the centerline of the roadway; length of pipe; class/gauge of pipe; and numbered drainage structures with coordinate location and elevations.

This report shall be a component of the Drainage Design Report.

Developer shall design all storm sewer systems such that the hydraulic grade line for the design frequency event is no higher than 1 foot below:

- a) the lip of gutter;
- b) the top of grate inlet; and
- c) the top of manhole cover.

Runoff within the jurisdiction of the USACE shall be conveyed in accordance with applicable Laws and permits.

1.3.3.1 Pipes

Developer shall use the design criteria listed in Table 1-3 below for the design of drainage pipes.

Table 1-3: Pipe Design Criteria

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Storm Drain Conduits - General						
Conduit Material/Type	RCP or RCB					
Design Conduit Size	Full flow pipe capacity \geq design Q					
Conduit Size Changes	Match soffits at conduit size changes, if possible. Matching flowlines is acceptable if grade is limited.					
Manholes/ Junctions	Type A or Type B Manholes Bridge Division Manhole Type M Junction Box with Access All other junction boxes require special design.					No manhole access on pavement. Maximum manhole spacing is 500'.

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Conduit Connections	Lateral stub-in to boxes require 2' minimum size differential. Pipe to pipe stub-in requires 3' minimum size differential. Other connections require manhole, junction box, or junction box without riser. Provide detail for accommodating multiple (parallel) conduits at junctions - use equalizer openings.					
Minimum Vertical Clearance (Cover)	1 ft in graded areas. The lower of (a) 2 ft below pavement surface or (b) below treated subgrade.					See Houston District E&BD standard for additional information.
Maximum Fill Height	Verify pipe strength requirements under high fill.					
Location near Retaining Wall	Where possible, avoid placement of conduit parallel to MSE wall if located within wall backfill. Preferred lateral placement is under wall, normal to wall alignment (see AZR and AZR2G inlet standards). If conduits are outside of and parallel to a fill wall, offset conduit 15 ft minimum from face of wall. If less spacing is required, review with TxDOT.					
Storm Drain Conduits – Laterals						
Minimum Pipe Size	24"	24"	24"	24"	18"*	* Use of 18" requires approval by TxDOT
Minimum Slope	0.2%					0.1% Allowed with TxDOT approval
Maximum Slope	3%					Steeper allowed with TxDOT approval
Minimum Velocity	3 ft/sec at full flow					
Maximum Velocity	10 ft/sec					
Storm Drain Conduits – Trunk Lines						
Minimum Pipe Size	24"	24"	24"	24"	24"	
Minimum RCB Depth	3'	3'	3'	3'	3'	Use of <3' depth requires approval by TxDOT

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Minimum Slope	0.2%					0.1% Allowed with TxDOT approval
Maximum Slope	3%					Steeper allowed with TxDOT approval
Minimum Velocity	2 ft/sec at full flow					
Maximum Velocity	10 ft/sec					

1.3.3.2 Ponding

Developer shall design drainage systems to limit ponding, in both Ultimate Scope configuration and Initial Configuration, to the widths listed below in Table 1-4 for the design frequency event:

Table 1-4: Ponding Criteria

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Pavement Drainage						
Allowable Ponding Width/AHW	Shldr Width	Shldr Width + 2'	Shldr Width + 2'	Curb offset + 1 Lane	Curb offset + 1 Lane*	* Discuss with TxDOT any situation that does not maintain at least 1 lane in each direction.
Maximum Low Point Ponding Depth	Function of Allowable Ponding Width and Cross Slope					

1.3.4 Miscellaneous Drainage Design Requirements

1.3.4.1 Separation Ditch Design Criteria

In general, separation ditches shall collect and convey runoff from between the mainlanes and frontage roads to appropriate discharge points. Design of separation ditches shall follow the guidelines listed below in Table 1-5:

Table 1-5: Separation Ditch Design Criteria

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Minimum Depth	Variable					
Maximum Depth	Dictated by roadway design					
Minimum Slope	Minimum slope should be 0.1% if grass lined or pavers, 0.05% if concrete lined					
Maximum Slope	Based on sheer stress of lining					
Maximum Flow Depth	Top of bank					
Side Slopes/ Shape	Based on roadway design criteria and typical section					
Ditch Inlet Types	Separation Ditches: AD, AAD, SET Side Road Ditches: A, AD, AAD, SET					Provide detail to add concrete riprap collar 2'-wide around inlet perimeter.

1.3.4.2 Inlet Design Criteria

Inlets shall be placed as per the following guidelines listed below in Table 1-6:

Table 1-6: Inlet Design Criteria

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Storm Drain Inlets						
Pavement Inlet Types	AZ AZ2G AZR AZR2G Trench Drains*	AZ AZ2G AZR AZR2G C or C1	AZ AZ2G AZR AZR2G	C1 (only)	C, C1	* Use Trench Drains in ramp gores. See "Ramp Layout Guidelines" for location details. Request design procedures from Program Team.

Design Element	Mainlanes	Ramp	Direct Connect.	Frontage Road	Arterial / Cross Street	Application Notes
Inlet Locations						<ol style="list-style-type: none"> 1. On-grade: Place inlets to keep gutter ponding \leq allowable. Carryover is acceptable. 2. Low points: Verify inlet location is at sag of vertical curve, not at P.I. Place flanking inlets both sides of low point at a maximum spacing of 100' from low point. 3. Redundant inlets: End of curb returns at intersection and in separation ditches. 4. 100% flow interception: On pavement at end of ret. wall, at ramp gores, at intersections. 5. Provide detail for equalizer pipes to connect multiple boxes in trunkline at inlets.

1.3.5 Stormwater Storage Facilities

Preliminary stormwater storage facility locations have been identified for the Project as shown in Schematic Plans in the Reference Information Documents and in the environmental re-evaluation for Segments F and G for the purpose of assisting the Developer with locating appropriate discharge points for the collection of Project runoff.

Developer shall complete preliminary design of the stormwater storage facilities to meet requirements for water quality, water quantity, and rate control, as determined by the Texas NPDES regulations. Local requirements, if more stringent, shall be handled by Developer with a third party agreement. Developer shall include TxDOT in any coordination with third parties.

Developer shall ensure that stormwater storage facilities meet the requirements listed above by performing all required analyses.

1.3.6 Hydraulic Structures

1.3.6.1 Culverts

Developer shall analyze existing and proposed culverts and drainage-ways impacted, replaced, or created by the Project design, for any localized flooding problems.

Where culvert design is influenced by upstream storage, the analysis of the storage shall be incorporated into the design of the culvert.

For all culverts, the maximum allowable headwater elevation for the design frequency shall not exceed one foot below the shoulder point of intersection elevation of the applicable roadway low point.

See Section 1.3.2.1 for additional design requirements.

1.3.6.2 Bridges

All bridge hydraulic computations, designs, and recommendations shall be consistent with past studies and projects in the area by the USACE and other State or federal agency studies and projects.

Where bridge design is influenced by upstream storage, the analysis of the storage shall be considered in the design of the bridge.

See Section 1.3.2.1 for additional design requirements.

1.3.6.3 Method Used to Estimate Flows

Developer shall ensure that the selected hydrologic method is appropriate for the conditions in the watershed. For all crossings located within a FEMA Flood Insurance Study (FIS) with peak flow

information, Developer shall gather and utilize, as appropriate, the flow information provided in the FIS and any subsequent Letters of Map Revision (LOMR) for estimating flow. For channel crossings within Harris County the Developer shall obtain the effective hydrologic and hydraulic model, if available, from the Harris County Flood Control District (HCFCD).

For a crossing not located within a FEMA Flood Insurance Study (FIS) but on the same waterway as a stream gauging station with a length of record of at least 25 years, Developer shall collect and use the flow data available from the station, as appropriate, to determine design flows within the following limitations, provided there is no major control structure (e.g., a reservoir) between the gauge and the Project:

- a) For crossings near the gauging station on the same stream and watershed, use the discharge directly for a specific frequency from the peak stream flow frequency relationship.
- b) For crossings within the same basin but not proximate to the gauging station, transposition of gauge analysis results is allowable.
- c) For crossings not within a gauged basin, the peak-flow flood frequency shall be developed using data from a group of several gauging stations based on either a hydrologic region (e.g., regional regression equations), or similar hydrologic characteristics.
- d) If no significant changes in the channel or basin have taken place during the period of record, the stream gauging data may be used. The urbanization character of the watershed must not be likely to change enough to affect significantly the characteristics of peak flows within the total time of observed annual peaks and anticipated service life of the highway drainage facility.

For crossings not located within a FEMA FIS or on a gauged waterway, Developer shall select the appropriate method for calculating the design flows based on site conditions, and Good Industry Practice.

1.3.6.3.1 Design Frequency

Bridge waterway crossings, bridges, culverts and storm drain systems shall be designed for the design-year frequency corresponding to the functional classification of the associated roadway provided in Section 1.4.1). The functional classification for each roadway is shown in Book 2, Section 11.

Developer shall evaluate bridges for contraction scour and pier scour concerns and incorporate protection in accordance with Good Industry Practice.

1.3.6.3.2 Hydraulic Analysis

Developer shall design riprap at abutments in accordance with the procedures outlined in HEC-23. For bridge abutments in urban areas, Developer shall install protection in accordance with the Project's aesthetic plan.

1.3.6.3.3 Bridge/Culvert Waterway Design

For existing crossings, Developer shall analyze the existing structure with the proposed flows to ensure the headwater does not exceed that of the current conditions. If this condition is not met, Developer shall design a replacement structure with sufficient capacity to pass the design-frequency flows and ensure the maximum headwater for any frequency event does not exceed that of the corresponding event for the current condition. Culvert extensions may increase the headwater elevation, but not above the maximum allowable headwater, with respect to adjacent property and floodplain concerns.

Bridge waterway design shall maintain the existing channel morphology through the structure, if possible.

1.3.6.3.4 Bridge Deck Drainage

Runoff from bridge decks shall be carried off the bridge and into the adjacent roadway drainage system except as noted in Table 1-7 for locations reviewed and approved by TxDOT. Bridge approach drains shall intercept gutter flow at each end of the bridge and stormwater flowing toward the bridge shall be intercepted upstream from the approach slab. Runoff from bridge deck drainage shall be treated as required by TCEQ regulation prior to discharge to the natural waters of the State.

Table 1-7: Bridge Deck Drainage Design Criteria

Design Element	Mainlanes	Ramp	Direct Connect	Frontage Road	Arterial / Cross Street	Application Notes
Bridge Deck Drainage						<p>Drain free-fall through slots in rail, where falling water would not affect adjacent roadway/bridge or other features below. Review open slot (free-fall) locations with Program Team.</p> <p>Use Bridge Drain Inlets (Welded) BD-2 where drainage through slots in rail is not acceptable.</p> <p>Use slotted rail with water blocks even in locations where bridge deck inlets are used.</p> <p>Outfall deck drain pipe system directly into nearby storm drain inlet or manhole below grade.</p>

1.3.6.3.5 Drainage Report for Major Stream Crossings

As part of the Drainage Design Report, Developer shall prepare a study for each major stream crossing. The study shall include the detailed calculations and electronic and printed copies of the computer software input and output files, as well as a discussion about hydrologic and hydraulic analysis and reasons for the design recommendations. At a minimum, for each crossing the study shall include:

Hydrology

- Drainage area maps with watershed characteristics, hardcopy
- Hydrologic calculations (where computer software is used, both hardcopy and electronic input and output files)
- Historical or site data used to review computed flows

Hydraulics and Recommended Waterway Opening and/or Structure

- Photographs of Site (pre- and post-construction)
- General plan, profile, and elevation of recommended waterway opening and/or structure
- Calculations – hardcopy of output, as well as electronic input and output files for all computer models used for final analysis or for permit request, as well as summary of the basis of the models
- Cross-sections of waterway (Developer shall provide a hard copy plot, plus any electronic data used)
- Channel profiles

Scour Analysis

- Channel cross-sections at bridge showing predicted scour
- Calculations and summary of calculations, clearly showing predicted scour and assumptions regarding bridge opening and piers used to calculate predicted scour
- Discussion of review of long-term degradation/aggradation and effects
- Recommendation for abutment protection

1.4 Drainage Design Report

A preliminary Drainage Design Report shall be submitted with prefinal set of construction plans. The preliminary Drainage Design Report shall include preliminary design of all components that will be included in the final Drainage Design Report. Within 30 days of Service Commencement, Developer shall submit to TxDOT, as part of the record set documents, a final Drainage Design Report, which shall be a complete documentation of all components of the Project's drainage system. At a minimum, the Drainage Design Report shall include:

- a) Record set of all drainage computations, both hydrologic and hydraulic, and all support data.
- b) Hydraulic notes, models, and tabulations
- c) Bridge and culvert designs and reports for major stream crossings
- d) Pond designs, including graphic display of treatment areas and maintenance guidelines for operation
- e) Correspondence file
- f) Drainage system data (location, type, material, size, and other pertinent information) in a suitable electronic format
- g) Storm sewer drainage report

1.5 Construction Requirements

Developer shall design drainage to accommodate construction staging. The design shall include temporary erosion control ponds and other Best Management Practices needed to satisfy the NPDES and other regulatory requirements. The water resources notes in the plans shall include a description of the drainage design for each stage of construction.

APPENDIX D – CONTRACT TIME EVALUATION



Contract Time Evaluation

BASIS OF SCHEDULE

Grand Parkway

Segments: F-1, F-2 & G

GPW F1_F2 & G Contract Time Evaluation 8-29-12.xer

Submitted: June 24, 2013

By: Jacobs Engineering Group Inc.
6688 North Central Expressway
Dallas Texas, 75206



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ATTACHMENTS

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Attachment 02 – Earthwork Quantity Assessment
Attachment 03 – Summary Schedule
Attachment 04 – Detailed Schedule
Attachment 05 – Historical Weather Data
Attachment 06 – Priority Parcels

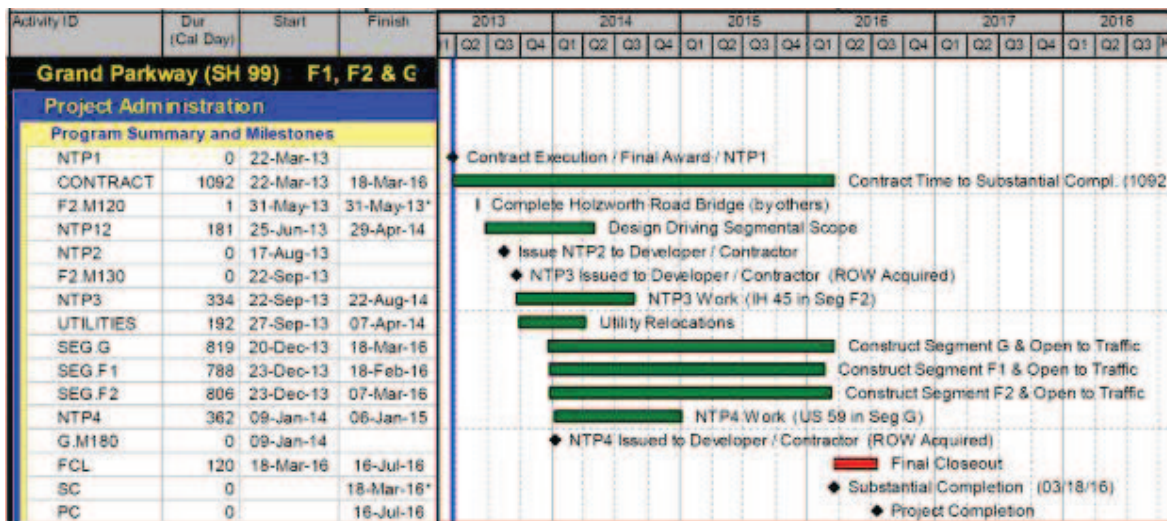
1. EXECUTIVE SUMMARY

Jacobs Engineering Group Inc. (Jacobs) performed a Contract Time Evaluation on the Grand Parkway, Segments F1, F2 and G, program. Program documents were obtained and reviewed in order to assemble a proposed construction critical path method (CPM) schedule for the purpose of evaluating reasonable construction duration and assess “driving” resources necessary to successfully execute the scope of work as presented in the documents.

Figure 1 below reflects the summary of the major program elements and final analysis of the program timeline. Although preliminary engineering drawings and estimates indicate significant volumes of earthwork and pavement to be constructed, the scope of bridge construction is revealed as the driving factor to substantial completion. The referenced CPM model reflects concurrent work operations in all segments of construction with the assumption that the developer will be able to utilize sufficient equipment and labor resources necessary to perform the scope of work within an aggressive time frame as indicated in the CPM network. For instance, one major assumption includes a beam fabrication and erection production of 2,800 LF/work day for a continuous period of four months. This assumed installation rate contains a greater risk on impacting the program delivery if production rates are not achievable due to beam availability and delivery constraints. Additionally, the number of bridge deck work resources is critical to the successful execution of the proposed timeline.

Furthermore, the project duration is constrained by real estate acquisition activity of more than 500 parcels and greater than 60 utility relocate providers. Which, at any time, can disrupt commencement of subsequent construction activity.

Figure 1 – Summary of Anticipated Timeline



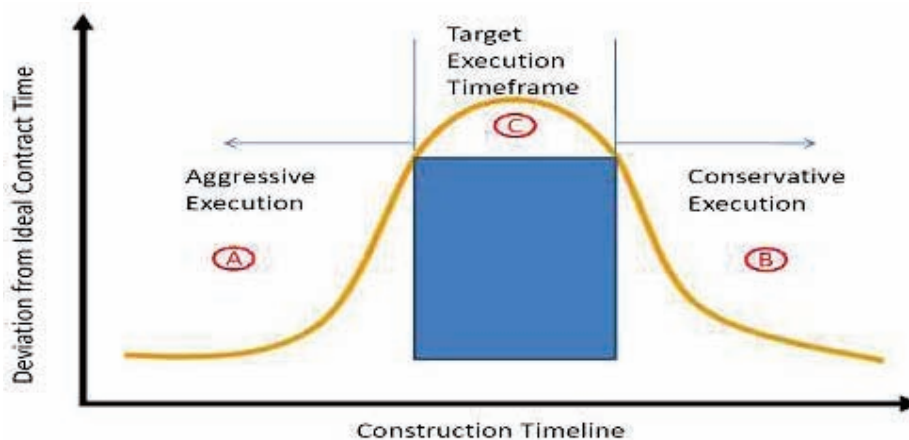
2. PURPOSE

An independent proposed project schedule has been developed under an agreement between TxDOT and Jacobs Engineering Group Inc. (Jacobs) for the purpose of evaluating the Project duration (determined by others) for the Grand Parkway (SH 99), Segments F-1, F-2 and G. Comprehensive Development Agreement (CDA) bid documents indicate a Project duration of 1,092 calendar days. The scope of work included within this time period includes real estate and easement acquisition, permits, interagency agreements and approvals, utility relocates, design and construction.

The proposed project schedule is not intended to assume the developers means and methods or a planned sequence of operation for site logistics, rather it is an evaluation of driving resources based on the schematic design drawings, assumed production rates and anticipated work schedules.

Identifying the proper contract timeframe for any Project is an exercise that must comprehensively align with the Project budget estimate and account for contract delivery methods, and contingency and risk management strategies. The process of determining a suitable Project duration that accounts for these factors is typically evaluated and determined through risk analysis which produces a probabilistic distribution range of confidence levels. The Figure below describes industry best management practices specific to reasonable probability distribution range.

Figure 2 – Contract Time Determination



A – Aggressive Execution: Schedule compression containing minimal allowances for latent and patent contingency (for time) results in higher costs attributable to ROW, design and construction. It also provokes minimal toleration for risk management as mitigation strategies cost more to maintain the project schedule. Other attributed costs include acceleration, inefficiency factors with work force concurrency and stacking, and material and equipment expedition fees. Safety and quality are also at risk when extraordinary working conditions associated with schedule compression exists. The most obvious cost savings are associated

with soft costs and reduced extended overhead although the cost savings must be carefully evaluated against the more significant uncertainties associated with schedule compression.

The current Project duration of 1,092 calendar days fall within this “A” Aggressive Execution classification range.

B – Conservative Execution: Excessive Project duration especially during the construction phase is attributed to increased costs related to extended overhead, escalation and soft costs by the A/E, PM/CM, consultants, vendors and the contractor(s). This occurs mostly due to construction production factors less than industry mean, that is, production is slower than normal.

C – Target Execution Timeframe: The most preferred Project Duration distribution range since equipment and labor production is optimized, not too aggressive, and not too conservative, falling within the most likely range. Ideal delivery milestones should reflect “reasonable” execution of program scope. “Down” time for adverse weather as well as planned contingency should be included in the schedule assessment to account for necessary recovery periods. Slow mobilization of planned resources as well as unforeseen conditions are anticipated to occur during program execution. Providing the contractor sufficient time to re-assess his work plan without impact the final completion date will reduce claims risk and provide a more ideal management environment.

The contract timeline for the Grand Parkway program is determined to fall with-in the category A period.

3. DOCUMENTS REVIEWED

The CPM schedule has been prepared from 35% project schematic drawings, CDA bid documents as well as supporting estimated costs of construction provided by TxDOT. The schedule was developed using the latest version of Primavera Project Management (P6) scheduling software.

The following listing of documents was obtained by the schedule staff for the assembly and assessment of the proposed project schedule. The bid documents were downloaded from TxDOT's *gpprocurement.com* web-site. Other materials were provided by TxDOT and its design consultants.

- a) 2012.05.09_sch_f1.pdf (Segment F1 Schematic Design Drawings)
- b) 2012.05.03_sch_f2. (Segment F2 Schematic Design Drawings)
- c) 2012.05.03_sch_g.pdf. (Segment G Schematic Design Drawings)
- d) 2012.07.16_sch_f1.pdf (Segment F1 Schematic Design Drawings – Addenda 3)
- e) 2012.07.16_sch_f2.pdf (Segment F2 Schematic Design Drawings – Addenda 3)
- f) tech_prov Book 2.pdf
- g) attach_2_2.pdf
- h) attach_2_3.pdf
- i) 2012.6.8 e-g cost est final.pdf
- j) F1_F2_G6_112 Update.xer
- k) GPW F1_F2_ & G Timelines.xer
- l) GP Priority Parcels.xls

4. PROCEDURES

4.1. ORGANIZATIONAL STRUCTURE

The schedule is organized by the Primavera Work Breakdown Structure (WBS) according to the Book 2 schedule requirements of the CDA proposal documents. Figure 3 illustrates the schedule WBS.

Figure 3 – Work Breakdown Structure

Grand Parkway (SH 99) F1, F2 & G	
Project Administration	
Program Summary and Milestones	
General Administration	
Utility Agreements	
Segment F1	
Summary and Milestones - Seg F1	
Right-of-Way (ROW) Mapping	
Utility Adjustments	
Design	
Construction: Segment F-1	
Sta: 2407+00 - 2616+00	
Sta: 2616+00 - 2770+00	
Sta: 2770+00 - 2945+00	
Sta: 2945+00 - 3090+00	
Option D - Hockley / Grant Rd Br.	
Option E - Botkins / Juergen Rd Br.	
Option F - Cypress Hill Rd. Br.	
Option G - Shaw Rd Br.	
Segment F2	
Summary and Milestones - Seg F2	
Right-of-Way (ROW) Mapping	
Utility Adjustments	
Design	
Construction: Segment F-2	
Sta: 3100+00 - 3275+00	
Sta: 3275+00 - 3450+00	
Sta: 3450+00 - 3635+00	
Sta: 3635+00 - 3740+00	
NTP3	
Option H - Max Conrad Dr. Bridge	
Segment G	
Summary and Milestones - Seg G	
Right-of-Way (ROW) Mapping	
Utility Adjustments	
Design	
Construction: Segment G	
Sta: 3726+00 - 3900+00	
Sta: 3900+00 - 4070+00	
Sta: 4070+00 - 4343+50	
Sta: 4343+50 - US59	
NTP4	
Option A - EB 99 to US59 North DC	
Option B - NB Hardy Toll Rd to EB & WB SH99	
Option C - EB & WB SH99 to SB Hardy Toll Rd	

Segment Construction was separated into four sections of construction averaging 17,000 lf in length. Final section limits defined in the contractors proposed schedules will be significantly smaller due to the maximum activity durations stipulated in the CDA documents.

The bridge structures within each of the defined sections are detailed and scheduled accordingly. Flatwork activities included in the WBS level "Prep ROW, Earthwork, Drainage, RW's and Pavements" capture the elements below:

- SWPPP and project barricades
- Right-of-way preparation and existing structure demolition
- Earthwork: Cut / Fill and embankments from borrow sources
- Site Drainage
- Retention Systems
- Lime, base and asphalt binder
- Concrete pavements and backfill

4.1. CALENDAR LIBRARY

Several work calendars were defined in the calendar library and applied to program activities to properly model standard work weeks, down time for planned holidays and non-work days anticipated for adverse weather.

Table 1 reflects the calendars developed for the schedule as well as the activity count of the assigned activities. Refer to Attachment 4 (Detailed Schedule) for calendar assignments of each scheduled activity.

Table 1 – Project Calendars

	Schedule Calendar	Number of Activities	Application
1	GP - Earthwork - 5 day week	56	Lime Subgrade Non-critical Retaining Walls
2	GPR - Earthwork - 6 day Work week	82	Major Earth Moving Silt Fence ROW Prep Drainage
3	GP - Structural / Paving - 5 day week	210	Asphalt Cement Base Final Backfill and Grading Paving Operations Seeding / Landscaping
4	GP – Structural / Paving - 6 day week	453	Bridge Piers, Foundations, Columns & Decks Set Bridge Beams Final Striping and Punchlist
5	GP - 5 day week w/ basic Holidays	9	Design summaries and TxDOT approvals
6	GP - 7 Day	258	Program Timelines ROW Acquisition Design Cure periods

The standard holidays included in Calendars 1 through 5:

- New Years
- Memorial Day
- Independence Day
- Labor Day
- Thanksgiving
- Christmas

Properly modeling non-work periods to account for inclement seasons and weather days, and special events, and other restricted periods are included in the schedule. Historical weather data was obtained from “weatherunderground.com” and assessed for anticipated adverse weather. The Rosewood Hill – Tomball, TX station was identified as the closest average location for assumed average conditions along the proposed alignment. Calendar days with precipitation greater than 0.5” were assessed as days of non production. Consecutive rain events were additionally considered as periods of non performance for modeling events. Refer to Attachment 05 for the historical weather data gathered from the referenced site for the period of 2008 through the present 2012 period.

Table 2 reflects the assessed non-work days applied to the Structural / Paving and Earthwork work calendars in the referenced schedule assessment. The table assumes for every day of adverse precipitation it will take an additional two days to dry the subgrade to resume full production of earthwork operations.

Table 2 – Assumed Non-work Days due to Adverse Weather

Rosewood Hill - Tomball Texas Station
weatherunderground.com

	Weather Days Applied to Schedule Calendars	
	Structural Non-work Days	Earthwork Non-work Days
January	2	6
February	4	12
March	4	12
April	2	6
May	2	6
June	4	12
July	3	9
August	3	9
September	3	9
October	5	15
November	3	9
December	4	12

4.2. QUANTITY ASSESSMENT

Activity durations are computed from measured quantities of the planned activity and applied at a planned production rate for the commodity. Quantities were obtained from digitizing length area takeoffs of the Adobe “pdf” design drawings. Refer to Attachment 01 (Quantity Assessment) for the detailed breakdown of computations.

Bridge bent counts were obtained from indications on the schematic drawings when possible. When bent locations were not identified on the plans they were based on assumed bridge beam lengths of 100 - 110’. The number of precast bridge beams per bridge deck width is based on

TxDOT standards provided by the Jacobs structural engineering department. Deck components are assumed to be 8" total thickness comprising of 4" precast deck panel and 4" cast in place concrete deck slab.

Earthwork volumes were prorated from quantities obtained from the Planned Cost of Construction (Estimate) for each of the respective segments. Table 3 reflects the volumes of earthwork included for each section of roadway based on the percentage of the alignment of pavement on grade related to elevated bridge construction. Refer to Attachment 02 for the detailed calculations of earthwork.

Table 3 – Earthwork Volumes

Section (Stations)	Length of Earthwork Along Alignment	% of Segment of EW	Earthwork Volumes Prorated	
			Cut / Fill, cy	Borrow, say 20% Compaction Factor, cy
F-1			1,230,600	1,510,942
2407 - 2616	15,177	35%	432,434	530,946
2616 - 2770	14,018	32%	399,411	490,400
2770 - 2945	3,975	9%	113,259	139,060
2945 - 3090	10,020	23%	285,497	350,536
	43,190			
F-2			1,063,367	3,113,706
3100 - 3275	13,271	26%	280,411	821,086
3275 - 3450	14,712	29%	310,858	910,242
3450 - 3585	10,156	20%	214,592	628,359
3585 - 3635	4,576	9%	96,689	283,120
3635 - 3740	7,611	15%	160,817	470,898
	50,326			
G			1,282,234	1,916,579
3726 - 3900	9,957	20%	258,028	385,679
3900 - 4070	9,890	20%	256,291	383,083
4070 - 4343	26,120	53%	676,879	1,011,743
4343 - 4420	3,513	7%	91,037	136,074
	49,480			

4.3. PRODUCTION RATES

Planned production rates were assessed and applied to the major (governing) activities in the CPM schedule in order to determine reasonable activity durations. Production rate documentation was gathered from various sources and assessed according to project constraints. Final rates were based on considerations for labor, equipment and material availability. Production rates are assumed to be on the high-end (most efficient) due to the lack of existing traffic management and minimal constraints to site access and logistics. Production rates vary within the assembled schedule and are assigned to specific groups of activities within geographical sections of the Project.

Assigned work calendars were considered in the production rate analysis. Extended work hours and 6 day work weeks affect peak periods of performance and result in a drop in planned efficiency. Peak performance for bridge deck construction related to a 5 day work week is anticipated to be 14 cy of form deck, place reinforcing and pour concrete per day. However, due to efficiency loss in extended work days as well as the planned 60 hour work week, the cumulative effect on the planned production is applied at 79% the peak rate. This efficiency factor is based on extended work periods or 60 hour work weeks of 9 weeks or more (Effects of

Scheduled Overtime on Labor Productivity – Randolph Thomas).

Table 4 – Planned Production Rates

Construction Activity		TxDOT	FL DOT	Actual Production Rates from 2012 \$1B North Texas TxDOT project	Apply
Clear and Grub	3 acre / day	1 - 6 acre / day	1 - 10 acre / day		8 acre / day
Excavation	5000 cy / day	1200 - 7000 cy / day	7500 cy / day	2400 cy / day avg., 25000 max	7500 cy / day
Embankment		1200 - 7000 cy / day		2400 cy / day avg.,	7500 cy / day
Retaining Wall - MSE	210 sf / day	100 - 200 sf / day	100 - 200 sf / day	240 sf / day Avg., 1001 sf / day max	200 sf / day
Aggregate Base	1360 ton / day	1500 - 4500 sy / day			3800 sy / day
Asphalt Bond Breaker	1175 ton / day	500 - 2000 ton / day		732 ton / day, 500 ton / day max	1200 ton / day
Conc. Pvg. (slipform)	2500 sy / day	1000 - 5000 sy / day	5000 sy / day	1597 cy / day avg., 5525 cy / day max	4500 sy / day
Conc. Pvg. (handpour)				286 cy / day, 822 cy / day max	750 sy / day
Lime Subgrade	6000 sy / day	2000 - 6000 sy / day		875 sy / day, 4100 sy / day max	3800 sy / day
Drill shaft	0.3 ea / day				0.5 / day
FRP Deck - 5 day work wk	50 sy / day		6-14 cy / day	5.6 cy / day, 59 cy/day max	14 cy / day
FRP Deck - 6 day work wk	50 sy / day		6-14 cy / day	5.6 cy / day, 59 cy/day max	11 cy / day
Prestressed Beam Erect.	400 lf / day	150 - 250 lf / day	250 - 600 lf/day	645 lf / day avg., 1911 lf / day max	1000 lf / day
FRP Bridge Rail		150 - 300 lf / day	200 lf / day	390 lf / day avg., 1693 lf / day max	300 lf / day

Attachment 04 (Detailed Schedule) additionally reflects the applied production rates to the various scoped activities and quantities. Several activities reflect a “double crew” in order to progress the activity with-in the desired timeframe. These activity descriptions indicate “2 crews” and are assigned production rates double the standard applied rates.

Work Hours:

Site clearing and earthwork operations are scheduled based on a 6 day work week, assuming 9 to 10 hour work days. Subgrade preparation and concrete pavement operations total float values indicate less criticality than bridge structures and are modeled on a 5 day work week.

Due to the limited contract time and the extent of the structural bridge construction scope, all bridge construction elements are modeled on a 6 day work week. Standard work hours are anticipated to be 9 to 10 hour days. In-efficient factors are considered and accounted for work required greater than 40 hours per man-week. Safety is always of utmost concern as should carefully be evaluated by the Contractor especially related to bridge work activities. Jacobs assumes the Contractor will minimize craft labor working greater than 40 hours per week but utilizing multiple shifts and crews for cost, quality and safety concerns.

4.4. RESOURCE LIBRARY

The schedule assessment clearly identifies the construction of the various bridge structures to be the driving factor in the final completion of the segmental construction. Although earthwork quantities and pavement elements were extensive, the CPM model indicates that these flatwork activities can be progressed with increased resource allocation in order to maintain pavement opening dates.

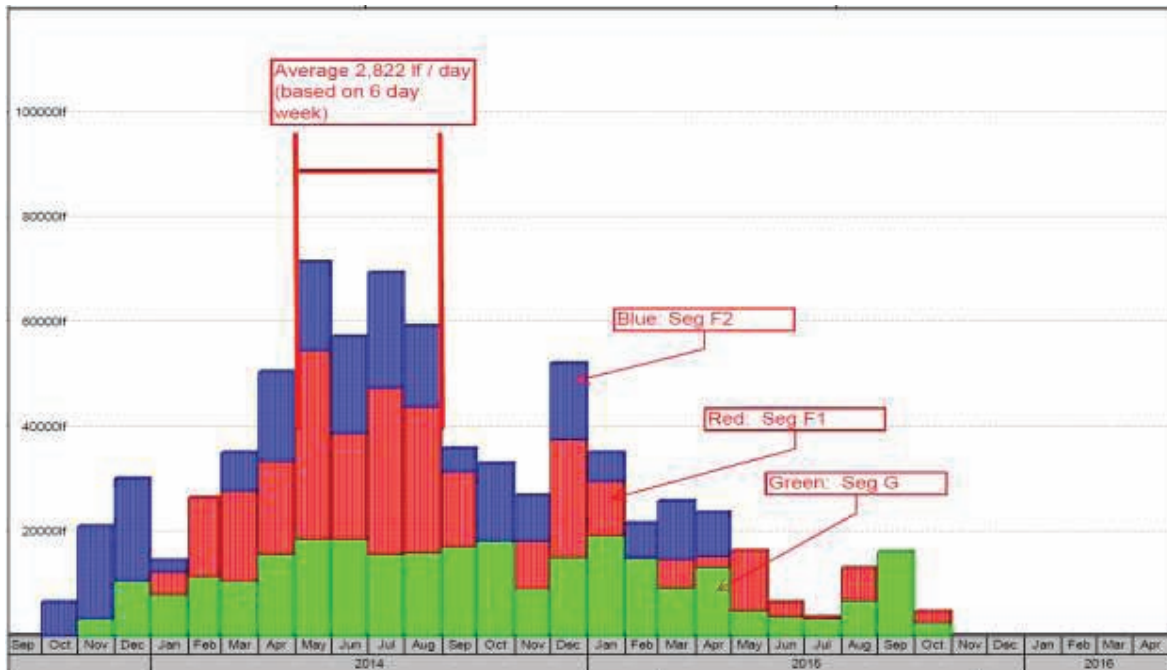
With the extent and magnitude of the bridge elements to be constructed, particular attention was placed on material and resource availability for construction, in particular, beam supply and form, rebar and pour (FRP) deck slab construction.

Resources were created in the Primavera Resource Library for; Earthwork, Lime Subgrade, Slipform Pavement, Bridge Beam Installation and Form, Rebar and Pour (FRP) Deck Construction. These resources were assigned to their respective activities in the CPM schedule. Once assigned, these resources were populated with the calculated quantities reflected in attachment 01. The sequence of construction was then modified in an effort to

“level” these elements to more accurately reflect planned execution of mobilized field staff.

Figure 4 reflects the Beam Delivery / Installation resource profile of the planned execution of setting beams to support the bridge deck construction.

Figure 4 – Beam Delivery / Installation Resource Profile



Scheduled beam setting requirements for the period of May 2014 through August 2014 reflect an average of 2,822 lf of precast beam per work day, based on the 6 day work week. Although this installation rate per day is achievable with multiple installation crews throughout the alignment, the fabrication and delivery of 29 beams per day on a daily basis, 6 days a week, may be problematic if not addressed accordingly. Proper analysis of beam fabrication and beam delivery equipment will be necessary for successful final completion of the program.

Figure 5 – FRP Deck Resource Profile

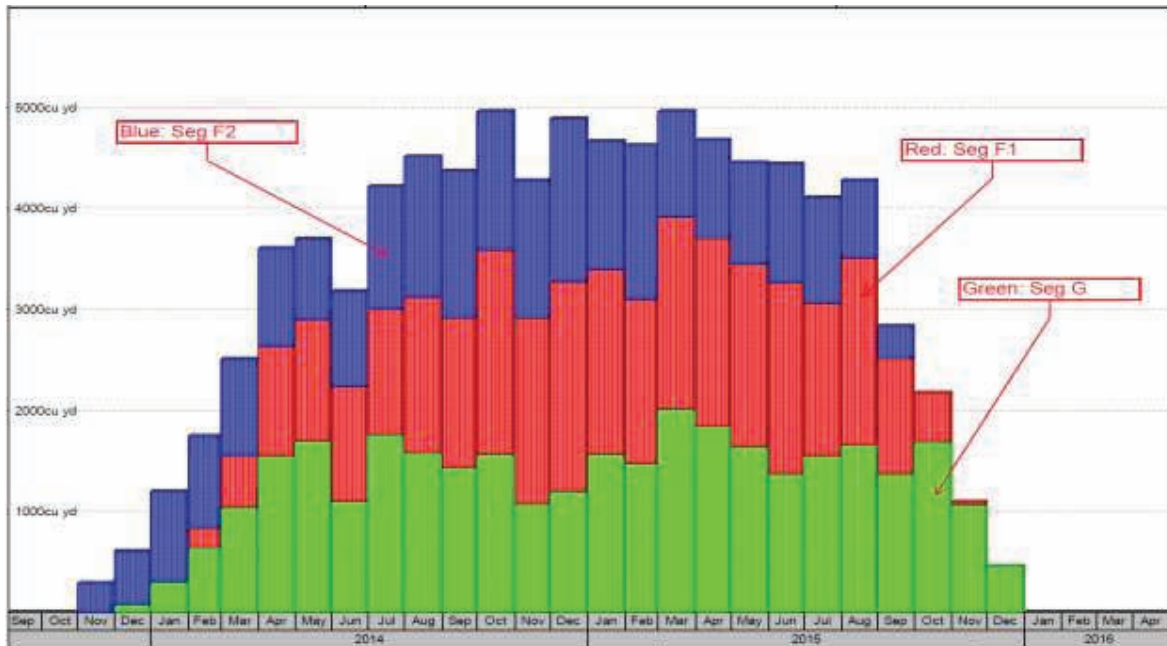


Figure 5 reflects the FRP Bridge Deck resource profile to support the bridge deck construction. The stacked histogram reflects the program wide profile while the separated colors indicate the separate segments of construction. In addition to leveling the precast bridge beam delivery resource, the construction of the bridges along the alignment were spread out or leveled in order to accurately reflect the allocation of anticipated structural resources. Timelines for construction of some of the bridges are driven by retaining wall and abutment construction components. Some of the staggered logic of the bridge construction is incorporated from assumed sequences of operation. The peak of bridge construction is forecasted to be the second quarter 2014 through the third quarter of 2015.

Table 5 reflects the calculated number of bridge deck work crews necessary to support the scheduled work plan based on the 6 day work week and the planned production rates for the bridge deck construction.

