



TEXAS DEPARTMENT OF TRANSPORTATION



# PUBLIC HEARING

## NORTH HOUSTON HIGHWAY IMPROVEMENT PROJECT

May 9 & May 11, 2017



# WELCOME TO THE PUBLIC HEARING

- Register/sign-in and pick up handout
- View exhibits and 3D visualizations
- Attend Formal Hearing at 6:30 p.m. in Auditorium
- Leave your written comments

- Inscripción/Registrarse y recoger folleto
- Ver exhibiciones y Visualizaciones en 3D
- Asistir a la Audiencia Formal a las 6:30 p.m. en el Auditorio
- Dejar sus comentarios por escrito



# Public Hearing Comments

All comments must be submitted by June 27, 2017

## Submit Comments TONIGHT

### Verbal Comments

- Complete a speaker card to speak during the public hearing
- Provide a comment to the Court Reporter in the open house area

### Written Comments

- Complete a comment form and place in a comment box

Submit Comments by MAIL to:  
TxDOT Houston District  
Attn: Director of Project Development  
P.O. Box 1386  
Houston, Texas 77251-1386

Submit Comments ELECTRONICALLY by:  
EMAIL: [HOU-piowebmail@txdot.gov](mailto:HOU-piowebmail@txdot.gov)  
ONLINE: [www.IH45northandmore.com](http://www.IH45northandmore.com)

or

<http://www.txdot.gov/inside-txdot/get-involved/about/hearings-meetings/houston/050917.html>

Todos los comentarios deben ser enviados antes del 27 de Junio del 2017

## Enviar comentarios ESTA NOCHE

### Comentarios Verbales

- Llene la tarjeta de orador para hablar durante la audiencia pública
- Entregar el comentario al taquígrafo judicial en el área de foro abierto

### Comentarios por Escrito

- Llene un formulario de comentarios y deposítelo en la caja de comentarios

Enviar comentarios por CORREO POSTAL a:  
TxDOT Houston District  
Attn: Director of Project Development  
P.O. Box 1386  
Houston, Texas 77251-1386

Enviar sus comentarios ELECTRONICAMENTE por:  
CORREO ELECTRONICO: [HOU-piowebmail@txdot.gov](mailto:HOU-piowebmail@txdot.gov)  
EN LINEA: [www.IH45northandmore.com](http://www.IH45northandmore.com)

o

<http://www.txdot.gov/inside-txdot/get-involved/about/hearings-meetings/houston/050917.html>

