

COMPREHENSIVE DEVELOPMENT AGREEMENT (CDA) PROGRAM IMPLEMENTATION

Introduction

In 2007, the department entered into a Concession CDA for the development of the SH 130 Segments 5 & 6 project; in 2009, into two additional Concession CDAs for the North Tarrant Express (NTE) in Tarrant County and the LBJ Managed Lanes Project in Dallas County; and, a design-build CDA for the DFW Connector in Tarrant County.

This document provides a brief overview of each project and the structure that TxDOT has put into place to provide for oversight of the developer's efforts.

Organizational Structure

The SH 130 Segments 5 & 6 project is in the Austin and San Antonio Districts. The NTE and DFW Connector are in the Fort Worth District, and the LBJ Managed Lane Project is in the Dallas District.

To ensure department administration has up-to-date knowledge of project status and is aware of issues and challenges, a Statewide CDA Project Board was created which includes the following members:

Steve Simmons, P.E.	Deputy Executive Director and Board Chair
James Bass	Chief Financial Officer
John Barton, P.E.	Assistant Executive Director for Engineering Ops
David Casteel, P.E.	Assistant Executive Director for Field and District Ops
Mark Tomlinson, P.E.	Director, Texas Turnpike Authority Division
Carlos Lopez, P.E.	Austin District Engineer
Bill Hale, P.E.	Dallas District Engineer
Maribel Chavez, P.E.	Fort Worth District Engineer
Mario Medina, P.E.	San Antonio District Engineer

The board meets monthly to receive project briefings and to provide direction regarding contract amendments and change-order decisions. David Casteel serves as the board coordinator and provides direction to the CDA Program Managers in the Austin-San Antonio and Dallas-Fort Worth areas.

As the SH 130 Segments 5 & 6 project is in both the Austin and San Antonio Districts, the San Antonio Mobility Initiative Office manages the CDA project. Frank Holzmann manages the San Antonio Mobility Initiative Office and the CDA, with Ben Engelhardt as the Project Engineer and Beau Buchanan as the Assistant Project Engineer.

The Dallas and Fort Worth Districts have partnered to create a DFW CDA Program Office to manage the three CDAs in the Dallas-Fort Worth area. Robert M. Brown manages the program in the DFW area, with Sam Swan as the Project Manager for the DFW Connector, Theresa Lopez as the Project Manager for the NTE Concession CDA. Matt MacGregor manages the Master Development Plan component of the NTE. Gary Moonshower serves as the Project Manager for the LBJ Managed Lanes. Additional TxDOT staff and consultants also serve within this oversight team.

The Concession CDAs require an Independent Engineer (IE) that ensures both parties fulfill obligations of the CDA. The IE will also review all performance requirements and has the ability to issue non-compliance reports that leads to corrective action and liquidated damages. The IE is compensated 50/50 by the developer and TxDOT. In addition, the IE also prepares and implements the requirements of the Quality Assurance Plan for Owner Verification Testing (summarized below); this portion is funded 100 percent by the department.

Additional support is provided from the Turnpike Division. Don Toner oversees all right-of-way acquisition and utility relocations on all CDA projects statewide, with Keith Sliger leading the right of way and utility issues in the DFW area. Dieter Billek of the Turnpike Division provides additional support to both the San Antonio Mobility Initiative Office as well as the DFW CDA Program Office. Dieter facilitates issues with department administration and divisions and the FHWA.

When required, TxDOT's Office of General Counsel and Finance Division provide advice and support for contract interpretation, amendments and changes..

In addition, as the CDA Projects require federal oversight, TxDOT has entered into an Oversight Agreement for Public Private Partnerships with the FHWA that outlines federal requirements that TxDOT and the developer must comply with, such as the typical labor, buy America, job training, DBE program and other Federal provisions required in our traditional program. The FHWA will also provide for review and concurrence in the Developer's Project Management Plan and the Quality Assurance Plan for each of the projects. In addition, TxDOT invites FHWA staff to weekly meetings and the monthly Statewide CDA Project Board meetings.

Executive Partnering and Issue Escalation

TxDOT Administration and key representatives of the design-build and development companies typically hold quarterly executive partnering meetings. In this manner the senior-level staff ensures the projects are moving in the right direction, relationships are functional and an "Issue-Escalation Ladder" is developed to ensure that major issues of conflict are resolved in a timely manner.

Overview of Projects

SH 130 Segments 5 & 6

The project is an extension of the recently completed SH 130 Segment 1-4. As the department did not have the equity necessary to achieve a feasible financing plan for Segments 5 & 6, in 2007, TxDOT entered into a Facility Concession Agreement with the SH 130 Concession Company (formerly Cintra-Zachry).