Table 5 – Number of Assumed Bridge Deck Crews

	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14	Jul-14	Aug-14	Sep-14	Oct-14	Nov-14	Dec-14	Jan-15	Feb-15	Mar-15	Apr-15	May-15	Jun-15	Jul-15	Aug-15	Sep-15	Oct-15	Nov-15	Dec-15
F1	0	0	0	1	1	5	5	5	5	6	6	8	8	8	7	7	8	8	8	7	6	7	4	1	0	0
F2	3	3	4	5	5	5	4	5	6	6	7	6	7	7	6	8	5	5	5	6	5	4	2	1	1	1
G	0	0	1	3	4	7	7	5	7	6	6	6	5	5	6	6	8	8	7	5	6	6	4	7	5	2
	3	3	6	9	10	17	16	14	17	18	19	20	20	20	19	21	22	20	19	19	17	17	10	9	6	3

5. PROGRAM EXECUTION

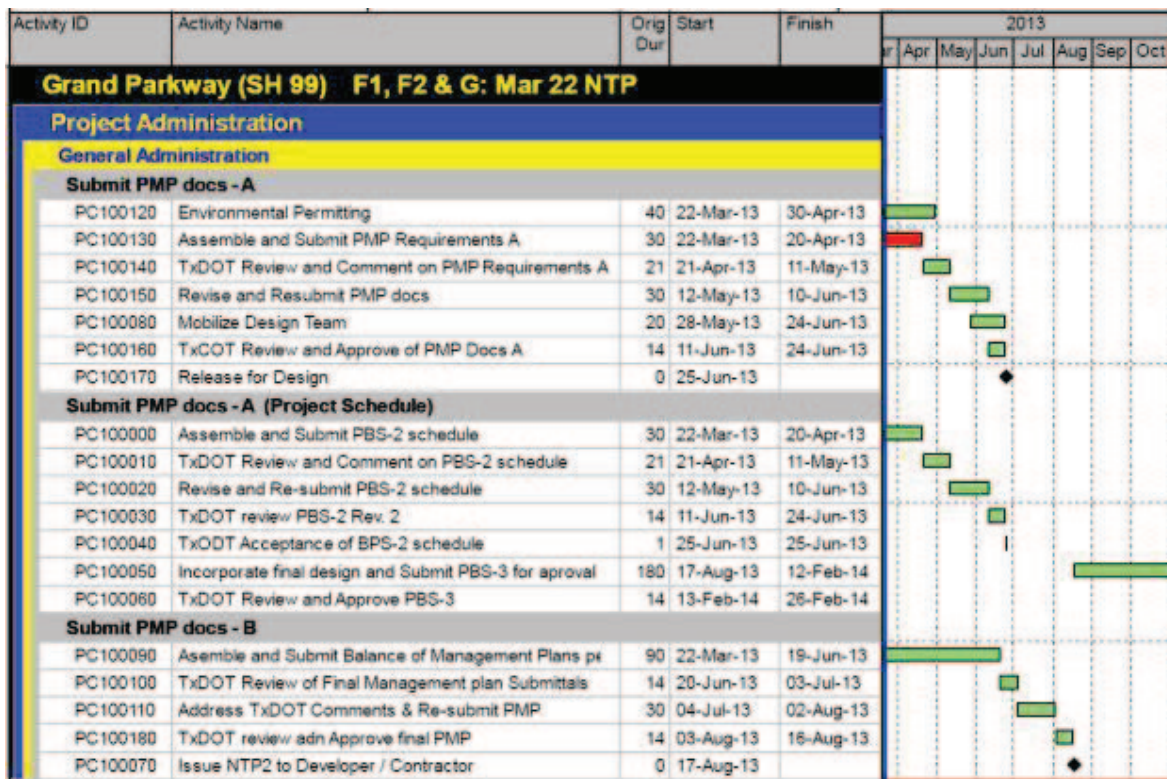
5.1. GENERAL ADMINISTRATION

Contract Execution (NTP1) is anticipated to be issued March 22, 2013. Upon receipt of NTP1 the developer is required to make submission of a list of management plans as well as the submission of the PBS-2 baseline schedule.

NTP2:

Upon receipt of NTP1 the developer is required to submit the Project Management Plan (PMP) contents for TxDOT review and acceptance according to Attachment 2-1 of the bid documents. Portions of the PMP requirements are indicated to be submitted 30 calendar days after receipt of NTP1 with the remaining elements of the management Plan submitted to TxDOT 90 days after issuance of NTP1. Figure 6 reflects the scheduled timeline of the forecasted activities preceding the issuance of NTP2 to the developer, releasing commencement of construction activities. NTP2 is forecasted to be issued in mid August of 2013.

Figure 6 – NTP2 Timeline



NTP3:

CDA documents indicate the issuance of NTP3 to be driven by the completion of the Holzworth Road Bridge west of I45. This bridge is scheduled to be constructed by others and is anticipated to be completed in the spring of 2013. However, the issuance of NTP3 is anticipated to be executed once the majority of the ROW parcels are acquired, allowing the

contractor to complete the scope of work within the identified 365 calendar day timeline without delays related to parcel acquisition and utility relocations. NTP3 is forecasted to be issued late September 2013, based upon the early acquisition of ROW parcels expedited in this area. This timeline has been verified to be a reasonable schedule requirement of the identified scope.

NTP4:

NTP4 work comprises of the section of roadway and bridge work crossing I59 in Segment G. The commencement of NTP4 is anticipated to be driven by the acquisition of necessary ROW, similar to NTP3. NTP4 scope is scheduled to commence as soon as reasonably possible and complete ahead of other sections of roadway. NTP4 is forecasted to be issued early January 2014, based upon the acquisition of ROW parcels of the subject area. NTP4 is required to be complete with-in 365 calendar days of the issuance of the notice to proceed. This timeline has been verified to be a reasonable schedule requirement of the identified scope.

Utility Agreements:

The assembly of utility agreements is planned to commence as NTP1 is issued to the developer. The scheduled activities for utility agreements do not reflect all of the various utility providers, rather, a general timeline of the early completion of the critical utility relocate providers. Early completion of Utility Agreements is forecasted for mid November 2013.

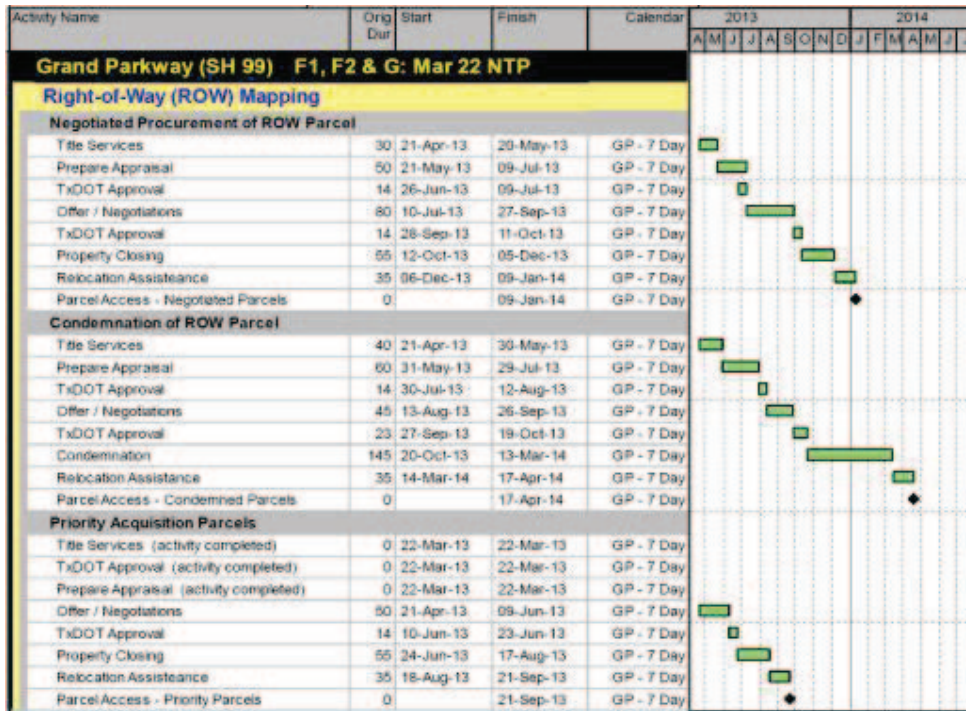
Right-of-Way Acquisition:

The schedule reflects a timeline for negotiated parcel acquisition as well as extended time for condemnation of necessary parcels. Each segment of construction includes these ROW fragnets, however, they are identical in scope and duration. Adjustments may be incorporated in order to model criticality as additional information becomes available.

Certain parcels were identified to be expedited in order to accelerate construction. Attachment 06 reflects the parcels identified as priority parcels and modeled accordingly for early Offer / Negotiation execution.

Schedule logic reflects negotiated acquisitions driving the majority of ROW prep and clearing operations. It is assumed that the parcels following the condemnation process will be coordinated by the developer in order to commence construction of bridge structures and earthwork operations. Critical negotiated parcels are anticipated to be acquired early January 2014 while critical condemned parcels are forecasted to be acquired mid April 2014, three months later.

Figure 7 – Typical Right-of-Way Acquisition Logic



Design:

The design team is expected to commence progression of segmental design once the item A requirements of the PMP have been reviewed and approved by TxDOT [Figure 6]. Release for design is forecasted to occur June 2013. Early RFC package delivery is anticipated in order to release long lead fabrication and begin earthwork operations in select areas. Direct connector bridges are anticipated to commence prior to other structures due to the availability of existing right-of-way. Structural design for foundations and beam fabrication will likely be expedited for precast beam and steel girder fabrication and delivery in order to construct the direct connector bridges as well as the overpasses of US59 and I45. The bridge construction work plan will likely drive the development of design packaging and define the total duration of the segmental design development.

5.2. CONSTRUCTION

Table 6 reflects the general breakdown of earthwork, pavement areas and bridge deck areas along the three segments of construction. Segment F-2 contains the most significant earth moving quantities as well as on grade pavements to be constructed. Segment G, including all options, contains the majority of the bridges to be constructed along the alignment, 39 percent more than the F-2 segment. In addition, Segment G contains greater acreage of tree clearing and significantly more demolition of existing structures than the other two segments. Parcel acquisition of these existing facilities to be removed are anticipated to follow the condemnation track and contain significantly more risk of impact to the established work plan proposed by the developer.

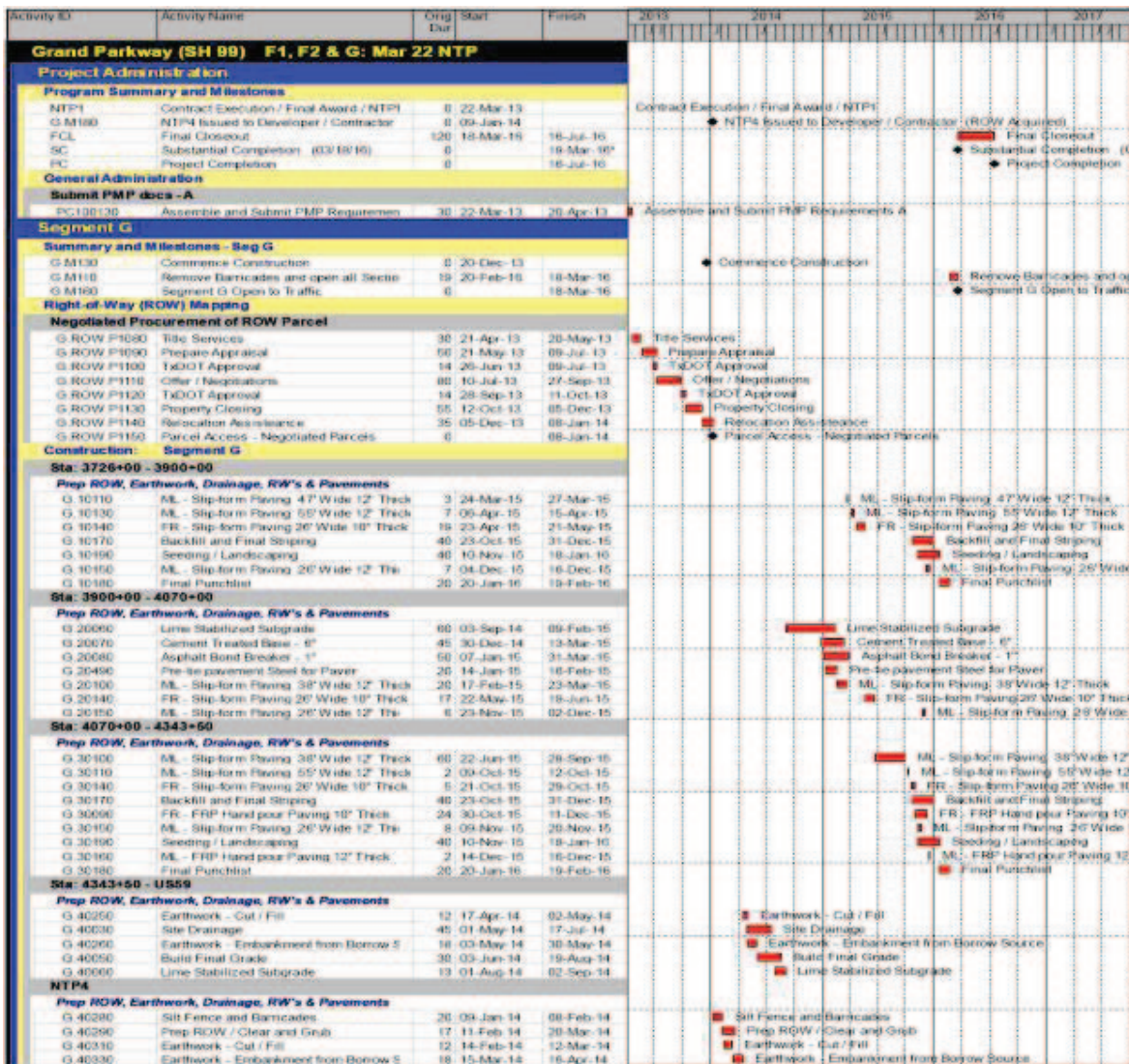
Table 6 – Segmental Breakdown

Segment	Segment Length, lf	Length of Bridges along Alignment, lf	Length of On Grade Pvt. along Alignment, lf	Total EW, cy *	% more EW than Least segment	Total Pavement, sy **	% more Pvt. than Least segment	Total Bridge Deck area, sf ***	% more Bridges than Least Segment
F-1	68,300	25,110	43,190	2,741,542		637,632		2,509,689	30.6%
F-2	64,000	13,674	50,326	4,177,073	52.4%	791,647	24.2%	1,921,161	
G	69,400	19,920	49,480	3,198,813	16.7%	772,540	21.2%	2,672,870	39.1%

* includes 20% compaction factor ** Frontage Roads and Main Lanes *** Includes Options

Figure 8 reflects the longest path of the Contract Time Evaluation Schedule

Figure 8 – Longest Path



GRAND PARKWAY: Segments F-1, F-2 G

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QUANTITY ASSESSMENT

Options	612,728
---------	---------

Option A - EB SH99 to US 59 N

612,728

	6 ML - Hand pour F
--	--------------------

176,820

[illegible]

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176,820

Option B - NB Hardy Toll Rd to EB and WB SH 99										166,453									
		1	Clear and Grub	8	ACRE			40,653	SY										
		6	ML - Hand pour Paving 12" Thick	2,163	SY														
		13	Retaining Wall - Fill	441	LF														
		103	G - Br 18= = 28.5' wide DC-NE	1,414	LF		29	1,414		14	40,307			4.00	14.00	5,656			
		104	G - Br 18= = 42.5' wide DC-NW	1,444	LF		42	1,444		13	61,363			4.00	14.00	5,776			
		106	G - Br 18= = DC-NE (eb 99 to Hardy)	1,070	SF						1,070			4.00	0.00	0			
		G - Br 18: EB99 to Hardy					71	2,858	31	27	102,740	1,256	5,716		12		11,432		
		116	G - Br 19= = 28.5' wide DC-NW	2,236	LF		28	2,236		22	63,713			4.00	22.00	8,944			
		G - Br 19= = 28.5' wide DC-NW					28	2,236	22	22	63,713	779	4,472		4		8,944		

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63,713

Option C - EB and WB SH99 to hardy Toll Rd South										143,666			
	1	Clear and Grub	6	ACRE		30,594	SY						
	6	ML - Hand pour Paving 12" Thick	4,935	SY									
	13	Retaining Wall - Fill	1,879	LF									
	103	G - Br 20' = 28.5' wide DC-ES	1,640	LF	29	1,640	17	46,748			4.00	16.00	6,560
	104	G - Br 20' = 42.5' wide DC-ES	170	LF	43	170	1	7,243			4.00	1.00	680
	106	G - Br 20' = DC-ES (eb 99 to Hardy)	24,009	SF		641		24,009			4.00	6.00	2,564
		G - Br 20' = DC-ES (eb 99 to Hardy)			71	2,451	48	18	78,000	953	4,902	12	9,804
	116	G - Br 21' = 28.5' wide DC-W5	2,304	LF	29	2,304	20	65,666			4.00	23.00	9,216
		G - Br 21' = 28.5' wide DC-W			29	2,304	20	65,666	803	4,608	4		9,216

[illegible]

65,666

Option D - Hockley / Grant Rd										24,709				
		Fill Wall	700	LF										
115	F1 - Br 09b = 40.5' wide Hockley / Grant eb	263	LF		46	263		1	11,999			4.00	2.00	1,052
116	F1 - Br 09b = 40.5' wide Hockley / Grant wb	265	LF		48	265		1	12,710			4.00	2.00	1,060
	F1 - Br 019b = 40.5' wide Hockley / Grant				94	528	12	2	24,709	302	1,056	8		2,112

Option 5: Jürgen Rd

24,709

Option E - Juergen Rd										34,721			
		Fill Wall	679 LF										
	115	F1 - Br 11b = 40.5' wide Juergen Rd eb	399 LF	41	399		3	16,180			4.00	3.00	1,596
	116	F1 - Br 11b = 40.5' wide Juergen Rd wb	458 LF	41	458		4	18,541			4.00	4.00	1,832
		F1 - Br 11b = 40.5' wide Juergen Rd		81	857	22	7	34,721	424	1,714	8		3,428

Option E - Cypress Hill Rd

34,721

[illegible]

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31,503

Option G - Shaw rd										20,233				
	115	F1 - Br 18b = 40.5' wide Shaw Rd eb	211	LF	41	211		1	8,559			4.00	2.00	844
	116	F1 - Br 18b = 55' wide Shaw Rd wb	212	LF	55	212		1	11,674			5.00	2.00	1,060
		F1 - Br 18b = 40.5' wide Shaw Hill Rd			96	423	12	2	20,233	247	846	9		1,904

20,233

Option H - Max Conrad rd										14,623			
	Fill Wall	2046 LF											
	115 F2 - Br 03b = 40.5' wide Max Conrad Rd eb	179 LF	41	179		1	7,231			4.00	1.00	716	
	116 F1 - Br 11b = 40.5' wide Max Conrad Rd wb	180 LF	41	180		1	7,392			4.00	1.00	720	
	F1 - Br 11b = 40.5' wide Shaw Hill Rd		81	359	12	2	14,623	179	718	8		1,436	

GRAND PARKWAY: Segments F-1, F-2 and G
EARTHWORK QUANTITIES

						Quantities From Estimate		Earthwork Volumes Prorated	
	Section (Stations)	Section Length, lf	Bridge Length, lf	Length of Earthwork Along Alignment	% of Segment of EW	Excavation, cy	Embankment, cy	Cut / Fill, cy	Borrow, say 20% Compaction Factor, cy
F-1						1,230,600	2,489,718	1,230,600	1,510,942
	2407 - 2616	20,900	5,723	15,177	35%			432,434	530,946
	2616 - 2770	15,400	1,382	14,018	32%			399,411	490,400
	2770 - 2945	17,500	13,525	3,975	9%			113,259	139,060
	2945 - 3090	14,500	4,480	10,020	23%			285,497	350,536
		68,300	25,110	43,190					
F-2						1,063,367	3,658,122	1,063,367	3,113,706
	3100 - 3275	17,500	4,229	13,271	26%			280,411	821,086
	3275 - 3450	17,500	2,788	14,712	29%			310,858	910,242
	3450 - 3585	13,500	3,344	10,156	20%			214,592	628,359
	3585 - 3635	5,000	424	4,576	9%			96,689	283,120
	3635 - 3740	10,500	2,889	7,611	15%			160,817	470,898
		64,000	13,674	50,326					
G						1,282,234	2,879,383	1,282,234	1,916,579
	3726 - 3900	17,400	7,443	9,957	20%			258,028	385,679
	3900 - 4070	17,000	7,110	9,890	20%			256,291	383,083
	4070 - 4343	27,300	1,180	26,120	53%			676,879	1,011,743
	4343 - 4420	7,700	4,187	3,513	7%			91,037	136,074
		69,400	19,920	49,480					

Attachment 03 - Summary Schedule			1 of 2								
Activity ID	Activity Name	Orig Dur	Start	Finish	Total Float	2013	2014	2015	2016	2017	
Grand Parkway (SH 99) F1, F2 & G: Mar 22 N						718	22-Mar-13	16-Jul-16	0		
Project Administration						718	22-Mar-13	16-Jul-16	0		
Program Summary and Milestones						718	22-Mar-13	16-Jul-16	0		
NTP1	Contract Execution / Final Award / NTP1	0	22-Mar-13		0	◆ Contract Execution / Final Award / NTP1					
CONTRACT	Contract Time to Substantial Compl. (1092 day)	1092	22-Mar-13	18-Mar-16	0	Contract Time to Sub					
F2.M120	Complete Holzworth Road Bridge (by others)	1	31-May-13	31-May-13*	0	◆ Complete Holzworth Road Bridge (by others)					
NTP12	Design Driving Segmental Scope	181	25-Jun-13	29-Apr-14	53	◆ Design Driving Segmental Scope					
NTP2	Issue NTP2 to Developer / Contractor	0	17-Aug-13		72	◆ Issue NTP2 to Developer / Contractor					
F2.M130	NTP3 Issued to Developer / Contractor (ROW Acquired)	0	22-Sep-13		65	◆ NTP3 Issued to Developer / Contractor (ROW Acquired)					
NTP3	NTP3 Work (IH 45 in Seg F2)	334	22-Sep-13	22-Aug-14	71	◆ NTP3 Work (IH 45 in Seg F2)					
UTILITIES	Utility Relocations	192	27-Sep-13	07-Apr-14	25	◆ Utility Relocations					
SEG.G	Construct Segment G & Open to Traffic	819	20-Dec-13	18-Mar-16	0	Construct Segment G					
SEG.F1	Construct Segment F1 & Open to Traffic	788	23-Dec-13	18-Feb-16	28	Construct Segment F1					
SEG.F2	Construct Segment F2 & Open to Traffic	806	23-Dec-13	07-Mar-16	10	Construct Segment F2					
NTP4	NTP4 Work (US 59 in Seg G)	362	09-Jan-14	06-Jan-15	48	◆ NTP4 Work (US 59 in Seg G)					
G.M180	NTP4 Issued to Developer / Contractor (ROW Acquired)	0	09-Jan-14		0	◆ NTP4 Issued to Developer / Contractor (ROW Acquired)					
FCL	Final Closeout	120	18-Mar-16	16-Jul-16	0	◆ Final Closeout					
SC	Substantial Completion (03/18/16)	0		18-Mar-16*	0	◆ Substantial Completion					
PC	Project Completion	0		16-Jul-16	0	◆ Project Completion					
General Administration						201	22-Mar-13	26-Feb-14	149		
Utility Agreements						139	22-Mar-13	08-Nov-13	72		
Segment F1						628	22-Mar-13	18-Feb-16	16		
Summary and Milestones - Seg F1						467	23-Dec-13	18-Feb-16	16		
F1.M120	Commence Construction	0	23-Dec-13		12	◆ Commence Construction					
F1.M110	Remove Barricades and open all Sections of Roadway	15	26-Jan-16	18-Feb-16	16	Remove Barricades and					
F1.M100	Segment F-1 Open to Traffic	0		18-Feb-16	20	◆ Segment F-1 Open to					
Right-of-Way (ROW) Mapping						392	22-Mar-13	17-Apr-14	45		
Utility Adjustments						150	27-Sep-13	24-Feb-14	80		
Design						166	25-Jun-13	07-Apr-14	49		
Construction: Segment F-1						455	16-Dec-13	25-Jan-16	16		
Sta: 2407+00 - 2616+00						443	16-Dec-13	05-Jan-16	28		
Prep ROW, Earthwork, Drainage, RW's & Pavements						440	23-Dec-13	05-Jan-16	28		
F1 - Br 03: ML						198	13-Mar-14	11-Feb-15	222		
F1 - Br 04: Conn C						142	16-Dec-13	11-Aug-14	329		
F1 - Br 05: Conn A						148	03-Jan-14	05-Sep-14	313		
F1 - Br 02: Conn B						96	12-Feb-14	22-Jul-14	340		
F1 - Br 01: Conn D						152	28-Mar-14	12-Dec-14	258		
F1 - Br 06: Cypresswood						66	17-Oct-14	09-Feb-15	223		
F1 - Br 09: Little Cypress Creek						207	02-May-14	21-Apr-15	180		
F1 - Br 07: Cumberland Ridge						90	19-Dec-14	18-May-15	164		
F1 - Br 08: Shell Rd						84	25-Feb-15	14-Jul-15	130		
F1 - Br 10: Mason Rd						73	25-Apr-15	24-Aug-15	104		
Sta: 2616+00 - 2770+00						434	21-Jan-14	25-Jan-16	16		
Prep ROW, Earthwork, Drainage, RW's & Pavements						434	21-Jan-14	25-Jan-16	16		
F1 - Br 12: 2630+00 creek						107	13-Aug-14	13-Feb-15	220		
F1 - Br 13: Mueschke Rd						73	03-Dec-14	03-Apr-15	191		
F1 - Br 15: Willow Creek 2745						73	20-Mar-15	17-Jul-15	127		
Sta: 2770+00 - 2945+00						420	11-Feb-14	22-Jan-16	17		
Prep ROW, Earthwork, Drainage, RW's & Pavements						416	18-Feb-14	22-Jan-16	17		
F1 - Br 16: Cypress Rd						73	21-May-15	19-Sep-15	88		
F1 - Br 17: Lindsey Ln - EBML (13,198 lf)						335	11-Feb-14	27-Aug-15	102		
F1 - Br 17: Lindsey Ln - WBML (12,120 lf)						374	10-Apr-14	05-Jan-16	29		
F1 - Br 18: Willow Creek ramps						163	13-Mar-15	12-Dec-15	42		
Sta: 2945+00 - 3090+00						368	28-Apr-14	11-Jan-16	24		
Prep ROW, Earthwork, Drainage, RW's & Pavements						368	28-Apr-14	11-Jan-16	24		
F1 - Br 19: SH249						292	04-Aug-14	17-Dec-15	40		
Option D - Hockley / Grant Rd Br.						74	04-Feb-15	04-Jun-15	152		
F1 - Br: 09b: Hockley / Grant Rd.						74	04-Feb-15	04-Jun-15	152		
Option E - Botkins / Juergen Rd Br.						87	29-Jun-15	24-Nov-15	51		
F1 - Br: 11b: Juergen Rd						87	29-Jun-15	24-Nov-15	51		
Option F - Cypress Hill Rd. Br.						76	07-Jul-15	13-Nov-15	57		
F1: Br: 14b: Cypress Hill Rd						76	07-Jul-15	13-Nov-15	57		
Option G - Shaw Rd Br.						64	10-Sep-15	02-Jan-16	30		
F1 - Br: 18b: Shaw Rd.						64	10-Sep-15	02-Jan-16	30		
Segment F2						638	22-Mar-13	07-Mar-16	6		
Summary and Milestones - Seg F2						477	23-Dec-13	07-Mar-16	6		
F2.M160	Commence Construction	0	23-Dec-13		9	◆ Commence Construction					
F2.M150	Complete NTP3 - open to traffic	0		22-Aug-14*	41	◆ Complete NTP3 - open to traffic					
F2.M110	Remove Barricades and open all Sections of Roadway	15	10-Feb-16	07-Mar-16	6	Remove Barricades and					
F2.M170	Segment F-2 Open to Traffic	0		07-Mar-16	10	◆ Segment F-2 Open to					
Right-of-Way (ROW) Mapping						392	22-Mar-13	17-Apr-14	22		
Utility Adjustments						258	24-Jul-13	07-Apr-14	103		
Design						167	25-Jun-13	08-Apr-14	138		
Construction: Segment F-2						566	22-Jun-13	08-Feb-16	6		
Sta: 3100+00 - 3275+00						462	23-Dec-13	08-Feb-16	6		
Prep ROW, Earthwork, Drainage, RW's & Pavements						462	23-Dec-13	08-Feb-16	6		
F2 - Br 01: MI22						123	03-Oct-14	04-May-15	173		
F2 - Br 02: Northern RR						271	07-Aug-14	09-Nov-15	61		
<div><div><div>Remaining Level of Effort</div><div>Actual Level of Effort</div><div>Actual Work</div><div>Remaining Work</div></div><div><div>◆ Milestone</div><div>◆ Milestone</div></div></div>						SH 99 Grand Parkway Segments: F-1, F-2 & G			Contract Time Evaluation		JACOBS

Attachment 03 - Summary Schedule

2 of 2

Activity ID	Activity Name	Orig Dur	Start	Finish	Total Float	2013	2014	2015	2016	2017
F2 - Br 03: Forest Dr.		238	08-Oct-14	16-Nov-15	56					
Sta: 3275+00 - 3450+00		443	11-Jan-14	28-Jan-16	13					
Prep ROW, Earthwork, Drainage, RW's & Pavements		443	11-Jan-14	28-Jan-16	13					
F2 - Br 04: FM 2920		115	23-Oct-14	05-May-15	111					
F2 - Br 07: Northcrest Dr		78	02-Feb-15	10-Jun-15	149					
F2 - Br 05: Boudreaux rd		96	17-Feb-15	25-Jul-15	123					
F2 - Br 06: Kuykendal Rd.		202	16-Jan-15	23-Dec-15	36					
Sta: 3450+00 - 3635+00		561	22-Jun-13	01-Feb-16	11					
Prep ROW, Earthwork, Drainage, RW's & Pavements (3450 - 358)		435	27-Jan-14	01-Feb-16	11					
Prep ROW, Earthwork, Drainage, RW's & Pavements (3585 - 363)		371	22-Jun-13	19-Mar-15	201					
F2 - Br 08: Gosling Rd		74	17-Dec-14	18-Apr-15	182					
F2 - Br 09: wide UPRR eb		308	01-May-14	05-Oct-15	81					
F2 - Br 10: Mossey Oaks		81	12-Jul-14	01-Dec-14	265					
F2 - Br 11: Springwoods Village		132	01-Aug-14	19-Mar-15	201					
Sta: 3635+00 - 3740+00		345	23-Sep-13	04-May-15	173					
Prep ROW, Earthwork, Drainage, RW's & Pavements		345	23-Sep-13	04-May-15	173					
F2 - Br 13: I45 bridges - Frontage Roads		225	19-Dec-13	06-Jan-15	244					
F2 - Br 14: I45 bridges		132	11-Nov-13	20-Jun-14	358					
F2 - Br 15: Conn EN		171	19-Feb-14	08-Dec-14	260					
F2 - Br 16: Conn SW		226	15-Mar-14	02-Apr-15	192					
F2 - Br 17: Northgate Crossing		77	27-Dec-14	02-May-15	173					
NTP3		197	23-Sep-13	22-Aug-14	41					
Prep ROW, Earthwork, Drainage, RW's & Pavements		197	23-Sep-13	22-Aug-14	41					
F2 - Br 13: I45 bridges - Frontage Roads		131	23-Sep-13	02-May-14	92					
F2 - Br 14: I45 bridges - Crossing I45		177	23-Sep-13	21-Jul-14	41					
Option H - Max Conrad Dr. Bridge		63	19-Jan-15	30-Apr-15	154					
Prep ROW, Earthwork, Drainage, RW's & Pavements		23	19-Jan-15	24-Feb-15	174					
F2 - Br 03b: Max Conrad Rd.		63	19-Jan-15	30-Apr-15	154					
Segment G		644	22-Mar-13	18-Mar-16	74					
Summary and Milestones - Seg G		484	20-Dec-13	18-Mar-16	0					
G.M130	Commence Construction	0	20-Dec-13		4					
G.M120	Complete NTP4 Scope at US 59	0		06-Jan-15*	48					
G.M110	Remove Barricades and open all Sections of Roadway	19	20-Feb-16	18-Mar-16	0					
G.M160	Segment G Open to Traffic	0		18-Mar-16	0					
Right-of-Way (ROW) Mapping		392	22-Mar-13	17-Apr-14	820					
Utility Adjustments		150	08-Nov-13	07-Apr-14	25					
Design		181	25-Jun-13	29-Apr-14	12					
Construction: Segment G		539	19-Aug-13	19-Feb-16	0					
Sta: 3726+00 - 3900+00		469	20-Dec-13	19-Feb-16	0					
Prep ROW, Earthwork, Drainage, RW's & Pavements		469	20-Dec-13	19-Feb-16	0					
G - Br 01: Nelson St.		261	14-Feb-14	30-Apr-15	174					
G - Br 02: Hardy Tollway		300	24-Feb-14	14-Jul-15	130					
G - Br 03: Rayford Rd		86	21-Mar-15	07-Aug-15	114					
G - Br 04: Birnham		68	23-May-15	14-Sep-15	91					
Sta: 3900+00 - 4070+00		465	20-Dec-13	15-Feb-16	4					
Prep ROW, Earthwork, Drainage, RW's & Pavements		465	20-Dec-13	15-Feb-16	4					
G - Br 05: Woodson Gully		73	11-Jul-15	13-Nov-15	58					
G - Br 06: Imperial		72	26-Aug-15	30-Dec-15	31					
G - Br 07: San Jacinto River		291	04-Oct-14	13-Feb-16	4					
Sta: 4070+00 - 4343+50		469	20-Dec-13	19-Feb-16	0					
Prep ROW, Earthwork, Drainage, RW's & Pavements		469	20-Dec-13	19-Feb-16	0					
G - Br 08: Sta 4087		51	30-Apr-15	25-Jul-15	123					
G - Br 09: Sta 4169		55	15-May-15	15-Aug-15	109					
G - Br 10: Riverwalk Dr.		74	18-Jun-15	20-Oct-15	71					
G - Br 11: FM1314		74	08-Aug-15	17-Dec-15	39					
G - Br 12: Sta 4265		74	03-Oct-15	06-Feb-16	7					
Sta: 4343+50 - US59		433	11-Feb-14	11-Feb-16	4					
Prep ROW, Earthwork, Drainage, RW's & Pavements		433	11-Feb-14	11-Feb-16	4					
G - Br 14: White Oak Creek (ML)		146	17-Nov-14	20-Jul-15	126					
G - Br 13: Valley Ranch blvd		86	06-Jun-15	02-Nov-15	65					
G - Br 15: DC-NW		141	16-Jun-15	11-Feb-16	4					
NTP4		213	09-Jan-14	06-Jan-15	29					
Prep ROW, Earthwork, Drainage, RW's & Pavements		213	09-Jan-14	06-Jan-15	29					
G - Br 14: White Oak Creek (FR)		139	10-Feb-14	30-Sep-14	72					
G - Br 16: SH99 / US59 Elev Intersection		213	09-Jan-14	06-Jan-15	29					
Option A - EB 99 to US59 North DC		371	22-Apr-14	11-Jan-16	24					
Prep ROW, Earthwork, Drainage, RW's & Pavements		90	22-Apr-14	23-Aug-14	341					
G - Br 17: EB SH99 to US59 North DC		334	19-Jun-14	11-Jan-16	24					
Option B - NB Hardy Toll Rd to EB & WB SH99		207	19-Aug-13	06-Aug-14	332					
Prep ROW, Earthwork, Drainage, RW's & Pavements		153	19-Aug-13	05-May-14	352					
G - Br 18: NB Hardy Toll Rd to EB SH99		202	27-Aug-13	06-Aug-14	332					
G - Br 19: NB Hardy Toll Rd WB SH99		179	25-Sep-13	28-Jul-14	337					
Option C - EB & WB SH99 to SB Hardy Toll Rd		217	19-Aug-13	20-Aug-14	321					
Prep ROW, Earthwork, Drainage, RW's & Pavements		101	19-Aug-13	07-Feb-14	407					
G - Br 20: EB SH99 to Hardy Toll Rd South		166	17-Oct-13	28-Jul-14	338					
G - Br 21: WB SH99 to Hardy Toll Rd South		212	27-Aug-13	20-Aug-14	321					

■ Remaining Level of Effort ■ Critical Remaini...
■ Actual Level of Effort ◆ ◆ Milestone
■ Actual Work
■ Remaining Work

SH 99 Grand Parkway
Segments: F-1, F-2 & G

Contract Time
Evaluation

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Attachment 04 - Detailed Schedule

1 of 26

Grand Parkway (Segments: F-1, F-2, & G)

Activity ID	Activity Name	Orig Dur	Start	Finish	Total Float	Calendar	2013	2014	2015	2016	2017
							F M A M J J A S O N D	F M A M J J A S O N D	F M A M J J A S O N D	F M A M J J A S O N D	F M A M J J A S O N D
Grand Parkway (SH 99) F1, F2 & G: Mar 22 N			718	22-Mar-13	16-Jul-16	0					
Project Administration			718	22-Mar-13	16-Jul-16	0					
Program Summary and Milestones			718	22-Mar-13	16-Jul-16	0					
NTP1	Contract Execution / Final Award / NTP1	0	22-Mar-13		0	GP - 7 Day					
CONTRACT	Contract Time to Substantial Compl. (1092 day)	1092	22-Mar-13	18-Mar-16	0	GP - 7 Day					
F2.M120	Complete Holzworth Road Bridge (by others)	1	31-May-13	31-May-13*	0	GP - Structural / paving - 5 day week					
NTP12	Design Driving Segmental Scope	181	25-Jun-13	29-Apr-14	53	GP - Structural / paving - 5 day week					
NTP2	Issue NTP2 to Developer / Contractor	0	17-Aug-13		72	GP - 7 Day					
F2.M130	NTP3 Issued to Developer / Contractor (ROW Acquired)	0	22-Sep-13		65	GP - 7 Day					
NTP3	NTP3 Work (IH 45 in Seg F2)	334	22-Sep-13	22-Aug-14	71	GP - 7 Day					
UTILITIES	Utility Relocations	192	27-Sep-13	07-Apr-14	25	GP - 7 Day					
SEG.G	Construct Segment G & Open to Traffic	819	20-Dec-13	18-Mar-16	0	GP - 7 Day					
SEG.F1	Construct Segment F1 & Open to Traffic	788	23-Dec-13	18-Feb-16	28	GP - 7 Day					
SEG.F2	Construct Segment F2 & Open to Traffic	806	23-Dec-13	07-Mar-16	10	GP - 7 Day					
NTP4	NTP4 Work (US 59 in Seg G)	362	09-Jan-14	06-Jan-15	48	GP - 7 Day					
G.M180	NTP4 Issued to Developer / Contractor (ROW Acquired)	0	09-Jan-14		0	GP - 7 Day					
FCL	Final Closeout	120	18-Mar-16	16-Jul-16	0	GP - 7 Day					
SC	Substantial Completion (03/18/16)	0		18-Mar-16*	0	GP - 7 Day					
PC	Project Completion	0		16-Jul-16	0	GP - 7 Day					
General Administration			201	22-Mar-13	26-Feb-14	149					
Submit PMP docs - A			58	22-Mar-13	25-Jun-13	104					
PC100120	Environmental Permitting	40	22-Mar-13	30-Apr-13	237	GP - 7 Day					
PC100130	Assemble and Submit PMP Requirements A	30	22-Mar-13	20-Apr-13	0	GP - 7 Day					
PC100140	TxDOT Review and Comment on PMP Requirements A	21	21-Apr-13	11-May-13	18	GP - 7 Day					
PC100150	Revise and Resubmit PMP docs	30	12-May-13	10-Jun-13	18	GP - 7 Day					
PC100080	Mobilize Design Team	20	28-May-13	24-Jun-13	13	GP - 5 day week w/ basic Holidays					
PC100160	TxCOT Review and Approve of PMP Docs A	14	11-Jun-13	24-Jun-13	18	GP - 7 Day					
PC100170	Release for Design	0	25-Jun-13		18	GP - 7 Day					
Submit PMP docs - A (Project Schedule)			342	22-Mar-13	26-Feb-14	250					
PC100000	Assemble and Submit PBS-2 schedule	30	22-Mar-13	20-Apr-13	124	GP - 7 Day					
PC100010	TxDOT Review and Comment on PBS-2 schedule	21	21-Apr-13	11-May-13	124	GP - 7 Day					
PC100020	Revise and Re-submit PBS-2 schedule	30	12-May-13	10-Jun-13	124	GP - 7 Day					
PC100030	TxDOT review PBS-2 Rev. 2	14	11-Jun-13	24-Jun-13	124	GP - 7 Day					
PC100040	TxDOT Acceptance of BPS-2 schedule	1	25-Jun-13	25-Jun-13	124	GP - 7 Day					
PC100050	Incorporate final design and Submit PBS-3 for approval	180	17-Aug-13	12-Feb-14	250	GP - 7 Day					
PC100060	TxDOT Review and Approve PBS-3	14	13-Feb-14	26-Feb-14	250	GP - 7 Day					
Submit PMP docs - B			148	22-Mar-13	17-Aug-13	72					
PC100090	Assemble and Submit Balance of Management Plans per	90	22-Mar-13	19-Jun-13	72	GP - 7 Day					
PC100100	TxDOT Review of Final Management plan Submittals	14	20-Jun-13	03-Jul-13	72	GP - 7 Day					
PC100110	Address TxDOT Comments & Re-submit PMP	30	04-Jul-13	02-Aug-13	72	GP - 7 Day					
PC100180	TxDOT review and Approve final PMP	14	03-Aug-13	16-Aug-13	72	GP - 7 Day					
PC100070	Issue NTP2 to Developer / Contractor	0	17-Aug-13		72	GP - 7 Day					
Utility Agreements			139	22-Mar-13	08-Nov-13	72					
General Utility Agreements			139	22-Mar-13	08-Nov-13	10					
PC.U1000	Develop Utility Agreements	190	22-Mar-13	27-Sep-13	18	GP - 7 Day					
PC.U1010	TxDOT Approval	10	27-Sep-13	11-Oct-13	12	GP - 5 day week w/ basic Holidays					
PC.U1020	Supplemental Agreements	14	11-Oct-13	25-Oct-13	18	GP - 7 Day					