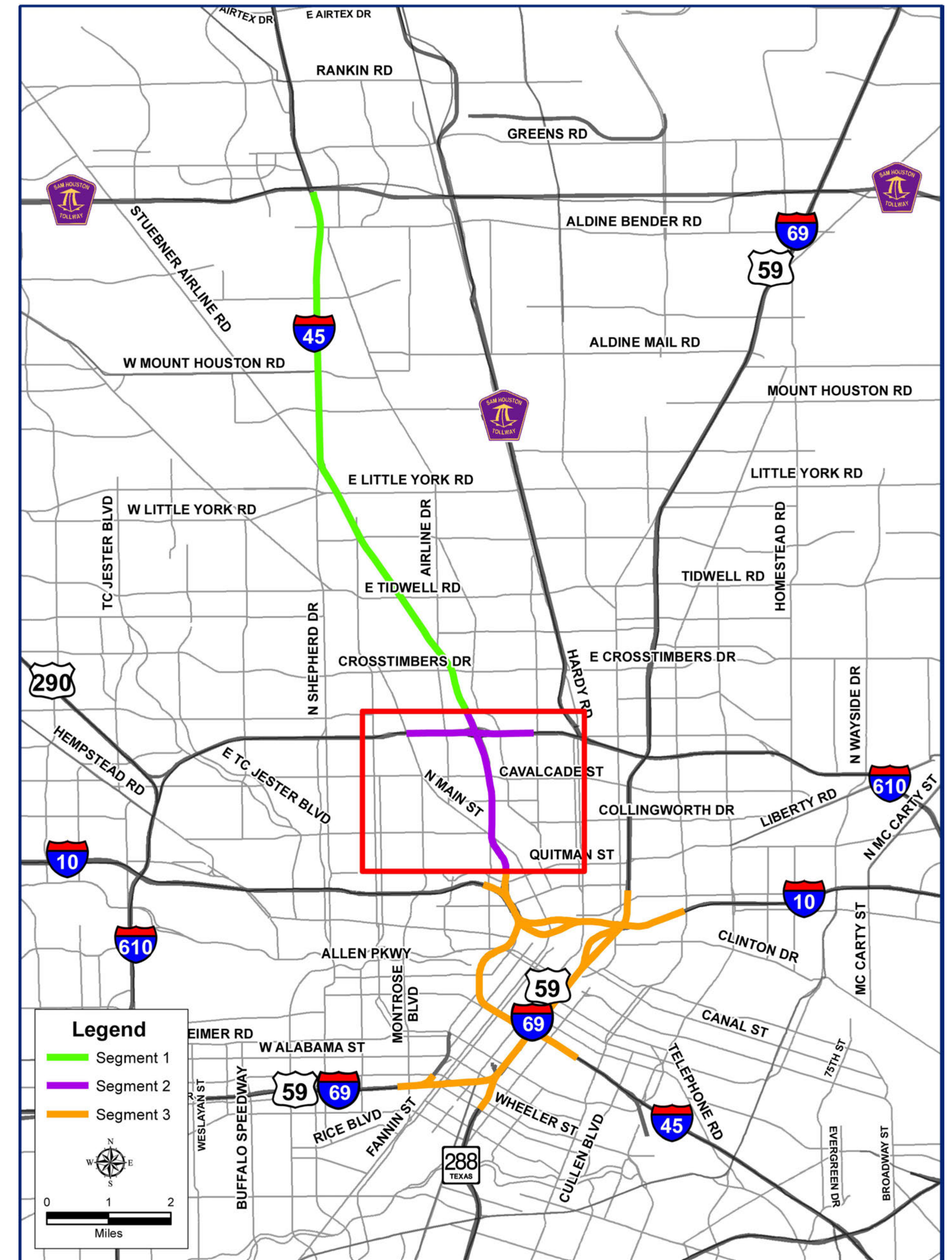


# Proposed Project - Recommended Alternative

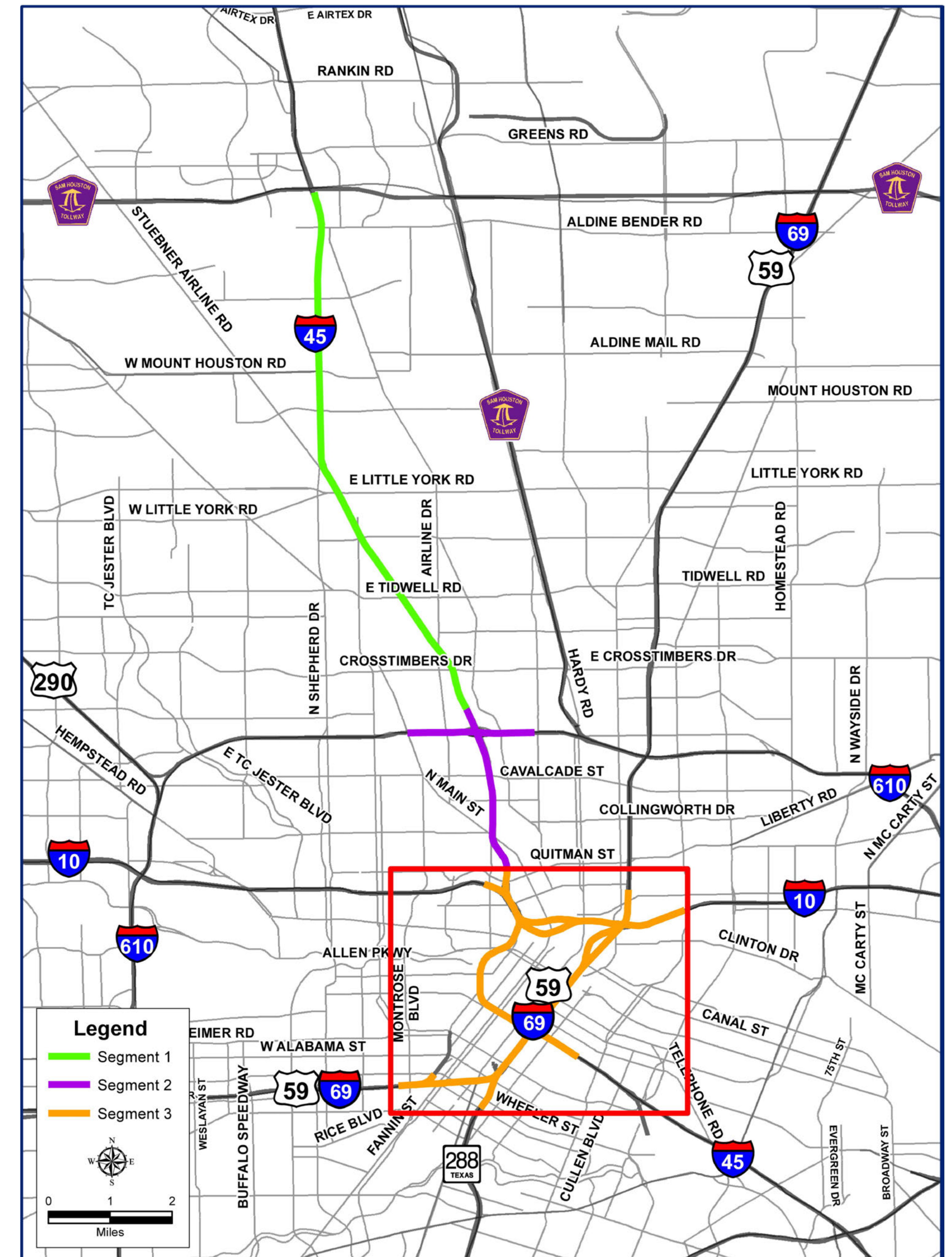
## Segment 2: North of I-610 to I-10

### New Roadway Capacity

- Add four managed express (MaX) lanes
- Add full-width shoulders
- Add bike/pedestrian features along frontage roads
- I-45 and I-610 frontage roads would be continuous through the I-45/I-610 interchange
- Approximately 19 acres of new right-of-way
- Between Cottage St. and Norma St., mainlanes and MaX lanes depressed, frontage roads at grade
- Opportunity for structural cap/open space over depressed section (to be funded and built by parties other than TxDOT)





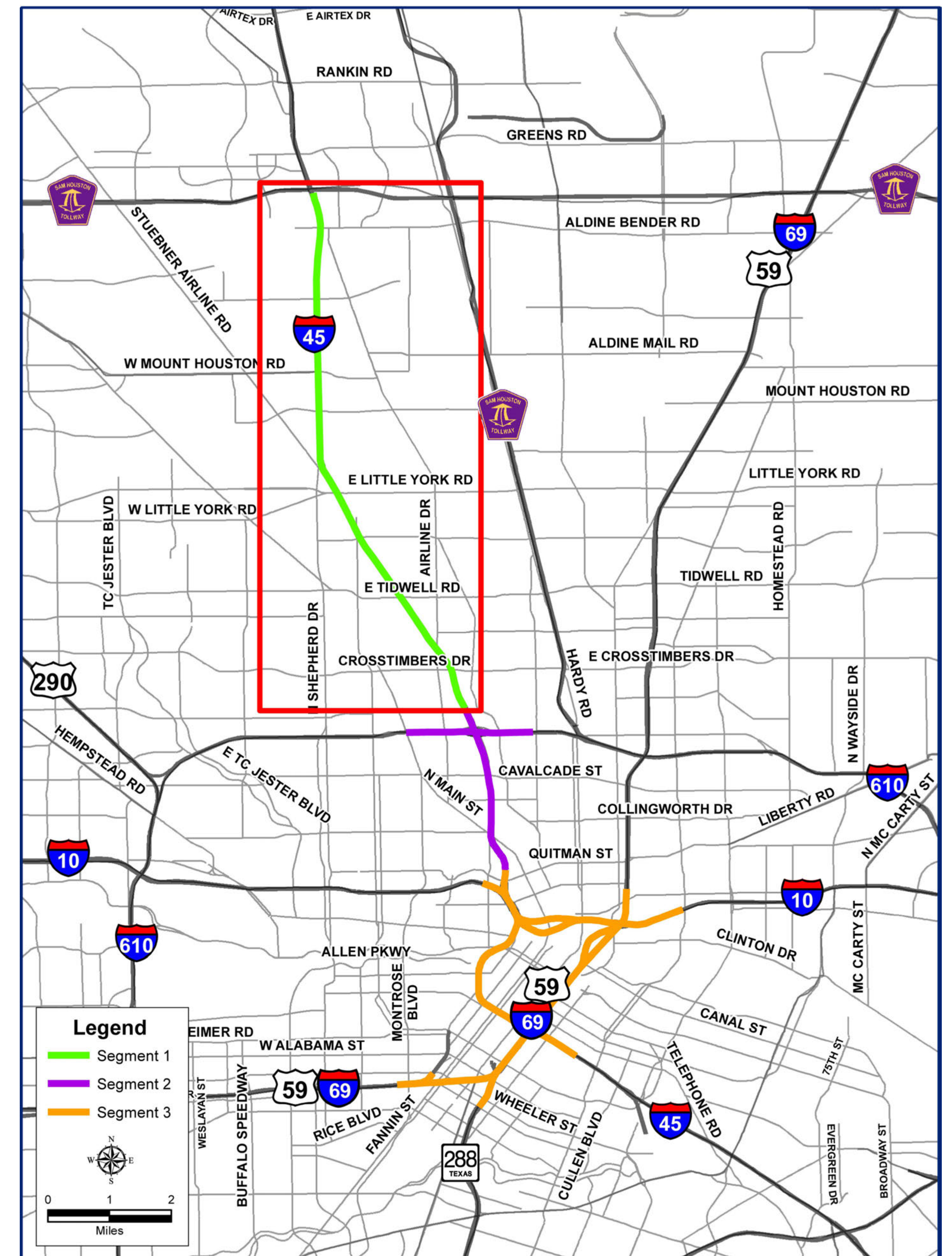




## Segment 1: Beltway 8 to north of I-610

# New Roadway Capacity

- Add four (4) managed express (MaX) lanes
- Add one (1) frontage road lane in each direction
- Add full-width shoulders
- Add bike/pedestrian features along frontage roads
- Approximately 212 acres of new right-of-way
- New right-of-way to be acquired primarily on the west side of I-45





# Changes to Recommended Alternative – for Study in Final EIS

- Proposed storm water detention basins
- Proposed roadway design changes
  1. I-69 entrance ramp relocation at San Jacinto Street
  2. Direct Connector modification at I-45/I-610 interchange
  3. I-45/I-69 interchange modifications, south of I-69
  4. I-10/I-69 interchange modifications, east of I-69
  5. I-45 northbound frontage road shift between Cottage Street and Patton Street
  6. Exit ramp modification – I-69 northbound to Gray Street

**See displays to view proposed changes**



# Project Funding and Schedule

- Funding

- Estimated construction cost of the proposed project is approximately \$7 billion (in 2017 dollars)
- Funding for initial phases of construction has been identified

- Schedule

- Anticipate construction to begin in 2020
- First project: I-69 from Spur 527 to SH 288
- Construction would be phased as additional funding is identified



# North - Hardy Corridor Studies History

## North - Hardy Planning Studies - METRO, TxDOT, H-GAC

### 2003 North - Hardy Corridor Alternatives Analysis Report

- Examined transit and highway alternatives
- Recommended that transit alternatives be examined prior to detailed evaluation of highway alternatives

### 2004 North - Hardy Corridor Planning Studies Alternatives Analysis Report (Transit Component)

- Findings used to develop a regional transit system plan that combines an aggressive bus service program with Advanced High Capacity Transit (light rail)