The development value is \$1.37 billion including design, construction, right of way, utilities, and oversight. An additional value to the public is the operations and maintenance (both routine and lifecycle maintenance) totaling approximately \$380 million (2006\$).

In 2007, the developer also paid TxDOT an up-front concession fee just over \$25 million. In addition, if traffic levels achieve the developer's base-case traffic and revenue,

additional revenue sharing of approximately \$245 million (present value in 2006\$) will be paid to the department.

The contract was executed March 22, 2007, and currently right-of-way acquisition and design is complete. Construction started in the spring of 2009 and is approximately 15 percent complete. Estimated completion is late 2012.

DFW Connector

The DFW Connector is a highly-anticipated project in Tarrant County (with a small portion in Dallas County) where seven highways converge (FM 2499, SH 121, I-635, SH 114, International Parkway, SH 26 and SH 360) and run concurrently for approximately eight miles immediately north of Dallas-Fort Worth International Airport. This convergence produces extreme congestion hampering access to the airport and increases travel times for daily commuters from population to employment centers in the region.

The project will reconstruct three major highway interchanges, and will reconstruct and increase capacity at five major arterial crossings of the corridor. In addition, the project will include the addition of four managed lanes, two in each direction, along the SH 114 corridor through the project. The managed lanes will increase efficiency and through-put of the SH 114 corridor and provide a choice for users to pay for increased reliability and reduced travel time. Revenue produced by the managed lanes will be used to fund corridor operations.

The DFW Connector is a Design-Build CDA funded with \$250,000,000 of American Recovery and Reinvestment Act dollars, \$667 million in federal/state mobility dollars (80% Federal, 20% State) and \$107 million in state Proposition 14 bond program dollars.

The developer is NorthGate Constructors, which includes Kiewit, Zachry and PB Americas. The contract was executed October 6, 2009. Schedule and project management plan reviews are complete and construction work began February 15, 2010.

NTE Concession CDA

The NTE covers three major corridors that are very congested in North Tarrant County: I-820, I-35W and SH 183. The NTE has two contractual components: the NTE Concession CDA and the NTE Master Development Plan CDA.

The NTE Concession CDA covers two Segments: the I-820 (Segment 1) corridor will be reconstructed and two managed lanes in each direction will be added; the SH 121/SH 183 (Segment 2W) corridor will be reconstructed and three managed lanes in each direction will be added.

Public funds in the amount of \$573 million are leveraged with private financing to deliver a project with a development value of \$2.1 billion that includes design, construction, right of way, utilities, and oversight. An additional value to the public is the operations and maintenance (both routine and lifecycle maintenance) totaling \$450 million (present value in 2009\$).

The developer is North Tarrant Express Mobility Partners which includes Cintra U.S., Meridiam Infrastructure Finance, Dallas Police and Fire Pension System, Ferrovial Agroman, W.W. Webber and Earth Tech.

The contract was executed June 23, 2009 and financial close took place December 17, 2009. TxDOT issued the notice to proceed on December 31, 2009 following TxDOT and Federal approval of the Project Management Plan.

North Tarrant Express (NTE) Master Development Plan CDA for Segments 2-4

The NTE Master Development Plan is an 18-month effort to develop a financing and development plan to deliver key segments with little or no public funds. Work began July 7, 2009 and an initial development proposal is expected this Spring.

LBJ Managed Lanes

The project covers the most congested freeway in Dallas County along LBJ Freeway (also known as I-635) from US 75 to I-35E. As this project has been in the planning stages for 20 years, TxDOT and the surrounding community agreed to a concept that provides for six lanes of continuous frontage roads, four general-purpose freeway lanes in each direction and three managed lanes in each direction. This concept requires little additional right of way along I-635 and uses a depressed cross section for the added managed lanes.

The project developer is LBJ Infrastructure Group consisting of Cintra U.S., Meridiam Infrastructure Finance, Dallas Police and Fire Pension System, Ferrovial Agroman, W.W. Webber, Macquarie Capital (USA) and Bridgefarmer & Associates.

Public funds in the amount of \$445 million are leveraged with private financing to deliver a project with a development value of \$2.7 billion that includes design, construction, utilities, and oversight. An additional value to the public is the operations and maintenance (both routine and lifecycle maintenance) totaling \$500 million (present value in 2009\$))

The contract was executed September 4, 2009 and schedule, project and quality management plan reviews are underway. Right-of-way acquisition has been completed by TxDOT and the developer is seeking financial close in mid 2010.