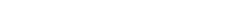
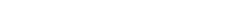
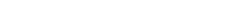



**SH 99 Grand Parkway
Segments: F-1, F-2 & G**

Contract Time Evaluation

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Grand Parkway (Segments: F-1, F-2, & G)

 Remaining Level of Effort Remaining Work  Actual Level of Effort Critical Remaining Work  Actual Work Milestone	SH 99 Grand Parkway Segments: F-1, F-2 & G	Contract Time Evaluation	
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 Remaining Level of Effort
  Remaining Work








 Actual Level of Effort
  Critical Remaining Work

 Actual Work
  Milestone

SH 99 Grand Parkway Segments: F-1, F-2 & G

Contract Time Evaluation

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 Remaining Level of Effort  Remaining Work  Actual Level of Effort  Critical Remaining Work  Actual Work  Milestone	SH 99 Grand Parkway Segments: F-1, F-2 & G	Contract Time Evaluation	
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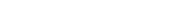
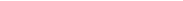

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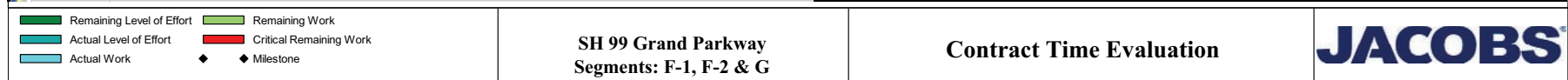
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Grand Parkway (Segments: F-1, F-2, & G)

 Remaining Level of Effort Actual Level of Effort Actual Work	 Remaining Work Critical Remaining Work Milestone	SH 99 Grand Parkway Segments: F-1, F-2 & G	Contract Time Evaluation	
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<div> <div>Remaining Level of Effort</div> <div>Actual Level of Effort</div> <div>Actual Work</div> </div> <div> <div>Remaining Work</div> <div>Critical Remaining Work</div> <div>Milestone</div> </div>	<div>SH 99 Grand Parkway</div> <div>Segments: F-1, F-2 & G</div>	<div>Contract Time Evaluation</div>	<div>JACOBS</div>
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Activity ID	Activity Name	Orig Dur	Start	Finish	Total Float	Calendar	2013	2014	2015	2016	2017
							F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D
F2.ROW.P	Property Closing	55	12-Oct-13	05-Dec-13	17	GP - 7 Day					
F2.ROW.P	Relocation Assistance	35	06-Dec-13	09-Jan-14	17	GP - 7 Day					
F2.ROW.P	Parcel Access - Negotiated Parcels	0		09-Jan-14	17	GP - 7 Day					
Condemnation of ROW Parcel		362	21-Apr-13	17-Apr-14	22	GP - 7 Day					
F2.ROW.P	Title Services	40	21-Apr-13	30-May-13	22	GP - 7 Day					
F2.ROW.P	Prepare Appraisal	60	31-May-13	29-Jul-13	22	GP - 7 Day					
F2.ROW.P	TxDOT Approval	14	30-Jul-13	12-Aug-13	22	GP - 7 Day					
F2.ROW.P	Offer / Negotiations	45	13-Aug-13	26-Sep-13	22	GP - 7 Day					
F2.ROW.P	TxDOT Approval	23	27-Sep-13	19-Oct-13	22	GP - 7 Day					
F2.ROW.P	Condemnation	145	20-Oct-13	13-Mar-14	22	GP - 7 Day					
F2.ROW.P	Relocation Assistance	35	14-Mar-14	17-Apr-14	22	GP - 7 Day					
F2.ROW.P	Parcel Access - Condemned Parcels	0		17-Apr-14	22	GP - 7 Day					
Priority Acquisition Parcels		184	22-Mar-13	21-Sep-13	65	GP - 7 Day					
F2.ROW.P	Title Services (activity completed)	0	22-Mar-13	22-Mar-13	95	GP - 7 Day					
F2.ROW.P	TxDOT Approval (activity completed)	0	22-Mar-13	22-Mar-13	95	GP - 7 Day					
F2.ROW.P	Prepare Appraisal (activity completed)	0	22-Mar-13	22-Mar-13	95	GP - 7 Day					
F2.ROW.P	Offer / Negotiations	50	21-Apr-13	09-Jun-13	65	GP - 7 Day					
F2.ROW.P	TxDOT Approval	14	10-Jun-13	23-Jun-13	65	GP - 7 Day					
F2.ROW.P	Property Closing	55	24-Jun-13	17-Aug-13	65	GP - 7 Day					
F2.ROW.P	Relocation Assistance	35	18-Aug-13	21-Sep-13	65	GP - 7 Day					
F2.ROW.P	Parcel Access - Priority Parcels	0		21-Sep-13	65	GP - 7 Day					
Right of Use and Possession Parcels		0	22-Mar-13	22-Mar-13	366	GP - 7 Day					
F2.ROW.P	Parcel Access (354 PT 1 / PT2, 378)	0		22-Mar-13	366	GP - 7 Day					
Utility Adjustments		258	24-Jul-13	07-Apr-14	103	GP - 7 Day					
F2.U1010	Centerpoint Energy Transmission Design	60	24-Jul-13	21-Sep-13	173	GP - 7 Day					
F2.U1020	Relocate Transmission Lines @ I45 and Hardy Tollway	127	22-Sep-13	26-Jan-14	173	GP - 7 Day					
F2.U1000	Utility Adjustments	150	08-Nov-13	07-Apr-14	18	GP - 7 Day					
Design		167	25-Jun-13	08-Apr-14	138						
A19600	Design Segment F-2	201	25-Jun-13	08-Apr-14	77	GP - 5 day week w/ basic Holidays					
A19640	Precast Beam Design for Fabrication	90	25-Jun-13	22-Sep-13	110	GP - 7 Day					
A19680	Steel Girder Beam Design for Fabrication	135	25-Jun-13	06-Nov-13	164	GP - 7 Day					
A19700	Develop Early Release Packaging for Earthwork	90	25-Jun-13	25-Nov-13	215	GP - Structural / paving - 5 day week					
A19730	RFC Design for Early Grading release	90	25-Jun-13	22-Sep-13	150	GP - 7 Day					
A19650	Fabricate and Deliver 1st set of Precast beams	60	23-Sep-13	21-Nov-13	110	GP - 7 Day					
A19690	Fabricate and Deliver 1st set of Steel beams	90	07-Nov-13	04-Feb-14	164	GP - 7 Day					
Construction: Segment F-2		566	22-Jun-13	08-Feb-16	6						
Sta: 3100+00 - 3275+00		462	23-Dec-13	08-Feb-16	6						
Prep ROW, Earthwork, Drainage, RW's & Pavements		462	23-Dec-13	08-Feb-16	6						
F2.10000	Silt Fence and Barricades	20	23-Dec-13	25-Jan-14	6	GPR - Earthwork - 6 day Work week					
F2.10010	Prep ROW / Clear and Grub	22	15-Jan-14	22-Feb-14	6	GPR - Earthwork - 6 day Work week					
F2.10260	Earthwork - Cut / Fill	45	03-Feb-14	30-Apr-14	6	GPR - Earthwork - 6 day Work week					
F2.10270	Earthwork - Embankment from Borrow Source	130	17-Apr-14	09-Dec-14	6	GPR - Earthwork - 6 day Work week					
F2.10280	Demolition of Existing Structures	60	18-Apr-14	28-Jul-14	15	GPR - Earthwork - 6 day Work week					
F2.10050	Build Final Grade	60	21-Jul-14								



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 Remaining Level of Effort
  Remaining Work

 Actual Level of Effort
  Critical Remaining Work

 Actual Work
  Milestone

SH 99 Grand Parkway Segments: F-1, F-2 & G

Contract Time Evaluation

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 Remaining Level of Effort
  Remaining Work

 Actual Level of Effort
  Critical Remaining Work

 Actual Work
  Milestone

**SH 99 Grand Parkway
Segments: F-1, F-2 & G**

Contract Time Evaluation

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Grand Parkway (Segments: F-1, F-2, & G)

<div> <div>Remaining Level of Effort</div> <div>Actual Level of Effort</div> <div>Actual Work</div> </div> <div> <div>Remaining Work</div> <div>Critical Remaining Work</div> <div>Milestone</div> </div>	<p>SH 99 Grand Parkway Segments: F-1, F-2 & G</p>	<p>Contract Time Evaluation</p>	
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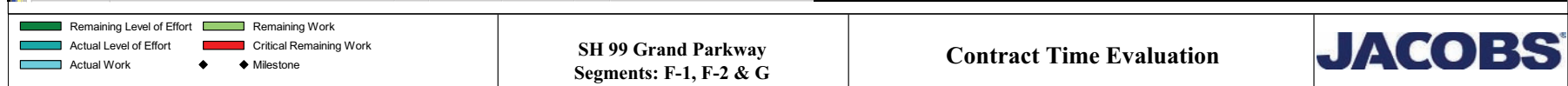
Activity ID	Activity Name	Orig Dur	Start	Finish	Total Float	Calendar	2013	2014	2015	2016	2017	
							F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J A S O N D	J F M A M J J	
	Right-of-Way (ROW) Mapping	392	22-Mar-13	17-Apr-14	820		GP - 7 Day					
	Negotiated Procurement of ROW Parcel	263	21-Apr-13	08-Jan-14	0		GP - 7 Day					
	G.ROW.P1 Title Services	30	21-Apr-13	20-May-13	0		GP - 7 Day	■ Title Services				
	G.ROW.P1 Prepare Appraisal	50	21-May-13	09-Jul-13	0		GP - 7 Day	■ Prepare Appraisal				
	G.ROW.P1 TxDOT Approval	14	26-Jun-13	09-Jul-13	0		GP - 7 Day	■ TxDOT Approval				
	G.ROW.P1 Offer / Negotiations	80	10-Jul-13	27-Sep-13	0		GP - 7 Day	■ Offer / Negotiations				
	G.ROW.P1 TxDOT Approval	14	28-Sep-13	11-Oct-13	0		GP - 7 Day	■ TxDOT Approval				
	G.ROW.P1 Property Closing	55	12-Oct-13	05-Dec-13	0		GP - 7 Day	■ Property Closing				
	G.ROW.P1 Relocation Assistance	35	05-Dec-13	08-Jan-14	0		GP - 7 Day	■ Relocation Assistance				
	G.ROW.P1 Parcel Access - Negotiated Parcels	0		08-Jan-14	0		GP - 7 Day	◆ Parcel Access - Negotiated Parcels				
	Condemnation of ROW Parcel	362	21-Apr-13	17-Apr-14	25		GP - 7 Day					
	G.ROW.P1 Title Services	40	21-Apr-13	30-May-13	25		GP - 7 Day	■ Title Services				
	G.ROW.P1 Prepare Appraisal	60	31-May-13	29-Jul-13	25		GP - 7 Day	■ Prepare Appraisal				
	G.ROW.P1 TxDOT Approval	14	30-Jul-13	12-Aug-13	25		GP - 7 Day	■ TxDOT Approval				
	G.ROW.P1 Offer / Negotiations	45	13-Aug-13	26-Sep-13	25		GP - 7 Day	■ Offer / Negotiations				
	G.ROW.P1 TxDOT Approval	23	27-Sep-13	19-Oct-13	25		GP - 7 Day	■ TxDOT Approval				
	G.ROW.P1 Condemnation	145	20-Oct-13	13-Mar-14	25		GP - 7 Day	■ Condemnation				
	G.ROW.P1 Relocation Assistance	35	14-Mar-14	17-Apr-14	25		GP - 7 Day	■ Relocation Assistance				
	G.ROW.P1 Parcel Access - Condemned Parcels	0		17-Apr-14	25		GP - 7 Day	◆ Parcel Access - Condemned Parcels				
	Priority Acquisition Parcels	184	22-Mar-13	21-Sep-13	1028		GP - 7 Day					
	G.ROW.P1 Title Services (activity completed)	0	22-Mar-13	22-Mar-13	1058		GP - 7 Day	■ Title Services (activity completed)				
	G.ROW.P1 TxDOT Approval (activity completed)	0	22-Mar-13	22-Mar-13	1058		GP - 7 Day	■ TxDOT Approval (activity completed)				
	G.ROW.P1 Prepare Appraisal (activity completed)	0	22-Mar-13	22-Mar-13	1058		GP - 7 Day	■ Prepare Appraisal (activity completed)				
	G.ROW.P1 Offer / Negotiations	50	21-Apr-13	09-Jun-13	1028		GP - 7 Day	■ Offer / Negotiations				
	G.ROW.P1 TxDOT Approval	14	10-Jun-13	23-Jun-13	1028		GP - 7 Day	■ TxDOT Approval				
	G.ROW.P1 Property Closing	55	24-Jun-13	17-Aug-13	1028		GP - 7 Day	■ Property Closing				
	G.ROW.P1 Relocation Assistance	35	18-Aug-13	21-Sep-13	1028		GP - 7 Day	■ Relocation Assistance				
	G.ROW.P1 Parcel Access - Priority Parcels	0		21-Sep-13	1028		GP - 7 Day	◆ Parcel Access - Priority Parcels				
	Utility Adjustments	150	08-Nov-13	07-Apr-14	25		GP - 7 Day					
	G.U1000 Utility Adjustments	150	08-Nov-13	07-Apr-14	25		GP - 7 Day	■ Utility Adjustments				
	Design	181	25-Jun-13	29-Apr-14	12							
	A19610 Design Segment G	216	25-Jun-13	29-Apr-14	13	GP - 5 day week w/ basic Holidays		■ Design Segment G				
	A19660 Steel Girder Beam Design for Fabrication	135	25-Jun-13	06-Nov-13	19	GP - 7 Day		■ Steel Girder Beam Design for Fabrication				
	A19710 Precast Beam Design for Fabrication	90	25-Jun-13	22-Sep-13	43	GP - 7 Day		■ Precast Beam Design for Fabrication				
	A19720 Fabricate and Deliver 1st set of Precast beams	60	23-Sep-13	21-Nov-13	43	GP - 7 Day		■ Fabricate and Deliver 1st set of Precast beams				
	A19670 Fabricate and Deliver 1st set of Steel beams	90	07-Nov-13	04-Feb-14	19	GP - 7 Day		■ Fabricate and Deliver 1st set of Steel beams				
	Construction: Segment G	539	19-Aug-13	19-Feb-16	0							
	Sta: 3726+00 - 3900+00	469	20-Dec-13	19-Feb-16	0							
	Prep ROW, Earthwork, Drainage, RW's & Pavements	469	20-Dec-13	19-Feb-16	0							
	G.10000 Silt Fence and Barricades	20	20-Dec-13	22-Jan-14	3	GPR - Earthwork - 6 day Work week		■ Silt Fence and Barricades				
	G.10010 Prep ROW / Clear and Grub	24	13-Jan-14	22-Feb-1								

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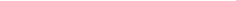
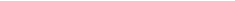
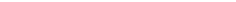
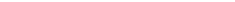
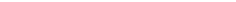



Activity ID	Activity Name	Orig Dur	Start	Finish	Total Float	Calendar	2013	2014	2015	2016	2017	
							F M A M J J A S O N D	F M A M J J A S O N D	F M A M J J A S O N D	F M A M J J A S O N D	F M A M J J	
G.BR04.1	FRP Column and Bent Cap	4	04-Jun-15	10-Jun-15	40	GP - Structural/Paving - 6 day week						
G.BR04.1	Cure Bent Cap	7	10-Jun-15	17-Jun-15	54	GP - 7 Day						
G.BR04.1	Set Bridge Beams	3	18-Jun-15	22-Jun-15	40	GP - Structural/Paving - 6 day week						
G.BR04.1	FRP Bridge Deck	29	22-Jun-15	30-Jul-15	40	GP - Structural/Paving - 6 day week						
G.BR04.1	Cure Bridge Deck	14	20-Jul-15	03-Aug-15	158	GP - 7 Day						
G.BR04.1	FRP Bridge Rail	5	13-Aug-15	19-Aug-15	112	GP - Structural/Paving - 6 day week						
G.BR04.1	Stripe, Clean and Prepare for Completion	20	19-Aug-15	14-Sep-15	112	GP - Structural/Paving - 6 day week						
Sta: 3900+00 - 4070+00			465	20-Dec-13	15-Feb-16	4						
Prep ROW, Earthwork, Drainage, RW's & Pavements			465	20-Dec-13	15-Feb-16	4						
G.20000	Silt Fence and Barricades	20	20-Dec-13	22-Jan-14	12	GPR - Earthwork - 6 day Work week						
G.20010	Prep ROW / Clear and Grub	45	13-Jan-14	08-Apr-14	14	GPR - Earthwork - 6 day Work week						
G.20250	Earthwork - Cut / Fill	34	24-Mar-14	15-May-14	14	GPR - Earthwork - 6 day Work week						
G.20260	Earthwork - Embankment from Borrow Source	51	09-May-14	07-Aug-14	14	GPR - Earthwork - 6 day Work week						
G.20030	Site Drainage	40	25-Jun-14	05-Sep-14	14	GPR - Earthwork - 6 day Work week						
G.20050	Build Final Grade	40	14-Jul-14	22-Oct-14	10	GP - Earthwork - 5 day week						
G.20040	Install Retaining Walls at Br 5	22	21-Jul-14	12-Sep-14	55	GP - Earthwork - 5 day week						
G.20060	Lime Stabilized Subgrade	60	03-Sep-14	09-Feb-15	0	GP - Earthwork - 5 day week						
G.20190	Install Retaining Walls at Br 6	26	15-Sep-14	19-Nov-14	145	GP - Earthwork - 5 day week						
G.20200	Install Retaining Walls at Br 7	11	26-Nov-14	19-Dec-14	150	GP - Earthwork - 5 day week						
G.20070	Cement Treated Base - 6"	45	30-Dec-14	13-Mar-15	0	GP - Structural / paving - 5 day week						
G.20080	Asphalt Bond Breaker - 1"	50	07-Jan-15	31-Mar-15	0	GP - Structural / paving - 5 day week						
G.20490	Pre-tie pavement Steel for Paver	20	14-Jan-15	16-Feb-15	0	GP - Structural / paving - 5 day week						
G.20100	ML - Slip-form Paving 38' Wide 12" Thick	20	17-Feb-15	23-Mar-15	0	GP - Structural / paving - 5 day week						
G.20120	ITS / Illumination	50	25-Feb-15	15-May-15	144	GP - Structural / paving - 5 day week						
G.20140	FR - Slip-form Paving 26' Wide 10" Thick	17	22-May-15	19-Jun-15	0	GP - Structural / paving - 5 day week						
G.20090	FR - FRP Hand pour Paving 10" Thick	34	22-Jun-15	14-Aug-15	69	GP - Structural / paving - 5 day week						
G.20170	Backfill and Final Striping	40	12-Oct-15	21-Dec-15	7	GP - Structural / paving - 5 day week						
G.20280	Seeding / Landscaping	40	29-Oct-15	06-Jan-16	7	GP - Structural / paving - 5 day week						
G.20150	ML - Slip-form Paving 26' Wide 12" Thick RAMP	6	23-Nov-15	02-Dec-15	0	GP - Structural / paving - 5 day week						
G.20180	Final Punchlist	20	12-Jan-16	15-Feb-16	4	GP - Structural / paving - 5 day week						
G - Br 05: Woodson Gully			73	11-Jul-15	13-Nov-15	58						
G.BR05.1	Drill Shaft, say 2/bent + abutments	6	11-Jul-15	18-Jul-15	40	GP - Structural/Paving - 6 day week						
G.BR05.1	FRP Abutments	10	16-Jul-15	29-Jul-15	40	GP - Structural/Paving - 6 day week						
G.BR05.1	FRP Column and Bent Cap	4	23-Jul-15	28-Jul-15	40	GP - Structural/Paving - 6 day week						
G.BR05.1	Cure Bent Cap	7	28-Jul-15	04-Aug-15	52	GP - 7 Day						
G.BR05.1	Set Bridge Beams	4	01-Aug-15	07-Aug-15	38	GP - Structural/Paving - 6 day week						
G.BR05.1	FRP Bridge Deck	34	01-Aug-15	14-Sep-15	38	GP - Structural/Paving - 6 day week						
G.BR05.1	Cure Bridge Deck	14										



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Grand Parkway (Segments: F-1, F-2, & G)

 Remaining Level of Effort  Remaining Work  Actual Level of Effort  Critical Remaining Work  Actual Work   Milestone	SH 99 Grand Parkway Segments: F-1, F-2 & G	Contract Time Evaluation	
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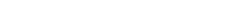
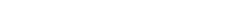
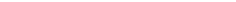
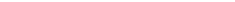
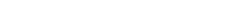



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Grand Parkway (Segments: F-1, F-2, & G)

 Remaining Level of Effort  Remaining Work  Actual Level of Effort  Critical Remaining Work  Actual Work   Milestone	SH 99 Grand Parkway Segments: F-1, F-2 & G	Contract Time Evaluation	
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Grand Parkway (Segments: F-1, F-2, & G)

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HISTORICAL WEATHER DATA ALONG GRAND PARKWAY F1, F2 AND G ALIGNMENT

Rosewood Hill - Tomball Texas Station

weatherunderground.com

Weather Days with Precip. Greater than 0.5"						
	2008	2009	2010	2011	2012	Average
January	No Data	1	1	3	3	2.00
February	3	2	5	1	8	3.80
March	3	6	3	2	4	3.60
April	1	5	1	1	1	1.80
May	1	1	0	5	2	1.80
June	2	No Data	4	1	8	3.75
July	3	3	5	0	4	3.00
August	7	0	2	2		2.75
September	1	3	4	4		3.00
October	2	7	No Data	4		4.33
November	3	1	No Data	3		2.33
December	2	5	1	6		3.50

Weather Days Applied to Schedule Calendars	
Structural Non-work Days	Earthwork Non-work Days
2	6
4	12
4	12
2	6
2	6
4	12
3	9
3	9
3	9
5	15
3	9
4	12

2008 Weather Data

2008		Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jan		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	17	43	43	43	31	31	31	61	61	61	30.4	-	-	-	-	-	0	0	0	0
	18	43	43	43	31	31	31	61	61	61	30.4	-	-	-	-	-	0	0	0	0
	19	43	41	32	32	31	29	89	68	61	30.48	-	-	-	-	-	0	0	0	0
	20	51	38	27	34	28	24	92	71	39	30.57	-	-	-	-	-	2	0	0	0
	21	56	56	56	55	55	55	97	96	96	30.18	-	-	-	-	-	0	0	4	0.04
	22	58	57	56	57	56	55	97	97	97	30.18	-	-	-	-	-	0	0	4	0.16
	23	39	39	39	38	38	38	95	95	95	30.18	-	-	-	-	-	0	0	0	0
	24	46	46	45	37	34	33	70	65	62	30.4	-	-	-	-	-	4	0	5	0.17
	25	45	43	39	39	35	31	96	74	61	30.39	-	-	-	-	-	1	0	3	0.09
	26	62	49	40	51	44	39	96	85	60	30.34	-	-	-	-	-	0	0	3	0
Feb		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	3	77	73	68	68	67	66	95	84	73	30.05	-	-	-	-	-	2	0	5	0
	4	72	70	69	68	66	65	90	87	81	29.93	-	-	-	-	-	1	1	3	0
	5	75	66	57	55	53	52	89	66	46	30.01	-	-	-	-	-	2	0	4	0
	6	75	62	54	58	49	36	93	64	41	30.22	-	-	-	-	-	2	0	2	0
	7	75	63	52	57	53	48	97	74	39	30.35	-	-	-	-	-	1	0	3	0
	8	65	63	59	64	61	57	96	94	87	29.95	-	-	-	-	-	1	0	1	0.15
	9	69	57	47	66	50	31	98	79	48	30.12	-	-	-	-	-	4	1	6	0.38
	10	62	49	36	40	33	28	84	58	30	30.23	-	-	-	-	-	2	0	3	0
	11	73	59	42	58	50	39	94	74	50	30.11	-	-	-	-	-	2	0	4	0
	12	72	65	60	66	62	57	97	90	81	30.15	-	-	-	-	-	1	0	2	1
	13	72	65	50	69	63	48	98	94	72	30.04	-	-	-	-	-	3	0	5	1.11
	14	71	58	48	49	47	42	97	72	43	30.02	-	-	-	-	-	2	0	7	0
	15	63	52	41	43	38	30	91	64	30	30.27	-	-	-	-	-	3	0	8	0
	16	69	52	37	48	40	34	93	68	32	30.35	-	-	-	-	-	1	0	3	0
	17	72	62	52	66	59	47	97	90	79	30.15	-	-	-	-	-	1	0	2	0.95
	18	76	68	59	71	66	54	98	96	81	29.91	-	-	-	-	-	2	0	2	0.06
	19	70	60	44	58	52	42	96	74	50	30.09	-	-	-	-	-	2	0	5	0
	20	80	64	49	61	52	42	98	71	28	30.15	-	-	-	-	-	2	0	5	0
	21	80	63	47	66	58	45	96	85	62	30.09	-	-	-	-	-	3	1	6	0.02
	22	68	56	45	64	35	22	91	47	33	30.36	-	-	-	-	-	5	2	12	0.01
	23	46	44	42	38	36	35	82	76	68	30.26	-	-	-	-	-	0	0	0	0
	24	72	56	38	52	44	36	94	67	41	30.25	-	-	-	-	-	2	1	6	0
Mar		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	1	68	63	58	59	57	55	89	81	71	30.12	-	-	-	-	-	0	0	4	0
	2	76	68	58	66	62	55	97	84	64	30.09	-	-	-	-	-	2	0	7	0
	3	71	57	40	67	52	32	93	83	68	30.07	-	-	-	-	-	3	1	5	0.13
	4	63	48	35	40	33	27	87	61	27	30.14	-	-	-	-	-	3	0	8	0
	5	74	56	36	49	43	34	94	67	33	30.02	-	-	-	-	-	2	0	4	0
	6	72	54	42	62	50	39	97	88	67	29.97	-	-	-	-	-	3	1	15	1.05
	7	53	43	36	40	34	24	94	74	34	30.18	-	-	-	-	-	5	1	15	0.01
	8	63	44	34	39	29	19	92	62	28	30.28	-	-	-	-	-	1	0	4	0
	9	68	62	49	55	53	48	96	72	60	30.22	-	-	-	-	-	0	0	1	0
	10	62	56	52	57	54	50	96	91	76	30.32	-	-	-	-	-	2	0	4	0.69
	11	68	57	47	52	49	42	96	76	42	30.3	-	-	-	-	-	0	0	2	0
	12	77	58	41	53	45	39	94	69	31	30.17	-	-	-	-	-	0	0	0	0
	13	74	62	50	64	57	48	97	84	63	30	-	-	-	-	-	0	0	0	0
	14	86	74	67	67	66	64	95	79	52	29.78	-	-	-	-	-	0	0	0	0
	15	87	71	58	64	53	40	96	61	23	29.9	-	-	-	-	-	2	0	3	0
	16	76	66	56	64	54	47	84	67	51	30.02	-	-	-	-	-	0	0	2	0
	17	75	69	69	68	65	64	88	87	80	29.92	-	-	-	-	-	0	0	0	0
	18	76	70	57	70	66	53	93	86	77	29.76	-	-	-	-	-	1	0	5	0.45
	19	69	59	51	54	43	32	93	60	29	30.25	-	-	-	-	-	2	0	7	0.01
	20	75	57	38	48	40	35	93	61	26	30.34	-	-	-	-	-	0	0	0	0
	21	75	59	44	56	50	42	95	74	47	30.24	-	-	-	-	-	0	0	0	0
	22	79	63	50	58	53	48	95	72	38	30.15	-	-	-	-	-	0	0	0	0
	23	71	62	55	55	42	35	80	48	34	30.4	-	-	-	-	-	1	0	4	0
	24	69	56	42	43	35	28	74	49	22	30.48	-	-	-	-	-	1	0	4	0
	25	73	60	46	56	50	42	91	70	48	30.33	-	-	-	-	-	2	0	11	0
	26	76	68	60	64	60	55	93	78	63	30.18	-	-	-	-	-	3	0	9	0
	27	83	71	63	64	61	58	92	73	45	30.01	-	-	-	-	-	2	0	5	0
	28	78	70	64	67	65	62	96	84	67	30	-	-	-	-	-	0	0	3	0
	29	82	73	66	69	66	63	96	82	63	30.04	-	-	-	-	-	0	0	1	0
	30	79	74	72	72	70	68	92	86	73	30	-	-	-	-	-	0	0	2	0.05
	31	83	75	70	70	68	66	95	82	56	29.97	-	-	-	-	-	3	0	5	0.06
Apr		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	1	85	74	67	73	70	63	95	86	61	30.12	-	-	-	-	-	0	0	2	0.25
	2	77	71	66	71	67	63	94	88	79	30.15	-	-	-	-	-	0	0	0	0
	3	82	74	70	71	68	66	94	82	63	30.05	-	-	-	-	-	1	0	6	0
	4	79	66	56	71	63	51	94	87	72	29.98	-	-	-	-	-	0	0	2	0.05
	5	75	61	49	56	50	42	95	72	35	30.02	-	-	-	-	-	0	0	0	0
	6	80	70	52	63	59	50	96	71	48	29.93	-	-	-	-	-	0	0	0	0
	7	83	71	61	68	65	60	96	82	56	29.96	-	-	-	-	-	0	0	0	0
	8	86	74	66	71	68	64	95	81	56	29.89	-	-	-	-	-	0	0	0	0
	9	78	73	69	71	69	66	92	85	73	29.9	-	-	-	-	-	0	0	0	0
	10	75	70	62	71	67	60	96	89	80	29.76	-	-	-	-	-	0	0	0	0.1
	11	81	72	61	71	56	44	97	63	31	30.02	-	-	-	-	-	0	0	0	0
	12	75	62	51	49	43	36	84	53	28	30.22	-	-	-	-	-	0	0	0	0
	13	74	59	44	46	41	34	91	58	29	30.32	-	-	-	-	-	0	0	0	0
	14	71	55	38	42	37	31	92	57	24	30.39	-	-	-	-	-	0	0	0	0
	15	76	58	40	49	44	38	92	65	37	30.3	-	-	-	-	-	0	0	0	0
	16	78	64	49	59	54	46	92	71	48	30.18	-	-	-	-	-	0	0	0	0
	17	80	71	63	65	61	58	84	73	49	30.01	-	-	-	-	-	0	0	0	0
	18	74	63	51	66	51	41	94	69	35	30.09	-	-	-	-	-	0	0	0	0.81
	19	84	64	46	56	49	44	94	63	26	30.12	-	-	-	-	-	0	0	0	0
	20	82	67	50	68	60	48	96	79	60	30	-	-	-	-	-	0	0	0	0
	21	87	76	68	72	69	65	95	80	54	29.93	-	-	-	-	-	0	0	0	0
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26	92	83	77	76	73	70	90	72	49	29.92	-	29.83	-	-	-	0	0	0	0
27	94	79	68	76	72	66	95	79	51	30	-	29.88	-	-	-	0	0	9	0.16
28	91	78	68	75	70	66	96	79	52	30.09	-	29.95	-	-	-	0	0	0	0
29	88	77	69	74	70	65	95	79	57	30.1	-	29.99	-	-	-	0	0	0	0
30	92	78	66	70	66	62	94	70	39	30.04	-	29.94	-	-	-	0	0	0	0
31	94	81	70	74	70	68	95	73	46	30.04	-	29.91	-	-	-	0	0	0	0
2008	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jun	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	96	82	72	74	71	68	95	72	44	30.01	-	29.91	-	-	-	0	0	0	0
2	96	83	72	76	72	69	96	72	44	29.99	-	29.87	-	-	-	0	0	0	0
3	94	83	75	74	72	68	94	71	44	29.92	-	29.76	-	-	-	0	0	1	0
4	91	83	76	74	73	71	88	72	53	29.8	-	29.7	-	-	-	2	0	9	0
5	92	84	79	75	73	71	85	71	51	29.8	-	29.72	-	-	-	3	1	6	0
6	93	84	78	79	75	73	86	76	57	29.98	-	29.78	-	-	-	2	0	6	0.03
7	94	84	77	76	74	72	92	74	49	30.02	-	29.92	-	-	-	1	0	6	0
8	94	83	76	75	74	71	93	75	48	29.99	-	29.91	-	-	-	2	0	6	0
9	96	85	75	75	72	66	93	68	41	29.94	-	29.82	-	-	-	2	0	6	0
10	94	80	71	76	72	67	94	78	52	30.06	-	29.9	-	-	-	3	0	4	0.31
11	94	83	73	76	72	68	95	72	46	29.96	-	29.83	-	-	-	2	0	8	0
12	94	83	74	75	72	70	94	72	49	29.97	-	29.88	-	-	-	2	0	4	0
13	94	83	74	76	73	69	94	74	47	30.02	-	29.94	-	-	-	1	0	5	0
14	97	83	73	76	72	69	95	73	43	30.06	-	29.91	-	-	-	1	0	7	0
15	98	86	74	76	72	69	94	66	40	29.99	-	29.82	-	-	-	1	0	5	0
16	98	85	74	76	72	66	95	68	38	29.98	-	29.84	-	-	-	1	0	3	0
17	99	83	74	76	72	68	93	71	37	30.01	-	29.91	-	-	-	1	0	4	0
18	96	82	71	76	71	68	93	71	45	29.99	-	29.8	-	-	-	1	0	3	0
19	93	80	72	79	72	68	93	75	53	29.97	-	29.85	-	-	-	1	0	2	0.09
20	95	80	70	74	70	68	93	74	41	30.01	-	29.91	-	-	-	1	0	3	0
21	98	80	70	75	72	68	94	80	38	30.1	-	29.97	-	-	-	1	0	4	0.27
22	96	81	70	75	67	60	96	68	34	30.06	-	29.93	-	-	-	1	0	3	0
23	95	81	68	73	68	62	93	68	35	30.07	-	29.98	-	-	-	1	0	4	0
24	87	78	70	75	71	68	95	79	63	30.16	-	30.06	-	-	-	1	0	3	0
25	95	80	72	76	72	67	95	78	43	30.15	-	30.04	-	-	-	1	0	6	0.01
26	94	76	72	77	72	66	96	88	50	30.09	-	29.93	-	-	-	3	0	4	0.2
27	94	82	73	77	73	68	97	76	47	30.02	-	29.92	-	-	-	2	0	6	0
28	94	82	74	78	72	68	95	74	50	30.06	-	29.95	-	-	-	3	0	6	0.01
29	97	79	71	77	71	68	96	81	41	30.13	-	30.02	-	-	-	2	0	11	1.27
30	90	81	73	77	74	66	96	79	57	30.15	-	30.02	-	-	-	1	0	2	0
2008	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jul	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	91	78	68	71	66	60	93	69	37	30.09	-	29.97	-	-	-	1	0	2	0
2	87	85	83	74	73	72	70	66	61	29.94	-	29.93	-	-	-	0	0	1	0
3	93	83	77	74	72	69	84	69	47	30.04	-	29.94	-	-	-	0	0	1	0
4	89	79	70	74	70	68	95	76	54	30.09	-	30.01	-	-	-	0	0	0	0
5	90	76	70	77	71	68	94	85	55	30.07	-	29.97	-	-	-	0	0	0	0.56
6	91	80	70	76	72	69	95	79	55	30.04	-	29.93	-	-	-	0	0	0	0
7	92	82	72	76	72	67	96	74	47	30.03	-	29.95	-	-	-	0	0	0	0
8	91	78	73	78	74	71	95	88	58	30.03	-	29.96	-	-	-	0	0	0	0.15
9	93	78	71	78	74	70	97	87	54	30.06	-	29.99	-	-	-	0	0	0	0.15
10	91	81	72	78	73	70	97	80	53	30.11	-	30.01	-	-	-	0	0	0	0.04
11	95	84	74	76	73	69	95	72	48	30.11	-	30.01	-	-	-	0	0	0	0.01
12	96	84	75	76	73	68	95	73	43	30.11	-	29.97	-	-	-	0	0	0	0
13	92	82	73	75	73	71	95	75	52	30.04	-	29.87	-	-	-	0	0	0	0
14	96	82	74	76	73	68	94	75	44	29.97	-	29.87	-	-	-	0	0	0	0
15	94	81	75	78	74	70	95	81	46	30.03	-	29.94	-	-	-	0	0	0	0.92
16	95	82	74	77	74	70	96	78	47	30.08	-	29.98	-	-	-	0	0	0	0
17	96	83	71	76	71	63	95	71	34	30.07	-	29.93	-	-	-	0	0	0	0
18	96	82	69	75	71	67	96	73	39	30.01	-	29.9	-	-	-	0	0	0	0
19	96	80	72	77	73	69	94	80	45	30.03	-	29.96	-	-	-	0	0	0	0.04
20	96	80	71	76	72	69	96	79	44	30.13	-	29.98	-	-	-	0	0	0	0
21	90	78	73	75	72	68	94	84	49	30.05	-	29.9	-	-	-	0	0	0	0
22	88	79	74	78	74	72	95	85	64	29.95	-	29.87	-	-	-	0	0	0	0.12
23	85	76	74	80	75	73	97	95	81	30.02	-	29.91	-	-	-	0	0	0	0.72
24	95	83	74	78	74	72	97	78	49	30.13	-	30.02	-	-	-	0	0	0	0
25	96	84	74	76	73	66	96	72	40	30.14	-	29.96	-	-	-	0	0	0	0
26	97	83	74	72	70	61	95	68	32	30.01	-	29.86	-	-	-	0	0	0	0
27	96	84	73	75	72	68	95	72	43	29.92	-	29.83	-	-	-	0	0	0	0
28	96	84	72	75	72	69	95	71	44	29.93	-	29.8	-	-	-	0	0	0	0
29	96	84	74	76	72	67	95	71	41	29.9	-	29.74	-	-	-	0	0	0	0
30	99	85	76	77	74	69	94	72	39	29.88	-	29.75	-	-	-	0	0	0	0
2008	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Aug	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	98	85	75	77	74	69	95	73	41	29.96	-	29.83	-	-	-	0	0	0	0
2	101	95	88	77	72	66	69	48	37	29.97	-	29.85	-	-	-	0	0	0	0
3	98	83	74	75	73	66	95	76	40	30.01	-	29.87	-	-	-	0	0	0	0.33
4	97	81	72	77	73	68	97	79	41	29.97	-	29.84	-	-	-	0	0	0	0.4
5	77	75	73	75	73	72	96	94	91	29.96	-	29.8	-	-	-	0	0	0	1.07
6	85	78	74	79	75	72	97	91	77	30.07	-	29.95	-	-	-	0	0	0	0.29
7	95	83	74	78	75	72	97	78	49	30.06	-	29.91	-	-	-	0	0	0</	