### 2005 North - Hardy Planning Studies Alternatives Analysis Report (Highway Component)

- Recommended highway alternative from downtown Houston to Beltway 8 North is to add four managed lanes to the IH 45 / Hardy Toll Road Corridor

### 2011 TxDOT / FHWA Begin Environmental Document Preparation (Environmental Impact Statement) for North-Hardy Corridor Highway Component

Study Area includes:

- IH 45 (N) from US 59/I-69 to BW 8 North
- Hardy Toll Road Corridor from downtown to BW 8 North
- Portions of IH 10, IH 610 & US 59/I-69 near the downtown Houston area



# Need for Proposed Project

- There is inadequate highway capacity for existing and future traffic demands
- Average daily traffic volumes are projected to increase
- The current single lane, reversible high-occupancy vehicle (HOV) lane serves traffic in only one direction during peak periods
- Evacuation effectiveness on I-45 during a hurricane or other regional emergency would be limited at its present capacity
- Portions of I-45 do not meet current TxDOT design standards, creating a traffic safety concern
- Roadway design deficiencies include inadequate storm water drainage in some locations, potentially compromising the operational effectiveness of I-45 as an evacuation route because of high water lane closures
- Forecasts for commuter service indicate that managed lanes would be needed on I-45 to support commuter traffic and express bus service



# Purpose of Proposed Project

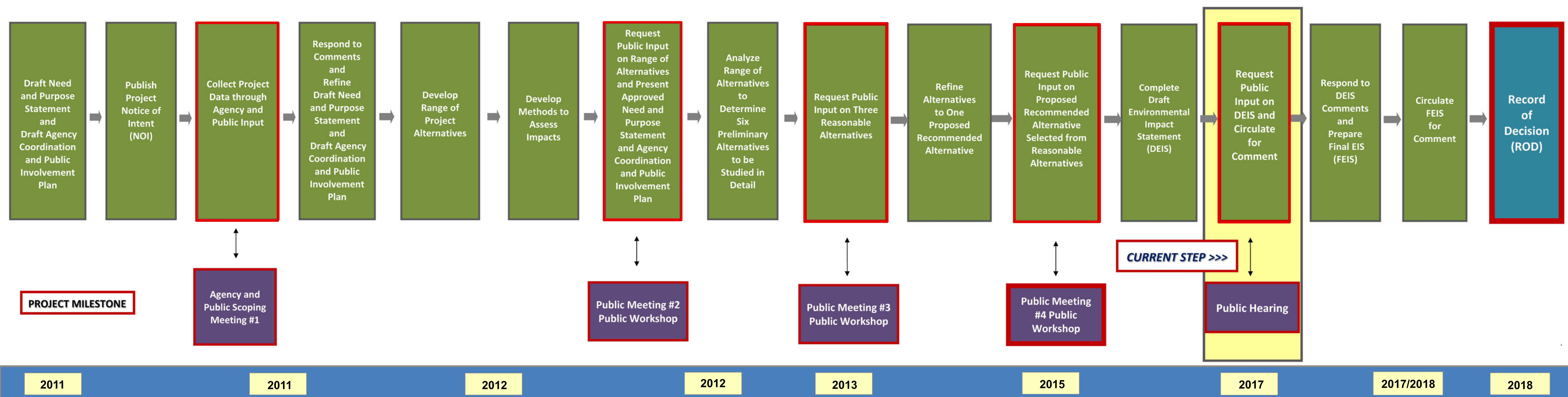
Provide a facility with additional capacity in the I-45/Hardy Toll Road corridor to accommodate projected travel demand by incorporating transit opportunities, travel demand and management strategies, and flexible operations.

Such a facility would help to

- Manage congestion
- Improve mobility
- Enhance safety
- Provide travelers with options to reach their destinations