Performance-Based Contracting

The CDA Projects were procured using a two-step, best-value selection process – first a short list of interested proposing teams is developed from Qualification Statement submittals, then TxDOT issues a Request for Proposals structured as follows:

- Instructions to Proposers (ITP)
- Book 1 – CDA – The Contract
- Book 2 – Project Specific Technical Provisions
- Book 3 – Programmatic Technical Provisions
- Reference Information Documents

The ITP defines selection criteria typically using a combination of Price (or Public Funds Request), Technical Score and Other Objective Criteria (i.e. Schedule).

The design and construction standards are very much performance based, with very little of the prescriptive-type specifications that would be used in the traditional construction program. A set of basic design criteria is specified (i.e. lane widths, design speed, etc) and the remainder of the performance requirement is “Good Industry Practice” which is defined as

“The exercise of the degree of skill, diligence, prudence, and foresight which would reasonably and ordinarily be expected from time to time from a skilled and experienced designer, engineer, constructor or maintenance contractor seeking in good faith to comply with its contractual obligations, complying with all applicable Laws and engaged in the same type of undertaking under circumstances and conditions similar to those within the same geographic area as the Project.”

Other states’ experience with concession agreements shows that owner risk is typically increased with an increasing level of involvement in design and construction, therefore department staff provides general direction and leaves the design, construction and operational decisions to the developer, with TxDOT staff ensuring that safety, environmental and legal requirements are achieved.

Overview of the Quality Program

The oversight program utilizes a combination of quality procedures to ensure conformance with 23 CFR 637 B – Quality Assurance Procedures for Construction and FHWA Technical Advisory 6120.3 – Use of Contractor Test Results in the Acceptance Decision, Recommended Quality Measures, and the Identification of Contractor/Department Risks.

The main quality definitions are:

- Quality Control (QC) – Internal procedures used by the Contractor, Suppliers, and Subcontractors to ensure that development work meets project plans and specifications
- Quality Assurance (QA) – Inspection, testing, auditing, documenting, and reviewing of all materials, operations, and processes
- Referee Testing (RT) – Dispute resolution tests using split samples to resolve testing discrepancies
- Independent Assurance Testing (IA) – An unbiased and independent evaluation of the sampling and testing techniques and equipment used in the Acceptance Program
- Owner Verification Testing (OVT) – Sampling and testing performed to validate the results of the QA acceptance sampling and testing, using statistical analysis

TxDOT’s traditional program is structured as follows:

- Quality Control (QC) by Contractor, Suppliers, and Subcontractors
- Quality Assurance (QA) by TxDOT area office staff
- Referee Testing (RT) by District or Construction Division staff
- Independent Assurance Testing (IA) by District or Construction Division staff

Design-build and concession CDAs typically have an accelerated delivery schedule (due to financial requirements) and also have either optional or required maintenance responsibilities, ranging from 15 years for design-build projects to 50 years for

Concession projects. These factors have lead the department to require the design build or concession contractor to hire an independent firm (the Construction Quality Acceptance Firm, or CQAF) to perform the functions historically performed by the Area Office, such as project testing and inspection, to minimize the department's impact on the project's critical path and maintenance agreement compliance.

TxDOT has developed a programmatic approach for design-build oversight as follows:

- Quality Control (QC) by Contractor, Suppliers, and Subcontractors
- Quality Assurance (QA) by the CQAF
- Owner Verification Testing (OVT) by a firm under contract to TxDOT
- Referee Testing (RT) by Construction Division staff
- Independent Assurance Testing (IA) by District or Construction Division staff

TxDOT has developed a programmatic approach for concession CDA oversight as follows:

- Quality Control (QC) by Contractor, Suppliers, and Subcontractors
- Quality Assurance (QA) by the CQAF
- Owner Verification Testing (OVT) by the IE (compensated 100% by TxDOT)
- Referee Testing (RT) by a different IE
- Independent Assurance Testing (IA) by District or Construction Division staff

As the contractor testing frequency is typically equal to that of traditional projects, the Owner-Verification Testing is performed at a much lower sampling level, therefore federal rules require that the contractor testing results and the Owner Verification Testing results are statistically validated to ensure proper sampling, testing procedures are being followed and that materials used in the construction meet specified requirements.

Conclusion

As TxDOT enters into this new area of innovative contracting, we have assigned our best and brightest personnel, we have executive level involvement and interaction, we are keeping the numbers of personnel streamlined and we will leverage TxDOT's knowledge and experience to use these concepts to deliver cost effective, efficient and quality facilities.