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13	83	78	76	74	73	72	94	86	70	29.34	-	28.8	-	-	7	2	10	0.27	
17	68	68	68	63	63	63	85	85	85	30.12	-	30.12	-	-	0	0	23	0	
20	87	77	68	71	69	66	96	78	53	30.07	-	29.98	-	-	1	0	2	1.36	
21	88	76	66	72	68	64	96	79	50	30.1	-	30.03	-	-	2	0	4	0	
29	77	68	64	64	62	61	89	82	59	30.07	-	30.03	-	-	0	0	1	0	
30	90	73	58	67	60	56	93	70	38	30.12	-	29.98	-	-	1	0	4	0	
2008	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)	
Oct	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	83	68	56	60	55	49	92	69	31	30.1	-	29.98	-	-	1	0	4	0	
2	88	69	53	61	55	50	94	68	31	30.05	-	29.91	-	-	1	0	2	0	
3	90	72	56	67	61	54	96	72	37	30.04	-	29.93	-	-	2	0	4	0	
4	87	73	63	69	62	59	96	72	42	30.1	-	30.02	-	-	1	0	3	0	
5	85	67	59	68	62	57	96	84	55	30.08	-	30.01	-	-	1	0	3	0	
14	76	74	73	71	71	70	91	90	86	30.04	-	30.03	-	-	0	0	3	0.11	
15	81	75	73	77	73	70	97	95	86	30.1	-	29.98	-	-	1	0	3	2.89	
16	73	67	63	72	64	60	97	90	79	30.2	-	30.07	-	-	2	1	6	0.01	
17	71	66	60	65	63	59	94	89	79	30.21	-	30.13	-	-	1	0	5	0	
18	79	67	54	60	57	52	96	74	40	30.27	-	30.15	-	-	1	0	2	0	
19	78	64	56	60	56	53	94	79	46	30.23	-	30.14	-	-	1	0	2	0	
20	79	65	52	61	57	51	96	79	48	30.25	-	30.14	-	-	1	0	2	0	
21	81	66	54	65	60	53	96	81	51	30.21	-	30.04	-	-	1	0	2	0	
22	82	68	59	71	62	50	96	83	60	30.18	-	29.95	-	-	2	0	9	0.12	
23	70	58	47	50	45	40	91	64	36	30.22	-	30.1	-	-	3	1	9	0	
24	47	46	45	44	44	43	92	91	91	30.16	-	30.13	-	-	0	0	0	0	
26	72	63	59	61	59	57	92	86	67	30.26	-	30.11	-	-	0	0	0	0	
27	65	58	42	58	36	26	93	48	25	30.59	-	30.27	-	-	4	1	10	0	
28	66	49	36	38	34	28	91	64	27	30.6	-	30.45	-	-	1	0	4	0	
29	67	56	52	48	47	43	87	74	44	30.33	-	30.28	-	-	0	0	1	0	
30	79	61	45	62	53	44	95	77	49	30.42	-	30.32	-	-	1	0	2	0	
31	81	64	53	64	57	51	96	79	49	30.45	-	30.33	-	-	1	0	2	0	
2008	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)	
Nov	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	80	65	55	64	59	54	96	82	52	30.37	-	30.23	-	-	1	0	2	0	
2	79	65	54	62	57	52	96	78	51	30.26	-	30.14	-	-	1	0	3	0	
3	78	63	50	60	54	48	96	76	44	30.2	-	30.1	-	-	1	0	3	0	
4	66	64	63	62	61	61	94	92	89	30.04	-	30.01	-	-	0	0	1	0	
5	83	70	61	68	62	58	97	78	48	30.01	-	29.84	-	-	3	0	5	0	
6	72	66	59	68	61	53	96	86	62	30.01	-	29.87	-	-	0	0	3	0.03	
7	73	59	45	54	46	37	92	68	28	30.15	-	30.01	-	-	2	0	5	0	
8	76	55	40	51	43	38	92	70	27	30.13	-	30.01	-	-	1	0	3	0	
9	76	59	43	56	47	41	95	70	32	30.1	-	30	-	-	2	0	5	0	
10	68	65	60	66	62	55	96	90	82	30.02	-	29.9	-	-	2	0	4	0.56	
11	81	69	62	73	67	61	97	93	70	29.95	-	29.85	-	-	3	0	6	3.56	
12	70	64	58	64	61	57	97	92	74	29.99	-	29.86	-	-	1	0	2	0.24	
13	70	63	57	63	60	56	97	91	79	29.98	-	29.82	-	-	1	0	2	0	
14	71	66	61	63	56	42	93	73	46	30.13	-	29.8	-	-	4	1	14	0	
15	61	51	40	44	35	28	84	55	34	30.41	-	30.13	-	-	4	1	12	0	
16	60	46	34	42	35	31	90	71	34	30.48	-	30.32	-	-	1	0	3	0	
17	72	50	39	49	41	36	92	76	27	30.41	-	30.31	-	-	1	0	2	0	
18	69	53	42	50	45	39	93	76	46	30.46	-	30.36	-	-	1	0	2	0	
19	74	56	41	56	49	39	95	81	48	30.42	-	30.18	-	-	2	0	5	0	
20	76	60	48	62	52	42	96	77	53	30.35	-	30.15	-	-	3	0	10	0	
21	55	49	42	43	35	30	84	60	40	30.54	-	30.35	-	-	2	0	10	0	
22	64	53	41	54	43	32	85	69	59	30.49	-	30.32	-	-	2	0	5	0	
23	77	66	54	65	59	48	93	80	56	30.32	-	30.11	-	-	1	0	4	0	
24	76	66	50	67	57	36	95	75	47	30.33	-	30.11	-	-	3	0	7	0.03	
25	65	50	38	43	37	30	90	67	28	30.37	-	30.2	-	-	1	0	3	0	
26	73	56	39	62	52	37	95	85	65	30.22	-	30.02	-	-	1	0	1	0	
27	77	67	60	68	64	58	96	89	72	30.09	-	29.96	-	-	1	0	2	0	
28	76	68	63	69	66	61	96	94	78	29.97	-	29.88	-	-	1	0	4	0	
30	60	58	56	35	34	33	43	41	38	29.97	-	29.82	-	-	2	0	4	0	
2008	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)	
Dec	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	58	48	35	42	33	25	87	59	30	30.31	-	29.96	-	-	3	1	6	0	
2	68	51	33	56	41	30	93	73	40	30.31	-	30.05	-	-	2	0	5	0	
3	78	67	52	66	59	38	93	77	54	30.14	-	29.89	-	-	5	1	10	0.02	
4	55	46	40	40	34	30	68	62	48	30.41	-	30.14	-	-	3	1	10	0	
5	52	43	35	38	30	25	84	61	40	30.47	-	30.25	-	-	2	0	5	0	
6	62	46	33	42	35	29	92	70	30	30.27	-	30.15	-	-	1	0	2	0	
7	65	49	36	46	39	34	93	71	35	30.32	-	30.14	-	-	2	0	4	0	
8	70	62	48	67	57	46	95	85	73	30.14	-	29.75	-	-	1	0	5	0	
9	77	64	41	71	59	32	93	84	61	30.06	-	29.62	-	-	5	1	11	0.49	
10	41	35	32	33	30	27	92	82	72	30.22	-	30.05	-	-	3	2	9	0.23	
11	54	40	32	33	27	23	88	63	30	30.26	-	30.09	-	-	4	1	12	0	
12	62	43	30	40	32	27	92	71	29	30.39	-	30.22	-	-	1	0	3	0	
13	72	58	37	59	51	35	93	79	54	30.22	-	29.89	-	-	3	1	5	0	
14	75	66	58	65	61	56	95	85	69	29.96	-	29.82	-	-	3	0	7	0	
15	64	47	35	62	43	32	96	86	72	30.32	-	29.96	-	-	4	2	10	0.07	
16	41	36	34	40	35	32	96	94	90	30.3	-	30.14	-	-	2	1	6	0	
17	61	54	41	58	53	40	96	95	91	30.19	-	30.14	-	-	1	0	3	0	
18	75	67	59	71	64	58	97	93	76	30.18	-	30.03	-	-	2	0	6	0.02	
19	77	71	68	70	68	66	96	89	75	30.13	-	30.02	-	-	1	0	9	0.05	
20	72	68	62	68	64	40	95	88	45	30.03	-	29.91	-	-	2	0	4	0	
21	61	48	41	40	26	15	64	44	31	30.5	-	30.02	-	-	5	2	16	0	
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2009 Weather Data

2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
Jan																			
1	63	52	38	59	45	33	92	76	64	30.19	-	29.93	-	-	-	2	0	4	0
2	74	67	61	67	64	59	95	89	74	29.97	-	29.83	-	-	-	1	0	4	0
3	81	72	67	68	65	62	93	79	55	29.86	-	29.75	-	-	-	3	1	10	0
4	72	59	46	68	54	38	96	84	71	30.19	-	29.85	-	-	-	4	1	13	0
5	48	42	38	39	37	35	94	84	70	30.19	-	29.87	-	-	-	3	1	9	0.04
6	58	47	41	53	44	35	96	90	55	29.9	-	29.67	-	-	-	2	0	6	0.41
7	66	50	34	44	37	31	92	65	33	29.98	-	29.83	-	-	-	3	0	6	0
8	76	56	42	56	48	40	93	77	43	30.04	-	29.93	-	-	-	2	0	4	0
9	77	66	53	67	61	51	97	84	62	30.01	-	29.88	-	-	-	4	1	11	0
10	69	60	50	66	52	36	96	78	54	30.19	-	29.92	-	-	-	5	2	11	0
11	56	44	34	33	30	26	89	60	33	30.41	-	30.29	-	-	-	3	1	11	0
12	61	44	30	39	33	28	94	71	33	30.29	-	30.13	-	-	-	2	0	4	0
13	51	42	32	36	26	20	92	58	30	30.46	-	30.25	-	-	-	4	1	10	0
14	62	43	26	38	32	24	90	68	34	30.38	-	30.26	-	-	-	2	0	4	0
15	64	47	32	44	35	30	96	68	39	30.61	-	30.37	-	-	-	3	0	7	0
16	51	42	33	36	28	23	77	60	43	30.7	-	30.5	-	-	-	1	0	3	0
17	68	56	41	55	48	33	91	76	60	30.5	-	30.21	-	-	-	3	0	7	0
18	71	59	43	54	44	31	92	65	23	30.26	-	30.08	-	-	-	3	0	5	0
19	68	54	41	37	33	29	82	49	25	30.07	-	29.94	-	-	-	5	1	12	0
20	60	47	35	36	30	24	84	58	28	30.3	-	30.05	-	-	-	5	1	15	0
21	65	47	28	38	31	25	92	61	27	30.32	-	30.11	-	-	-	2	0	5	0
22	75	55	38	45	40	36	95	63	30	30.17	-	30.05	-	-	-	3	1	5	0
24	53	47	44	40	38	36	80	72	57	30.26	-	30.22	-	-	-	4	2	13	0
25	52	47	43	46	41	33	86	78	66	30.24	-	30.12	-	-	-	1	0	3	0
26	75	61	50	64	56	46	93	84	65	30.15	-	30.01	-	-	-	3	1	7	0
27	79	61	36	66	55	34	95	82	51	30.15	-	29.91	-	-	-	4	1	18	0.02
28	48	39	32	34	32	29	92	76	51	30.3	-	30.14	-	-	-	4	2	18	0.01
29	57	41	28	36	31	26	93	71	37	30.36	-	30.16	-	-	-	3	0	6	0
30	65	46	29	35	30	22	92	60	21	30.48	-	30.35	-	-	-	3	0	3	0
31	70	60	32	34	29	26	88	36	19	30.36	-	30.13	-	-	-	2	1	5	0
Feb																			
1	76	60	46	58	52	39	94	76	51	30.13	-	29.85	-	-	-	2	0	5	0.01
2	63	54	35	60	39	25	95	61	26	30.29	-	29.92	-	-	-	6	2	11	0
3	70	47	30	39	31	27	91	61	20	30.38	-	30.23	-	-	-	2	0	5	0
4	61	48	37	37	33	30	83	57	34	30.58	-	30.38	-	-	-	2	0	5	0
5	71	52	32	51	42	30	94	74	42	30.55	-	30.38	-	-	-	2	0	5	0
6	76	63	52	56	53	49	93	72	41	30.38	-	30.22	-	-	-	4	1	17	0
7	78	68	56	58	55	53	91	72	45	30.27	-	30.22	-	-	-	3	1	9	0
8	74	65	52	62	58	50	96	79	55	30.26	-	30.03	-	-	-	3	1	6	0
9	74	68	64	65	62	60	93	82	63	30.05	-	29.93	-	-	-	3	1	7	0.08
10	73	70	67	68	66	64	93	86	78	29.96	-	29.69	-	-	-	4	1	11	0.04
11	71	52	46	66	44	35	92	76	35	30.17	-	29.75	-	-	-	3	0	12	0.51
12	74	57	42	48	43	40	94	64	33	30.22	-	30.05	-	-	-	3	1	5	0
13	78	66	57	68	61	47	95	85	67	30.06	-	29.88	-	-	-	2	0	5	0.16
14	69	61	55	67	51	43	95	72	44	30.02	-	29.92	-	-	-	2	0	6	0.1
15	71	60	53	55	52	47	95	77	51	30.27	-	30	-	-	-	4	1	10	0
16	62	56	50	48	44	41	82	67	48	30.36	-	30.19	-	-	-	2	0	4	0
17	71	62	53	67	59	47	95	89	75	30.19	-	29.87	-	-	-	2	0	5	0.07
18	82	70	51	69	58	34	95	73	21	30	-	29.81	-	-	-	2	1	10	0
19	67	56	41	38	33	26	79	44	23	30.34	-	30	-	-	-	4	1	11	0
20	68	51	33	44	36	30	91	62	27	30.34	-	30.1	-	-	-	2	0	5	0
21	71	56	45	58	44	22	92	67	36	30.4	-	30.05	-	-	-	5	1	10	0
22	62	47	36	35	25	19	82	45	23	30.56	-	30.4	-	-	-	3	1	6	0
23	66	50	32	48	39	30	91	68	38	30.5	-	30.27	-	-	-	2	1	4	0
24	78	64	48	58	54	46	93	73	48	30.27	-	29.99	-	-	-	4	1	7	0
25	79	69	59	65	62	56	96	80	57	30.07	-	29.97	-	-	-	3	1	7	0
26	81	72	64	65	63	62	92	76	55	30.02	-	29.84	-	-	-	4	1	10	0
27	82	74	69	68	66	64	88	76	57	29.85	-	29.74	-	-	-	3	1	11	0
28	70	58	52	67	42	15	91	60	26	30.42	-	29.85	-	-	-	7	4	21	0
Mar																			
1	59	45	33	32	22	15	78	42	26	30.56	-	30.39	-	-	-	4	2	13	0
2	66	48	30	38	30	24	88	55	23	30.42	-	30.23	-	-	-	2	0	5	0
3	67	52	38	47	41	35	90	67	38	30.35	-	30.19	-	-	-	3	1	6	0
4	78	63	46	58	53	43	95	73	45	30.22	-	30.09	-	-	-	3	1	6	0
5	83	69	59	61	59	56	95	72	43	30.2	-	30.08	-	-	-	4	1	13	0
6	83	70	60	66	61	56	96	75	42	30.2	-	30.06	-	-	-	3	1	10	0
7	80	72	67	67	64	61	89	76	52	30.11	-	29.95	-	-	-	3	1	7	0
8	82	73	66	67	64	62	92	74	52	30.08	-	29.95	-	-	-	2	1	7	0
9	84	73	66	68	64	57	92	76	44	30.08	-	29.96	-	-	-	2	0	9	0
10	85	75	68	67	65	61	90	73	47	30.03	-	29.92	-	-	-	3	1	9	0
11	75	64	54	69	61	51	95	89	72	30.16	-	29.99	-	-	-	3	1	7	0.03
12	44	44	43	43	42	42	94	94	94	30.17	-	30.17	-	-	-	1	0	4	1.88
13	44	43	42	43	41	40	95	95	94	30.19	-	30	-	-	-	2	0	4	0.88
14	47	44	41	46	42	40	95	93	87	30.11	-	30	-	-	-	2	0	4	0.15
15	53	50	46	51	48	45	96	94	88	30.13	-	30.03	-	-	-	1	0	1	0.17
16	75	58	46	59	52	45	97	84	50	30.25	-	30.12	-	-	-	2	0	4	0.01
17	73	59	51	60	54	50	96	85	57	30.28	-	30.15	-	-	-	5	1	4	0
18	79	62	48	58	52	46	98	74	34	30.19	-	30.05	-	-	-	1	0	5	0
19	76	61	49	59	52	47	96	76	41	30.19	-	30.07	-	-	-	1	0	3	0
20	80	63	47	59	53	45	95	72	41	30.24	-	30.12	-	-	-	2	0	4	0
21	80	64	51	62	56	49	96	76	46	30.25	-	30.14	-	-	-	2	0	4	0
22	82	66	52	64	58	50	96	78	46	30.23	-	30.06	-	-	-	2	0	4	0
23	80	73	67	65	64	63	88	74	59	29.98	-	29.86	-	-	-	3	1	9	0
24	77	72	68	68	66	64	90	83	70	29.9	-	29.81	-	-	-	2	0	5	0
25	80	67	57	69	62	54	93	84	66	29.92	-	29.68	-	-	-	2	0	11	0.42
26	64	60	57	62	58	56	95	94	92	29.62	-	29.53	-	-	-	0</			

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22	90	72	58	64	57	49	96	65	28	30.06	-	29.97	-	-	-	2	0	9	0
23	84	74	66	67	64	60	95	74	46	30.05	-	29.95	-	-	-	2	1	7	0
24	79	73	66	69	67	63	93	82	66	30.09	-	30	-	-	-	2	0	4	0.05
25	84	74	66	71	68	64	96	84	58	30.12	-	30.03	-	-	-	2	0	3	0.1
26	79	73	71	70	68	66	94	85	65	30.03	-	29.94	-	-	-	1	0	2	0.02
27	82	72	63	72	67	61	96	86	62	30.13	-	29.95	-	-	-	2	0	7	1.96
28	80	72	64	75	70	63	97	92	75	30.2	-	30.08	-	-	-	1	0	3	3.45
29	83	76	72	72	69	67	94	81	61	30.14	-	29.98	-	-	-	1	0	5	0
30	84	76	71	74	70	68	92	83	67	30.06	-	29.94	-	-	-	1	0	4	0
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
May	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	86	78	73	74	71	69	91	81	64	30.03	-	29.92	-	-	-	2	0	7	0
2	87	78	73	73	70	68	91	78	56	29.97	-	29.76	-	-	-	2	0	6	0
3	79	75	66	73	70	60	92	85	74	29.91	-	29.74	-	-	-	1	0	4	0.01
4	84	71	60	71	63	57	91	78	59	30	-	29.83	-	-	-	2	0	4	0
5	88	78	71	74	71	68	93	79	60	29.95	-	29.77	-	-	-	1	0	6	0
6	89	80	74	76	72	71	93	80	61	29.87	-	29.75	-	-	-	2	0	5	0
7	89	80	74	77	73	69	95	81	61	29.89	-	29.81	-	-	-	2	0	4	0
8	91	80	74	75	72	67	88	76	57	29.84	-	29.72	-	-	-	2	1	10	0
9	92	80	73	75	72	69	94	77	49	29.99	-	29.79	-	-	-	1	0	4	0
10	91	79	70	75	71	68	96	78	52	30.02	-	29.92	-	-	-	2	0	5	0
11	90	79	74	76	73	70	95	82	57	30.03	-	29.93	-	-	-	1	0	5	0
12	90	79	71	76	72	70	95	79	56	30.02	-	29.87	-	-	-	0	0	0	0
13	91	80	72	73	70	67	94	74	46	29.94	-	29.84	-	-	-	2	1	10	0
14	89	79	71	72	68	64	95	72	44	30.07	-	29.91	-	-	-	1	0	5	0
15	90	79	69	74	70	67	96	76	51	30.03	-	29.89	-	-	-	2	0	9	0
16	88	75	68	73	69	66	96	83	52	30.07	-	29.93	-	-	-	2	0	9	0.61
17	73	68	62	67	64	60	96	90	74	30.17	-	30.06	-	-	-	1	0	7	0.01
18	78	65	54	59	54	48	95	70	38	30.22	-	30.11	-	-	-	2	0	3	0
19	81	66	52	62	55	49	94	70	43	30.22	-	30.09	-	-	-	2	0	4	0
20	83	68	54	59	56	52	95	69	38	30.17	-	29.99	-	-	-	1	0	2	0
21	87	73	59	70	63	56	93	73	48	30.03	-	29.9	-	-	-	1	0	3	0
22	83	73	65	70	66	63	94	81	62	29.97	-	29.86	-	-	-	1	0	2	0
23	69	68	67	66	65	64	94	82	91	29.91	-	29.9	-	-	-	0	0	0	0
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jun	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
26	95	89	84	75	72	69	66	57	43	29.82	-	29.74	-	-	-	1	0	2	0
27	101	87	77	78	74	67	94	67	37	29.91	-	29.78	-	-	-	1	0	3	0
28	100	86	76	78	74	69	95	71	38	29.93	-	29.76	-	-	-	1	0	3	0
29	102	87	76	75	73	70	92	66	37	29.84	-	29.68	-	-	-	1	0	2	0
30	96	83	76	76	74	70	89	73	47	29.83	-	29.74	-	-	-	1	0	4	0
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jul	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	79	77	76	72	70	68	82	78	74	29.88	-	29.84	-	-	-	0	0	1	0
2	100	86	72	76	70	64	94	65	31	29.98	-	29.88	-	-	-	1	0	4	0
3	100	86	73	78	74	71	95	69	41	30.07	-	29.94	-	-	-	1	0	2	0
4	101	88	77	78	74	70	94	68	39	30.03	-	29.83	-	-	-	2	0	4	0
5	102	87	77	77	74	68	92	68	38	29.94	-	29.8	-	-	-	2	0	4	0
6	96	86	77	77	74	71	92	69	46	29.93	-	29.76	-	-	-	2	0	6	0
7	93	82	73	79	75	71	96	81	53	29.9	-	29.77	-	-	-	1	0	5	1.5
8	99	86	78	79	76	74	96	75	47	29.88	-	29.78	-	-	-	1	0	2	0
9	100	88	78	78	75	71	94	68	41	30	-	29.86	-	-	-	1	0	4	0
10	98	87	78	78	75	70	95	70	43	30.1	-	29.99	-	-	-	1	0	3	0
11	98	86	75	77	74	70	95	70	42	30.15	-	30.05	-	-	-	1	0	2	0
12	97	86	75	78	74	68	95	70	43	30.14	-	29.99	-	-	-	1	0	3	0
13	98	86	76	77	73	69	94	68	41	30.06	-	29.9	-	-	-	1	0	4	0
14	99	86	76	76	73	70	94	68	40	30.03	-	29.9	-	-	-	1	0	6	0
15	100	87	76	77	74	71	95	69	40	30.06	-	29.95	-	-	-	1	0	3	0
16	100	86	76	77	74	71	94	70	40	30.04	-	29.9	-	-	-	1	0	3	0
17	89	81	76	77	73	69	93	78	57	30.07	-	29.92	-	-	-	2	0	6	0
18	97	85	74	72	71	69	88	66	42	30.09	-	29.97	-	-	-	1	0	3	0
19	94	80	70	75	72	68	94	77	47	30.12	-	29.97	-	-	-	1	0	3	0.03
20	94	84	76	78	74	66	92	73	40	30.02	-	29.86	-	-	-	2	0	4	0
21	96	83	79	76	74	68	90	75	45	29.92	-	29.8	-	-	-	3	0	7	0.04
22	94	88	80	74	73	71	80	63	50	29.94	-	29.85	-	-	-	0	0	4	0.01
23	95	80	74	76	73	70	94	80	45	30.01	-	29.93	-	-	-	2	0	3	1.39
24	91	81	73	78	74	72	96	83	59	30.03	-	29.95	-	-	-	0	0	2	0
25	97	89	81	75	73	70	78	60	44	29.99	-	29.91	-	-	-	1	0	3	0
26	98	84	76	77	74	67	94	76	46	30.02	-	29.91	-	-	-	2	0	3	0
27	96	85	77	79	75	72	95	74	48	30	-	29.87	-	-	-	2	0	6	0
28	97	86	79	78	74	70	90	69	43	29.92	-	29.8	-	-	-	2	0	9	0
29	96	86	80	79	75	69	92	70	43	29.91	-	29.81	-	-	-	1	0	5	0
30	97	86	80	81	77	72	92	78	47	29.95	-	29.82	-	-	-	1	0	5	0.15
31	78	76	73	76	74	72	96	96	94	30.09	-	29.94	-	-	-	0	0	5	1.83
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Aug	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	97	85	77	79	75	68	97	74	41	30.05	-	29.9	-	-	-	2	0	5	0.01
2	93	83	79	79	75	69	94	78	48	30.07	-	29.94	-	-	-	1	0	2	0
3	97	85	76	77	74	70	94	72	45	30.05	-	29.93	-	-	-	1	0	3	0
4	96	85	75	78	75	73	96	76	51	30.05	-	29.93	-	-	-	1	0	2	0
5	96	85	77	78															

2009 Weather Data

25	80	71	64	72	67	62	95	88	75	30.11	-	30.02	-	-	1	0	3	0
26	88	77	69	75	71	67	96	84	61	30.06	-	29.94	-	-	1	0	1	0
27	92	79	68	76	72	66	97	81	56	29.96	-	29.81	-	-	1	0	3	0
28	92	79	72	77	74	70	96	86	52	30.04	-	29.87	-	-	1	0	2	0.51
29	79	72	65	71	66	60	96	82	57	30.15	-	30	-	-	1	0	2	0
30	86	72	61	72	65	59	94	78	59	30.08	-	29.92	-	-	0	0	0	0
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)
Oct	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	sum
1	92	80	70	77	73	68	96	81	57	29.95	-	29.76	-	-	1	0	3	0
2	82	72	64	75	62	54	93	72	42	29.92	-	29.81	-	-	1	0	4	0.96
3	76	71	65	72	66	59	96	83	72	29.91	-	29.79	-	-	0	0	1	0.42
4	81	75	73	77	74	72	97	95	85	29.82	-	29.71	-	-	1	0	2	0.96
13	81	78	75	79	76	72	97	94	85	30.01	-	29.9	-	-	2	0	2	0.07
14	91	81	76	79	76	74	97	87	61	29.95	-	29.81	-	-	1	0	2	0.01
15	90	80	69	79	75	64	96	84	64	29.88	-	29.72	-	-	1	0	5	0
16	77	68	61	64	60	55	89	75	50	30.2	-	29.87	-	-	2	0	5	0
17	75	63	55	56	52	48	92	70	44	30.36	-	30.2	-	-	1	0	3	0
18	70	59	50	54	50	47	92	74	48	30.43	-	30.26	-	-	1	0	3	0
19	78	62	49	61	54	46	94	77	49	30.27	-	30.08	-	-	1	0	3	0
20	82	69	58	66	61	56	95	77	52	30.09	-	29.96	-	-	1	0	3	0
21	77	72	68	72	68	65	95	90	81	29.99	-	29.75	-	-	1	0	3	0.05
22	73	67	55	71	63	50	96	86	70	29.89	-	29.66	-	-	2	0	4	0.14
23	69	56	47	50	47	45	92	74	44	30	-	29.89	-	-	1	0	9	0
24	75	58	45	56	48	43	95	74	39	30.08	-	29.93	-	-	1	0	2	0
25	81	68	54	69	61	51	94	81	62	29.94	-	29.86	-	-	1	0	3	0.01
26	69	63	56	67	62	54	96	95	91	30.01	-	29.84	-	-	2	0	4	2.67
27	68	57	52	57	53	50	95	86	63	29.96	-	29.79	-	-	1	0	3	0
28	80	66	50	74	62	48	97	90	73	29.83	-	29.67	-	-	1	0	4	0.02
29	84	74	57	77	71	55	95	91	81	29.81	-	29.57	-	-	3	0	5	2.94
30	65	57	50	56	51	48	95	82	55	30.07	-	29.77	-	-	1	0	3	0.02
31	72	56	44	52	45	40	96	72	32	30.18	-	30.07	-	-	1	0	3	0.03
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)
Nov	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	sum
1	73	57	46	56	49	44	96	78	41	30.22	-	30.13	-	-	1	0	3	0
2	74	59	47	58	52	45	96	81	49	30.24	-	30.15	-	-	1	0	2	0
3	75	60	49	58	53	47	97	81	47	30.3	-	30.2	-	-	1	0	2	0
4	77	60	48	60	53	46	96	81	45	30.35	-	30.24	-	-	0	0	0	0
5	77	61	49	60	54	48	96	81	47	30.39	-	30.27	-	-	0	0	0	0
6	78	62	49	63	57	47	97	84	58	30.29	-	30.13	-	-	1	0	3	0
7	78	64	53	64	58	51	97	84	59	30.17	-	30.04	-	-	1	0	4	0
8	72	67	61	67	65	59	96	91	83	30.08	-	29.99	-	-	1	0	4	0.13
9	74	67	64	67	64	62	96	90	77	30.12	-	29.99	-	-	1	0	4	0.03
10	77	66	59	64	60	57	96	82	57	30.19	-	30.1	-	-	2	0	9	0
11	76	63	55	61	57	53	94	81	53	30.24	-	30.11	-	-	2	0	4	0
12	72	59	50	58	53	48	96	83	54	30.14	-	29.96	-	-	1	0	2	0
13	76	60	46	61	54	45	97	83	52	29.96	-	29.82	-	-	1	0	2	0
14	79	66	54	66	60	53	97	85	62	29.94	-	29.85	-	-	1	0	2	0
15	76	68	60	71	66	59	97	93	79	29.97	-	29.88	-	-	1	0	3	0.11
16	69	58	43	67	52	38	95	80	53	30.21	-	29.93	-	-	3	1	7	0.28
17	62	49	40	43	39	35	93	73	39	30.23	-	30.08	-	-	1	0	4	0
18	69	51	37	49	41	36	94	74	30	30.15	-	30.03	-	-	1	0	2	0
19	74	58	43	62	53	41	96	85	67	30.09	-	29.99	-	-	2	0	4	0
2009	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)
Dec	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	sum
1	48	47	46	47	46	45	96	95	94	29.72	-	29.56	-	-	1	0	3	1.24
2	50	47	44	45	42	39	96	83	68	30.06	-	29.62	-	-	2	0	6	0
3	53	45	36	40	36	32	93	71	51	30.26	-	30.05	-	-	2	0	5	0
4	43	37	29	32	29	26	91	74	58	30.35	-	30.2	-	-	2	0	6	0.03
5	47	35	24	36	27	22	93	76	43	30.33	-	30.09	-	-	1	0	2	0.01
6	58	49	37	57	47	35	96	91	85	30.12	-	29.94	-	-	1	0	3	0.03
7	58	55	54	57	54	52	97	96	95	30.1	-	29.93	-	-	1	0	4	0.14
8	69	59	54	69	58	53	98	97	96	29.93	-	29.8	-	-	1	0	3	0.02
9	59	47	37	58	37	26	97	70	48	30.11	-	29.75	-	-	3	1	7	0
10	50	41	33	32	28	24	74	61	43	30.25	-	30.1	-	-	2	0	5	0
11	49	46	43	43	36	31	94	70	61	30.29	-	30.11	-	-	1	0	2	0.32
12	53	49	44	52	48	42	97	96	94	30.15	-	29.98	-	-	1	0	2	0.19
13	54	50	47	53	49	46	97	96	92	30.14	-	30.01	-	-	0	0	1	0.01
14	62	58	53	62	57	52	98	97	97	30.04	-	29.93	-	-	0	0	1	0.11
15	62	52	47	61	49	42	97	88	78	30.36	-	29.97	-	-	3	1	6	0.05
16	55	48	42	42	40	37	89	74	57	30.41	-	30.28	-	-	1	0	4	0
18	52	48	44	44	42	41	88	78	70	30.05	-	30.01	-	-	0	0	1	0
19	61	47	38	42	39	35	94	75	43	30.26	-	30.05	-	-	2	0	4	0
20	58	43	31	43	36	30	95	81	45	30.35	-	30.25	-	-	1	0	2	0
21	67	51	35	51	43	33	95	76	39	30.28	-	30.07	-	-	2	0	4	0
22	72	62	52	64	58	48	95	87	73	30.07	-	29.82	-	-	2	0	9	0.02
23	76	69	64	67	65	63	95	87	71	29.83	-	29.53	-	-	2	0	10	0.61
24	68	48	36	67	39	24	96	73	58	29.98	-	29.45	-	-	3	1	12	0.58
25	48	38	30	31	23	17	89	56	32	30.15	-	29.98	-	-	2	0	5	0
26	52	43	32	42	35	27	93	77	54	30.17	-	30.05	-	-	1	0	1	0
27	57	45	32	38	32	27	91	63	32	30.35	-	30.16	-	-	2	0	4	0
28	51	41	32	35	30	28	86	67	43	30.54	-	30.35	-	-	4	1	8	0
29	46	39	31	41	35	28	95	87	64	30.44	-	30.22	-	-	1	0	2	0.31
30	53	46	42	50	45	40	100	94	88	30.22	-	30.03	-	-	1	0	4	0.84
31	58	49	47	53	48	42	97	95	84	30.33	-	30.04	-	-	4	0	9	0

2010 Weather Data

2010	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)	
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum	
Jan																				
1	53	43	33	42	36	31	92	77	49	30.51	-	30.33	-	-	-	4	1	9	0	
2	55	42	29	38	32	28	95	72	38	30.42	-	30.24	-	-	-	1	0	3	0	
3	49	42	35	40	37	33	93	81	67	30.34	-	30.21	-	-	-	1	0	2	0.01	
4	46	41	32	40	31	26	83	69	48	30.5	-	30.33	-	-	-	4	1	9	0	
5	47	35	25	33	27	23	92	74	45	30.53	-	30.36	-	-	-	1	0	4	0	
6	54	43	28	49	40	26	94	87	78	30.36	-	30.06	-	-	-	2	0	2	0	
7	51	41	29	50	33	14	95	75	50	30.48	-	30.04	-	-	-	6	2	14	0.01	
8	31	28	24	14	12	10	63	52	46	30.6	-	30.47	-	-	-	4	1	13	0	
9	41	28	17	21	15	13	86	62	31	30.62	-	30.49	-	-	-	2	0	6	0	
10	44	30	19	24	20	16	90	70	34	30.73	-	30.59	-	-	-	2	0	3	0	
11	55	37	21	40	30	19	92	78	52	30.59	-	30.41	-	-	-	1	0	2	0	
12	63	44	30	42	34	28	95	74	39	30.51	-	30.39	-	-	-	2	0	4	0	
13	60	46	31	48	40	29	95	81	57	30.42	-	30.21	-	-	-	1	0	3	0	
14	57	53	48	56	51	44	96	93	87	30.21	-	30.05	-	-	-	1	0	4	0.16	
15	52	50	48	51	48	45	95	91	82	30.11	-	29.91	-	-	-	2	0	9	0.2	
16	54	47	40	47	44	38	95	89	70	29.99	-	29.87	-	-	-	3	1	9	0.19	
17	62	49	38	50	44	36	96	85	58	30.09	-	29.98	-	-	-	2	0	5	0	
18	70	54	37	60	50	36	100	86	67	30.1	-	29.97	-	-	-	2	0	5	0	
19	76	64	54	65	60	53	97	88	67	30	-	29.81	-	-	-	2	0	12	0	
20	74	68	63	68	65	62	97	92	81	29.83	-	29.54	-	-	-	2	0	5	0	
21	76	62	47	63	50	35	97	71	25	29.83	-	29.61	-	-	-	2	0	4	0.01	
22	77	60	42	62	48	40	93	70	31	29.89	-	29.65	-	-	-	2	0	7	0	
23	74	66	54	65	58	46	93	79	54	29.65	-	29.46	-	-	-	4	0	11	0	
24	67	55	44	47	41	34	86	62	36	29.94	-	29.62	-	-	-	3	1	7	0.01	
25	64	48	35	44	39	33	94	73	37	30.13	-	29.94	-	-	-	2	0	3	0	
26	68	51	36	40	37	34	94	64	28	30.28	-	30.12	-	-	-	2	0	5	0	
27	66	56	42	56	50	38	90	80	67	30.25	-	30.13	-	-	-	2	1	5	0	
28	65	60	57	60	57	54	96	89	83	30.2	-	29.88	-	-	-	3	1	7	0.18	
29	65	47	36	64	43	30	97	86	78	30.1	-	29.75	-	-	-	3	1	7	1.41	
30	38	35	33	30	29	28	84	78	72	30.27	-	30.08	-	-	-	3	1	11	0	
31	41	35	33	34	30	28	85	82	73	30.33	-	30.22	-	-	-	1	0	5	0	
2010																				
Feb																				
1	49	43	33	46	40	31	93	89	80	30.24	-	30.06	-	-	-	1	0	2	0	
2	58	51	47	52	48	45	95	88	76	30.18	-	30.08	-	-	-	1	0	4	0.04	
3	53	49	46	47	45	43	95	86	76	30.16	-	29.92	-	-	-	4	1	6	0.45	
4	52	50	47	50	48	46	96	94	89	29.92	-	29.77	-	-	-	4	0	6	0.23	
5	57	50	42	49	46	40	96	87	70	30.01	-	29.85	-	-	-	1	0	4	0	
6	62	47	38	43	40	37	96	78	47	30.13	-	30.01	-	-	-	3	0	11	0	
7	52	46	39	47	40	36	91	81	70	30.14	-	29.93	-	-	-	2	0	5	0	
8	71	56	45	60	51	41	92	84	68	30	-	29.69	-	-	-	4	2	7	0.71	
9	49	43	34	41	29	21	86	62	37	30.32	-	30	-	-	-	5	2	13	0	
10	48	40	31	38	29	24	89	68	40	30.37	-	30.19	-	-	-	1	0	3	0.01	
11	41	39	36	39	38	35	100	94	89	30.19	-	29.88	-	-	-	3	0	10	1.43	
12	39	37	35	35	34	33	95	89	80	30.17	-	29.98	-	-	-	3	1	10	0.15	
13	68	54	40	55	44	29	82	70	60	30.24	-	29.92	-	-	-	6	2	14	0.01	
14	51	40	30	29	24	19	82	56	30	30.31	-	30.2	-	-	-	4	1	14	0	
15	57	41	28	31	26	22	92	62	28	30.34	-	30.2	-	-	-	2	0	7	0	
16	60	42	28	34	28	21	90	63	25	30.34	-	30.21	-	-	-	4	0	9	0	
17	64	46	30	39	33	27	93	65	29	30.29	-	30.13	-	-	-	2	0	4	0	
18	60	53	42	51	46	38	86	79	68	30.15	-	30.06	-	-	-	2	0	5	0	
19	68	58	50	56	52	47	91	81	64	30.1	-	29.9	-	-	-	2	0	6	0	
20	72	63	54	63	59	46	97	87	69	29.9	-	29.73	-	-	-	2	0	5	0.01	
21	55	48	43	46	42	37	90	79	63	29.96	-	29.82	-	-	-	3	1	7	0	
22	44	39	34	39	35	32	100	86	74	30.18	-	29.91	-	-	-	3	1	7	0.28	
23	52	41	32	34	32	29	99	75	43	30.29	-	30.18	-	-	-	3	1	10	0.02	
24	63	46	28	47	37	26	94	74	41	30.23	-	29.95	-	-	-	2	1	6	0	
25	62	51	45	57	46	38	95	82	54	30.11	-	29.92	-	-	-	4	1	10	0.25	
26	62	50	42	41	39	36	89	68	39	30.22	-	30.08	-	-	-	3	1	9	0	
27	67	50	34	45	39	32	95	69	38	30.11	-	29.86	-	-	-	3	1	7	0	
28																				
29																				
30																				
31																				
2010																				
Mar																				
1	60	52	45	53	48	40	95	85	75	30.04	-	29.73	-	-	-	5	1	12	0.7	
2	58	48	39	40	37	32	90	68	40	30.18	-	30.04	-	-	-	4	1	12	0	
3	64	48	34	44	39	32	95	73	41	30.21	-	30.09	-	-	-	2	0	4	0	
4	69	53	38	50	44	36	96	74	45	30.24	-	30.12	-	-	-	2	0	4	0	
5	66	53	41	50	42	36	96	72	37	30.23	-	30.14	-	-	-	3	1	7	0	
6	70	56	43	48	42	35	94	64	34	30.3	-	30.19	-	-	-	2	0	5	0	
7	65	57	47	55	51	43	89	80	66	30.23	-	30.08	-	-	-	2	0	5	0	
8	64	61	57	62	58	54	98	92	88	30.08	-	29.8	-	-	-	4	0	7	0.26	
9	79	69	64	66	63	62	96	84	59	29.83	-	29.66	-	-	-	2	0	5	0	
10	77	68	58	65	62	56	95	84	64	29.69	-	29.5	-	-	-	2	0	9	0	
11	78	66	58	61	55	44	96	72	36	29.71	-	29.58	-	-	-	2	0	4	0	
12	54	42	39	52	36	28	93	79	64	30.15	-	29.98	-	-	-	3	2	11	0.73	
13	57	47	36	31	28	25	78	51	32	30.14	-	29.98	-	-	-	4	1	12	0.01	
14	69	52	37	43	36	32	88	59	29	30.15	-	29.99	-	-	-	2	0	6	0	
15	77	57	38	57	45	36	95	70	30	30.03	-	29.89	-	-	-	2	0	4	0	
16	66	60	55	61	58	53	96	92	80	29.96	-	29.86	-	-	-	2	0	5	0.06	
17	67	59	50	61	50	44	98	74	50	30.04	-	29.87	-	-	-	4	1	7	0	
18	70	56	42	51	46	40	95	73	42	30.11	-	29.89	-	-	-	1	0	3	0.4	
19	77	64	53	62	56	44	94	78	51	29.99	-	29.79	-	-	-	2	0	5	0	
20	69	59	49	48	44	40	87	60	37	30.12	-	29.99	-	-	-	3	1	14		