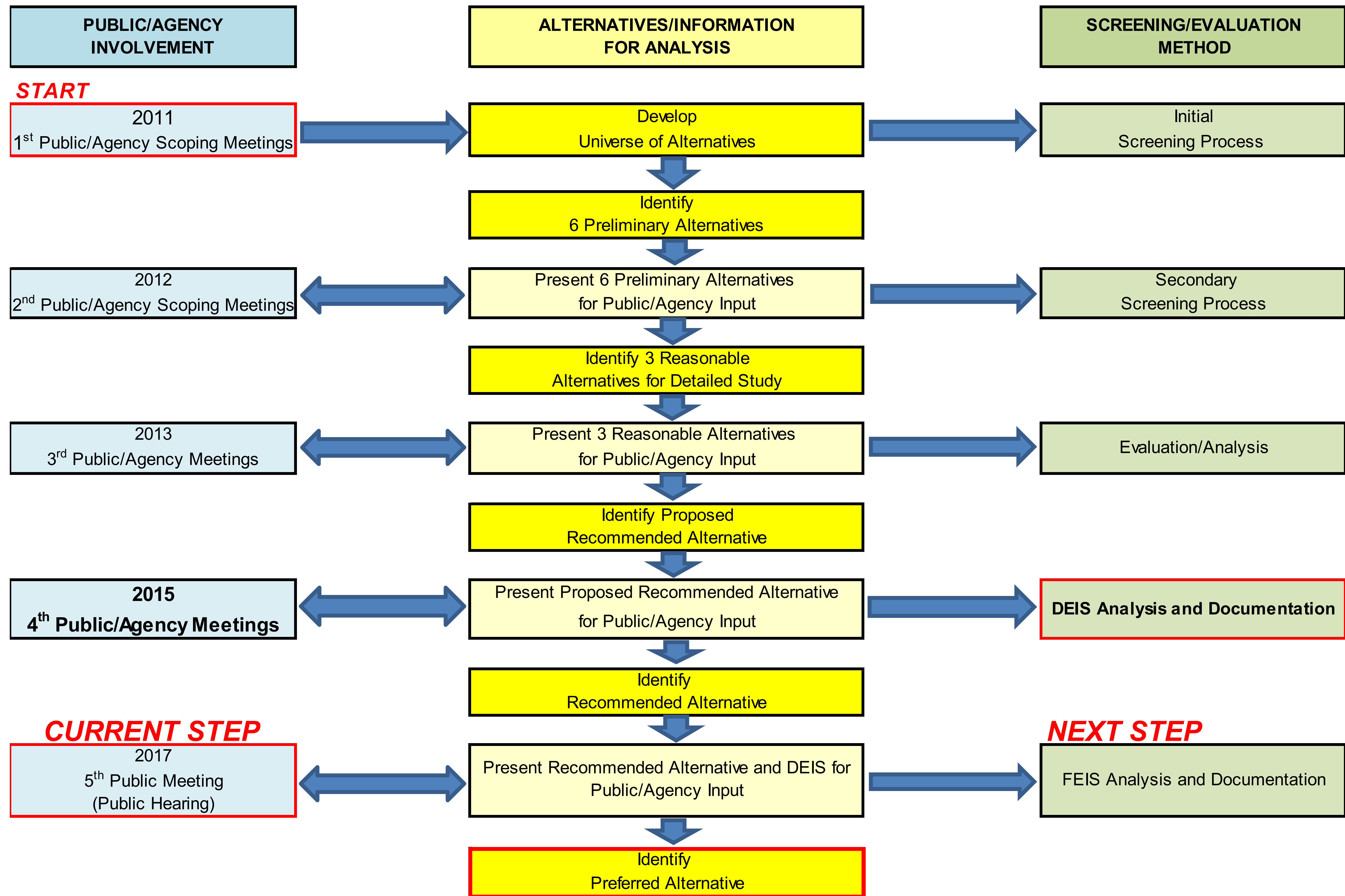


# Environmental Impact Statement (EIS) Process and Timeline





# Alternatives Screening Process



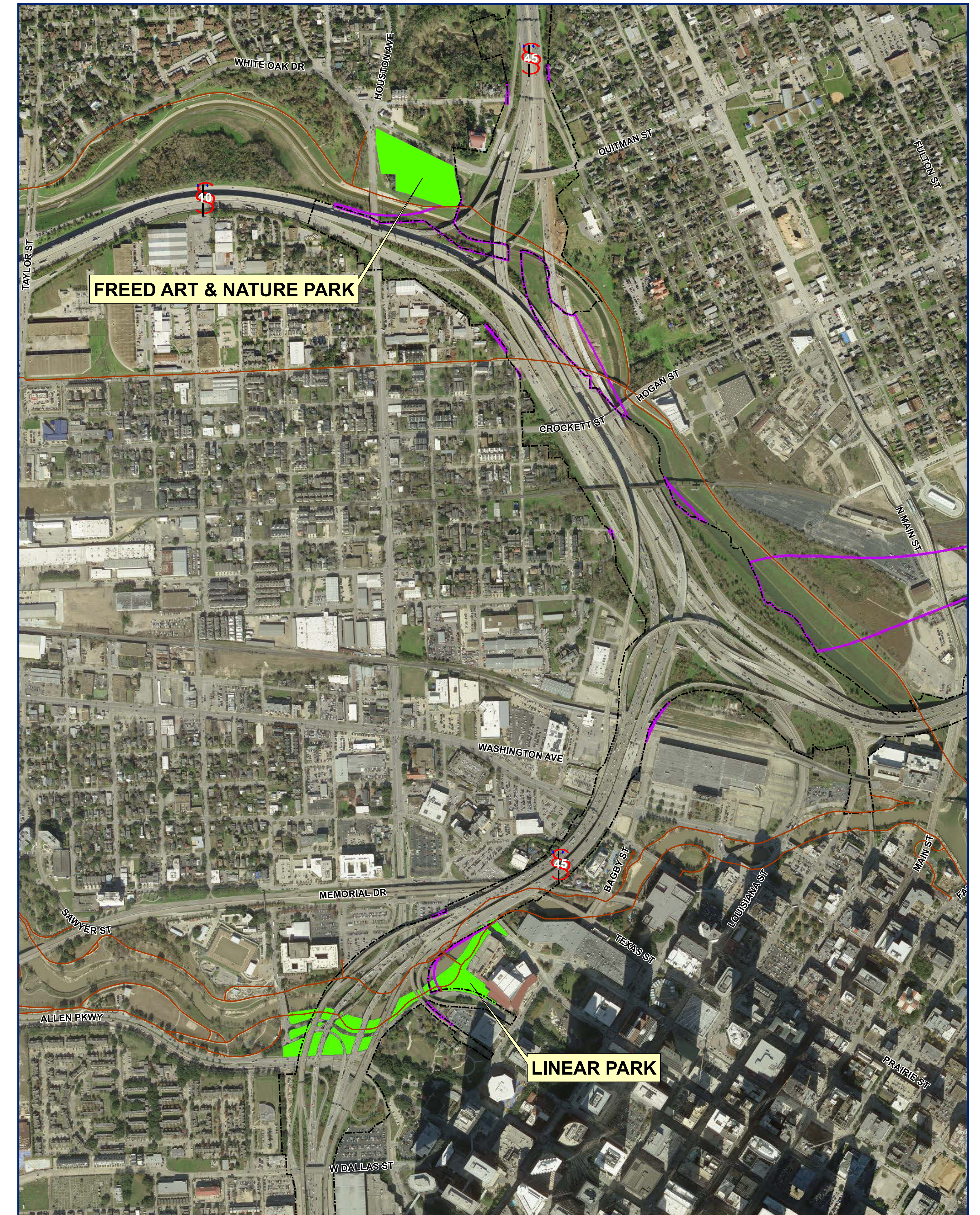
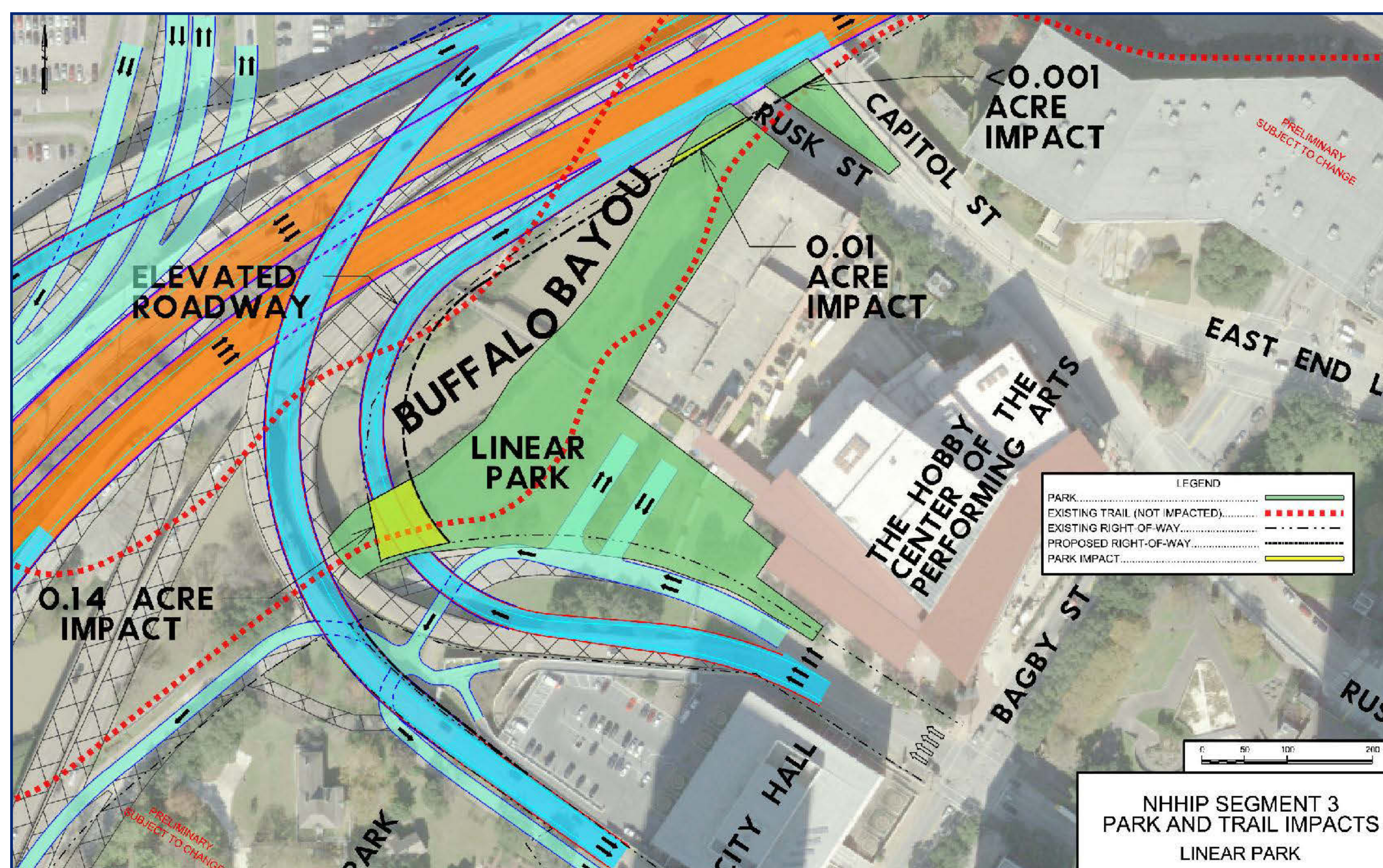
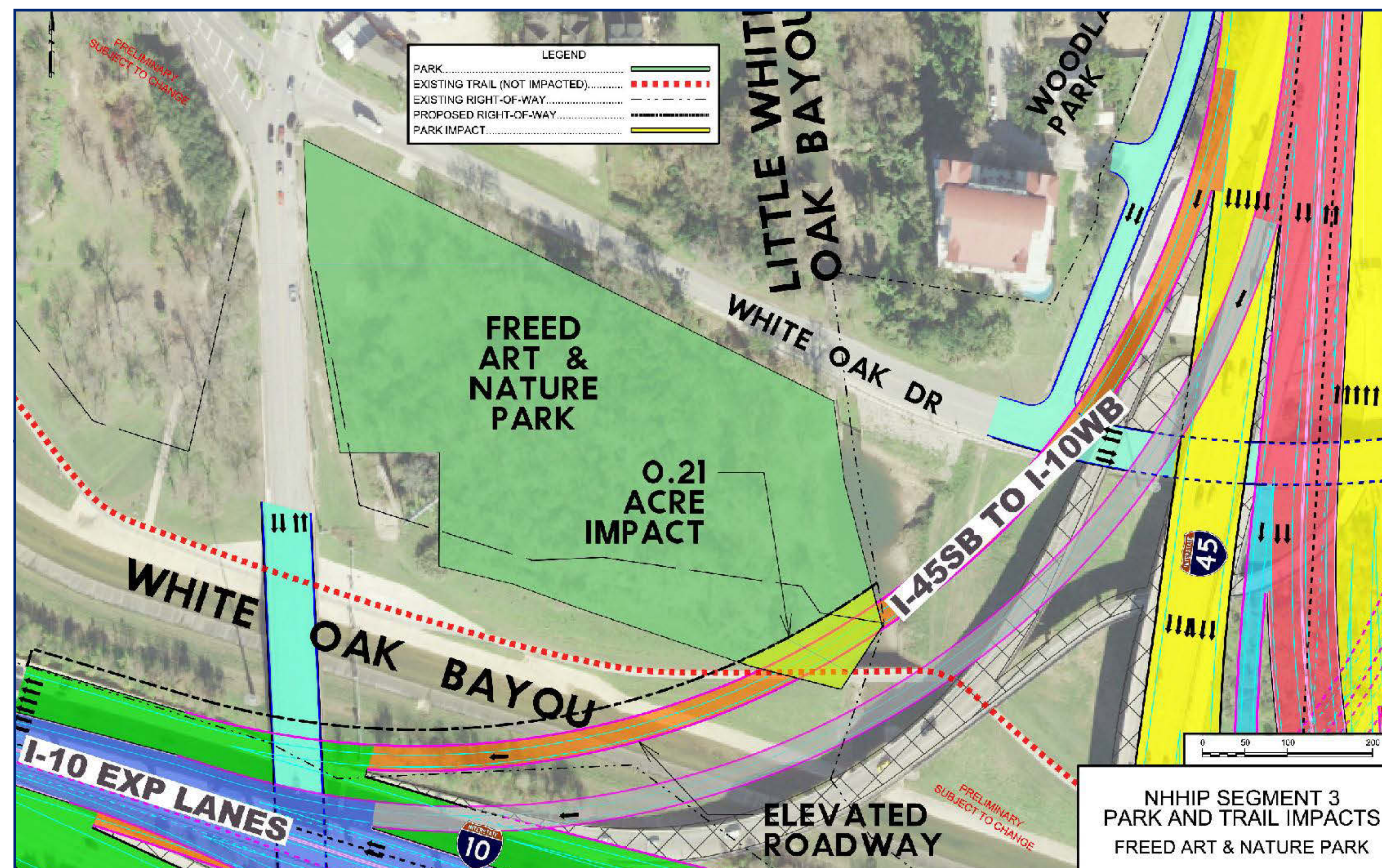