2010 Weather Data

Day	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum	
1	88	81	71	76	73	68	95	77	63	29.57	-	29.43	-	-	-	1	0	3	0	
2	85	73	63	68	57	50	80	60	30	29.77	-	29.57	-	-	-	1	0	2	0	
3	72	70	68	52	52	51	56	53	49	30.02	-	30	-	-	-	1	0	5	0	
4	88	71	52	59	54	49	91	60	29	30.03	-	29.86	-	-	-	1	0	5	0	
5	94	75	57	63	59	54	94	62	29	29.93	-	29.83	-	-	-	1	0	3	0	
6	90	75	62	69	65	60	96	73	45	29.94	-	29.81	-	-	-	1	0	5	0	
7	94	80	69	75	71	66	94	76	52	30.02	-	29.8	-	-	-	1	0	4	0	
8	82	74	69	71	64	60	90	71	56	30.18	-	30.01	-	-	-	1	0	4	0	
20	90	84	74	74	72	70	94	68	56	29.84	-	29.77	-	-	-	1	0	5	0	
21	89	79	77	75	73	73	87	82	62	29.93	-	29.9	-	-	-	1	0	4	0	
22	92	81	74	76	73	72	94	79	56	29.96	-	29.84	-	-	-	1	0	4	0	
23	91	82	74	76	74	68	91	77	59	29.95	-	29.87	-	-	-	3	0	0	0	
24	90	80	73	73	71	67	94	75	48	29.95	-	29.85	-	-	-	3	0	0	0	
25	90	80	71	75	71	67	95	76	48	29.96	-	29.86	-	-	-	2	0	0	0	
26	93	79	66	73	68	65	96	73	40	30.02	-	29.89	-	-	-	1	0	0	0	
27	94	79	67	73	68	65	94	72	42	30	-	29.86	-	-	-	2	0	0	0	
28	96	82	69	74	69	66	94	68	39	29.92	-	29.77	-	-	-	1	0	0	0	
29	97	82	69	75	70	67	94	71	39	29.82	-	29.69	-	-	-	2	0	0	0	
30	94	81	71	74	71	68	94	74	51	29.9	-	29.76	-	-	-	7	0	0	0.08	
31	93	81	72	75	72	70	97	78	48	29.97	-	29.87	-	-	-	2	0	0	0	
2010	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)	
Jun	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum	
1	93	82	71	75	72	70	95	74	50	29.97	-	29.81	-	-	-	3	0	0	0	
2	93	81	72	77	73	69	96	79	53	29.86	-	29.66	-	-	-	3	0	0	0	
3	81	73	69	73	70	67	96	90	74	29.73	-	29.61	-	-	-	2	0	0	0.33	
4	90	78	70	74	71	68	96	80	53	29.81	-	29.69	-	-	-	3	0	0	0	
5	94	82	73	77	74	71	94	78	52	29.86	-	29.76	-	-	-	5	0	0	0	
6	96	84	77	79	76	73	95	79	53	29.94	-	29.81	-	-	-	2	0	0	0	
7	86	80	76	80	76	74	95	89	78	30.01	-	29.89	-	-	-	1	0	0	0.01	
8	84	76	72	79	74	69	96	93	78	30.06	-	29.9	-	-	-	3	0	0	0.35	
9	90	82	76	80	76	73	97	85	64	29.97	-	29.86	-	-	-	3	0	0	0.01	
10	92	84	79	79	77	74	93	79	62	29.92	-	29.82	-	-	-	8	0	0	0	
11	94	84	77	81	76	73	95	79	58	29.96	-	29.85	-	-	-	3	0	0	0	
12	93	85	79	79	77	76	91	77	59	30.01	-	29.93	-	-	-	3	0	0	0	
13	96	86	79	78	76	74	92	75	53	30.03	-	29.92	-	-	-	4	0	0	0	
14	96	85	77	78	76	74	95	75	51	29.98	-	29.83	-	-	-	2	0	0	0	
15	94	83	74	78	75	72	95	78	53	30.01	-	29.92	-	-	-	2	0	0	0	
16	96	84	74	78	74	72	96	74	49	30.07	-	29.96	-	-	-	2	0	0	0	
17	96	84	75	78	74	71	95	73	45	30.04	-	29.95	-	-	-	3	0	0	0	
18	97	85	76	79	76	73	95	76	52	30.04	-	29.92	-	-	-	1	0	0	0	
19	98	86	75	78	74	71	95	71	44	30.08	-	29.96	-	-	-	3	0	0	0	
20	98	85	73	77	74	71	95	72	46	30.04	-	29.9	-	-	-	2	0	0	0	
21	99	85	74	78	75	72	95	73	46	30.02	-	29.9	-	-	-	2	0	0	0	
22	98	84	74	78	74	72	95	74	43	30.03	-	29.94	-	-	-	3	0	0	0	
23	94	84	74	78	75	73	95	77	53	30.04	-	29.98	-	-	-	1	0	0	0	
24	88	80	76	79	76	74	95	86	65	30.09	-	29.95	-	-	-	2	0	0	0.4	
25	95	84	74	79	75	73	96	78	50	30.05	-	29.93	-	-	-	4	0	0	0	
26	97	84	73	79	75	72	95	76	48	29.99	-	29.83	-	-	-	3	0	0	0	
27	96	84	72	78	74	70	95	73	46	29.88	-	29.73	-	-	-	1	0	0	0	
28	91	79	75	80	76	73	95	91	65	29.86	-	29.77	-	-	-	0	0	0	0.81	
29	94	83	74	80	76	73	97	81	54	29.9	-	29.81	-	-	-	3	0	0	0	
30	83	80	77	77	75	74	90	84	76	29.95	-	29.85	-	-	-	1	0	0	0.02	
2010	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)	
Jul	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum	
1	82	77	77	75	74	74	91	90	90	30	-	29.91	-	-	-	2	0	0	0.14	
2	81	76	73	80	75	72	97	96	94	30.01	-	29.93	-	-	-	0	0	0	1.01	
3	88	80	76	81	77	75	98	91	76	29.96	-	29.89	-	-	-	2	0	0	0	
4	93	82	74	80	76	73	97	83	62	29.92	-	29.83	-	-	-	2	0	0	0	
5	96	83	74	79	75	72	96	80	48	29.89	-	29.78	-	-	-	1	0	0	0.03	
6	94	82	74	79	76	73	96	81	56	29.88	-	29.78	-	-	-	4	0	0	0.01	
7	85	78	74	79	76	72	96	92	81	29.93	-	29.84	-	-	-	4	0	0	0.21	
8	82	78	75	78	76	74	97	94	82	30	-	29.91	-	-	-	1	0	0	0.42	
9	92	82	75	80	77	74	97	84	60	30.04	-	29.93	-	-	-	2	0	0	0	
10	92	83	74	79	75	73	96	79	55	30.05	-	29.94	-	-	-	2	0	0	0	
11	94	83	75	78	75	73	96	77	54	29.98	-	29.82	-	-	-	3	0	0	0	
12	93	84	76	79	76	74	95	79	59	29.9	-	29.79	-	-	-	2	0	0	0	
13	94	85	78	78	76	73	93	75	51	29.94	-	29.86	-	-	-	4	0	0	0	
14	97	85	76	79	76	74	95	77	53	30.05	-	29.95	-	-	-	2	0	0	0	
15	96	85	75	79	76	73	96	78	51	30.07	-	29.94	-	-	-	2	0	0	0	
16	96	85	76	78	76	74	95	75	49	30.03	-	29.92	-	-	-	1	0	0	0	
17	97	84	76	79	75	73	94	76	50	30.03	-	29.92	-	-	-	3	0	0	0.01	
18	91	79	75	80	75	72	96	89	62	30.01	-	29.94	-	-	-	2	0	0	0.08	
19	88	80	75	82	76	74	97	90	73	30.01	-	29.95	-	-	-	1	0	0	0.01	
20	93	83	77	80	77	75	96	84	57	30.03	-	29.94	-	-	-	1	0	0	0	</

2010 Weather Data

2010 Sep	31	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	1	94	83	76	79	76	74	96	80	56	29.95	-	29.81	-	-	-	3	0	0	0
	2	93	80	75	79	75	73	95	84	57	29.95	-	29.84	-	-	-	2	0	0	0.01
	3	85	79	75	78	74	71	96	86	70	30.05	-	29.93	-	-	-	2	0	0	0
	4	88	79	72	76	71	67	94	79	62	30.05	-	29.94	-	-	-	2	0	0	0
	5	92	79	67	71	68	64	90	69	44	29.97	-	29.83	-	-	-	4	0	0	0
	6	87	76	72	79	74	70	96	91	73	29.91	-	29.84	-	-	-	2	0	0	1.03
	7	78	76	74	78	76	73	97	97	96	29.97	-	29.88	-	-	-	2	0	0	1.37
	8	91	81	76	80	77	75	97	87	60	29.95	-	29.85	-	-	-	2	0	0	0.01
	9	92	82	76	79	77	75	96	86	63	29.92	-	29.79	-	-	-	3	0	0	0
	10	94	82	74	79	76	73	96	83	58	29.89	-	29.79	-	-	-	2	0	0	0
	11	94	84	75	80	77	74	96	80	57	29.95	-	29.85	-	-	-	3	0	0	0
	12	95	81	76	81	77	74	96	86	57	30.05	-	29.93	-	-	-	4	0	0	0.52
	13	93	82	74	79	76	73	97	83	59	30.05	-	29.93	-	-	-	1	0	0	0
	14	94	82	73	79	75	72	96	81	51	30.02	-	29.9	-	-	-	0	0	0	0
	15	94	81	72	78	72	67	96	76	43	30.01	-	29.89	-	-	-	0	0	0	0
	16	93	78	65	76	69	64	95	77	44	30	-	29.88	-	-	-	0	0	0	0
	17	93	82	75	80	76	73	96	82	57	29.99	-	29.89	-	-	-	0	0	0	0
	18	86	78	74	78	74	72	96	85	68	30.03	-	29.94	-	-	-	0	0	0	0
	19	86	77	71	77	72	68	94	85	68	30.06	-	29.97	-	-	-	0	0	0	0
	20	85	76	70	75	71	67	94	84	65	30.02	-	29.91	-	-	-	0	0	0	0
	21	84	76	72	76	72	70	96	87	72	29.98	-	29.87	-	-	-	1	0	0	0.3
	22	91	79	72	78	73	70	97	84	55	30	-	29.9	-	-	-	1	0	0	0
	23	90	80	73	78	74	71	96	84	61	30.01	-	29.93	-	-	-	2	0	0	0.01
	24	90	80	73	80	74	71	96	85	63	30.09	-	29.99	-	-	-	1	0	0	0
	25	91	78	71	77	72	69	96	84	54	30.05	-	29.87	-	-	-	1	0	0	0.37
	26	86	76	68	72	68	61	96	80	53	29.93	-	29.82	-	-	-	4	0	0	0
	27	78	66	57	61	56	53	89	72	45	29.98	-	29.89	-	-	-	4	0	0	0
	28	80	62	54	60	55	52	93	81	43	29.95	-	29.89	-	-	-	2	0	0	0
2010 Nov		Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	28	65	61	62	61	53	-100	92	84	73	29.86	-	29.82	-	-	-	3	-38	0	0.02
	29	79	70	62	71	64	41	95	84	41	29.89	-	29.66	-	-	-	3	0	0	0.01
	30	66	55	48	39	31	25	52	41	32	30.39	-	29.89	-	-	-	9	2	0	0
2010 Dec		Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
		high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
	1	63	44	29	37	30	26	89	65	26	30.41	-	30.25	-	-	-	3	0	0	0.13
	2	69	52	34	52	44	31	92	77	49	30.29	-	30.16	-	-	-	2	0	0	0.01
	3	74	59	43	60	52	42	95	80	53	30.22	-	30.07	-	-	-	1	0	0	0
	4	78	64	55	64	57	42	95	79	54	30.2	-	30	-	-	-	3	0	0	0.01
	5	58	50	37	40	35	33	84	57	41	30.45	-	30.2	-	-	-	4	0	0	0
	6	54	42	32	35	32	28	90	71	37	30.53	-	30.32	-	-	-	3	0	0	0
	7	61	45	30	47	35	28	92	72	39	30.32	-	30.08	-	-	-	2	0	0	0.05
	8	48	46	36	46	40	33	94	82	68	30.35	-	30.11	-	-	-	5	0	0	0
	9	61	45	30	46	38	28	94	79	50	30.34	-	30.09	-	-	-	3	0	0	0
	10	73	56	39	58	50	37	95	80	55	30.1	-	29.91	-	-	-	5	0	0	0
	11	75	62	54	63	51	25	96	71	33	30.12	-	29.79	-	-	-	8	1	0	0
	12	54	46	34	24	21	18	60	38	26	30.36	-	30.12	-	-	-	6	1	0	0
	13	57	41	27	33	25	21	81	57	25	30.35	-	30.2	-	-	-	1	0	0	0
	14	70	53	36	53	44	32	92	74	49	30.21	-	29.91	-	-	-	6	0	0	0
	15	75	63	50	61	56	48	96	79	54	29.91	-	29.7	-	-	-	7	0	0	0
	16	68	59	54	63	51	41	96	76	56	29.96	-	29.72	-	-	-	5	0	0	0
	17	58	52	47	46	41	33	77	68	60	30.13	-	29.94	-	-	-	6	0	0	0
	18	56	47	36	35	33	30	81	59	40	30.18	-	30.04	-	-	-	3	0	0	0
	19	62	48	33	49	40	29	92	76	56	30.11	-	29.96	-	-	-	3	0	0	0
	20	77	64	49	64	58	47	95	82	59	29.98	-	29.87	-	-	-	5	0	0	0
	21	79	71	64	66	64	62	93	81	60	30.04	-	29.94	-	-	-	3	0	0	0
	22	70	65	60	66	61	54	94	86	76	30.23	-	30.04	-	-	-	2	0	0	0
	23	62	58	53	54	47	39	82	66	56	30.28	-	30.13	-	-	-	3	0	0	0
	24	69	54	43	59	46	38	94	75	61	30.14	-	29.95	-	-	-	4	1	0	0.4
	25	44	41	35	42	34	26	93	75	61	30.41	-	30.13	-	-	-	6	2	0	0.17
	26	47	36	28	31	27	25	89	72	48	30.44	-	30.32	-	-	-	4	0	0	0.05
	27	52	40	25	41	34	23	93	80	65	30.38	-	30.25	-	-	-	4	1	0	0
	28	64	56	46	55	51	41	90	82	70	30.25	-	30.03	-	-	-	3	0	0	0
	29	61	59	56	59	57	54	96	92	83	30.03	-	29.68	-	-	-	5	0	0	0.61
	30	73	67	58	67	64	57	97	90	78	29.72	-	29.58	-	-	-	4	0	0	0.01
	31	71	68	65	68	63	29	95	86	58	29.88	-	29.62	-	-	-	4	0	0	0.02

2011 Weather Data

Jan	Temp. (°F)				Dew Point (°F)				Humidity (%)				Sea Level Pressure (in)				Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low		high	avg	low		high	avg	low		high	avg	low		high	avg	low	high	avg	gust	sum
1	61	54	41		32	26	17		60	36	25		30.31	-	29.86	-	-	-	-	9	1	0	0
2	55	42	32		34	26	21		84	55	30		30.44	-	30.3	-	-	-	-	4	0	0	0
3	59	47	32		48	38	29		89	72	47		30.3	-	30.12	-	-	-	-	3	0	0	0
4	66	57	49		61	55	46		96	92	83		30.15	-	29.97	-	-	-	-	2	0	0	0.51
5	70	60	45		60	52	40		97	78	40		30.05	-	29.92	-	-	-	-	4	0	0	0
6	65	48	35		42	37	33		92	70	31		30.13	-	30.01	-	-	-	-	3	0	0	0
7	71	52	38		46	39	34		90	68	29		30.01	-	29.76	-	-	-	-	2	0	0	0
8	64	51	37		39	34	30		90	58	30		29.99	-	29.81	-	-	-	-	5	0	0	0
9	52	43	40		42	40	32		94	90	46		29.96	-	29.73	-	-	-	-	5	1	0	1.37
10	42	39	38		39	37	34		94	91	83		30.31	-	29.95	-	-	-	-	3	0	0	0
11	45	38	30		33	26	21		83	65	41		30.65	-	30.31	-	-	-	-	9	1	0	0
12	45	35	25		21	18	16		77	53	35		30.79	-	30.62	-	-	-	-	6	1	0	0
13	39	36	32		28	21	17		68	54	45		30.69	-	30.48	-	-	-	-	2	0	0	0
14	52	45	38		44	35	27		85	70	61		30.47	-	30.27	-	-	-	-	4	0	0	0
15	63	53	44		56	48	38		95	85	71		30.29	-	30.1	-	-	-	-	3	0	0	0.07
16	59	56	50		58	55	49		96	95	93		30.1	-	29.9	-	-	-	-	4	0	0	0.54
17	56	50	48		52	49	47		96	93	80		29.93	-	29.71	-	-	-	-	2	0	0	0.01
18	58	54	45		57	52	43		97	92	79		30.07	-	29.71	-	-	-	-	4	0	0	0.01
19	63	51	37		51	45	35		96	82	59		30.11	-	29.92	-	-	-	-	3	0	0	0
20	58	47	32		56	44	26		95	88	77		30.23	-	29.87	-	-	-	-	6	1	0	0.05
21	44	34	28		31	27	24		89	79	55		30.22	-	30.02	-	-	-	-	3	0	0	0
22	60	43	26		38	32	24		93	69	37		30.14	-	29.95	-	-	-	-	2	0	0	0
23	64	48	38		52	36	-100		94	76	65		30.08	-	29.96	-	-	-	-	4	-64	0	0.01
24	51	22	48		50	-36	-100		96	41	94		30.07	-	29.91	-	-	-	-	3	-	0	0.14
25	57	27	43		42	-26	-100		90	35	42		30.17	-	29.95	-	-	-	-	6	-	0	0
26	60	24	30		38	-38	-100		94	26	33		30.26	-	30.16	-	-	-	-	2	-	0	0
27	67	30	36		40	-28	-100		92	27	30		30.28	-	30.12	-	-	-	-	2	-	0	0
28	74	34	43		44	-24	-100		84	25	25		30.17	-	30.03	-	-	-	-	4	-	0	0
29	73	39	53		61	-7	-100		93	45	65		30.1	-	29.97	-	-	-	-	4	-	0	0
30	72	47	60		66	15	-100		95	61	71		30.04	-	29.91	-	-	-	-	3	-	0	0.03
31	74	64	56		65	60	55		96	87	71		30.03	-	29.8	-	-	-	-	3	0	0	0
2011 Feb	Temp. (°F)				Dew Point (°F)				Humidity (%)				Sea Level Pressure (in)				Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low		high	avg	low		high	avg	low		high	avg	low		high	avg	low	high	avg	gust	sum
1	68	45	23		67	41	15		97	84	64		30.25	-	29.62	-	-	-	-	12	2	0	0.59
2	34	14	21		17	-46	-100		71	26	49		30.52	-	30.26	-	-	-	-	8	-	0	0
3	32	10	30		21	-61	-100		64	20	60		30.52	-	30.32	-	-	-	-	4	-	0	0
4	32	14	25		25	-41	-100		88	40	76		30.34	-	30.15	-	-	-	-	2	-	0	0.01
5	59	33	25		33	-12	-100		93	35	29		30.15	-	29.87	-	-	-	-	3	-	0	0.02
6	72	52	31		53	40	29		92	67	38		30.07	-	29.81	-	-	-	-	4	1	0	0
7	56	46	31		40	32	26		85	62	32		30.3	-	30.07	-	-	-	-	6	1	0	0
8	57	44	28		41	36	26		90	73	53		30.25	-	30.06	-	-	-	-	5	1	0	0
9	48	36	26		43	32	20		96	85	77		30.36	-	30	-	-	-	-	9	2	0	0.12
10	40	30	22		26	22	16		88	73	55		30.41	-	30.26	-	-	-	-	5	1	0	0
11	54	35	20		30	24	18		91	69	30		30.46	-	30.32	-	-	-	-	4	0	0	0
12	64	42	24		34	28	21		91	64	24		30.56	-	30.4	-	-	-	-	3	0	0	0
13	70	49	29		47	38	26		93	70	35		30.43	-	30.19	-	-	-	-	5	1	0	0
14	75	58	43		59	52	41		96	82	54		30.26	-	30.14	-	-	-	-	4	0	0	0
15	74	62	51		60	56	50		96	82	60		30.21	-	30.06	-	-	-	-	3	0	0	0
16	74	63	53		63	58	52		96	84	62		30.14	-	30.02	-	-	-	-	3	0	0	0
17	76	68	60		65	62	58		94	82	62		30.08	-	29.96	-	-	-	-	6	1	0	0
18	80	69	62		65	62	59		94	80	52		30.18	-	30.05	-	-	-	-	3	0	0	0
19	77	66	60		64	61	59		96	85	62		30.2	-	30.04	-	-	-	-	3	0	0	0
20	80	68	60		64	62	58		95	80	56		30.04	-	29.83	-	-	-	-	9	1	0	0
21	78	70	61		65	63	58		92	80	59		29.92	-	29.78	-	-	-	-	5	0	0	0
22	76	66	57		63	56	47		94	72	60		30.08	-	29.93	-	-	-	-	3	0	0	0
23	82	70	65		68	65	62		96	84	55		30.02	-	29.89	-	-	-	-	4	0	0	0
24	79	71	63		68	66	61		94	84	64		29.91	-	29.72	-	-	-	-	3	0	0	0
25	73	60	49		61	49	45		94	70	40		30.1	-	29.9	-	-	-	-	5	0	0	0
26	74	64	47		68	61	45		95	88	78		29.97	-	29.82	-	-	-	-	3	0	0	0
27	84	73	67		68	67	64		95	81	55		29.83	-	29.64	-	-	-	-	6	1	0	0
28	74	69	64		68	60	33		89	55	26		30.22	-	29.72	-	-	-	-	7	1	0	0.01
2011 Mar	Temp. (°F)				Dew Point (°F)				Humidity (%)				Sea Level Pressure (in)				Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low		high	avg	low		high	avg	low		high	avg	low		high	avg	low	high	avg	gust	sum
1	75	57	42		46	42	37		91	61	27		30.3	-	30.15	-	-	-	-	3	0	0	0
2	76	57	39		47	40	36		92	60	25		30.22	-	30.05	-	-	-	-	3	0	0	0
3	76	59	42		61	52	39		95	81	55		30.09	-	29.95	-	-	-	-	7	0	0	0
4	78	69	63		65	62	60		94	80	55		29.96	-	29.84	-	-	-	-	2	0	0	0
5	65	55	43		62	49	39		95	80	60		30.25	-	29.91	-	-	-	-	5	1	0	0.51
6	68	51	37		43	38	33		87	64	32		30.26	-	30.03	-	-	-	-	6	0	0	0
7	67	57	41		60	51	39		95	8													

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21	88	79	73	72	70	67	93	75	51	29.99	-	29.88	-	-	-	5	0	0	0
22	91	80	72	72	69	64	89	71	41	29.93	-	29.81	-	-	-	4	1	0	0
23	90	80	74	72	69	65	86	70	44	29.92	-	29.81	-	-	-	4	0	0	0
24	89	80	73	71	69	67	88	72	51	29.94	-	29.78	-	-	-	3	0	0	0
25	89	80	75	72	70	68	87	73	53	29.83	-	29.56	-	-	-	12	1	0	0
26	85	80	75	75	73	72	89	80	70	29.61	-	29.37	-	-	-	6	0	0	0
27	91	80	68	73	58	42	89	53	19	30	-	29.4	-	-	-	7	1	0	0
28	84	68	55	50	47	44	81	50	27	30.19	-	30.02	-	-	-	3	0	0	0
29	86	68	49	64	53	45	87	62	34	30.09	-	29.83	-	-	-	6	0	0	0
30	87	78	70	73	70	64	93	78	61	29.83	-	29.7	-	-	-	4	0	0	0
2011	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
May	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	90	81	66	73	71	55	88	73	55	29.9	-	29.74	-	-	-	4	0	0	0
2	77	62	56	61	53	50	83	73	56	30.19	-	29.89	-	-	-	7	1	0	0
3	77	62	53	51	47	40	88	62	30	30.36	-	30.19	-	-	-	5	1	0	0
4	80	62	43	52	44	40	89	57	27	30.39	-	30.22	-	-	-	3	0	0	0.61
5	84	66	48	57	50	44	88	61	30	30.25	-	30.03	-	-	-	2	0	0	0.17
6	88	70	52	63	55	48	92	63	36	30.1	-	29.91	-	-	-	3	0	0	0
7	93	76	64	68	64	58	90	69	41	29.95	-	29.81	-	-	-	4	0	0	0.02
8	94	80	71	72	70	67	91	73	46	29.88	-	29.76	-	-	-	4	0	0	0
9	96	82	74	74	70	65	88	70	39	29.86	-	29.72	-	-	-	7	0	0	0.25
10	92	82	76	73	70	65	87	70	43	29.87	-	29.75	-	-	-	2	0	0	0.23
11	83	78	75	74	71	68	90	80	69	29.9	-	29.7	-	-	-	4	0	0	0.25
12	81	72	64	74	69	63	95	90	66	30	-	29.77	-	-	-	3	0	0	0.78
13	91	74	60	71	62	55	97	72	34	29.93	-	29.79	-	-	-	5	0	0	0.23
14	81	69	58	57	51	47	86	57	32	30	-	29.87	-	-	-	5	0	0	0
15	83	68	52	54	50	48	89	56	31	30.09	-	29.9	-	-	-	3	0	0	0.27
16	87	72	61	56	52	49	81	54	30	30.01	-	29.85	-	-	-	3	0	0	0
17	86	71	54	65	58	50	87	67	44	29.92	-	29.73	-	-	-	3	0	0	0.14
18	80	73	65	70	66	61	92	78	67	29.8	-	29.68	-	-	-	3	0	0	0
19	85	78	71	75	71	67	90	80	64	29.78	-	29.72	-	-	-	4	0	0	0
20	90	82	78	78	75	74	88	79	62	29.81	-	29.68	-	-	-	3	0	0	0
21	89	80	70	75	72	65	91	78	60	29.88	-	29.77	-	-	-	3	0	0	0.06
22	92	82	75	73	72	69	90	73	50	29.92	-	29.76	-	-	-	4	0	0	0
23	92	82	75	74	72	70	90	73	49	29.86	-	29.77	-	-	-	7	0	0	0
24	96	84	76	74	72	67	91	70	41	29.82	-	29.69	-	-	-	5	0	0	0
25	94	84	77	76	74	71	88	71	53	29.83	-	0	-	-	-	4	0	0	0
26	96	81	67	74	64	56	95	60	29	29.93	-	0	-	-	-	5	0	0	0
27	98	82	68	74	67	60	88	63	37	29.88	-	29.69	-	-	-	4	0	0	0.18
28	98	84	75	74	72	69	92	69	42	29.77	-	29.68	-	-	-	3	0	0	0
29	94	83	75	74	72	67	90	71	50	29.88	-	29.75	-	-	-	4	0	0	0.07
30	94	84	78	74	72	68	84	69	45	30.01	-	29.86	-	-	-	4	0	0	0
31	97	85	77	75	73	69	89	69	43	30.15	-	30	-	-	-	2	0	0	0
2011	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jun	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	94	80	70	74	69	65	95	73	41	30.2	-	30.04	-	-	-	1	0	0	0
2	100	85	68	70	67	64	89	59	35	30.09	-	29.89	-	-	-	3	0	0	0
3	97	84	71	75	69	64	87	63	37	30.04	-	29.93	-	-	-	3	0	0	0
4	99	83	67	73	67	61	94	63	30	30.12	-	30.02	-	-	-	4	0	0	0
5	98	82	71	73	67	62	85	64	35	30.09	-	29.93	-	-	-	3	0	0	0
6	100	81	71	73	69	64	91	70	31	29.98	-	29.82	-	-	-	2	0	0	0.17
7	96	77	68	75	70	66	94	80	44	29.93	-	29.83	-	-	-	1	0	0	0
8	91	85	78	71	70	69	78	62	49	29.91	-	29.84	-	-	-	0	0	0	0
9	95	83	70	74	71	67	94	70	44	29.93	-	29.83	-	-	-	2	0	0	0
10	98	84	70	75	70	67	94	68	38	29.95	-	29.83	-	-	-	2	0	0	0
11	98	84	69	74	69	63	94	65	34	29.94	-	29.85	-	-	-	2	0	0	0
12	99	85	71	75	71	67	94	65	37	30	-	29.86	-	-	-	3	0	0	0
13	100	87	73	75	71	68	92	62	37	29.98	-	29.78	-	-	-	3	0	0	0
14	100	87	76	76	73	69	92	67	38	29.9	-	29.75	-	-	-	4	0	0	0
15	99	86	75	77	73	69	94	69	38	29.87	-	29.75	-	-	-	5	0	0	0
16	100	88	80	77	75	72	89	67	42	29.87	-	29.79	-	-	-	9	1	0	0
17	101	88	80	77	74	71	88	66	39	29.93	-	29.81	-	-	-	6	1	0	0
18	100	88	79	77	74	67	88	65	38	29.9	-	29.75	-	-	-	5	0	0	0
19	98	87	78	76	74	71	86	66	42	29.83	-	29.67	-	-	-	5	0	0	0
20	97	88	79	77	75	72	93	68	47	29.84	-	29.72	-	-	-	5	0	0	0.04
21	83	75	68	77	72	67	96	89	75	29.96	-	29.83	-	-	-	2	0	0	1.71
22	92	80	72	77	73	70	96	81	58	29.92	-	29.83	-	-	-	3	0	0	0
23	92	82	72	77	74	70	95	78	58	29.88	-	29.78	-	-	-	2	0	0	0
24	96	84	75	78	74	70	95	73	47	29.89	-	29.81	-	-	-	4	0	0	0
25	97	86	77	78	75	73	94	73	47	29.92	-	29.83	-	-	-	3	0	0	0
26	98	86	77	77	75	72	94	72	44	30	-	29.87	-	-	-	2	0	0	0
27	96	85	75	77	74	71	94	71	47	30.03	-	29.92	-	-	-	3	0	0	0
28	97	85	74	76	72	70	94	69	44	30.04	-	29.89	-	-	-	1	0	0	0
29	98	86	72	76	71	67	93	64	38	30.01	-	29.87	-	-	-	1	0	0	0
2011	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Jul	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	98	85	74	78	73	70	94	69	41	30.01	-	29.92	-	-	-	3	0	0	0
2	100	85	74	78	72	67	94	68	35	30.06	-	29.91	-	-	-	4	0	0	0
3	99	86	74	77	72	68	93	67	38	30	-	29.84	-	-	-	2	0		

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10	103	88	77	78	75	72	94	68	39	29.86	-	29.72	-	-	4	0	0	0	
11	103	89	79	79	76	69	92	68	37	29.89	-	29.76	-	-	5	0	0	0	
12	101	89	79	78	76	70	92	69	39	29.94	-	29.81	-	-	2	0	0	0	
13	101	88	77	78	75	69	93	68	37	29.96	-	29.83	-	-	2	0	0	0	
14	97	84	78	79	76	72	92	80	46	29.97	-	29.86	-	-	2	0	0	0.13	
15	101	87	76	78	74	69	95	69	36	29.94	-	29.83	-	-	2	0	0	0	
16	102	88	75	78	73	68	94	66	34	29.98	-	29.87	-	-	2	0	0	0	
17	104	89	75	78	72	66	93	63	30	30.06	-	29.91	-	-	2	0	0	0	
18	104	90	77	78	73	68	92	62	35	30	-	29.81	-	-	3	0	0	0	
19	105	90	78	77	72	68	88	57	35	29.9	-	29.75	-	-	3	0	0	0	
20	101	89	78	79	74	71	91	65	40	29.92	-	29.81	-	-	2	0	0	0	
21	101	87	74	78	73	69	90	65	36	30	-	29.89	-	-	3	0	0	0	
22	102	88	74	78	73	69	93	65	37	30.02	-	29.87	-	-	2	0	0	0	
23	102	88	76	78	73	69	90	64	37	29.95	-	29.8	-	-	2	0	0	0	
24	101	86	76	78	74	70	95	72	40	29.93	-	29.78	-	-	3	0	0	0.68	
25	94	82	75	78	73	68	97	78	47	29.96	-	29.84	-	-	1	0	0	0.08	
26	100	86	72	75	72	68	91	65	39	29.97	-	29.82	-	-	2	0	0	0	
27	105	90	77	76	73	67	92	61	31	29.91	-	29.73	-	-	3	0	0	0	
28	105	89	75	75	70	63	89	57	28	29.83	-	29.71	-	-	3	0	0	0	
29	103	88	73	74	71	66	93	60	32	29.88	-	29.74	-	-	2	0	0	0	
30	101	88	74	77	71	62	89	61	34	29.89	-	29.78	-	-	2	0	0	0	
31	99	85	73	77	70	62	94	65	33	29.96	-	29.86	-	-	1	0	0	0.03	
2011	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Sep	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	99	85	72	77	72	68	89	67	40	29.97	-	29.81	-	-	4	0	0	0	0
2	100	87	76	76	72	69	87	63	37	29.88	-	29.71	-	-	3	0	0	0	0
3	95	84	76	71	69	67	78	62	43	29.77	-	29.6	-	-	8	1	0	0	0
4	90	84	78	70	67	63	70	56	42	29.71	-	29.57	-	-	6	1	0	0	0.01
5	92	82	68	67	57	42	65	45	22	29.93	-	29.71	-	-	6	1	0	0	0
6	92	72	54	54	49	43	74	48	25	30.05	-	29.91	-	-	5	0	0	0	0
7	93	73	55	54	49	43	82	48	19	30.12	-	29.97	-	-	3	0	0	0	0
8	92	73	55	57	51	46	77	50	24	30.1	-	29.91	-	-	4	0	0	0	0
9	95	77	59	67	56	49	87	55	22	30	-	29.86	-	-	4	0	0	0	0
10	97	81	67	68	58	44	87	55	18	30.02	-	29.91	-	-	5	0	0	0	0
11	99	82	66	72	64	57	90	59	28	30.08	-	29.95	-	-	2	0	0	0	0
12	101	84	69	73	66	60	91	58	28	30.12	-	29.94	-	-	3	0	0	0	0
13	102	86	73	76	69	62	94	61	29	30	-	29.86	-	-	2	0	0	0	0
14	99	85	74	76	69	63	94	64	36	29.94	-	29.84	-	-	3	0	0	0	0
15	94	84	73	71	68	65	82	61	42	30.04	-	29.93	-	-	2	0	0	0	0
16	92	80	70	73	68	62	85	66	46	30.11	-	29.96	-	-	3	0	0	0	0
17	89	76	72	76	72	70	94	88	62	30.06	-	29.96	-	-	2	0	0	0	0.22
18	88	78	74	77	73	70	96	85	62	30.04	-	29.93	-	-	3	0	0	0	0.13
19	88	76	67	74	68	63	96	80	48	30.04	-	29.91	-	-	3	0	0	0	0.32
20	91	77	66	72	66	61	96	72	39	29.98	-	29.84	-	-	3	0	0	0	0
21	91	79	68	75	68	63	95	72	41	30.01	-	29.91	-	-	2	0	0	0	0
22	93	79	66	72	66	63	95	69	38	30.03	-	29.92	-	-	2	0	0	0	0
23	92	77	67	67	62	57	87	64	33	30.09	-	29.94	-	-	1	0	0	0	0
24	95	76	61	71	58	48	89	61	22	30	-	29.81	-	-	3	0	0	0	0
25	98	84	75	76	72	69	95	71	39	29.84	-	29.68	-	-	4	0	0	0	0
26	98	85	76	77	74	70	94	71	41	29.9	-	29.72	-	-	3	0	0	0	0
27	97	82	74	76	71	62	93	72	44	29.92	-	29.8	-	-	2	0	0	0	0.35
28	95	82	71	77	71	65	94	72	47	29.95	-	29.78	-	-	2	0	0	0	0
29	95	78	66	78	72	64	95	83	46	29.93	-	29.77	-	-	2	0	0	0	0.46
30	89	74	65	68	61	53	96	68	32	30.05	-	29.92	-	-	3	0	0	0	0
2011	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
Oct	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	84	69	54	60	50	45	84	54	26	30.2	-	30.04	-	-	2	0	0	0	0
2	83	66	51	53	49	45	88	59	28	30.24	-	30.11	-	-	2	0	0	0	0
3	84	67	50	56	49	44	92	60	25	30.25	-	30.12	-	-	2	0	0	0	0
4	86	68	50	60	54	47	92	66	36	30.24	-	30.09	-	-	2	0	0	0	0
5	87	70	53	65	59	51	94	72	42	30.15	-	29.99	-	-	3	0	0	0	0
6	89	76	63	72	68	60	94	78	56	30.03	-	29.94	-	-	5	0	0	0	0
7	87	79	72	73	71	69	93	77	58	30.05	-	29.98	-	-	3	0	0	0	0
8	87	78	72	73	71	69	94	80	57	30.03	-	29.92	-	-	4	0	0	0	0.02
9	75	70	66	71	67	65	97	92	85	30.01	-	29.92	-	-	4	0	0	0	2.11
10	83	72	66	72	68	66	97	88	61	30.01	-	29.89	-	-	2	0	0	0	0.39
11	85	73	64	70	66	63	96	79	55	29.92	-	29.79	-	-	1	0	0	0	0
12	86	75	65	72	68	64	96	81	56	29.84	-	29.73	-	-	2	0	0	0	0
13	86	72	59	68	58	46	95	66	28	29.93	-	29.82	-	-	4	0	0	0	0.01
14	85	67	52	59	53	49	91	65	32	30	-	29.91	-	-	2	0	0	0	0
15	85	69	54	64	58	52	94	73	40	30.08	-	29.98	-	-	3	0	0	0	0
16	87	71	56	68	62	54	95	76	45	30.09	-	29.95	-	-	2	0	0	0	0
17	87	76	66	72	67	63	96	77	48	29.98	-	29.71	-	-	1	0	0	0	0
18	73	66	55	69	49	40	92	57	38	30.03	-	29.68	-	-	11	1	0	0	0
19	72	59	49	45	39	35	73	49	28	30.11	-	29.99	-	-	3	0	0	0	0
20	77	58	41	50	43	38	89	62	28	30.16	-	30.02	-	-	1	0	0	0	0
21	85	69	54	64	58	49	91	70	46	30.16	-	30.05	-	-	2	0	0	0	0
22	84	71	58	65	61	56	94	72	45	30.12	-	29.98	-	-	3	0	0	0	0
23	83	72	65	68	65	61	91	80	59	30.07	-	29.95	-	-	1	0	0	0	0
24	86	73	62	69	65	60	94	77	49	30.16	-	30.07	-	-	2	0	0	0	0

2011 Weather Data

2011 Dec	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	72	55	36	61	50	34	95	85	66	30.25	-	30.11	-	-	-	3	0	0	0
2	71	62	58	59	55	38	93	78	37	30.3	-	30.17	-	-	-	3	0	0	0
3	75	68	61	65	62	59	95	82	63	30.12	-	29.99	-	-	-	6	0	0	0
4	68	60	53	66	58	52	96	94	91	30.03	-	29.94	-	-	-	2	0	0	0.18
5	53	47	42	52	45	40	96	92	86	30.2	-	29.87	-	-	-	4	0	0	0.4
6	42	38	33	41	33	28	93	84	74	30.36	-	30.19	-	-	-	3	0	0	0
7	47	36	28	31	27	25	90	73	43	30.47	-	30.3	-	-	-	2	0	0	0
8	54	42	27	45	37	25	93	81	62	30.36	-	30.18	-	-	-	3	0	0	0
9	59	52	45	53	46	41	88	81	69	30.39	-	30.16	-	-	-	1	0	0	0.01
10	56	51	46	44	39	36	82	65	48	30.51	-	30.38	-	-	-	1	0	0	0
11	55	48	41	40	36	32	80	63	42	30.44	-	30.28	-	-	-	3	0	0	0
12	62	53	45	52	40	33	89	62	44	30.31	-	30.19	-	-	-	2	0	0	0
13	64	60	55	62	58	52	95	92	89	30.28	-	30.16	-	-	-	3	0	0	0
14	78	69	62	69	66	60	97	89	69	30.16	-	29.96	-	-	-	1	0	0	0.01
15	77	69	62	70	66	60	97	90	73	30.06	-	29.95	-	-	-	1	0	0	0.08
16	61	55	53	60	52	49	94	89	84	30.36	-	30.06	-	-	-	5	1	0	0
17	61	53	46	49	44	37	88	71	42	30.46	-	30.35	-	-	-	2	0	0	0
18	63	53	45	50	42	37	89	68	42	30.41	-	30.15	-	-	-	2	0	0	0
19	71	62	52	67	59	49	96	90	76	30.14	-	29.83	-	-	-	3	0	0	0.22
20	68	57	46	67	51	39	96	80	53	30.01	-	29.84	-	-	-	2	0	0	0.38
21	57	50	39	49	42	37	91	75	55	30.06	-	29.89	-	-	-	1	0	0	0.01
22	56	52	48	54	50	47	96	94	88	30.2	-	29.84	-	-	-	2	0	0	1.34
23	54	49	44	52	45	42	95	86	79	30.36	-	30.21	-	-	-	4	0	0	0
24	50	46	43	47	43	41	96	91	83	30.38	-	30.24	-	-	-	3	0	0	0.65
25	46	45	44	46	44	43	96	96	95	30.36	-	30.27	-	-	-	3	0	0	0.04
26	50	45	37	46	43	36	96	93	83	30.26	-	30.09	-	-	-	1	0	0	0.04
27	58	44	33	42	37	32	96	81	50	30.25	-	30.12	-	-	-	3	0	0	0
28	64	47	32	53	42	30	95	84	63	30.23	-	29.98	-	-	-	3	0	0	0
29	61	48	42	52	46	40	96	90	70	30.06	-	29.92	-	-	-	1	0	0	0
30	72	53	37	56	47	36	96	82	51	30.05	-	29.91	-	-	-	2	0	0	0
31	75	68	48	66	64	46	97	88	72	30.09	-	29.96	-	-	-	3	0	0	0

2012 to Date Weather Data

2012 Jan	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	68	59	47	66	42	32	94	57	37	30.54	-	30.1	-	-	-	10	1	0	0.02
2	59	49	36	32	29	26	77	48	29	30.69	-	30.53	-	-	-	9	1	0	0
3	56	42	29	37	28	23	89	62	32	30.62	-	30.32	-	-	-	1	0	0	0
4	70	53	36	56	47	34	93	81	59	30.33	-	30.21	-	-	-	1	0	0	0
5	73	43	55	60	5	-100	91	52	62	30.31	-	30.12	-	-	-	3	-	0	0
6	74	64	55	62	58	52	96	83	55	30.11	-	29.95	-	-	-	4	0	0	0
7	70	61	56	63	58	54	96	89	73	30.04	-	29.95	-	-	-	2	0	0	0
8	75	66	59	66	61	53	94	84	72	30.07	-	29.94	-	-	-	2	0	0	0
9	67	63	53	66	62	52	97	96	95	29.99	-	29.85	-	-	-	4	0	0	2.45
10	52	48	44	51	45	42	96	88	74	30	-	29.86	-	-	-	3	0	0	0.01
11	69	56	39	49	45	37	94	69	41	29.89	-	29.69	-	-	-	3	0	0	0
12	57	44	32	45	26	17	71	52	33	30.28	-	29.84	-	-	-	7	1	0	0
13	53	40	28	34	28	22	90	66	36	30.36	-	30.28	-	-	-	2	0	0	0
14	63	45	32	39	34	29	89	68	34	30.45	-	30.45	-	-	-	0	4	0	0
15	68	52	32	59	46	30	94	81	61	30.4	-	30.21	-	-	-	3	0	0	0
16	76	69	64	67	64	59	92	83	68	30.21	-	30.01	-	-	-	9	1	0	0
17	73	66	47	69	58	33	96	79	53	30.25	-	29.98	-	-	-	6	1	0	0.03
18	62	49	38	44	36	29	89	63	40	30.31	-	26.55	-	-	-	5	0	0	0
19	70	61	47	64	58	44	94	88	80	30.08	-	29.88	-	-	-	2	0	0	0
20	78	70	64	67	66	63	96	87	65	29.92	-	29.8	-	-	-	4	0	0	0
21	71	64	57	67	58	51	95	81	65	29.98	-	29.86	-	-	-	3	0	0	0
22	78	68	57	69	63	51	95	84	71	29.9	-	29.75	-	-	-	5	1	0	0
23	68	59	49	65	47	41	94	67	46	30.1	-	29.9	-	-	-	4	0	0	0
24	67	58	48	67	53	44	97	83	63	30.03	-	29.85	-	-	-	4	0	0	0.08
25	70	61	52	68	60	49	97	94	84	29.92	-	29.71	-	-	-	6	1	0	2.72
26	63	54	44	50	46	39	94	77	46	30.09	-	29.89	-	-	-	4	0	0	0.01
27	69	53	37	49	42	36	95	72	34	30.1	-	29.97	-	-	-	4	0	0	0
28	63	53	42	49	37	30	95	59	31	30.41	-	30.09	-	-	-	5	1	0	0
29	63	48	36	39	34	29	89	63	28	30.48	-	30.35	-	-	-	3	0	0	0
30	67	63	58	57	48	35	95	84	68	30.35	-	30.16	-	-	-	2	0	0	0
31	68	63	57	67	62	55	97	96	93	30.18	-	30.04	-	-	-	1	0	0	0.59
2012 Feb	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	78	70	64	69	66	63	98	90	69	30.13	-	30.01	-	-	-	1	0	0	0.01
2	69	67	66	67	66	64	97	95	92	30.1	-	29.98	-	-	-	2	0	0	0.06
3	76	70	66	69	67	65	97	93	78	30.03	-	29.93	-	-	-	3	0	0	0.17
4	70	61	53	69	57	45	96	88	74	30.2	-	29.92	-	-	-	7	1	0	1.03
5	53	48	46	44	40	38	76	72	66	30.33	-	30.21	-	-	-	9	2	0	0
6	59	50	40	44	40	36	85	71	53	30.34	-	30.16	-	-	-	3	0	0	0
7	62	52	46	49	46	42	89	79	57	30.3	-	30.15	-	-	-	4	0	0	0
8	60	52	45	47	45	42	92	77	55	30.43	-	30.29	-	-	-	5	0	0	0
9	58	50	41	48	42	38	92	77	58	30.33	-	30.14	-	-	-	3	0	0	0.05
10	58	51	43	53	48	41	96	88	63	30.28	-	30.09	-	-	-	5	0	0	0.65
11	54	45	36	42	30	24	91	57	37	30.52	-	30.28	-	-	-	10	1	0	0
12	48	41	33	33	24	18	72	51	36	30.57	-	30.25	-	-	-	1	0	0	0.01
13	56	49	42	55	46	32	96	89	68	30.25	-	29.86	-	-	-	3	0	0	0.45
14	71	56	44	59	51	43	97	85	58	30.02	-	29.89	-	-	-	3	0	0	0.01
15	70	63	58	69	62	54	97	96	88	30.03	-	29.86	-	-	-	2	0	0	0.55
16	64	58	52	58	54	52	97	89	68	30.21	-	30.03	-	-	-	2	0	0	0.01
17	63	58	52	59	56	51	97	93	83	30.12	-	29.91	-	-	-	2	0	0	0.32
18	60	56	51	60	55	48	97	96	90	29.97	-	29.69	-	-	-	5	1	0	0.84
19	63	54	49	49	46	44	91	78	56	30.14	-	29.97	-	-	-	5	0	0	0
20	65	56	46	58	52	45	96	88	72	30.12	-	30.03	-	-	-	3	0	0	0
21	74	61	51	62	56	49	97	84	61	30.18	-	30	-	-	-	3	0	0	0
22	80	69	61	68	65	59	96	87	66	30	-	29.7	-	-	-	3	0	0	0
23	79	71	67	71	68	66	96	90	74	29.71	-	29.54	-	-	-	5	1	0	0
24	70	60	54	69	37	24	94	45	24	30.23	-	29.63	-	-	-	9	2	0	0
25	76	70	61	70	66	60	97	87	77	30.13	-	24.63	-	-	-	5	1	0	0
26	82	73	68	70	67	66	96	82	61	30.03	-	29.92	-	-	-	3	0	0	0
2012 Mar	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)			Precip (in)
	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	78	72	69	70	68	67	95	88	71	29.95	-	29.73	-	-	-	4	0	0	0
2	78	72	64	70	65	47	93	79	46	29.78	-	29.66	-	-	-	6	0	0	0
3	67	58	45	47	40	30	78	52	27	30.19	-	29.74	-	-	-	6	1	0	0
4	73	56	38	46	39	32	90	58	26	30.27	-	30.16	-	-	-	4	0	0	0
5	78	59	41	52	46	39	94	65	31	30.38	-	30.25	-	-	-	4	0	0	0
6	74	62	52	61	55	49	94	78	51	30.3	-	30.1	-	-	-	5	0	0	0
7	77	69	64	68	64	59	95	83	65	30.09	-	29.95	-	-	-	4	0	0	0.07
8	77	70	54	71	67	52	94	89	78	30.12	-	29.94	-	-	-	4	0	0	0.05
9	55	50	46	54	49	46	96	95	92	30.3	-	30.12	-	-	-	4	0	0	0.78
10	57	52	47	56	51	46	97	96	94	30.29	-	30.06	-	-	-	1	2	0	0.49
11	63	60	55	63	60	55	98	97	97	30.06	-	29.99	-	-	-	1	0	0	0.88
12	74	63	54	69	61	53	98	94	82	30.13	-	30.02	-	-	-	1	0	0	0
13	80	71	64	72	68	63	97	89	73	30.15	-	30.05	-	-	-	1	0	0	0
14	82	72	66	70	67	65	97	85	63	30.16	-	30.06	-	-	-	1	0	0	0
15	81	73	67	70	67	65	96	84	65	30.19	-	30.07	-	-	-	2	0	0	0
16	81	72	66	69	67	64	96	84	63	30.15	-	30.03	-	-	-	1	0	0	0
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2012 to Date Weather Data

23	78	66	55	52	47	42	81	52	33	30.22	-	30.04	-	-	2	0	0	0	
24	84	66	49	63	55	47	94	72	45	30.09	-	29.94	-	-	2	0	0	0	
25	87	73	61	69	64	59	95	75	50	29.97	-	29.85	-	-	4	0	0	0	
26	87	76	69	69	68	66	93	76	52	29.93	-	29.85	-	-	5	1	0	0	
27	84	76	70	71	68	66	91	78	59	29.89	-	29.82	-	-	3	0	0	0	
28	87	76	69	71	67	64	95	75	50	29.91	-	29.84	-	-	5	0	0	0	
29	86	77	71	71	70	68	92	77	56	29.99	-	29.88	-	-	2	0	0	0	
30	85	78	73	74	70	68	93	79	63	30.04	-	29.89	-	-	2	0	0	0	
2012	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)	
May	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	86	77	71	72	70	68	94	80	59	29.98	-	29.85	-	-	1	0	0	0	0
2	89	78	67	72	70	65	96	78	53	29.91	-	29.78	-	-	1	0	0	0	0
3	90	78	69	73	71	67	96	78	54	29.98	-	29.86	-	-	2	0	0	0	0
4	90	78	67	73	71	66	96	79	57	29.99	-	29.87	-	-	2	0	0	0	0
5	93	80	70	74	72	69	96	78	52	29.99	-	29.81	-	-	2	0	0	0	0
6	87	78	74	74	71	68	94	80	64	29.89	-	29.82	-	-	1	0	0	0	0
7	90	78	67	75	71	66	95	79	56	29.93	-	29.75	-	-	1	0	0	0	0
8	80	70	64	70	66	63	93	85	68	29.98	-	29.86	-	-	1	0	0	0	0.12
9	84	74	67	70	67	65	95	80	58	29.99	-	29.88	-	-	3	0	0	0	0.01
10	81	73	63	69	65	60	90	78	62	29.93	-	29.79	-	-	2	0	0	0	0
11	83	73	66	72	68	64	96	87	65	29.91	-	29.73	-	-	1	0	0	0	0.19
12	82	73	68	71	67	64	97	83	58	30.09	-	29.91	-	-	2	0	0	0	0.05
13	83	71	63	66	63	61	94	76	50	30.14	-	30.01	-	-	3	0	0	0	0
14	85	71	60	70	64	59	95	79	47	30.09	-	29.95	-	-	0	0	0	0	0.02
15	69	67	65	67	65	63	96	93	88	30.08	-	29.98	-	-	1	0	0	0	0.95
16	83	72	61	66	63	60	96	76	49	30.07	-	29.95	-	-	3	0	0	0	0
17	90	76	61	69	64	59	95	70	45	30.02	-	29.9	-	-	1	0	0	0	0
18	89	75	63	70	64	61	96	72	44	29.97	-	29.87	-	-	4	0	0	0	0
19	89	75	62	70	64	60	96	71	43	29.98	-	29.89	-	-	3	0	0	0	0
20	89	76	62	71	65	61	96	71	43	30.09	-	29.97	-	-	1	0	0	0	0
21	93	78	66	70	67	64	93	71	43	30.13	-	29.98	-	-	2	0	0	0	0
22	93	79	67	70	67	65	92	70	43	30.01	-	29.82	-	-	1	0	0	0	0
23	90	78	69	72	68	67	94	73	50	29.84	-	29.68	-	-	3	0	0	0	0
24	91	80	72	73	71	69	90	74	53	29.77	-	29.67	-	-	4	0	0	0	0
25	92	82	76	75	73	72	89	75	55	29.98	-	29.77	-	-	2	0	0	0	0
26	93	82	74	74	71	68	93	72	44	30.04	-	29.94	-	-	2	0	0	0	0
27	91	80	70	74	70	67	95	74	48	29.99	-	29.87	-	-	1	0	0	0	0
28	93	80	68	73	70	67	96	72	44	29.93	-	29.81	-	-	2	0	0	0	0
29	94	82	70	74	72	68	95	73	47	29.92	-	29.81	-	-	2	0	0	0	0
30	94	83	74	75	73	71	95	73	47	29.94	-	29.71	-	-	2	0	0	0	0
2012	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)	
Jun	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	94	79	67	67	60	54	91	58	28	29.99	-	29.83	-	-	1	0	0	0	0
2	95	81	68	75	69	60	95	70	45	29.96	-	29.83	-	-	3	0	0	0	0
3	96	82	72	77	73	70	95	75	48	29.95	-	29.85	-	-	3	0	0	0	0
4	95	84	75	76	73	70	94	73	45	29.92	-	29.75	-	-	1	0	0	0	0
5	96	84	74	77	73	70	96	72	45	29.83	-	29.68	-	-	1	0	0	0	0
6	97	84	74	76	73	69	95	71	44	29.8	-	29.71	-	-	2	0	0	0	0
7	74	74	73	73	72	72	96	95	95	29.89	-	29.88	-	-	0	0	0	0	0.16
8	90	76	70	75	71	67	97	87	57	29.92	-	29.8	-	-	2	0	0	0	0.71
9	90	79	68	76	72	68	97	81	57	29.87	-	29.7	-	-	1	0	0	0	0.01
10	93	82	71	77	74	70	95	78	56	29.84	-	29.74	-	-	2	0	0	0	0.01
11	95	85	78	79	77	76	93	77	57	29.96	-	29.83	-	-	5	0	0	0	0
12	94	80	68	79	74	66	95	82	51	30.13	-	29.89	-	-	3	0	0	0	0.2
13	92	79	68	78	72	67	97	82	58	30.02	-	29.86	-	-	1	0	0	0	0.06
14	94	84	76	77	75	72	94	75	49	29.95	-	29.86	-	-	1	0	0	0	0
15	96	84	75	77	74	70	95	74	45	29.98	-	29.88	-	-	3	0	0	0	0
16	88	78	74	78	73	69	95	85	65	30.04	-	29.95	-	-	2	0	0	0	0.29
17	91	80	71	75	70	66	97	75	49	30.03	-	29.85	-	-	2	0	0	0	0
18	87	78	70	76	71	67	93	80	55	29.86	-	29.8	-	-	3	0	0	0	0.31
19	86	76	70	77	73	69	97	90	70	29.94	-	29.83	-	-	0	0	0	0	0.05
20	87	77	72	79	74	71	98	91	69	29.96	-	29.9	-	-	3	0	0	0	0.49
21	91	80	69	77	72	68	97	79	53	30	-	29.88	-	-	1	0	0	0	0
22	92	81	70	74	72	69	95	76	49	29.94	-	29.8	-	-	1	0	0	0	0.37
23	95	83	70	76	72	69	96	73	47	29.89	-	29.81	-	-	2	0	0	0	0
24	98	84	74	78	74	70	94	73	42	29.93	-	29.82	-	-	1	0	0	0	0.35
25	99	86	74	77	73	70	90	69	40	29.88	-	29.73	-	-	3	0	0	0	0
26	100	87	76	80	76	73	92	73	45	29.78	-	29.69	-	-	1	0	0	0	0.35
27	98	87	77	79	74	68	93	68	45	29.93	-	29.75	-	-	1	0	0	0	0
28	97	83	74	79	74	71	94	76	45	30.03	-	29.93	-	-	2	0	0	0	0.35
29	92	82	74	78	75	72	96	81	59	30	-	29.87	-	-	0	0	0	0	0.01
30	83	76	73	78	74	72	97	94	83	29.92	-	29.83	-	-	0	0	0	0	0.9
2012	Temp. (°F)			Dew Point (°F)			Humidity (%)			Sea Level Pressure (in)			Visibility (mi)			Wind (mph)		Precip (in)	
Jul	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	low	high	avg	gust	sum
1	85	77	72	78	74	71	98	90	70	30.03	-	29.89	-	-	3	0	0	0	0.13
2	92	81	73	78	74	72	97	80	58	30.08	-	29.97	-	-	1	0	0	0	0.01
3	92	82	75	79	75	72	94	82	59	30.06	-	29.91	-	-	2	0	0	0	0
4	93	82	73	78	74	71	96	78	54	30.03	-	29.93	-	-	2	0	0	0	0.01
5	94	83	72	77	73	69	96	75	46	30.04	-	29.93	-	-	1	0	0	0	0
6	96	83	71	77	73	70	96	75	47	30.04	-	29.91	-	-	1	0	0	0	0.01
7	96	82	75	77	74	73	95	81	50	30.03	-	29.93	-	-	1	0	0		

**Grand Parkway
Segments: F1, F2 G**

Priority Parcels

Parcel No.	Segment/Owner Name	Current Status	Status on 9/27/12	Status on 12/15/12
Segment F-1				
104	GLADYS CONNER	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
113	MARK E. BROOKS AND WIFE, PAMELA C. BROOKS	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
114	HENRY LEE DESHAZER	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
115	ROBERT B. COX AND WIFE GRETCHEN B. COX	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
120	MARVIN A. BECKENDORF AND WIFE, VADA BECKENDORF	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
135	ALFRED RUDOLPH CUHERPIN	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
143	BETTY JEAN DOUGHTIE, ET AL	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
147	JOHN PELS AND WIFE, APRIL PELS	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
153 PT 1	GRACEVIEW BAPTIST CHURCH	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
153 PT 2	GRACEVIEW BAPTIST CHURCH	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
154	HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 368	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
156	HARRIS COUNTY MUNICIPAL UTILITY DISTRICT NO. 368	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
157	THREE LAKES MUNICIPAL UTILITY DISTRICT NO. 1	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
158	HARRIS COUNTY FLOOD CONTROL DISTRICT	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
159	PAMELA A. HOFFER, ET AL	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
Segment F-2				
364 PT 1	SPRINGWOODS REALTY COMPANY	Assigned to vendor for appraisal	Appraisal development	Right of Use and Possession
364 PT 2	SPRINGWOODS REALTY COMPANY	Assigned to vendor for appraisal	Appraisal development	Right of Use and Possession
371	HD SPRING PARTNERS, LTD.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
372	THE PARK AT NORTHGATE CROSSING COMMUNITY ASSOCIATION, INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
373	TROY K. WALKER & WILLIAM DALE WATTS	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
374	WELLS FAMILY TRUST	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
375 PT 1	WOODBIDGE INVESTMENT COMPANY, L.L.C.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
375 PT 2	WOODBIDGE INVESTMENT COMPANY, L.L.C.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
376	TROY K. WALKER, TRUSTEE	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
377	BAYWOOD, INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
378	SPRINGWOODS REALTY COMPANY	Assigned to vendor for appraisal	Appraisal development	Right of Use and Possession
379	LONG LAKE DEVELOPMENT COMPANY, LTD.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
380 PT 1	SPRING CENTER, INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
380 PT 2	SPRING CENTER, INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
381	BAYWOOD INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
382	JOE MELVIN, ET AL	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
383	WILLIAM J. CUNNINGHAM, ET UX	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
384	ROYAL APPLIANCE PARTS AND SERVICE, INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
385	SPRINGWOODS REALTY COMPANY	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
386	DOROTEO J. DEALAJANDRO	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
387	SPRINGWOODS REALTY COMPANY	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
388	JOHANNA KLEIN STRACK	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
389	TERRANCE L. VAUGHN	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending
390	THE PARK AT NORTHGATE CROSSING COMMUNITY ASSOCIATION, INC.	Assigned to vendor for appraisal	Appraisal development	Offer consideration pending

APPENDIX E – RISK ASSESSMENT



GRAND PARKWAY RISK ASSESSMENT

Overview

Monte Carlo analyses were conducted to obtain quantitative estimates of the potential risks which could impact the cost to design and construct Segments E, F-1, F-2, and G as well as an approximately 1 mile addition to Segment D (including flyovers). The Monte Carlo analyses used repeated random sampling of 10,000 iterations to estimate a range of possible outcomes. These analyses involved the following elements:

- A defined range of possible inputs;
- Randomly generated inputs within a specified probability distribution;
- Deterministic (or predictable) computation of the inputs; and
- Aggregate results of the individual computations.

The @Risk software was used to develop these analyses. The results for each risk item are summarized in the subsequent sections.

Risk Analysis Results

A risk workshop with TxDOT was held in July 2012, which identified the general risk categories as well as the major and minor risk items. The main risk categories that were identified were the following: (1) construction delays; (2) hazardous materials (hazmat); (3) environmental reviews; (4) Right-of-Way (ROW) acquisition; (5) utility relocations; (6) design errors and construction defects; (7) geotechnical; and (8) force majeure. Major and minor risks, risk value ranges, and related assumptions that were used to quantify risk for Segments F1, F2, and G were applied to the risk analysis for the construction of Segment E and the Segment D addition. Three separate scenarios—low, base, and high—were conducted for the risk analysis. The low (best case) estimate accounted for potential cost savings from lower than anticipated cost escalation rates. The base case estimate used median risk values, while the high (worst case) scenario value included the maximum values for all identified risks. **Overall, the risk adjusted costs for these new Grand Parkway segments and related additions ranged from \$2.145 billion to \$2.432 billion.** This resulted in a potential -2.3% decrease in total costs for the low case, a 3.2% cost increase for the base case, and a 9.8% increase for the worst case. Table 1 summarizes these results.

Table 1: Summary of the Risk Analysis, All Segments

Risk Item	Low	Base	High
Subtotal Risk Amount	(\$50,374,656)	\$72,670,553	\$237,995,182
Risk Adjusted Total	\$ 2,144,569,103	\$2,267,614,312	\$2,432,938,941
Risk Amount as % of Base Cost	-2.3%	3.2%	9.8%

Table 2 summarizes the results of the risk analysis for each of these three scenarios for Segments F1, F2, and G, while Table 3 summarizes these results for Segments D and E.

Table 2: Summary of the Risk Analysis, Segments F1, F2, and G

Risk Item	Low	Base	High
Base Cost (Escalated)	\$1,841,448,192	\$1,841,448,192	\$1,841,448,192
Construction Delays	(\$53,142,933)	\$18,857,067	\$110,857,067
Hazmat	262	5,130,005	10,259,114
Environmental	151	1,571,501	3,142,954
ROW	1,849	12,359,995	24,718,816
Utilities	592	3,197,665	6,395,085
Design & Construction	9,219	1,592,110	4,498,829
Geotechnical	14	200,000	399,989
Force Majeure	504	16,666,651	49,511,736
Subtotal Risk Amount	(53,130,342)	59,574,994	209,783,590
Risk Adjusted Total	\$1,788,317,850	\$1,901,023,186	\$2,051,231,782
Risk Amount as % of Base Cost	-2.9%	3.2%	11.4%

It should be noted that the design-build contract for Segments F1, F2, and G was recently executed, and the Developer received Notice to Proceed on April 30, 2013. Construction for Segment E and the Segment D additions began in September 2011. For the purposes of the risk analysis, it was assumed that the full base cost, \$1.84 billion, of the cost to design and construct Segments F1, F2, and G would be at risk. With respect to the Segment D addition and the construction all of Segment E, an estimated 79.77% has been expended to date. As a result, there was an estimated \$72.4 million that would be at risk for these construction works.

Table 3: Summary of the Risk Analysis, Segments D (partial) and E

Risk Item	Low	Base	High
Base Cost (Escalated)	\$352,788,072	\$352,788,072	\$352,788,072
Construction Delays	\$1,463,586	\$3,376,895	\$5,764,925
Hazmat	\$37	\$1,037,771	\$2,075,428
Environmental	\$55	\$317,906	\$635,758
ROW	\$0	\$0	\$0
Utilities	\$62,309	\$126,030	\$189,744
Design & Construction	\$1,326	\$322,076	\$915,158
Geotechnical	\$10	\$200,000	\$399,975
Force Majeure	\$21	\$1,929,651	\$5,751,549
Subtotal Risk Amount	\$1,527,344	\$7,310,329	\$15,732,537
Risk Adjusted Total	\$354,315,416	\$360,098,401	\$368,520,609
Risk Amount as % of Base Cost	0.4%	2.1%	4.5%

Construction Delays are risk events that could impact the construction schedule, and includes, but is not limited, to delays in obtaining and receiving 3rd party approvals, environmental reviews and permits, review and receipt of Army Corps of Engineering permits, agency reviews, funding and financing delays, etc. This risk factor has the largest potential impact on project costs, as schedule delays can lead to significant changes in materials and labor costs.

For the purposes of this analysis, risks related to construction delays were reflected in the cost escalation rate. A 4% cost escalation rate, which approximates average annual historical increases in construction costs over the last decade, was used to estimate the risk of construction delays. However, macroeconomic factors and/or supply and demand relationships in specific commodities markets in any given year can result in a cost escalation that varies significantly from the historical average. To account for this variance, the Monte Carlo analysis used a 2% to 8% for the low and high ranges, respectively. As a result, it was entirely possible to achieve cost savings in the low case. Figure 1a and Figure 1b summarize the probability distributions with respect to construction delays for each segment group.

Fig. 1a: Probability Distribution, Construct. Delays, Segments F1, F2, &G

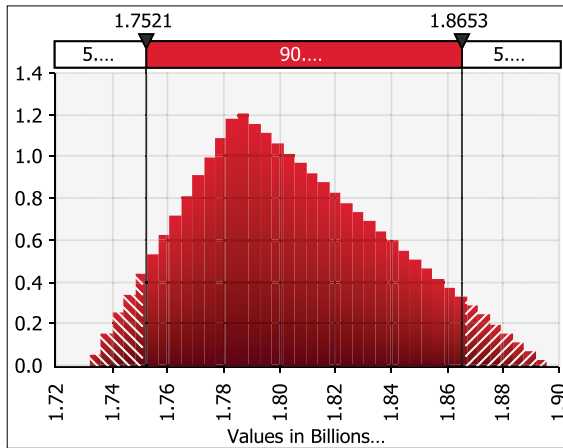
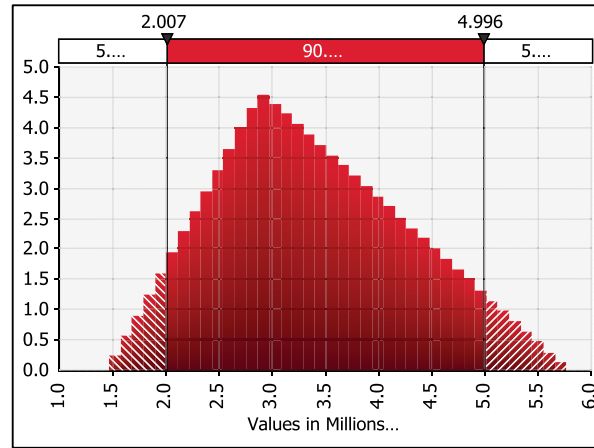


Fig. 1b: Probability Distribution, Construction Delays, Segments D (partial) & E



(1) **Hazardous Materials or “Hazmat”** risks include, but are not limited to, hazardous materials releases, inadequate hazmat surveys, and clean-up costs. Figure 2a and Figure 2b summarize the probability distributions associated with hazmat risks for Segments F1, F2, and G and for Segments D and E, respectively.

Fig. 2a: Probability Distribution, Hazmat Segments F1, F2, & G

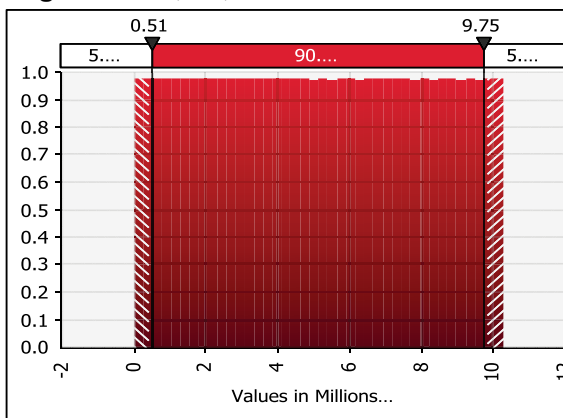
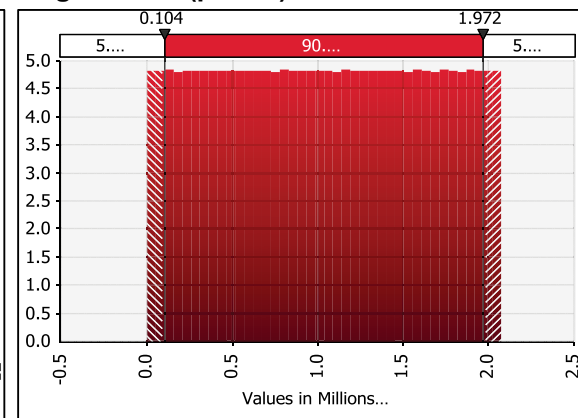


Fig. 2b: Probability Distribution, Hazmat Segments D (partial) & E



(2) **Environmental** risks involve legal and/or regulatory changes, environmental re-evaluations, environmental incidents during construction and related mitigation costs, and an increase in compliance costs. Figure 3a and Figure 3b summarize the potential impacts related to environmental risks.

Fig. 3a: Probability Distribution, Environ. Environmental, Segments F1, F2, & G

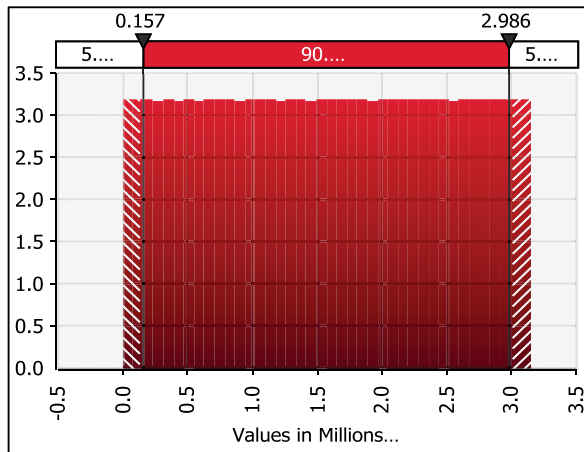
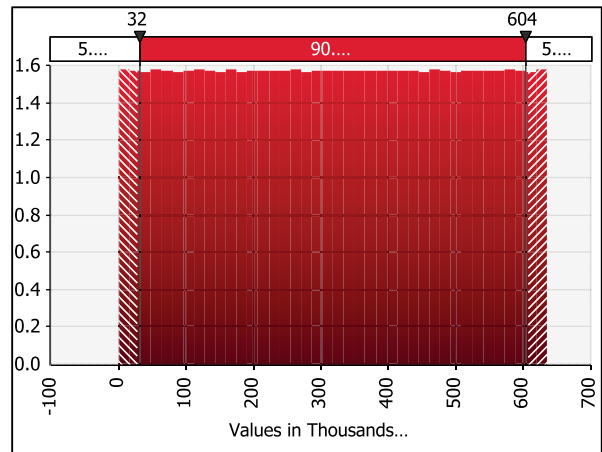
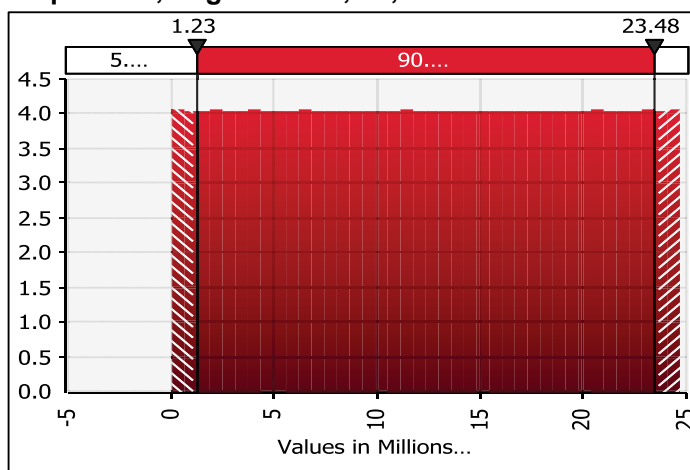


Fig. 3b: Probability Distribution, Environmental, Segments D (partial) & E



(3) **Right-of-Way (ROW)** risks include the increased costs to purchase ROW, changes in 3rd Party – Railroad agreements impacting the sale of ROW, inaccurate surveys, and changes in the ROW condemnation process. TxDOT has confirmed that approximately 100% of the entire ROW needed for Segments D and E has been acquired. However, ROW has not yet been purchased for Segments F1, F2, and G. Figure 4a and Figure 4b summarize the values of acquiring ROW for both segment groups.

Fig. 4: Probability Distribution, ROW Acquisition, Segments F1, F2, & G



(4) **Utility Relocation** risks include the increased costs to relocate existing utilities, inadequate surveys, uncooperative utilities, and unidentified utilities. Figure 5a and Figure 5b summarizes the potential impact related to utility relocations.

Figure 5a: Probability Distribution, Utility Relocation, Segments F1, F2, & G

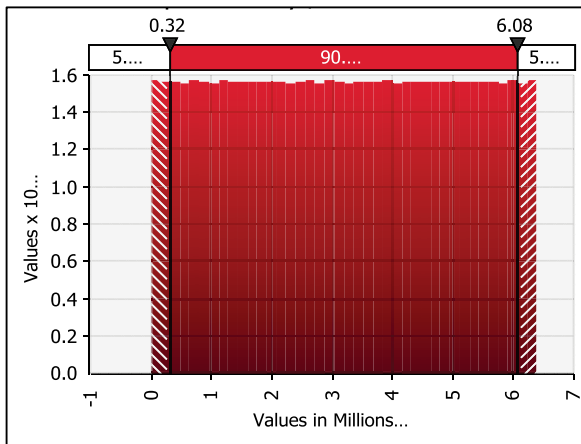
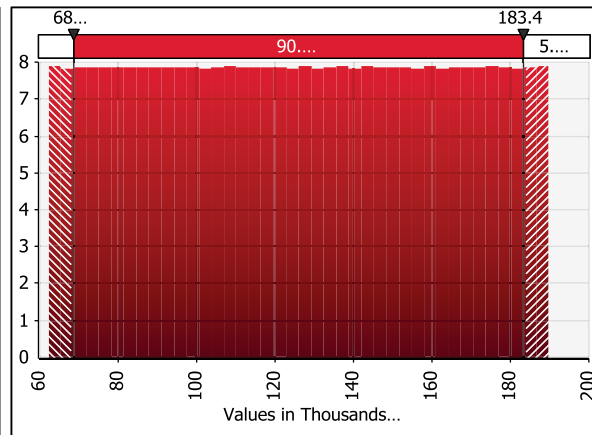


Figure 5b: Probability Distribution, Utility Relocation, Segments D (partial) & E



(5) **Design and Construction Errors** include, but are not limited to, design errors and omissions, insufficient design/construction interface with 3rd parties, major and latent defects, inadequate/unacceptable materials used during construction, construction defects prior to final acceptance, quality testing, insufficient oversight, and the failure to adhere to performance requirements. Most of design and construction risks that were identified can be mitigated through the elaboration and adherence to performance requirements, the development of management and quality plans, agency oversight, and independent reviews. As a result, mitigated values were used to develop the risk analysis. Figure 6a and 6b summarize the probability distribution for design errors and construction defects.

Fig. 6a: Probability Distribution, Design & Construction Errors, Segments F1, F2, & G

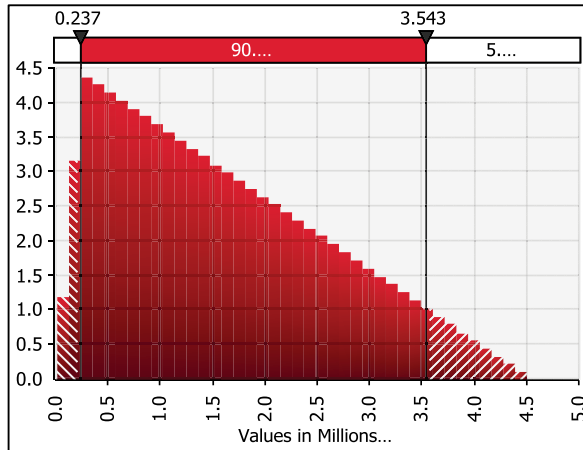
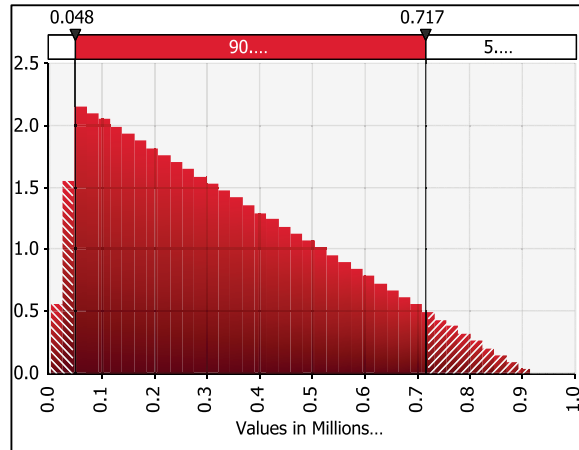


Fig. 6b: Probability Distribution, Design & Construction Errors, Segments D (partial) & E



(6) **Geotechnical** risks refer to unforeseen site conditions and surveys. As results, these costs are roughly equivalent for both segment groups. Figure 7a and 7b summarize the probability distributions for geotechnical risks.

Fig. 7a: Probability Distribution, Geotechnical, Segments F1, F2, & G

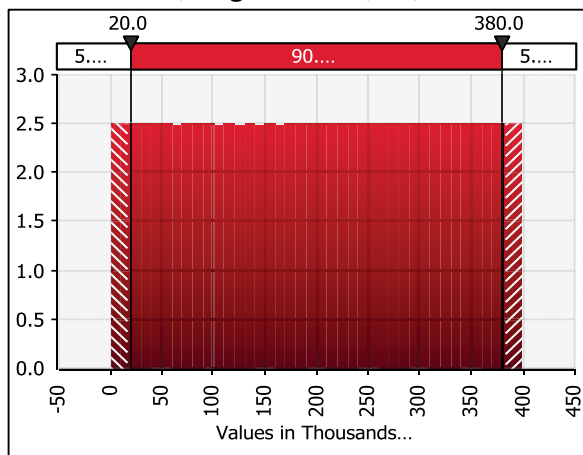
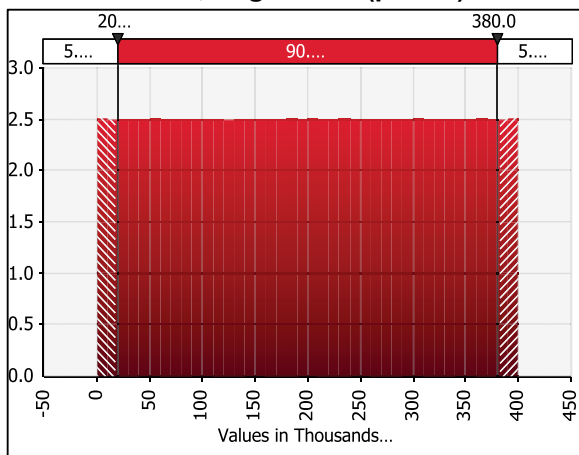


Fig. 7b: Probability Distribution, Geotechnical, Segment D (partial) & E



(7) **Force Majeure** refers to natural disasters, such as hurricanes or earthquakes which can severely damage a portion of one or more of the Grand Parkway segments during construction. It was estimated that the probability of a force majeure event is extremely low (up to 1%) but the potential cost can be relatively high. The estimated “value” of this risk

for Segments F1, F2, and G was estimated to be almost zero for the low (best) case and 16.7 million for the base case and \$49.5 million for the high (worst) case. To estimate the potential impact of Force Majeure events for the remaining portions of Segments D and E, these amounts were adjusted for the low, base and high cases were almost zero, \$1.9 million and \$5.8 million, respectively. Figure 8a and 8b summarize the probability distributions for force majeure risk for both segment groups.