# Environmental Considerations

- " Land Use
- " Community Resources
- " Economic Conditions
- " Transportation Facilities
- " Air Quality
- " Noise
- " Water Resources
- " Floodplains / Drainage
- " Vegetation and Wildlife
- " Threatened & Endangered Species
- " Wetlands & Other Waters of the United States
- " Soils and Geology
- " Archeological Resources
- " Historical Resources
- " Hazardous Materials
- " Visual & Aesthetic Resources
- " Section 4(f) & Chapter 26
- " Greenhouse Gas Emissions & Climate Change
- " Indirect & Cumulative Impacts



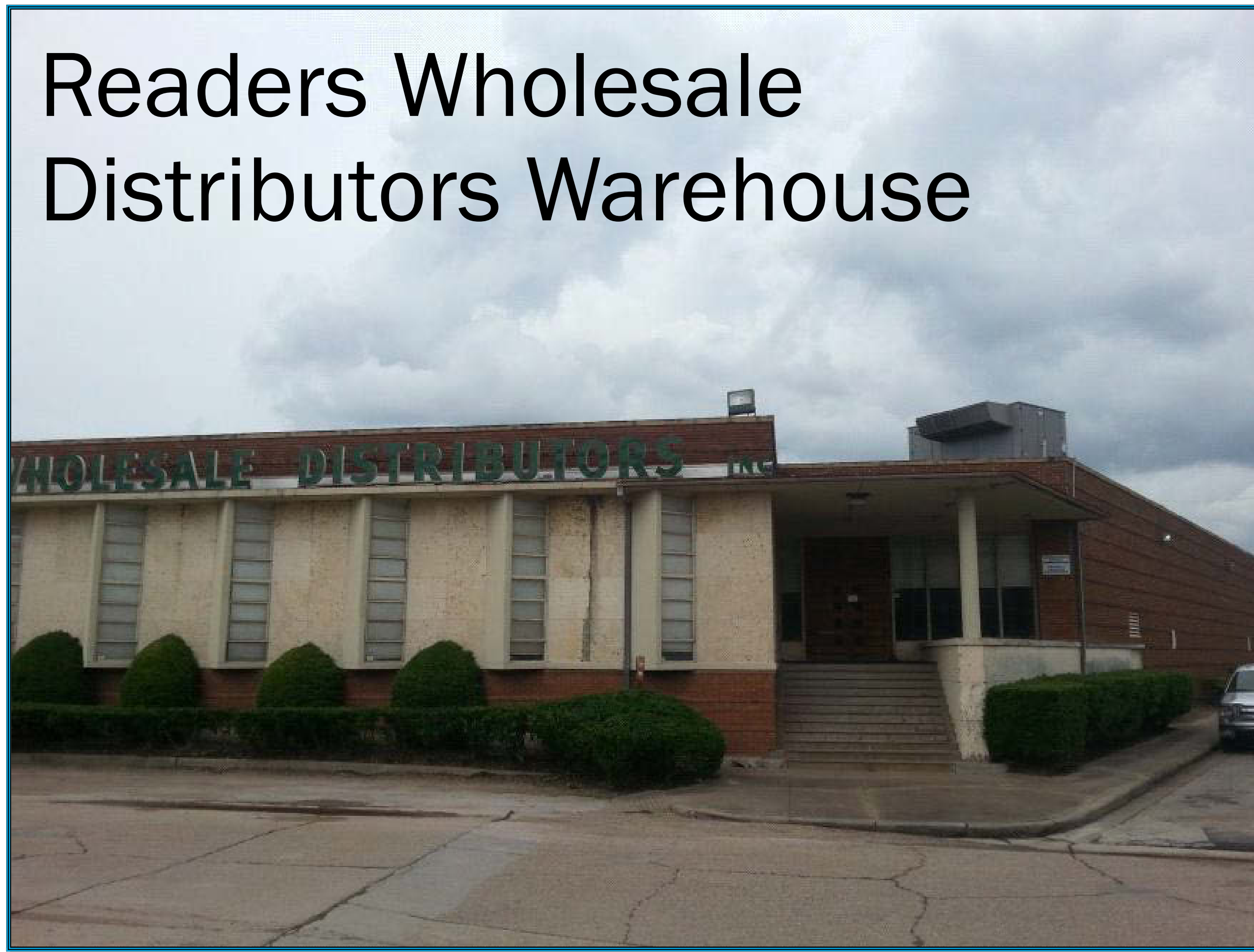
# Park Properties and Proposed Project Right-of-Way