Fig. 8a: Probability Distribution, Force Majeure, Segments F1, F2, & G

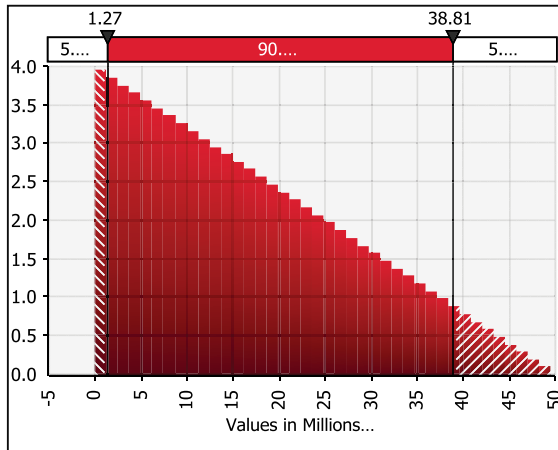
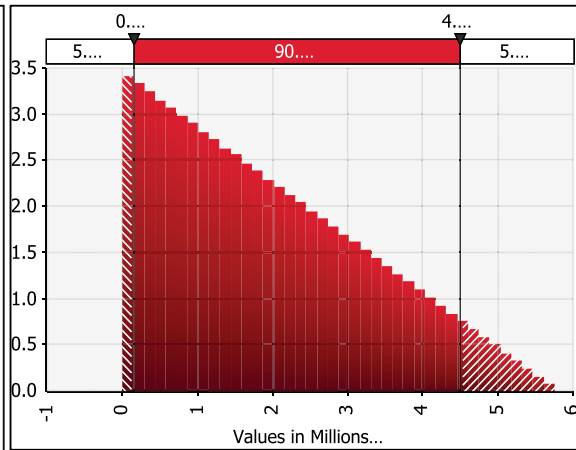
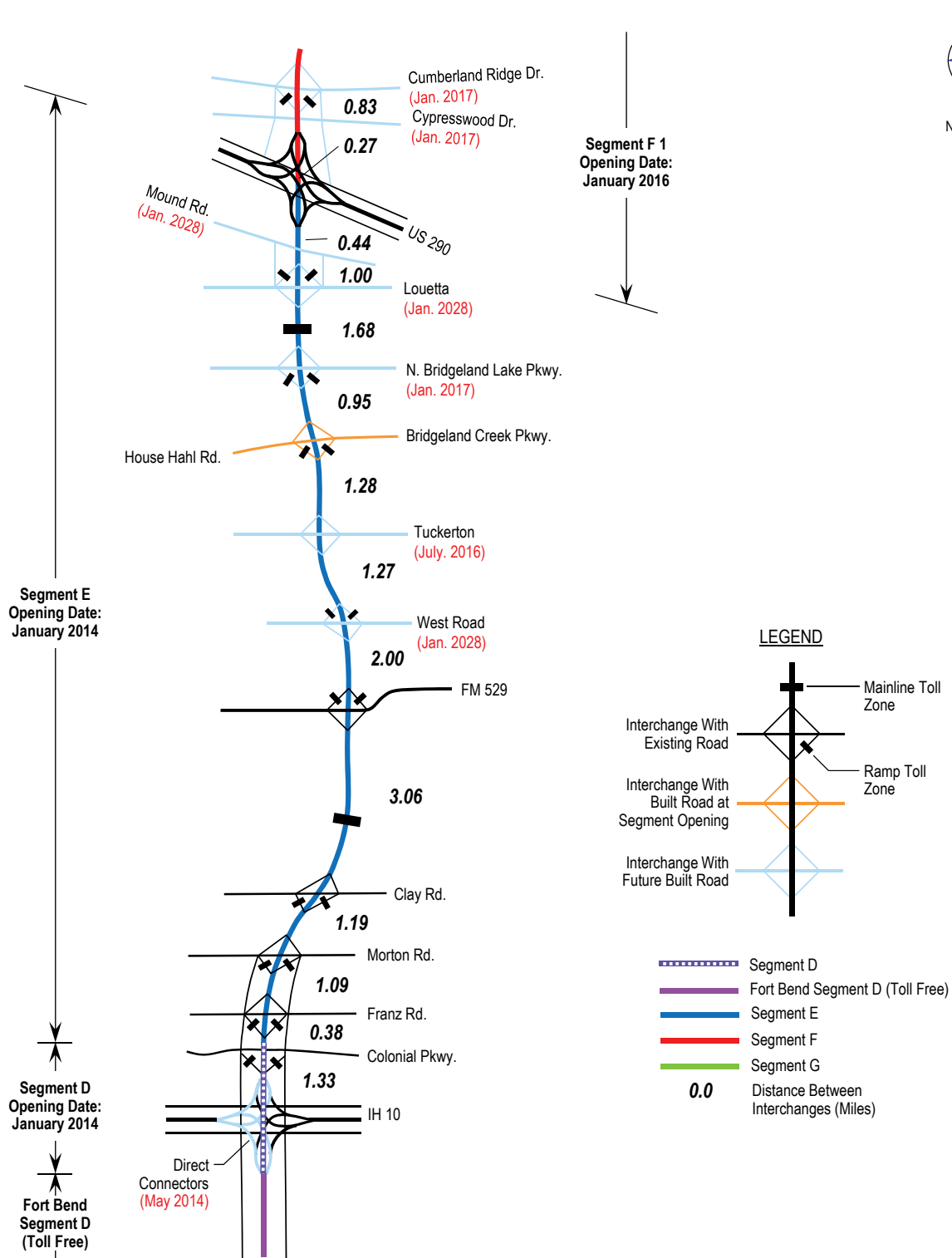


Fig. 8b: Probability Distribution, Force Majeure, Segments D (partial) & E

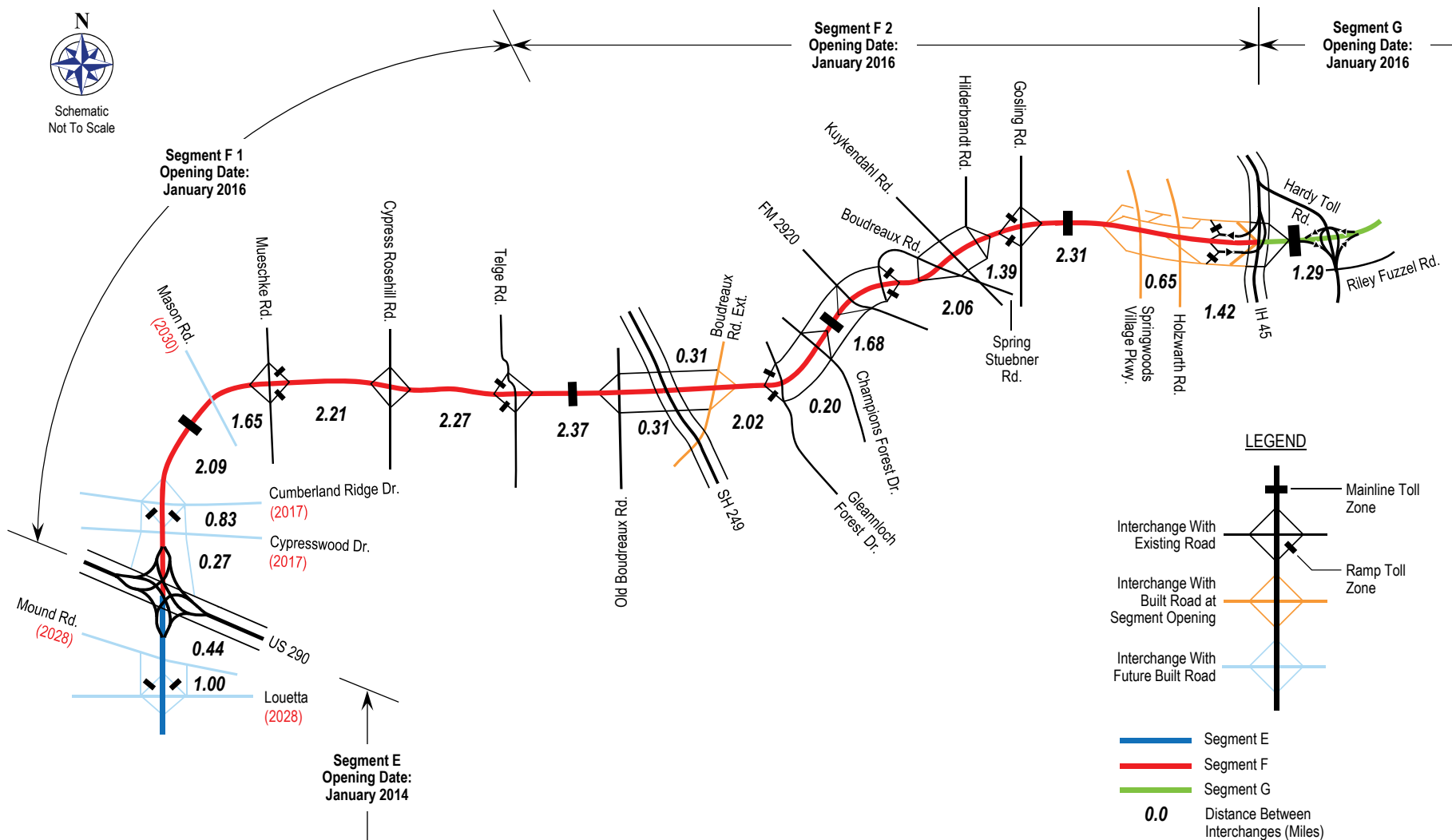


APPENDIX F – TOLL GANTRY LAYOUT

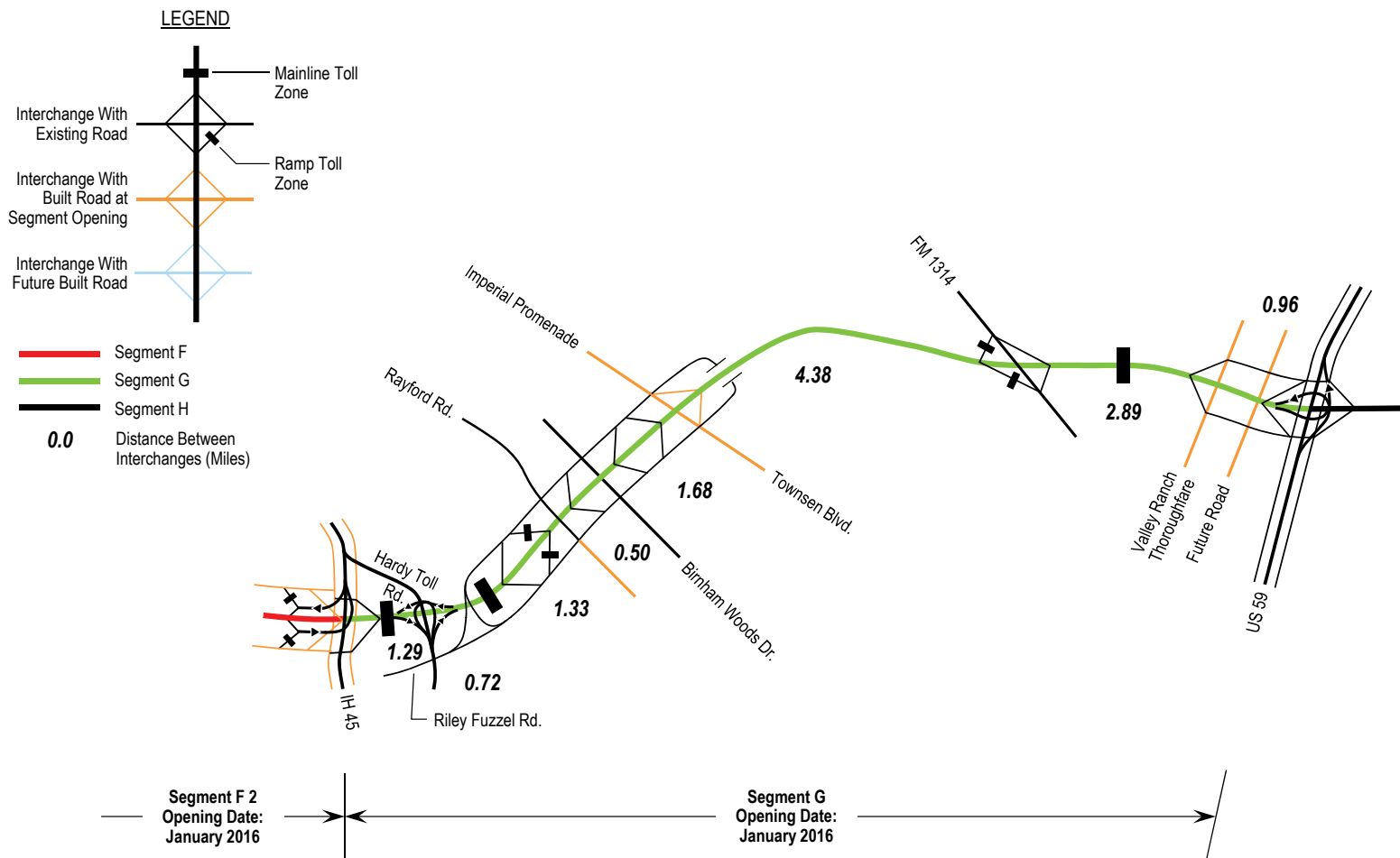
Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



Grand Parkway (SH 99) Segments D Through G Comprehensive Traffic and Revenue Study Update 2012



APPENDIX G – TOLL OPERATIONS AND MAINTENANCE COSTS

ESTIMATED TOLL OPERATIONS AND MAINTENANCE COSTS*

GRAND PARKWAY FISCAL SUMMARY											
TOLL COST SUMMARY											
TOLL MAINTENANCE					TOLL OPERATIONS					YEAR TOTAL	
YEAR	D	E	F1	F2	G-M	D	E	F1	F2	G-M	
2014	\$ 19,800.00	\$ 140,700.00				\$ 140,075.24	\$ 1,012,396.16	\$ -	\$ -	\$ -	\$ 1,312,971.40
2015	\$ 27,324.00	\$ 194,166.00				\$ 341,353.14	\$ 2,516,611.51	\$ -	\$ -	\$ -	\$ 3,079,454.64
2016	\$ 28,280.34	\$ 200,961.81	\$ 87,075.00	\$ 129,525.00	\$ 108,300.00	\$ 446,833.04	\$ 3,487,088.36	\$ 799,315.31	\$ 1,286,236.99	\$ 1,781,237.56	\$ 8,354,853.41
2017	\$ 29,270.15	\$ 229,970.47	\$ 142,138.50	\$ 178,744.50	\$ 149,454.00	\$ 521,371.01	\$ 4,163,972.87	\$ 1,909,382.61	\$ 3,079,827.79	\$ 4,306,094.31	\$ 14,710,226.21
2018	\$ 30,294.61	\$ 245,600.81	\$ 154,694.72	\$ 185,000.56	\$ 154,684.89	\$ 568,805.45	\$ 4,628,098.92	\$ 2,524,162.03	\$ 4,041,666.32	\$ 5,681,250.34	\$ 18,214,258.65
2019	\$ 31,354.92	\$ 254,196.84	\$ 160,109.04	\$ 191,475.58	\$ 160,098.86	\$ 629,187.01	\$ 5,289,213.03	\$ 3,067,344.55	\$ 4,992,714.74	\$ 6,950,152.90	\$ 21,725,847.46
2020	\$ 32,452.34	\$ 263,093.73	\$ 165,712.85	\$ 198,177.22	\$ 165,702.32	\$ 688,256.74	\$ 5,901,204.29	\$ 3,556,300.18	\$ 5,682,273.19	\$ 7,816,359.85	\$ 24,469,532.73
2021	\$ 33,588.17	\$ 272,302.01	\$ 171,512.80	\$ 205,113.42	\$ 171,501.90	\$ 746,834.61	\$ 6,492,564.88	\$ 4,210,381.26	\$ 6,349,468.98	\$ 8,589,492.57	\$ 27,242,760.62
2022	\$ 34,763.76	\$ 281,832.58	\$ 177,515.75	\$ 212,292.39	\$ 177,504.47	\$ 810,785.98	\$ 7,222,588.44	\$ 4,601,539.64	\$ 6,923,892.63	\$ 9,459,816.60	\$ 29,902,532.24
2023	\$ 35,980.49	\$ 291,696.72	\$ 183,728.80	\$ 219,722.63	\$ 183,717.13	\$ 880,634.21	\$ 8,039,956.04	\$ 5,061,660.26	\$ 7,585,297.99	\$ 10,442,975.05	\$ 32,925,369.33
2024	\$ 37,239.81	\$ 301,906.11	\$ 190,159.31	\$ 227,412.92	\$ 190,147.22	\$ 953,239.01	\$ 8,919,274.29	\$ 5,546,732.37	\$ 8,252,847.88	\$ 11,469,571.46	\$ 36,088,530.38
2025	\$ 38,543.20	\$ 312,472.82	\$ 196,814.89	\$ 235,372.37	\$ 196,802.38	\$ 1,026,512.66	\$ 9,822,479.59	\$ 6,140,842.94	\$ 8,973,762.71	\$ 12,486,796.74	\$ 39,430,400.32
2026	\$ 39,892.21	\$ 323,403.37	\$ 203,703.41	\$ 243,610.41	\$ 203,690.46	\$ 1,096,755.43	\$ 10,598,623.56	\$ 6,912,603.51	\$ 9,652,441.56	\$ 13,296,739.98	\$ 42,571,469.89
2027	\$ 41,288.44	\$ 334,728.70	\$ 210,833.03	\$ 252,136.77	\$ 210,819.63	\$ 1,156,943.01	\$ 11,227,680.92	\$ 7,295,020.91	\$ 10,090,277.43	\$ 14,030,548.23	\$ 44,850,277.07
2028	\$ 42,733.54	\$ 412,819.21	\$ 218,212.18	\$ 260,961.56	\$ 218,198.31	\$ 1,228,540.85	\$ 12,099,553.61	\$ 7,618,402.22	\$ 10,582,347.31	\$ 14,919,502.81	\$ 47,601,271.59
2029	\$ 44,229.21	\$ 450,167.25	\$ 225,849.61	\$ 270,095.21	\$ 225,835.26	\$ 1,305,341.35	\$ 13,306,882.65	\$ 7,744,728.11	\$ 11,072,012.52	\$ 15,968,822.54	\$ 50,613,963.71
2030	\$ 45,777.23	\$ 465,923.11	\$ 233,754.35	\$ 279,548.34	\$ 233,739.49	\$ 1,377,864.33	\$ 14,120,307.91	\$ 8,229,518.94	\$ 11,609,848.44	\$ 16,863,278.12	\$ 53,459,560.46
2031	\$ 47,379.43	\$ 482,230.41	\$ 241,935.75	\$ 289,332.74	\$ 241,920.37	\$ 1,455,290.70	\$ 15,026,341.91	\$ 8,727,430.05	\$ 12,175,515.79	\$ 17,827,142.32	\$ 56,514,519.49
2032	\$ 49,037.71	\$ 499,108.48	\$ 250,403.50	\$ 299,459.39	\$ 250,387.58	\$ 1,539,010.75	\$ 15,983,715.24	\$ 9,312,330.69	\$ 12,803,143.95	\$ 18,877,867.99	\$ 59,864,465.28
2033	\$ 50,754.03	\$ 516,577.28	\$ 259,167.62	\$ 309,940.47	\$ 259,151.15	\$ 1,625,451.86	\$ 16,960,771.63	\$ 9,919,923.32	\$ 13,435,002.17	\$ 19,947,542.60	\$ 63,284,282.13
2034	\$ 52,530.43	\$ 534,657.48	\$ 268,238.49	\$ 320,788.38	\$ 268,221.44	\$ 1,720,764.85	\$ 18,049,130.63	\$ 10,596,799.83	\$ 14,138,401.02	\$ 21,138,028.52	\$ 67,087,961.07
2035	\$ 54,368.99	\$ 553,370.49	\$ 277,626.84	\$ 332,015.98	\$ 277,609.19	\$ 1,805,090.84	\$ 19,023,533.25	\$ 11,385,902.69	\$ 14,765,833.50	\$ 22,724,242.42	\$ 71,199,214.20
2036	\$ 56,271.91	\$ 572,738.46	\$ 287,343.78	\$ 343,636.54	\$ 287,325.51	\$ 1,861,643.37	\$ 19,685,275.00	\$ 12,269,334.08	\$ 15,278,188.06	\$ 24,896,676.14	\$ 75,538,432.84
2037	\$ 58,241.42	\$ 592,784.31	\$ 297,400.81	\$ 355,663.82	\$ 297,381.90	\$ 1,952,765.77	\$ 20,634,925.15	\$ 12,871,100.56	\$ 16,039,390.11	\$ 26,162,329.87	\$ 79,261,983.72
2038	\$ 60,279.87	\$ 613,531.76	\$ 307,809.84	\$ 368,112.05	\$ 307,790.27	\$ 2,054,337.71	\$ 21,690,446.00	\$ 13,583,332.60	\$ 16,869,299.21	\$ 27,663,362.80	\$ 83,518,302.11
2039	\$ 62,389.67	\$ 635,005.37	\$ 318,583.18	\$ 380,995.97	\$ 318,562.93	\$ 2,160,674.27	\$ 22,808,723.97	\$ 14,289,072.55	\$ 17,739,727.88	\$ 29,107,233.35	\$ 87,820,969.15
2040	\$ 64,573.31	\$ 657,230.56	\$ 329,733.99	\$ 394,330.83	\$ 329,712.63	\$ 2,271,400.80	\$ 23,975,734.45	\$ 15,020,476.79	\$ 18,647,575.58	\$ 30,595,773.92	\$ 92,288,542.21
2041	\$ 66,833.37	\$ 680,233.63	\$ 341,274.27	\$ 408,132.41	\$ 341,252.58	\$ 2,361,577.50	\$ 24,932,656.17	\$ 15,619,799.49	\$ 19,391,742.24	\$ 31,817,584.07	\$ 95,961,085.72
2042	\$ 69,172.54	\$ 704,041.80	\$ 353,218.67	\$ 422,417.04	\$ 353,196.42	\$ 2,468,052.41	\$ 26,053,534.64	\$ 16,322,039.38	\$ 20,263,369.81	\$ 33,247,882.96	\$ 100,296,925.87
2043	\$ 71,593.58	\$ 728,683.27	\$ 365,581.53	\$ 437,201.64	\$ 365,558.29	\$ 2,582,438.77	\$ 27,265,133.97	\$ 17,081,089.14	\$ 21,206,125.09	\$ 34,794,049.20	\$ 104,897,454.47
2044	\$ 74,099.35	\$ 754,187.18	\$ 378,376.88	\$ 452,503.70	\$ 378,352.83	\$ 2,705,133.06	\$ 28,559,688.33	\$ 17,892,352.32	\$ 22,212,570.89	\$ 36,445,976.37	\$ 109,853,240.92
2045	\$ 76,692.83	\$ 780,583.73	\$ 391,620.07	\$ 468,341.33	\$ 391,595.18	\$ 2,819,097.37	\$ 29,760,959.33	\$ 18,645,040.17	\$ 23,147,559.63	\$ 37,979,328.74	\$ 114,460,818.38
2046	\$ 79,377.08	\$ 807,904.16	\$ 405,326.77	\$ 484,733.27	\$ 405,301.01	\$ 2,933,119.78	\$ 30,968,046.82	\$ 19,400,724.69	\$ 24,085,663.06	\$ 39,519,141.51	\$ 119,089,338.16
2047	\$ 82,155.28	\$ 836,180.81	\$ 419,513.21	\$ 501,698.94	\$ 419,486.55	\$ 3,045,890.47	\$ 32,154,614.04	\$ 20,144,128.49	\$ 25,008,616.86	\$ 41,033,748.14	\$ 123,645,992.77
2048	\$ 85,030.71	\$ 865,447.14	\$ 434,196.17	\$ 519,258.40	\$ 434,168.58	\$ 3,168,102.22	\$ 33,424,987.07	\$ 20,939,944.80	\$ 25,997,064.17	\$ 42,654,707.87	\$ 128,520,906.95
2049	\$ 88,006.79	\$ 895,737.79	\$ 449,393.04	\$ 537,432.44	\$ 449,364.48	\$ 3,293,934.07	\$ 34,777,147.55	\$ 21,787,568.27	\$ 27,048,670.73	\$ 44,380,581.80	\$ 133,707,836.95
2050	\$ 91,087.03	\$ 927,088.61	\$ 465,121.80	\$ 556,242.58	\$ 465,092.23	\$ 3,424,145.23	\$ 36,147,069.55	\$ 22,645,522.78	\$ 28,114,075.33	\$ 46,128,683.78	\$ 138,964,128.92
2051	\$ 94,275.07	\$ 959,536.71	\$ 481,401.06	\$ 575,711.07	\$ 481,370.46	\$ 3,547,806.18	\$ 37,450,801.79	\$ 23,462,194.14	\$ 29,127,753.56	\$ 47,791,968.40	\$ 143,972,618.44
2052	\$ 97,574.70	\$ 993,120.49	\$ 498,250.10	\$ 595,860.96	\$ 498,218.43	\$ 3,671,757.79	\$ 38,761,846.63	\$ 24,283,530.36	\$ 30,147,628.10	\$ 49,466,180.57	\$ 149,013,968.13
2053	\$ 100,989.81	\$ 1,027,879.71	\$ 515,688.85	\$ 616,716.09	\$ 515,656.07	\$ 3,785,287.00	\$ 39,965,297.02	\$ 25,037,473.23	\$ 31,083,926.50	\$ 51,001,241.08	\$ 153,650,055.36
2054	\$ 104,524.46	\$ 1,063,859.50	\$ 533,737.96	\$ 638,301.19	\$ 533,704.03	\$ 3,926,401.30	\$ 41,450,388.22	\$ 25,967,676.94	\$ 32,238,376.82	\$ 52,896,111.52	\$ 159,352,877.29
2055	\$ 108,182.81	\$ 1,101,090.44	\$ 552,418.79	\$ 660,641.69	\$ 552,383.68	\$ 4,054,001.08	\$ 42,802,320.24	\$ 26,814,878.06	\$ 33,290,549.49	\$ 54,621,718.15	\$ 164,558,184.42
2056	\$ 111,969.21	\$ 1,139,628.61	\$ 571,753.44	\$ 683,764.15	\$ 571,717.10	\$ 4,189,111.86	\$ 44,217,603.93	\$ 27,702,064.89	\$ 34,391,082.51	\$ 56,427,796.67	\$ 170,006,492.38
2057	\$ 115,888.13	\$ 1,179,515.61	\$ 591,764.82	\$ 707,695.90	\$ 591,727.20	\$ 4,304,286.93	\$ 45,443,929.06	\$ 28,469,661.81	\$ 35,344,654.86	\$ 57,992,216.62	\$ 174,741,340.95
2058	\$ 119,944.22	\$ 1,220,798.66	\$ 612,476.58	\$ 732,465.26	\$ 612,437.65	\$ 4,428,954.47	\$ 46,754,019.09	\$ 29,290,790.02	\$ 36,363,718.82	\$ 59,664,437.03	\$ 179,800,041.80
2059	\$ 124,142.27	\$ 1,263,526.61	\$ 633,913.26	\$ 758,101.54	\$ 633,872.97	\$ 4,557,112.94	\$ 48,111,566.21	\$ 30,141,046.43	\$ 37,419,975.47	\$ 61,397,590.82	\$ 185,040,848.52
2060	\$ 128,487.25	\$ 1,307,750.04	\$ 656,100.23	\$ 784,635.09	\$ 656,058.53	\$ 4,702,135.46	\$ 49,640,234.90	\$ 31,098,552.68	\$ 38,607,538.68	\$ 63,346,637.11	\$ 190,528,129.96
2061	\$ 132,984.30	\$ 1,353,521.29	\$ 679,063.74	\$ 812,097.32	\$ 679,020.57	\$ 4,840,809.06	\$ 51,109,009.29	\$ 32,018,734.73	\$ 39,750,456.26	\$ 65,221,936.43	\$ 196,597,633.00
2062	\$ 137,638.75	\$ 1,400,894.34	\$ 702,830.97	\$ 840,520.73	\$ 702,788.29	\$ 4,998,852.85	\$ 52,774,437.80	\$ 33,062,939.83	\$ 41,047,315.94	\$ 67,348,228.71	\$ 203,016,446.42
2063	\$ 142,456.11	\$ 1,449,925.85	\$ 727,430.05	\$ 869,938.95	\$ 727,383.82	\$ 5,147,984.55	\$ 54,338,995.95	\$ 34,042,158.85	\$ 42,263,027.03	\$ 69,344,134.97	\$ 209,053,436.13
2064	\$ 147,442.07	\$ 1,500,673.25	\$ 752,890.10	\$ 900,386.82	\$ 752,842.25	\$ 5,287,914.56	\$ 55,826,344.05	\$ 34,974,321.54	\$ 43,419,691.16	\$ 71,241,419.40	\$ 214,803,925.20
TOTALS	\$ 3,599,186.90	\$ 35,574,987.58	\$ 18,073,400.19	\$ 21,648,263.73	\$ 18,100,806.50	\$ 122,607,630.95	\$ 1,273,377,245.88	\$ 790,037,470.17	\$ 1,003,038,146.77	\$ 1,608,766,140.72	\$ 4,896,823,279.57

APPENDIX H – ROADWAY OPERATIONS AND MAINTENANCE COSTS

ESTIMATED ROADWAY OPERATIONS AND MAINTENANCE COSTS*

GRAND PARKWAY FISCAL SUMMARY														
ROADWAY COST SUMMARY														
ROUTINE MAINTENANCE COSTS								MAJOR MAINTENANCE AND REHABILITATION COSTS						
YEAR	SEG	D	E	F1	F2	G-H	G-M	D	E	F1	F2	G-H	G-M	FISCAL YEAR TOTAL
2014		\$ 191,205.15	\$ 1,605,187.56					\$ 21,531.62	\$ 175,145.29					\$ 1,993,069.62
2015		\$ 262,588.41	\$ 2,204,457.58					\$ 50,823.63	\$ 529,080.17					\$ 3,046,949.79
2016		\$ 270,466.06	\$ 2,270,591.31	\$ 1,055,661.01	\$ 1,183,295.36	\$ 87,024.72	\$ 1,253,220.65	\$ 30,753.62	\$ 250,160.01	\$ 117,459.82	\$ 128,225.63	\$ 7,712.82	\$ 129,511.10	\$ 6,784,082.11
2017		\$ 278,580.04	\$ 2,338,709.04	\$ 1,449,774.45	\$ 1,625,058.97	\$ 119,513.94	\$ 1,721,089.69	\$ 467,520.84	\$ 3,673,751.28	\$ 373,194.44	\$ 373,859.67	\$ 26,609.23	\$ 382,729.41	\$ 12,830,391.00
2018		\$ 286,937.45	\$ 2,408,870.32	\$ 1,493,267.69	\$ 1,673,810.74	\$ 123,099.36	\$ 1,772,722.38	\$ 32,944.04	\$ 1,695,880.65	\$ 167,767.86	\$ 183,144.67	\$ 11,016.22	\$ 184,980.71	\$ 10,034,442.00
2019		\$ 295,545.57	\$ 2,481,136.43	\$ 1,538,065.72	\$ 1,724,025.06	\$ 126,792.34	\$ 1,825,904.05	\$ 58,321.28	\$ 607,131.66	\$ 2,620,986.14	\$ 2,834,769.67	\$ 233,736.66	\$ 2,871,587.95	\$ 17,218,002.54
2020		\$ 304,411.94	\$ 2,555,570.52	\$ 1,584,207.69	\$ 1,775,745.81	\$ 130,596.11	\$ 1,880,681.17	\$ 35,290.48	\$ 287,064.37	\$ 179,717.13	\$ 196,189.15	\$ 11,800.85	\$ 198,155.96	\$ 9,139,431.18
2021		\$ 313,544.29	\$ 2,632,237.63	\$ 1,631,733.92	\$ 1,829,018.18	\$ 134,514.00	\$ 1,937,101.61	\$ 715,030.47	\$ 4,215,714.09	\$ 428,249.20	\$ 429,012.57	\$ 30,534.70	\$ 439,190.80	\$ 14,735,881.47
2022		\$ 322,950.62	\$ 2,711,204.76	\$ 1,680,685.94	\$ 1,883,888.73	\$ 138,549.42	\$ 1,995,214.66	\$ 37,804.05	\$ 1,946,062.05	\$ 192,517.48	\$ 210,162.72	\$ 12,641.37	\$ 212,269.62	\$ 11,343,951.41
2023		\$ 332,639.14	\$ 2,792,540.91	\$ 1,731,106.51	\$ 1,940,405.39	\$ 142,705.90	\$ 2,055,071.10	\$ 66,925.01	\$ 696,697.55	\$ 3,796,759.45	\$ 4,168,830.42	\$ 268,218.20	\$ 4,236,975.29	\$ 22,228,874.87
2024		\$ 342,618.32	\$ 2,876,317.13	\$ 1,783,039.71	\$ 1,998,617.55	\$ 146,987.08	\$ 2,116,723.23	\$ 373,379.02	\$ 3,667,873.77	\$ 206,229.54	\$ 225,131.56	\$ 13,541.75	\$ 227,388.52	\$ 13,977,847.17
2025		\$ 352,896.87	\$ 2,962,606.65	\$ 1,836,530.90	\$ 2,058,576.08	\$ 151,396.69	\$ 2,180,224.93	\$ 615,635.66	\$ 4,837,628.89	\$ 491,425.81	\$ 492,301.79	\$ 35,039.27	\$ 503,981.55	\$ 16,518,245.07
2026		\$ 363,483.77	\$ 3,051,484.85	\$ 1,891,626.83	\$ 2,120,333.36	\$ 155,938.59	\$ 2,245,631.67	\$ 43,381.01	\$ 352,875.41	\$ 2,503,553.06	\$ 2,562,139.00	\$ 188,001.12	\$ 2,626,650.75	\$ 18,105,099.42
2027		\$ 374,388.29	\$ 3,143,029.39	\$ 1,948,375.63	\$ 2,183,943.36	\$ 160,616.75	\$ 2,313,000.62	\$ 76,797.99	\$ 799,476.46	\$ 3,451,338.23	\$ 3,732,850.32	\$ 307,786.55	\$ 3,781,332.96	\$ 22,272,936.57
2028		\$ 385,619.93	\$ 3,237,320.27	\$ 2,006,826.90	\$ 2,249,461.66	\$ 165,435.25	\$ 2,382,390.64	\$ 273,623.00	\$ 4,070,705.63	\$ 236,653.14	\$ 258,343.65	\$ 15,539.47	\$ 260,933.56	\$ 15,542,853.10
2029		\$ 397,188.53	\$ 3,334,439.88	\$ 2,067,031.71	\$ 2,316,945.51	\$ 170,398.31	\$ 2,453,862.36	\$ 943,264.24	\$ 5,620,653.91	\$ 563,922.42	\$ 564,927.63	\$ 40,208.37	\$ 578,330.42	\$ 19,051,173.28
2030		\$ 409,104.19	\$ 3,434,473.08	\$ 2,129,042.66	\$ 2,386,453.88	\$ 175,510.25	\$ 2,527,478.23	\$ 49,780.71	\$ 404,932.64	\$ 1,257,486.68	\$ 1,441,982.79	\$ 99,877.60	\$ 1,477,702.90	\$ 15,793,825.61
2031		\$ 421,377.31	\$ 3,537,507.27	\$ 2,192,913.94	\$ 2,458,047.49	\$ 180,775.56	\$ 2,603,302.58	\$ 88,127.46	\$ 917,417.63	\$ 5,086,027.24	\$ 5,561,191.28	\$ 353,192.15	\$ 5,637,279.78	\$ 29,037,159.70
2032		\$ 434,018.63	\$ 3,643,632.49	\$ 2,258,701.36	\$ 2,531,788.92	\$ 186,198.83	\$ 2,681,401.66	\$ 313,988.68	\$ 2,359,889.59	\$ 271,564.92	\$ 296,455.28	\$ 17,831.90	\$ 299,427.26	\$ 15,294,899.51
2033		\$ 447,039.19	\$ 3,752,941.46	\$ 2,326,462.40	\$ 2,607,742.59	\$ 191,784.79	\$ 2,761,843.71	\$ 148,361.44	\$ 982,760.70	\$ 647,113.94	\$ 648,267.44	\$ 46,140.03	\$ 663,647.45	\$ 15,224,105.16
2034		\$ 460,450.37	\$ 3,865,529.71	\$ 2,396,256.27	\$ 2,685,974.86	\$ 197,538.34	\$ 2,844,699.02	\$ 8,624,300.46	\$ 66,840,403.79	\$ 1,442,994.88	\$ 1,654,708.42	\$ 114,611.84	\$ 320,753.96	\$ 91,448,221.92
2035		\$ 474,263.88	\$ 3,981,495.60	\$ 2,468,143.96	\$ 2,766,554.11	\$ 203,464.49	\$ 2,930,039.99	\$ 101,128.29	\$ 3,615,380.41	\$ 931,686.80	\$ 971,227.88	\$ 168,049.61	\$ 2,418,596.32	\$ 21,030,031.33
2036		\$ 488,491.79	\$ 4,100,940.47	\$ 2,542,188.28	\$ 2,849,550.73	\$ 209,568.42	\$ 3,017,941.19	\$ 61,193.20	\$ 497,765.61	\$ 39,321,719.70	\$ 47,043,783.71	\$ 3,089,839.18	\$ 52,072,302.58	\$ 155,295,284.86
2037		\$ 503,146.55	\$ 4,223,968.68	\$ 2,618,453.92	\$ 2,935,037.26	\$ 215,855.48	\$ 3,108,479.42	\$ 108,331.15	\$ 1,127,740.51	\$ 742,578.13	\$ 743,901.80	\$ 200,350.49	\$ 761,550.72	\$ 17,289,394.11
2038		\$ 518,240.95	\$ 4,350,687.74	\$ 2,697,007.54	\$ 3,023,088.37	\$ 222,331.14	\$ 3,201,733.81	\$ 1,236,676.65	\$ 9,299,534.44	\$ 333,822.62	\$ 364,419.23	\$ 21,919.95	\$ 368,072.55	\$ 25,637,534.99
2039		\$ 533,788.17	\$ 4,481,208.37	\$ 2,777,917.77	\$ 3,113,781.02	\$ 229,001.07	\$ 3,297,785.82	\$ 118,453.04	\$ 1,305,907.88	\$ 795,468.26	\$ 796,886.21	\$ 56,717.88	\$ 815,792.17	\$ 18,322,707.67
2040		\$ 549,801.82	\$ 4,615,644.62	\$ 2,861,255.30	\$ 3,207,194.46	\$ 235,871.11	\$ 3,396,719.40	\$ 70,220.61	\$ 571,197.49	\$ 6,348,240.84	\$ 7,047,295.80	\$ 563,548.85	\$ 7,153,939.59	\$ 36,620,929.88
2041		\$ 566,295.87	\$ 4,754,113.96	\$ 2,947,092.96	\$ 3,303,410.29	\$ 242,947.24	\$ 3,498,620.98	\$ 10,781,992.93	\$ 80,047,044.58	\$ 974,029.56	\$ 954,696.49	\$ 60,757.61	\$ 955,701.01	\$ 109,086,703.48
2042		\$ 583,284.75	\$ 4,896,737.38	\$ 3,035,505.75	\$ 3,402,512.60	\$ 250,235.66	\$ 3,603,579.61	\$ 75,222.07	\$ 3,872,252.60	\$ 383,069.14	\$ 418,179.44	\$ 25,153.65	\$ 422,371.72	\$ 20,968,104.36
2043		\$ 600,783.29	\$ 5,043,639.50	\$ 3,126,570.92	\$ 3,504,587.98	\$ 257,742.73	\$ 3,711,687.00	\$ 133,166.64	\$ 1,386,281.02	\$ 48,018,138.56	\$ 55,585,905.24	\$ 3,970,189.36	\$ 57,153,370.71	\$ 182,492,062.95
2044		\$ 618,806.79	\$ 5,194,948.69	\$ 3,220,368.05	\$ 3,609,725.61	\$ 265,475.01	\$ 3,823,037.60	\$ 412,568.39	\$ 4,387,801.43	\$ 410,353.24	\$ 447,964.28	\$ 26,945.22	\$ 452,455.15	\$ 22,870,449.46
2045		\$ 637,370.99	\$ 5,350,797.15	\$ 3,316,979.09	\$ 3,718,017.38	\$ 273,439.26	\$ 3,937,728.73	\$ 1,632,649.44	\$ 12,638,220.28	\$ 977,833.60	\$ 979,576.62	\$ 69,720.76	\$ 1,002,816.87	\$ 34,535,150.16
2046		\$ 656,492.12	\$ 5,511,321.06	\$ 3,416,488.46	\$ 3,829,557.90	\$ 281,642.44	\$ 4,055,860.60	\$ 86,319.06	\$ 702,147.55	\$ 26,356,707.30	\$ 22,239,596.14	\$ 28,864.39	\$ 18,660,930.99	\$ 85,825,928.02
2047		\$ 676,186.89	\$ 5,676,660.69	\$ 3,518,983.12	\$ 3,944,444.64	\$ 290,091.71	\$ 4,177,536.41	\$ 152,811.79	\$ 1,590,789.36	\$ 8,669,249.00	\$ 9,518,809.27	\$ 761,803.49	\$ 9,674,406.38	\$ 48,651,772.75
2048		\$ 696,472.49	\$ 5,846,960.52	\$ 3,624,552.61	\$ 4,062,777.98	\$ 298,794.46	\$ 4,302,862.51	\$ 13,652,012.95	\$ 100,947,885.89	\$ 470,889.78	\$ 514,049.31	\$ 246,125.26	\$ 519,202.69	\$ 135,182,586.45
2049		\$ 717,366.67	\$ 6,022,369.33	\$ 3,733,289.19	\$ 4,184,661.32	\$ 307,758.29	\$ 4,431,948.38	\$ 167,089.71	\$ 5,990,215.17	\$ 1,122,086.54	\$ 1,124,086.70	\$ 80,006.17	\$ 1,150,755.42	\$ 29,031,632.90
2050		\$ 738,887.67	\$ 6,203,040.41	\$ 3,845,287.87	\$ 4,310,201.16	\$ 316,991.04	\$ 4,564,906.83	\$ 99,053.10	\$ 805,730.47	\$ 60,435,551.26	\$ 70,108,027.28	\$ 5,001,505.76	\$ 72,080,199.39	\$ 228,509,382.23
2051		\$ 761,054.30	\$ 6,389,131.62	\$ 3,960,646.50	\$ 4,439,507.19	\$ 326,500.77	\$ 4,701,854.04	\$ 175,355.04	\$ 5,528,427.20	\$ 1,373,964.89	\$ 1,346,693.68	\$ 85,704.61	\$ 1,348,110.66	\$ 30,436,950.51
2052		\$ 783,885.93	\$ 6,580,805.57	\$ 4,079,465.90	\$ 4,572,692.41	\$ 336,295.80	\$ 4,842,909.66	\$ 2,001,801.72	\$ 11,220,542.05	\$ 540,356.85	\$ 589,883.41	\$ 35,481.71	\$ 595,797.02	\$ 36,179,918.02
2053		\$ 807,402.51	\$ 6,778,229.74	\$ 4,201,849.87	\$ 4,709,873.18	\$ 346,384.67	\$ 4,988,196.95	\$ 187,844.70	\$ 1,955,486.29	\$ 1,287,620.12	\$ 1,289,915.34	\$ 91,808.92	\$ 1,320,518.31	\$ 27,965,130.61
2054		\$ 831,624.58	\$ 6,981,576.63	\$ 4,327,905.37	\$ 4,851,169.38	\$ 356,776.21	\$ 5,137,842.86	\$ 1,135,961.58	\$ 9,832,158.93	\$ 10,275,862.68	\$ 11,407,419.11	\$ 912,213.44	\$ 11,580,042.83	\$ 67,630,553.60
2055		\$ 856,573.32	\$ 7,191,023.93	\$ 4,457,742.53	\$ 4,996,704.46	\$ 367,479.50	\$ 5,291,978.14	\$ 17,452,752.90	\$ 129,571,712.60	\$ 1,379,330.86	\$ 1,381,789.56	\$ 98,348.01	\$ 1,414,572.23	\$ 174,460,008.05
2056		\$ 882,270.52	\$ 7,406,754.65	\$ 4,591,474.81	\$ 5,146,605.59	\$ 378,503.88	\$ 5,450,737.49	\$ 121,761.55	\$ 6,267,994.07	\$ 9,109,753.94	\$ 8,103,435.74	\$ 40,716.08	\$ 7,487,320.07	\$ 54,987,328.38
2057		\$ 908,738.63	\$ 7,628,957.29	\$ 4,729,219.05	\$ 5,301,003.76	\$ 389,859.00	\$ 5,614,259.61	\$ 215,556.12	\$ 2,243,965.50	\$ 77,726,697.87	\$ 89,976,600.34	\$ 6,426,523.76	\$ 92,513,848.11	\$ 293,675,229.04
2058		\$ 936,000.79	\$ 7,857,826.01	\$ 4,871,095.62	\$ 5,460,033.87	\$ 401,554.77	\$ 5,782,687.40	\$ 130,434.02	\$ 1,060,993.16	\$ 664,236.54	\$ 725,117.32	\$ 43,616.08	\$ 732,386.67	\$ 28,66