# Potentially Adversely Affected Historic Resources

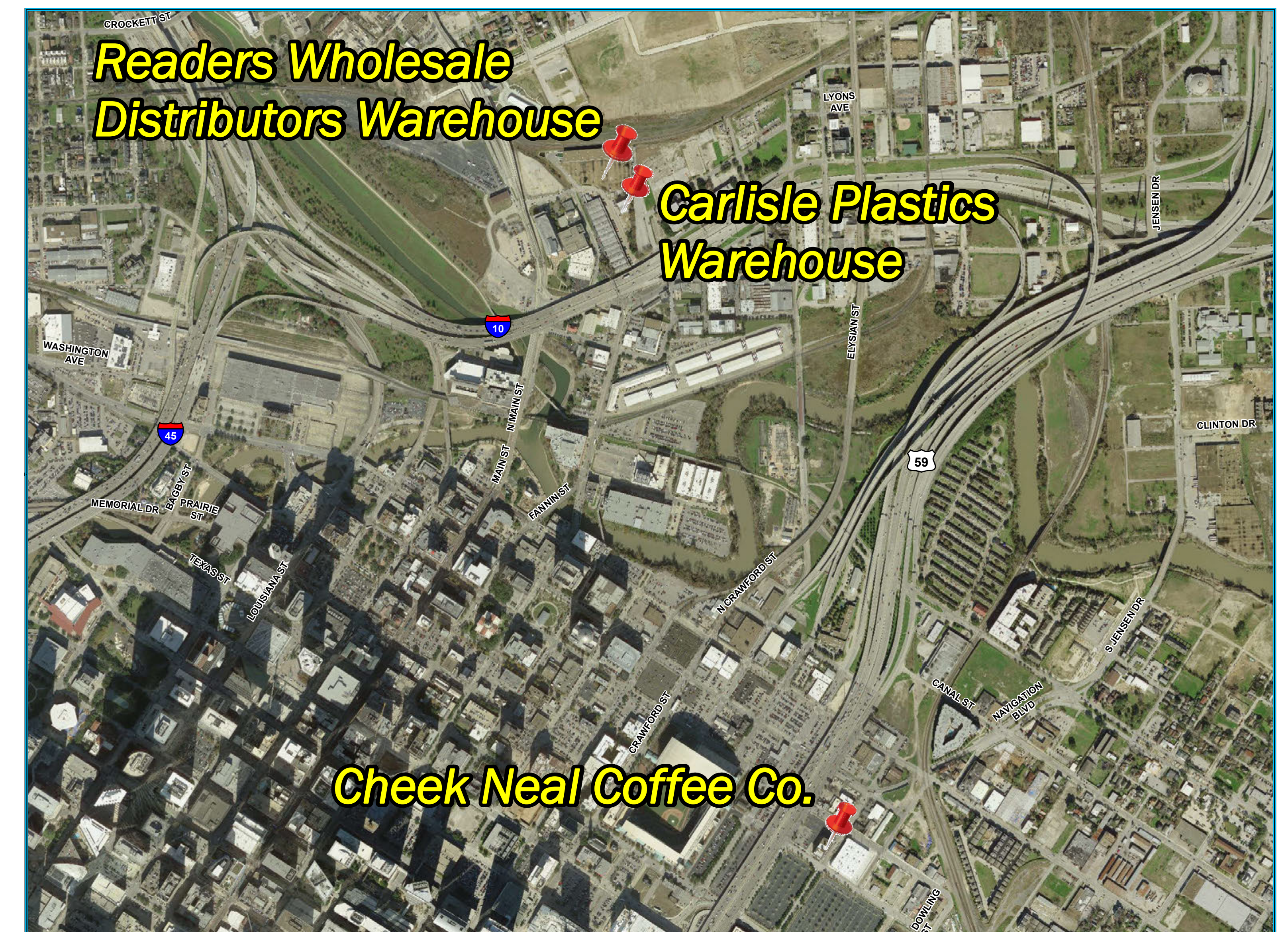
Readers Wholesale  
Distributors Warehouse



Carlisle Plastics Warehouse



Cheek Neal Coffee  
Company Building





SUMMARY OF IMPACTS OF THE PROPOSED RECOMMENDED ALTERNATIVES

SEGMENT 1	SEGMENT 2	SEGMENT 3
ALTERNATIVE 4 (PROPOSED RECOMMENDED)	ALTERNATIVE 10 (PROPOSED RECOMMENDED)	ALTERNATIVE 11 (PROPOSED RECOMMENDED)
LAND USE		
<ul style="list-style-type: none"><li>- Acquisition of 212 acres of land: commercial land use on west side of I-45; commercial, residential, and industrial land uses on east side of I-45</li><li>- Commercial development and planned industrial park in proposed right-of-way</li></ul>	<ul style="list-style-type: none"><li>- Acquisition of 19 acres of land</li><li>- No parks/open space land use directly impacted</li></ul>	<ul style="list-style-type: none"><li>- Acquisition of 160 acres of land</li><li>- Less than one acre of parks/open space land use directly impacted</li><li>- Hotel planned in the proposed right-of-way</li><li>- Reduced commercial parking areas on east side of US 59/I-69</li></ul>
DISPLACEMENTS		
<ul style="list-style-type: none"><li>- 58 Single-family residences</li><li>- 160 Multi-family residential units*</li><li>- 242 Businesses</li><li>- 23,066 Employees</li></ul>	<ul style="list-style-type: none"><li>- 63 Single-family residences</li><li>- 38 Multi-family residential units*</li><li>- 22 Businesses</li><li>- 367 Employees</li></ul>	<ul style="list-style-type: none"><li>- 47 Single-family residences</li><li>- 869 Multi-family residential units*</li><li>- 67 Businesses</li><li>- 1,440 Employees</li></ul>
COMMUNITY RESOURCES		
<ul style="list-style-type: none"><li>- Displacement of 3 places of worship</li><li>- Displacement of 2 schools/universities</li><li>- Displacement of medical care facilities</li></ul>	<ul style="list-style-type: none"><li>- Displacement of 1 place of worship</li><li>- The North Street Bridge that provides access across I-45 would be removed</li></ul>	<ul style="list-style-type: none"><li>- May affect University of Houston Downtown campus parking during construction</li><li>- Acquire land from Freed Art and Nature Park, Linear Park, and trails along White Oak and Buffalo Bayous</li><li>- Displacement of South Central police station</li><li>- Removal of Pierce Elevated would eliminate visual barrier between Downtown and Midtown and enhance connectivity between communities</li><li>- Proposed boulevard along Pierce Street would improve access to south Downtown streets from I-45</li></ul>
ENVIRONMENTAL JUSTICE		
<ul style="list-style-type: none"><li>- Disproportionate high and adverse impacts to minority or low-income populations</li></ul>		
TRANSPORTATION FACILITIES		
<ul style="list-style-type: none"><li>- No displacement of transportation facilities</li><li>- Displacement of bus stops could affect people that do not have access to automobiles or that are dependent on public transportation; no permanent affect to existing bus service routes</li></ul>	<ul style="list-style-type: none"><li>- No displacement of transportation facilities</li><li>- Displacement of bus stops could affect people that do not have access to automobiles or that are dependent on public transportation; no permanent affect to existing bus service routes</li></ul>	<ul style="list-style-type: none"><li>- A portion of the Wheeler Transit Center property is located within the proposed right-of-way; however, access to the transit center and light rail services would not be impacted</li><li>- Displacement of bus stops could affect people that do not have access to automobiles or that are dependent on public transportation; no permanent affect to existing bus service routes</li></ul>
ECONOMIC CONDITIONS		
<ul style="list-style-type: none"><li>- \$193,000 residential property tax loss</li><li>- \$6.0 million business property tax loss</li><li>- \$298,000 other property tax loss</li><li>- \$118.1 million in potential sales tax loss</li><li>- Loss of property tax revenue for 30 parcels within limited-purpose annexation area</li></ul>	<ul style="list-style-type: none"><li>- \$183,000 residential property tax loss</li><li>- \$263,000 business property tax loss</li><li>- \$54,000 other property tax loss</li><li>- \$550,000 of business sales tax loss</li></ul>	<ul style="list-style-type: none"><li>- \$789,000 residential property tax loss</li><li>- \$1.2 million business property tax loss</li><li>- \$1.0 million other property tax loss</li><li>- \$5.2 million potential sales tax loss</li></ul>
AIR QUALITY		
<ul style="list-style-type: none"><li>- Carbon monoxide (CO) concentrations not expected to exceed the national standard</li><li>- Project will meet conformity requirements prior to the environmental decision</li></ul>		
NOISE		
<ul style="list-style-type: none"><li>- Would result in traffic noise impacts. Traffic noise barriers could reduce noise in many locations</li></ul>		
WATER RESOURCES		
<ul style="list-style-type: none"><li>- Potential impacts to groundwater would be primarily related to storm water discharges from both construction and operation of the proposed project</li><li>- Construction of the proposed project would cause an increase in the overall area of impervious cover, resulting in minor increases in localized storm water runoff</li></ul>		

\*Multi-family units are located within apartment communities



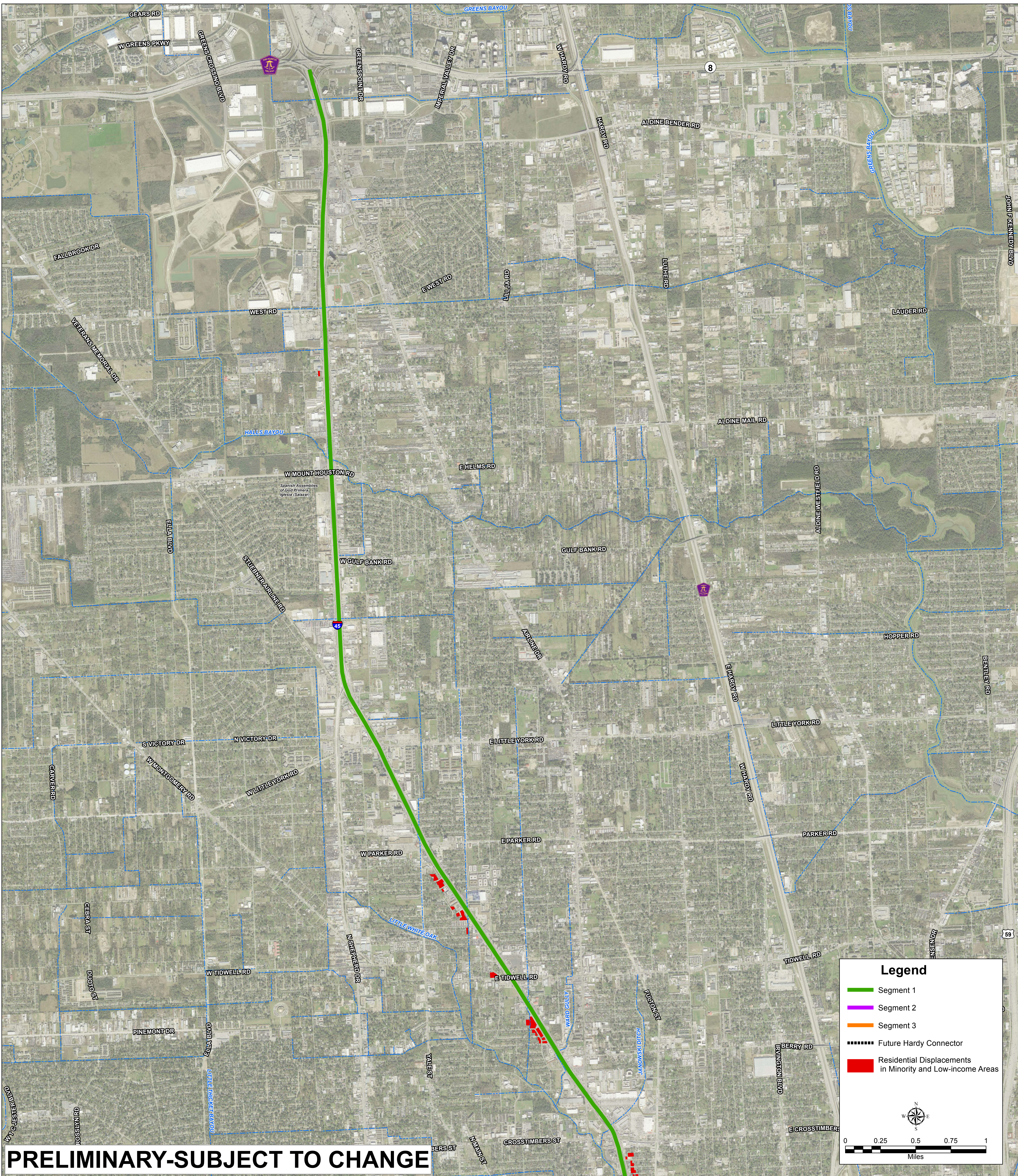
SUMMARY OF IMPACTS OF THE PROPOSED RECOMMENDED ALTERNATIVES

Segment 1	Segment 2	Segment 3
Alternative 4 (Proposed Recommended)	Alternative 10 (Proposed Recommended)	Alternative 11 (Proposed Recommended)
FLOODPLAINS		
<ul style="list-style-type: none"><li>- 93 acres of 100-year floodplain</li><li>- Project would be designed to not increase flood risk or existing floodplains</li></ul>	<ul style="list-style-type: none"><li>- 11 acres of 100-year floodplain</li><li>- Project would be designed to not increase flood risk or existing floodplains</li></ul>	<ul style="list-style-type: none"><li>- 37 acres of 100-year floodplain</li><li>- Project would be designed to not increase flood risk or existing floodplains</li></ul>
WETLANDS AND OTHER WATERS OF THE UNITED STATES		
<ul style="list-style-type: none"><li>- 1.22 acres of potentially jurisdictional waters</li><li>- 2,148 linear feet of streams</li></ul>	<ul style="list-style-type: none"><li>- 0.08 acre of potentially jurisdictional waters</li><li>- 270 linear feet of streams</li></ul>	<ul style="list-style-type: none"><li>- 6.65 acres of potentially jurisdictional waters</li><li>- 2,728 linear feet of streams</li></ul>
THREATENED AND ENDANGERED SPECIES		
<ul style="list-style-type: none"><li>- No impact to federally-listed species</li></ul>		
WILDLIFE AND VEGETATION		
<ul style="list-style-type: none"><li>- Project construction would remove herbaceous, shrub, tree, and other plantings through site preparation activities</li><li>- Construction impacts to wildlife would result from the removal of vegetation and structures that provide habitat</li><li>- Operation of the proposed project could impact wildlife from vehicle strikes because of the additional travel lanes and impervious cover</li></ul>		
SOILS AND GEOLOGY		
<ul style="list-style-type: none"><li>- Construction activities would unavoidably impact topography, soils, and geology. Exposure of some geologic units may result in erosion; however, erosion would be controlled or minimized through the use of proper construction techniques and the implementation of best management practices</li></ul>		
ARCHEOLOGICAL RESOURCES		
<ul style="list-style-type: none"><li>- 3 parcels within right-of-way classified as moderate probability areas; onsite surveys would be conducted when right-of-entry is granted by landowner</li></ul>	<ul style="list-style-type: none"><li>- No parcels within the right-of-way classified as moderate or high probability areas</li></ul>	<ul style="list-style-type: none"><li>- No archeological resources were identified. Additional onsite surveys would be performed for parcels within the right-of-way</li></ul>
HISTORICAL RESOURCES		
<ul style="list-style-type: none"><li>- No impacts to historic resources eligible for or listed on the National Register of Historic Places</li></ul>	<ul style="list-style-type: none"><li>- No impacts to historic resources eligible for or listed on the National Register of Historic Places</li></ul>	<ul style="list-style-type: none"><li>- Impact to 6 historic resources; based on initial analysis, effects to 4 of the 6 properties would be de minimis and effects to 2 of the properties would be adverse</li></ul>
HAZARDOUS MATERIALS		
<ul style="list-style-type: none"><li>- 34 sites considered moderate or high-risk</li><li>- Construction of the proposed NHHIP could include the demolition of building structures, some of which may contain asbestos materials</li><li>- Use and handling of hazardous materials associated with construction machinery and equipment would pose a minimal risk to the environment</li></ul>	<ul style="list-style-type: none"><li>- 1 site is considered moderate or high-risk</li><li>- Construction of the proposed NHHIP could include the demolition of building structures, some of which may contain asbestos materials</li><li>- Use and handling of hazardous materials associated with construction machinery and equipment would pose a minimal risk to the environment</li></ul>	<ul style="list-style-type: none"><li>- 11 sites considered moderate or high-risk</li><li>- Construction of the proposed NHHIP could include the demolition of building structures, some of which may contain asbestos materials</li><li>- Use and handling of hazardous materials associated with construction machinery and equipment would pose a minimal risk to the environment</li></ul>
VISUAL AND AESTHETIC RESOURCES		
<ul style="list-style-type: none"><li>- Generally compatible with the existing environment and does not degrade the visual quality of the area</li><li>- I-45 would remain at grade, similar to existing conditions</li></ul>	<ul style="list-style-type: none"><li>- Generally compatible with the existing environment and does not degrade the visual quality of the area</li><li>- Alternative provides opportunity to include a structural “cap” over the proposed depressed lanes of I-45 that could be used as open space**</li></ul>	<ul style="list-style-type: none"><li>- Removal of Pierce Elevated would improve the visual quality on the west and south side of Downtown</li><li>- Alternative provides opportunity to include a structural “cap” over the proposed depressed lanes of I-45 and US 59/I-69 from approximately Commerce Street to Lamar Street that could be used as open space**</li></ul>
SECTION 4(f) RESOURCES		
<ul style="list-style-type: none"><li>- No direct use (impact) or adverse changes to activities, features, or attributes of Section 4(f) resources</li></ul>	<ul style="list-style-type: none"><li>- No direct use (impact) or adverse changes to activities, features, or attributes of Section 4(f) resources</li></ul>	<ul style="list-style-type: none"><li>- Direct use (impact) of 2 parks; no adverse changes to activities, features, or attributes of the parks</li><li>- Direct use (impact) of 6 historic resources; based on initial analysis, effects to 4 of the 6 properties would be de minimis and effects to 2 of the properties would be adverse</li></ul>
CHAPTER 26 RESOURCES		
<ul style="list-style-type: none"><li>- No impact or adverse changes to park resources protected under Chapter 26 of the Parks and Wildlife Code</li></ul>	<ul style="list-style-type: none"><li>- No impact or adverse changes to park resources protected under Chapter 26 of the Parks and Wildlife Code</li></ul>	<ul style="list-style-type: none"><li>- Impact to 2 parks resources protected under Chapter 26 of the Parks and Wildlife Code; no adverse changes to activities, features, or attributes of the parks</li></ul>