APPENDIX I – ROUTINE MAINTENANCE ACTIVITIES

LIST OF ROUTINE MAINTENANCE ACTIVITIES

ACTIVITY DESCRIPTION	LM COST	% of total
LITTER PICKUP	\$1,444.16	13.9%
ROADWAY SWEEPING	\$1,088.35	10.5%
ROADWAY WEED EATING	\$887.54	8.6%
ROADWAY MOWING	\$779.17	7.5%
DRAINAGE MAINTENANCE	\$416.80	4.0%
REPAIR NON-FUNCTIONL GUARDRAIL	\$375.13	3.6%
RIP RAP CLEANING	\$368.56	3.6%
HERBICIDE EDGING	\$330.50	3.2%
RPR NON-FUNCTIONING ATTENUATOR	\$298.09	2.9%
ROADWAY CRACK SEALING	\$287.49	2.8%
INLET MAINTENANCE	\$274.31	2.6%
FLUME MAINTENANCE	\$252.14	2.4%
BRUSH TRIMMING AND CHIPPING	\$243.47	2.3%
REPAIR FUNCTIONING ATTENUATOR	\$237.54	2.3%
REPAIR FUNCTIONING GUARDRAIL	\$167.60	1.6%
FENCING REPLACEMENT	\$166.26	1.6%
BULK LITTER REMOVAL	\$159.15	1.5%
INCIDENT RESPONSE	\$154.39	1.5%
LIGHTING COMPONENTS	\$145.31	1.4%
LARGE AREA WEEDEATING	\$135.03	1.3%
FENCING REPAIR	\$134.41	1.3%
REPLACE RAISED PAVEMNT MARKERS	\$133.01	1.3%
TREE TRIMMING AND CHIPPING	\$123.43	1.2%
EROSION CONTROL	\$118.85	1.1%
WALL WASHING	\$116.42	1.1%
BLOW OUT EXPANSION JOINTS	\$113.22	1.1%
REG VEH <1 TON 4000 MILE PM	\$111.02	1.1%
INSPECT ROADWAY LIGHTING	\$103.71	1.0%
MANUAL WEEDING	\$103.20	1.0%
ROADWAY BRIDGE MAINTENANCE	\$91.00	0.9%
CONCRETE REPAIR	\$90.89	0.9%
SIGN INSPECTION	\$69.67	0.7%
LANE&PARK LOT WASHING OIL&ETC	\$69.60	0.7%
ROADWAY POT HOLE REPAIR/PATCH	\$65.77	0.6%
REPLACE DELINEATOR	\$63.42	0.6%
INSPECTIONS	\$60.78	0.6%
TEMPORARY SIGN WORK	\$47.43	0.5%
DRAIN LATERAL MAINTENANCE	\$46.91	0.5%
GENERAL GRAFFITI	\$46.53	0.4%
TREE PRUNING	\$39.70	0.4%
ROADWAY DEBRIS REMOVAL	\$38.94	0.4%
REPLACE REFLECTORS	\$36.09	0.3%
MEDIAN WALL REPAIR	\$30.03	0.3%
SAFETY COMPONENTS	\$27.48	0.3%
GUIDE SIGN WORK	\$26.67	0.3%
ROADWAY LANDSCAPE MAINTENANCE	\$25.04	0.2%
HERBICIDE BEDS	\$24.03	0.2%
TREE PLANTING	\$23.25	0.2%
CLEAN SEATS AND CAPS	\$22.16	0.2%
ROADWAY PAVEMENT REPAIR	\$20.87	0.2%
TREE REPLACEMENT	\$20.17	0.2%
ROADWAY MEDIAN ALIGNMENT	\$18.43	0.2%
CHANELS, DEBRIS/VEG REMOVAL	\$17.71	0.2%
REPAIR/REPLACE HANDRAIL	\$15.76	0.2%
CLEAN DECK JOINTS	\$12.21	0.1%
DEFICIENT WARNING OR REG SIGNS	\$11.88	0.1%
EMBANKMENTS/RIP RAP EROSION	\$10.00	0.1%
REPAIR/REPLACE BRIDGE RAIL	\$9.71	0.1%
STRIPING MAINTENANCE	\$8.96	0.1%
REPAIR DECK SPALLS	\$8.38	0.1%
CRACK AND JOINT INSPECTION	\$8.38	0.1%

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APPENDIX I
FORMS OF BOND COUNSEL OPINIONS

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[An opinion in substantially the following form will be delivered by McCall,
Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the
Bonds, assuming no material changes in facts or law.]

\$200,000,000
GRAND PARKWAY TRANSPORTATION CORPORATION
GRAND PARKWAY SYSTEM
FIRST TIER TOLL REVENUE BONDS,
SERIES 2013A

AS BOND COUNSEL for the Grand Parkway Transportation Corporation (the "Corporation"), we have examined into the legality and validity of the issue of bonds described above (the "Bonds"), which bear interest from the dates and mature on the dates specified in the Bonds, all in accordance with the resolutions of the Corporation authorizing the issuance of such Bonds adopted on December 21, 2012 and April 5, 2013 (collectively, the "Authorizing Resolution"), the Trust Agreement dated as of August 1, 2013, (the "Master Trust Agreement") between the Corporation and U.S. Bank National Association, as Trustee (the "Trustee"), the First Supplemental Agreement dated as of August 1, 2013 between the Corporation and the Trustee (the "First Supplemental Agreement") and the Pricing Officer's Award Certificate establishing the pricing terms of the Bonds. The Authorizing Resolution, the Master Trust Agreement, the First Supplemental Agreement and the Pricing Officer's Award Certificate are collectively referenced as the "Trust Agreement." Capitalized terms used herein and not otherwise defined shall have the meaning given in the Trust Agreement.

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Corporation, including the executed Trust Agreement and other pertinent instruments relating to the authorization, issuance, and delivery of the Bonds; and we have examined various certificates and documents executed by officers and officials of the Corporation upon which certificates and documents we rely as to certain matters stated below. We have also examined one of the executed Bonds which we found to be in proper form and duly executed.

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Corporation is a validly operating and existing local government corporation under Chapter 431, Texas Transportation Code, as amended ("Chapter 431"), and is authorized to issue the Bonds under Chapter 431, the Texas Business Organizations Code, including Chapter 22, as amended, Section 228.053, Texas Transportation Code, as amended, and Chapter 1371, Texas Government Code, as amended. It is further our opinion that (i) the Bonds have been duly authorized; (ii) all conditions precedent to the delivery of the Bonds have been fulfilled; and (iii) the Bonds have been duly issued and delivered, all in accordance with law. Except as the enforceability may be limited by sovereign immunity, bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws now or hereafter enacted relating to creditors' rights generally or by principles of equity which permit the exercise of judicial discretion, (i) the Bonds constitute valid and legally binding obligations of the Corporation which are secured as First Tier Obligations under the Trust Agreement and are payable as to principal and interest in accordance with the priorities established in the Trust Agreement solely from the sources provided therein, including the Revenues of the System; and (ii) the Trust Agreement is authorized by law, has been duly executed and delivered, and is valid and legally binding upon and enforceable by the parties thereto in accordance with its terms and provisions.

THE CORPORATION has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue Additional First Tier Obligations secured by the Trust Agreement on parity with the Bonds. Additionally, the Corporation has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue obligations secured by the Trust Agreement but junior and subordinate to the First Tier Obligations. The Corporation also has reserved the right to amend the Trust Agreement in the manner provided therein and under some (but not all) circumstances amendments thereto must be approved by the Owners of a majority of all Outstanding Obligations secured by the Trust Agreement.

THE REGISTERED OWNERS of the Bonds shall never have the right to demand payment of the principal thereof or interest thereon out of any funds raised or to be raised by taxation or from any source whatsoever other than as described in the Trust Agreement.

IT IS FURTHER OUR OPINION, that except as discussed below, under the statutes, regulations, published rulings, and court decisions existing on the date of this opinion, for federal income tax purposes, the interest on the Bonds (i) is excludable from the gross income of the owners thereof and (ii) the Bonds will not be treated as "specified private activity bonds" the interest on which would be included as an alternative minimum tax preferred item under section 57(a)(5) of the Internal Revenue Code of 1986 (the "Code"). In expressing the aforementioned opinions, we have relied on certain representations, the accuracy of which we have not independently verified, and assume compliance by the Corporation with certain representations and covenants regarding the use and investment of the proceeds of the Bonds and the use of the property financed therewith. We call your attention to the fact that if such representations are determined to be inaccurate or upon a failure by the Corporation to comply with such covenants, interest on the Bonds may become includable in gross income retroactively to the date of issuance of the Bonds.

EXCEPT AS STATED ABOVE, we express no opinion as to any other federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds. In particular, but not by way of limitation, we express no opinion with respect to the federal, state or local tax consequences arising from the enactment of any pending or future legislation.

WE EXPRESS NO OPINION as to any insurance policies issued in the future.

OUR OPINIONS ARE BASED ON EXISTING LAW, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may thereafter come to our attention or to reflect any changes in any law that may thereafter occur or become effective. Moreover, our opinions are not a guarantee of result and are not binding on the Internal Revenue Service (the "Service"); rather, such opinions represent our legal judgment based upon our review of existing law and in reliance upon the representations and covenants referenced above that we deem relevant to such opinions. The Service has an ongoing audit program to determine compliance with rules that relate to whether interest on state or local obligations is includable in gross income for federal income tax purposes. No assurance can be given whether or not the Service will commence an audit of the Bonds. If an audit is commenced, in accordance with its current published procedures the Service is likely to treat the Corporation as the taxpayer. We observe that the Corporation has covenanted not to take any action, or omit to take any action within its control, that if taken or omitted, respectively, may result in the treatment of interest on the Bonds as includable in gross income for federal income tax purposes.

WE CALL YOUR ATTENTION TO THE FACT THAT the interest on tax-exempt obligations, such as the Bonds, is included in a corporation's alternative minimum taxable income for purposes of determining the alternative minimum tax imposed on corporations by section 55 of the Code.

WE HAVE ACTED AS BOND COUNSEL for the Corporation for the purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas and with respect to the exclusion from gross income of the interest on the Bonds for federal income tax purposes. We have not been requested to investigate or verify, and have not investigated or verified, any records, data, or other material relating to the financial condition or capabilities of the Corporation and have not assumed any responsibility with respect thereto. We express no opinion and make no comment with respect to the marketability of the Bonds. Our role in connection with the Official Statement prepared for use in connection with the Bonds has been limited as described therein.

THE FOREGOING OPINIONS represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result.

Respectfully,

LAW OFFICES

M^CCALL, PARKHURST & HORTON L.L.P.

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[An opinion in substantially the following form will be delivered by McCall,
Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the
Bonds, assuming no material changes in facts or law.]

\$1,414,934,856.15
GRAND PARKWAY TRANSPORTATION CORPORATION
GRAND PARKWAY SYSTEM
SUBORDINATE TIER TOLL REVENUE BONDS,
SERIES 2013B (TELA SUPPORTED)

AS BOND COUNSEL for the Grand Parkway Transportation Corporation (the "Corporation"), we have examined into the legality and validity of the issue of bonds described above (the "Bonds"), which bear interest from the dates and mature on the dates specified in the Bonds, all in accordance with the resolutions of the Corporation authorizing the issuance of such Bonds adopted on December 21, 2012 and April 5, 2013 (collectively, the "Authorizing Resolution"), the Trust Agreement dated as of August 1, 2013, (the "Master Trust Agreement") between the Corporation and U.S. Bank National Association, as Trustee (the "Trustee"), the First Supplemental Agreement dated as of August 1, 2013 between the Corporation and the Trustee (the "First Supplemental Agreement") and the Pricing Officer's Award Certificate establishing the pricing terms of the Bonds. The Authorizing Resolution, the Master Trust Agreement, the First Supplemental Agreement and the Pricing Officer's Award Certificate are collectively referenced as the "Trust Agreement." Capitalized terms used herein and not otherwise defined shall have the meaning given in the Trust Agreement.

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Corporation, including the executed Trust Agreement and other pertinent instruments relating to the authorization, issuance, and delivery of the Bonds; and we have examined various certificates and documents executed by officers and officials of the Corporation upon which certificates and documents we rely as to certain matters stated below. We have also examined one of the executed Bonds which we found to be in proper form and duly executed.

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Corporation is a validly operating and existing local government corporation under Chapter 431, Texas Transportation Code, as amended ("Chapter 431"), and is authorized to issue the Bonds under Chapter 431, the Texas Business Organizations Code, including Chapter 22, as amended, Section 228.053, Texas Transportation Code, as amended, and Chapter 1371, Texas Government Code, as amended. It is further our opinion that (i) the Bonds have been duly authorized; (ii) all conditions precedent to the delivery of the Bonds have been fulfilled; and (iii) the Bonds have been duly issued and delivered, all in accordance with law. Except as the enforceability may be limited by sovereign immunity, bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws now or hereafter enacted relating to creditors' rights generally or by principles of equity which permit the exercise of judicial discretion, (i) the Bonds constitute valid and legally binding obligations of the Corporation which are secured as Subordinate Tier Obligations under the Trust Agreement and are payable as to principal and interest in accordance with the priorities established in the Trust Agreement solely from the sources provided therein, including the Revenues of the System, and constitute a senior Series of Subordinate Tier Obligations in terms of priority of payment among Subordinate Tier Obligations; and (ii) the Trust Agreement is authorized by law, has been duly executed and delivered, and is valid and legally binding upon and enforceable by the parties thereto in accordance with its terms and provisions.

THE CORPORATION has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue Additional Subordinate Tier Obligations secured by the Trust Agreement on parity with the Bonds. Additionally, the Corporation has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue obligations secured by the Trust Agreement senior to the Subordinate Tier Obligations as well as junior and subordinate to the Subordinate Tier Obligations. The Corporation has also reserved the right to establish a priority of payment between the respective Series of Subordinate Tier Obligations. The Corporation also has reserved the right to amend the Trust Agreement in the manner

provided therein and under some (but not all) circumstances amendments thereto must be approved by the Owners of a majority of all Outstanding Obligations secured by the Trust Agreement.

THE REGISTERED OWNERS of the Bonds shall never have the right to demand payment of the principal thereof or interest thereon out of any funds raised or to be raised by taxation or from any source whatsoever other than as described in the Trust Agreement.

IT IS FURTHER OUR OPINION, that except as discussed below, under the statutes, regulations, published rulings, and court decisions existing on the date of this opinion, for federal income tax purposes, the interest on the Bonds (i) is excludable from the gross income of the owners thereof and (ii) the Bonds will not be treated as "specified private activity bonds" the interest on which would be included as an alternative minimum tax preferred item under section 57(a)(5) of the Internal Revenue Code of 1986 (the "Code"). In expressing the aforementioned opinions, we have relied on certain representations, the accuracy of which we have not independently verified, and assume compliance by the Corporation with certain representations and covenants regarding the use and investment of the proceeds of the Bonds and the use of the property financed therewith. We call your attention to the fact that if such representations are determined to be inaccurate or upon a failure by the Corporation to comply with such covenants, interest on the Bonds may become includable in gross income retroactively to the date of issuance of the Bonds.

EXCEPT AS STATED ABOVE, we express no opinion as to any other federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds. In particular, but not by way of limitation, we express no opinion with respect to the federal, state or local tax consequences arising from the enactment of any pending or future legislation.

WE EXPRESS NO OPINION as to any insurance policies issued in the future.

OUR OPINIONS ARE BASED ON EXISTING LAW, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may thereafter come to our attention or to reflect any changes in any law that may thereafter occur or become effective. Moreover, our opinions are not a guarantee of result and are not binding on the Internal Revenue Service (the "Service"); rather, such opinions represent our legal judgment based upon our review of existing law and in reliance upon the representations and covenants referenced above that we deem relevant to such opinions. The Service has an ongoing audit program to determine compliance with rules that relate to whether interest on state or local obligations is includable in gross income for federal income tax purposes. No assurance can be given whether or not the Service will commence an audit of the Bonds. If an audit is commenced, in accordance with its current published procedures the Service is likely to treat the Corporation as the taxpayer. We observe that the Corporation has covenanted not to take any action, or omit to take any action within its control, that if taken or omitted, respectively, may result in the treatment of interest on the Bonds as includable in gross income for federal income tax purposes.

WE CALL YOUR ATTENTION TO THE FACT THAT the interest on tax-exempt obligations, such as the Bonds, is included in a corporation's alternative minimum taxable income for purposes of determining the alternative minimum tax imposed on corporations by section 55 of the Code.

WE HAVE ACTED AS BOND COUNSEL for the Corporation for the purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas and with respect to the exclusion from gross income of the interest on the Bonds for federal income tax purposes. We have not been requested to investigate or verify, and have not investigated or verified, any records, data, or other material relating to the financial condition or capabilities of the Corporation and have not assumed any responsibility with respect thereto. We express no opinion and make no comment with respect to the marketability of the Bonds. Our role in connection with the Official Statement prepared for use in connection with the Bonds has been limited as described therein.

THE FOREGOING OPINIONS represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result.

Respectfully,

LAW OFFICES

M^CCALL, PARKHURST & HORTON L.L.P.

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[An opinion in substantially the following form will be delivered by McCall,
Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the
Bonds, assuming no material changes in facts or law.]

\$836,440,000

**GRAND PARKWAY TRANSPORTATION CORPORATION
GRAND PARKWAY SYSTEM
SUBORDINATE TIER TOLL REVENUE TENDER BONDS,
SERIES 2013C (TELA SUPPORTED - INTERIM CONSTRUCTION FINANCING)**

AS BOND COUNSEL for the Grand Parkway Transportation Corporation (the "Corporation"), we have examined into the legality and validity of the issue of bonds described above (the "Bonds"), which bear interest from the dates and mature on the dates specified in the Bonds, all in accordance with the resolutions of the Corporation authorizing the issuance of such Bonds adopted on December 21, 2012 and April 5, 2013 (collectively, the "Authorizing Resolution"), the Trust Agreement dated as of August 1, 2013, (the "Master Trust Agreement") between the Corporation and U.S. Bank National Association, as Trustee (the "Trustee"), the First Supplemental Agreement dated as of August 1, 2013 between the Corporation and the Trustee (the "First Supplemental Agreement") and the Pricing Officer's Award Certificate establishing the pricing terms of the Bonds. The Authorizing Resolution, the Master Trust Agreement, the First Supplemental Agreement and the Pricing Officer's Award Certificate are collectively referenced as the "Trust Agreement." Capitalized terms used herein and not otherwise defined shall have the meaning given in the Trust Agreement.

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Corporation, including the executed Trust Agreement and other pertinent instruments relating to the authorization, issuance, and delivery of the Bonds; and we have examined various certificates and documents executed by officers and officials of the Corporation upon which certificates and documents we rely as to certain matters stated below. We have also examined one of the executed Bonds which we found to be in proper form and duly executed.

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Corporation is a validly operating and existing local government corporation under Chapter 431, Texas Transportation Code, as amended ("Chapter 431"), and is authorized to issue the Bonds under Chapter 431, the Texas Business Organizations Code, including Chapter 22, as amended, Section 228.053, Texas Transportation Code, as amended, and Chapter 1371, Texas Government Code, as amended. It is further our opinion that (i) the Bonds have been duly authorized; (ii) all conditions precedent to the delivery of the Bonds have been fulfilled; and (iii) the Bonds have been duly issued and delivered, all in accordance with law. Except as the enforceability may be limited by sovereign immunity, bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws now or hereafter enacted relating to creditors' rights generally or by principles of equity which permit the exercise of judicial discretion, (i) the Bonds constitute valid and legally binding obligations of the Corporation which are secured as Subordinate Tier Obligations under the Trust Agreement and are payable as to principal and interest in accordance with the priorities established in the Trust Agreement solely from the sources provided therein, including the Revenues of the System, and constitute a senior Series of Subordinate Tier Obligations in terms of priority of payment among Subordinate Tier Obligations; and (ii) the Trust Agreement is authorized by law, has been duly executed and delivered, and is valid and legally binding upon and enforceable by the parties thereto in accordance with its terms and provisions.

THE CORPORATION has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue Additional Subordinate Tier Obligations secured by the Trust Agreement on parity with the Bonds. Additionally, the Corporation has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue obligations secured by the Trust Agreement senior to the Subordinate Tier Obligations as well as junior and subordinate to the Subordinate Tier Obligations. The Corporation has also reserved the right to establish a priority of payment between the respective Series of Subordinate Tier Obligations. The Corporation also has reserved the right to amend the Trust Agreement in the manner

provided therein and under some (but not all) circumstances amendments thereto must be approved by the Owners of a majority of all Outstanding Obligations secured by the Trust Agreement.

THE REGISTERED OWNERS of the Bonds shall never have the right to demand payment of the principal thereof or interest thereon out of any funds raised or to be raised by taxation or from any source whatsoever other than as described in the Trust Agreement.

IT IS FURTHER OUR OPINION, that except as discussed below, under the statutes, regulations, published rulings, and court decisions existing on the date of this opinion, for federal income tax purposes, the interest on the Bonds (i) is excludable from the gross income of the owners thereof and (ii) the Bonds will not be treated as "specified private activity bonds" the interest on which would be included as an alternative minimum tax preferred item under section 57(a)(5) of the Internal Revenue Code of 1986 (the "Code"). In expressing the aforementioned opinions, we have relied on certain representations, the accuracy of which we have not independently verified, and assume compliance by the Corporation with certain representations and covenants regarding the use and investment of the proceeds of the Bonds and the use of the property financed therewith. We call your attention to the fact that if such representations are determined to be inaccurate or upon a failure by the Corporation to comply with such covenants, interest on the Bonds may become includable in gross income retroactively to the date of issuance of the Bonds.

EXCEPT AS STATED ABOVE, we express no opinion as to any other federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds. In particular, but not by way of limitation, we express no opinion with respect to the federal, state or local tax consequences arising from the enactment of any pending or future legislation.

WE EXPRESS NO OPINION as to any insurance policies issued in the future.

OUR OPINIONS ARE BASED ON EXISTING LAW, which is subject to change. Such opinions are further based on our knowledge of facts as of the date hereof. We assume no duty to update or supplement our opinions to reflect any facts or circumstances that may thereafter come to our attention or to reflect any changes in any law that may thereafter occur or become effective. Moreover, our opinions are not a guarantee of result and are not binding on the Internal Revenue Service (the "Service"); rather, such opinions represent our legal judgment based upon our review of existing law and in reliance upon the representations and covenants referenced above that we deem relevant to such opinions. The Service has an ongoing audit program to determine compliance with rules that relate to whether interest on state or local obligations is includable in gross income for federal income tax purposes. No assurance can be given whether or not the Service will commence an audit of the Bonds. If an audit is commenced, in accordance with its current published procedures the Service is likely to treat the Corporation as the taxpayer. We observe that the Corporation has covenanted not to take any action, or omit to take any action within its control, that if taken or omitted, respectively, may result in the treatment of interest on the Bonds as includable in gross income for federal income tax purposes.

WE CALL YOUR ATTENTION TO THE FACT THAT the interest on tax-exempt obligations, such as the Bonds, is included in a corporation's alternative minimum taxable income for purposes of determining the alternative minimum tax imposed on corporations by section 55 of the Code.

WE HAVE ACTED AS BOND COUNSEL for the Corporation for the purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas and with respect to the exclusion from gross income of the interest on the Bonds for federal income tax purposes. We have not been requested to investigate or verify, and have not investigated or verified, any records, data, or other material relating to the financial condition or capabilities of the Corporation and have not assumed any responsibility with respect thereto. We express no opinion and make no comment with respect to the marketability of the Bonds. Our role in connection with the Official Statement prepared for use in connection with the Bonds has been limited as described therein.

THE FOREGOING OPINIONS represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result.

Respectfully,

LAW OFFICES

M^CCALL, PARKHURST & HORTON L.L.P.

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[An opinion in substantially the following form will be delivered by McCall,
Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the
Bonds, assuming no material changes in facts or law.]

\$106,890,000

**GRAND PARKWAY TRANSPORTATION CORPORATION
GRAND PARKWAY SYSTEM
SUBORDINATE TIER TOLL REVENUE TENDER BONDS,
TAXABLE SERIES 2013D (TELA SUPPORTED)**

AS BOND COUNSEL for the Grand Parkway Transportation Corporation (the "Corporation"), we have examined into the legality and validity of the issue of bonds described above (the "Bonds"), which bear interest from the dates and mature on the dates specified in the Bonds, all in accordance with the resolutions of the Corporation authorizing the issuance of such Bonds adopted on December 21, 2012 and April 5, 2013 (collectively, the "Authorizing Resolution"), the Trust Agreement dated as of August 1, 2013, (the "Master Trust Agreement") between the Corporation and U.S. Bank National Association, as Trustee (the "Trustee"), the First Supplemental Agreement dated as of August 1, 2013 between the Corporation and the Trustee (the "First Supplemental Agreement") and the Pricing Officer's Award Certificate establishing the pricing terms of the Bonds. The Authorizing Resolution, the Master Trust Agreement, the First Supplemental Agreement and the Pricing Officer's Award Certificate are collectively referenced as the "Trust Agreement." Capitalized terms used herein and not otherwise defined shall have the meaning given in the Trust Agreement.

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Corporation, including the executed Trust Agreement and other pertinent instruments relating to the authorization, issuance, and delivery of the Bonds; and we have examined various certificates and documents executed by officers and officials of the Corporation upon which certificates and documents we rely as to certain matters stated below. We have also examined one of the executed Bonds which we found to be in proper form and duly executed.

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Corporation is a validly operating and existing local government corporation under Chapter 431, Texas Transportation Code, as amended ("Chapter 431"), and is authorized to issue the Bonds under Chapter 431, the Texas Business Organizations Code, including Chapter 22, as amended, Section 228.053, Texas Transportation Code, as amended, and Chapter 1371, Texas Government Code, as amended. It is further our opinion that (i) the Bonds have been duly authorized; (ii) all conditions precedent to the delivery of the Bonds have been fulfilled; and (iii) the Bonds have been duly issued and delivered, all in accordance with law. Except as the enforceability may be limited by sovereign immunity, bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws now or hereafter enacted relating to creditors' rights generally or by principles of equity which permit the exercise of judicial discretion, (i) the Bonds constitute valid and legally binding obligations of the Corporation which are secured as Subordinate Tier Obligations under the Trust Agreement and are payable as to principal and interest in accordance with the priorities established in the Trust Agreement solely from the sources provided therein, including the Revenues of the System, and constitute a senior Series of Subordinate Tier Obligations in terms of priority of payment among Subordinate Tier Obligations; and (ii) the Trust Agreement is authorized by law, has been duly executed and delivered, and is valid and legally binding upon and enforceable by the parties thereto in accordance with its terms and provisions.

THE CORPORATION has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue Additional Subordinate Tier Obligations secured by the Trust Agreement on parity with the Bonds. Additionally, the Corporation has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue obligations secured by the Trust Agreement senior to the Subordinate Tier Obligations as well as junior and subordinate to the Subordinate Tier Obligations. The Corporation has also reserved the right to establish a priority of payment between the respective Series of Subordinate Tier Obligations. The Corporation also has reserved the right to amend the Trust Agreement in the manner

provided therein and under some (but not all) circumstances amendments thereto must be approved by the Owners of a majority of all Outstanding Obligations secured by the Trust Agreement.

THE REGISTERED OWNERS of the Bonds shall never have the right to demand payment of the principal thereof or interest thereon out of any funds raised or to be raised by taxation or from any source whatsoever other than as described in the Trust Agreement.

WE EXPRESS NO OPINION as to any federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds.

WE EXPRESS NO OPINION as to any insurance policies issued in the future.

WE HAVE ACTED AS BOND COUNSEL for the Corporation for the purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas. We have not been requested to investigate or verify, and have not investigated or verified, any records, data, or other material relating to the financial condition or capabilities of the Corporation and have not assumed any responsibility with respect thereto. We express no opinion and make no comment with respect to the marketability of the Bonds. Our role in connection with the Official Statement prepared for use in connection with the Bonds has been limited as described therein.

THE FOREGOING OPINIONS represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result.

Respectfully,

LAW OFFICES

M^CCALL, PARKHURST & HORTON L.L.P.

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[An opinion in substantially the following form will be delivered by McCall,
Parkhurst & Horton L.L.P., Bond Counsel, upon the delivery of the
Bonds, assuming no material changes in facts or law.]

\$361,810,000

**GRAND PARKWAY TRANSPORTATION CORPORATION
GRAND PARKWAY SYSTEM
SUBORDINATE TIER TOLL REVENUE BONDS,
TAXABLE SERIES 2013E (TELA SUPPORTED)**

AS BOND COUNSEL for the Grand Parkway Transportation Corporation (the "Corporation"), we have examined into the legality and validity of the issue of bonds described above (the "Bonds"), which bear interest from the dates and mature on the dates specified in the Bonds, all in accordance with the resolutions of the Corporation authorizing the issuance of such Bonds adopted on December 21, 2012 and April 5, 2013 (collectively, the "Authorizing Resolution"), the Trust Agreement dated as of August 1, 2013, (the "Master Trust Agreement") between the Corporation and U.S. Bank National Association, as Trustee (the "Trustee"), the First Supplemental Agreement dated as of August 1, 2013 between the Corporation and the Trustee (the "First Supplemental Agreement") and the Pricing Officer's Award Certificate establishing the pricing terms of the Bonds. The Authorizing Resolution, the Master Trust Agreement, the First Supplemental Agreement and the Pricing Officer's Award Certificate are collectively referenced as the "Trust Agreement." Capitalized terms used herein and not otherwise defined shall have the meaning given in the Trust Agreement.

WE HAVE EXAMINED the applicable and pertinent provisions of the Constitution and laws of the State of Texas, a transcript of certified proceedings of the Corporation, including the executed Trust Agreement and other pertinent instruments relating to the authorization, issuance, and delivery of the Bonds; and we have examined various certificates and documents executed by officers and officials of the Corporation upon which certificates and documents we rely as to certain matters stated below. We have also examined one of the executed Bonds which we found to be in proper form and duly executed.

BASED ON SAID EXAMINATION, IT IS OUR OPINION that the Corporation is a validly operating and existing local government corporation under Chapter 431, Texas Transportation Code, as amended ("Chapter 431"), and is authorized to issue the Bonds under Chapter 431, the Texas Business Organizations Code, including Chapter 22, as amended, Section 228.053, Texas Transportation Code, as amended, and Chapter 1371, Texas Government Code, as amended. It is further our opinion that (i) the Bonds have been duly authorized; (ii) all conditions precedent to the delivery of the Bonds have been fulfilled; and (iii) the Bonds have been duly issued and delivered, all in accordance with law. Except as the enforceability may be limited by sovereign immunity, bankruptcy, insolvency, reorganization, moratorium, liquidation and other similar laws now or hereafter enacted relating to creditors' rights generally or by principles of equity which permit the exercise of judicial discretion, (i) the Bonds constitute valid and legally binding obligations of the Corporation which are secured as Subordinate Tier Obligations under the Trust Agreement and are payable as to principal and interest in accordance with the priorities established in the Trust Agreement solely from the sources provided therein, including the Revenues of the System, and constitute a senior Series of Subordinate Tier Obligations in terms of priority of payment among Subordinate Tier Obligations; and (ii) the Trust Agreement is authorized by law, has been duly executed and delivered, and is valid and legally binding upon and enforceable by the parties thereto in accordance with its terms and provisions.

THE CORPORATION has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue Additional Subordinate Tier Obligations secured by the Trust Agreement on parity with the Bonds. Additionally, the Corporation has reserved the right, subject to the restrictions stated in the Trust Agreement, to issue obligations secured by the Trust Agreement senior to the Subordinate Tier Obligations as well as junior and subordinate to the Subordinate Tier Obligations. The Corporation has also reserved the right to establish a priority of payment between the respective Series of Subordinate Tier Obligations. The Corporation also has reserved the right to amend the Trust Agreement in the manner

provided therein and under some (but not all) circumstances amendments thereto must be approved by the Owners of a majority of all Outstanding Obligations secured by the Trust Agreement.

THE REGISTERED OWNERS of the Bonds shall never have the right to demand payment of the principal thereof or interest thereon out of any funds raised or to be raised by taxation or from any source whatsoever other than as described in the Trust Agreement.

WE EXPRESS NO OPINION as to any federal, state or local tax consequences of acquiring, carrying, owning or disposing of the Bonds.

WE EXPRESS NO OPINION as to any insurance policies issued in the future.

WE HAVE ACTED AS BOND COUNSEL for the Corporation for the purpose of rendering an opinion with respect to the legality and validity of the Bonds under the Constitution and laws of the State of Texas. We have not been requested to investigate or verify, and have not investigated or verified, any records, data, or other material relating to the financial condition or capabilities of the Corporation and have not assumed any responsibility with respect thereto. We express no opinion and make no comment with respect to the marketability of the Bonds. Our role in connection with the Official Statement prepared for use in connection with the Bonds has been limited as described therein.

THE FOREGOING OPINIONS represent our legal judgment based upon a review of existing legal authorities that we deem relevant to render such opinions and are not a guarantee of a result.

Respectfully,

APPENDIX J

**SCHEDULE OF ACCRETED VALUES FOR THE
SERIES 2013B CONVERTIBLE CAPITAL APPRECIATION BONDS**

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SCHEDULE OF ACCRETED VALUES FOR THE SERIES 2013B CONVERTIBLE CAPITAL APPRECIATION BONDS

	Maturity Date 10/01/2029	Maturity Date 10/01/2030	Maturity Date 10/01/2031	Maturity Date 10/01/2032	Maturity Date 10/01/2033	Maturity Date 10/01/2034	Maturity Date 10/01/2035	Maturity Date 10/01/2036	Maturity Date 10/01/2044	Maturity Date 10/01/2045	Maturity Date 10/01/2046	Maturity Date 10/01/2047	Maturity Date 10/01/2048
Date	Interest Rate 4.95%	Interest Rate 5.05%	Interest Rate 5.2%	Interest Rate 5.3%	Interest Rate 5.4%	Interest Rate 5.45%	Interest Rate 5.5%	Interest Rate 5.5%	Interest Rate 5.75%	Interest Rate 5.8%	Interest Rate 5.8%	Interest Rate 5.85%	Interest Rate 5.85%
08/01/2013	3,041.35	3,011.35	2,966.90	2,937.65	2,908.70	2,894.35	2,880.05	2,880.05	2,809.75	2,795.90	2,795.90	2,782.10	2,782.10
10/01/2013	3,066.25	3,036.50	2,992.40	2,963.40	2,934.65	2,920.40	2,906.25	2,906.25	2,836.40	2,822.65	2,822.65	2,809.00	2,809.00
04/01/2014	3,142.15	3,113.15	3,070.20	3,041.90	3,013.90	3,000.00	2,986.15	2,986.15	2,917.95	2,904.50	2,904.50	2,891.15	2,891.15
10/01/2014	3,219.90	3,191.75	3,150.05	3,122.50	3,095.25	3,081.75	3,068.25	3,068.25	3,001.85	2,988.75	2,988.75	2,975.70	2,975.70
04/01/2015	3,299.60	3,272.35	3,231.95	3,205.25	3,178.85	3,165.70	3,152.65	3,152.65	3,088.15	3,075.40	3,075.40	3,062.75	3,062.75
10/01/2015	3,381.25	3,355.00	3,315.95	3,290.20	3,264.65	3,252.00	3,239.35	3,239.35	3,176.95	3,164.60	3,164.60	3,152.35	3,152.35
04/01/2016	3,464.95	3,439.70	3,402.15	3,377.40	3,352.80	3,340.60	3,328.45	3,328.45	3,268.30	3,256.40	3,256.40	3,244.55	3,244.55
10/01/2016	3,550.70	3,526.55	3,490.65	3,466.90	3,443.35	3,431.65	3,419.95	3,419.95	3,362.25	3,350.80	3,350.80	3,339.45	3,339.45
04/01/2017	3,638.60	3,615.60	3,581.40	3,558.80	3,536.30	3,525.15	3,514.00	3,514.00	3,458.90	3,448.00	3,448.00	3,437.15	3,437.15
10/01/2017	3,728.65	3,706.90	3,674.50	3,653.10	3,631.80	3,621.20	3,610.65	3,610.65	3,558.35	3,548.00	3,548.00	3,537.65	3,537.65
04/01/2018	3,820.95	3,800.50	3,770.05	3,749.90	3,729.85	3,719.90	3,709.95	3,709.95	3,660.65	3,650.90	3,650.90	3,641.15	3,641.15
10/01/2018	3,915.50	3,896.45	3,868.05	3,849.25	3,830.55	3,821.25	3,811.95	3,811.95	3,765.90	3,756.75	3,756.75	3,747.65	3,747.65
04/01/2019	4,012.40	3,994.85	3,968.65	3,951.25	3,934.00	3,925.40	3,916.80	3,916.80	3,874.15	3,865.70	3,865.70	3,857.25	3,857.25
10/01/2019	4,111.70	4,095.70	4,071.80	4,056.00	4,040.20	4,032.35	4,024.50	4,024.50	3,985.55	3,977.80	3,977.80	3,970.10	3,970.10
04/01/2020	4,213.50	4,199.15	4,177.70	4,163.45	4,149.30	4,142.25	4,135.20	4,135.20	4,100.15	4,093.15	4,093.15	4,086.20	4,086.20
10/01/2020	4,317.75	4,305.15	4,286.30	4,273.80	4,261.35	4,255.10	4,248.90	4,248.90	4,218.00	4,211.85	4,211.85	4,205.75	4,205.75
04/01/2021	4,424.65	4,413.85	4,397.75	4,387.05	4,376.40	4,371.05	4,365.75	4,365.75	4,339.30	4,334.00	4,334.00	4,328.75	4,328.75
10/01/2021	4,534.15	4,525.30	4,512.10	4,503.30	4,494.55	4,490.15	4,485.80	4,485.80	4,464.05	4,459.70	4,459.70	4,455.35	4,455.35
04/01/2022	4,646.35	4,639.60	4,629.40	4,622.65	4,615.90	4,612.55	4,609.15	4,609.15	4,592.40	4,589.05	4,589.05	4,585.70	4,585.70
10/01/2022	4,761.35	4,756.75	4,749.75	4,745.15	4,740.55	4,738.20	4,735.90	4,735.90	4,724.40	4,722.10	4,722.10	4,719.85	4,719.85
04/01/2023	4,879.20	4,876.85	4,873.25	4,870.90	4,868.50	4,867.35	4,866.15	4,866.15	4,860.25	4,859.05	4,859.05	4,857.90	4,857.90
10/01/2023	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00	5,000.00

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