\*\* The open space option is conceptual only and would be separate from TxDOT’s roadway project; any open space would require development and funding by parties other than TxDOT.



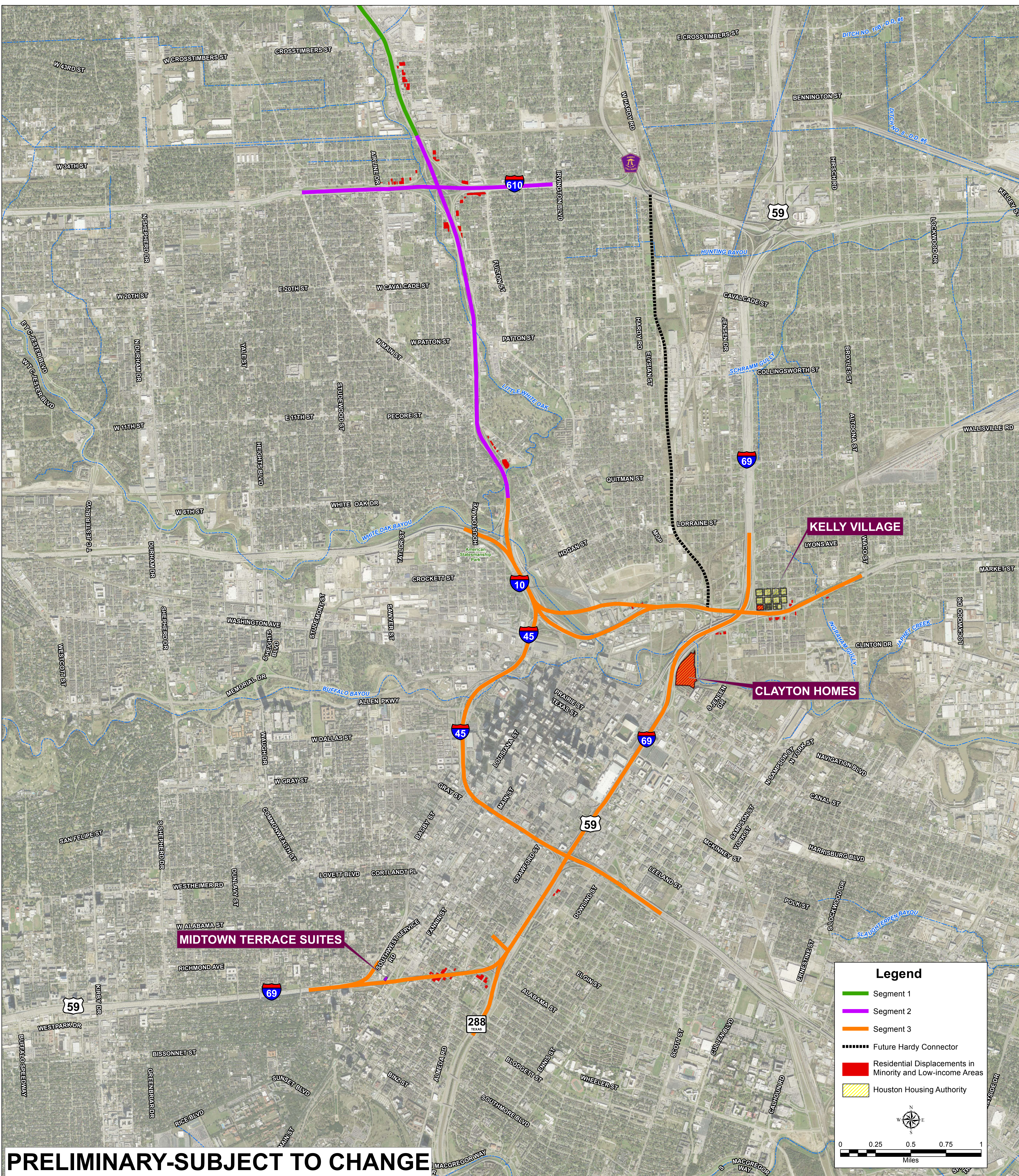
# Residential Displacements in Minority and Low-Income Areas



## From Beltway 8 to Crosstimbers Street



# Residential Displacements in Minority and Low-Income Areas



## From Crosstimbers Street to South of Downtown





The environmental review, consultation, and other actions required by applicable Federal environmental laws for this project are being, or have been, carried-out by TxDOT pursuant to 23 U.S.C. 327 and a Memorandum of Understanding dated December 16, 2014, and executed by FHWA and TxDOT.



# Project Team



Lead Agency

**AECOM**

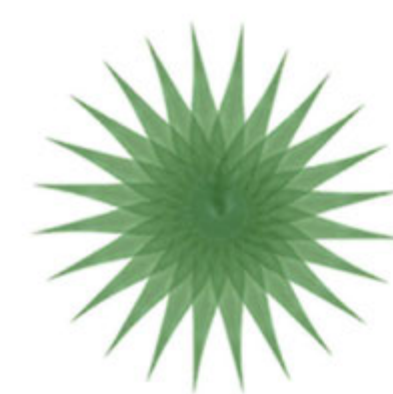
Environmental

**HNTB**

Design Engineering



Traffic Engineering



COX | McLAIN  
Environmental Consulting

EIS Support

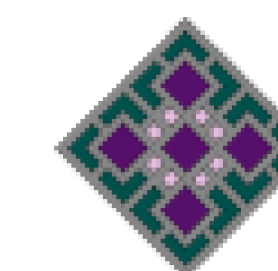


EIS Support



EIS Support

THE  
LENTZ  
GROUP



Public Involvement