



TEXAS DEPARTMENT OF TRANSPORTATION



## GALVESTON COUNTY TRANSPORTATION SUMMIT

Houston District Major Projects



September 1, 2016

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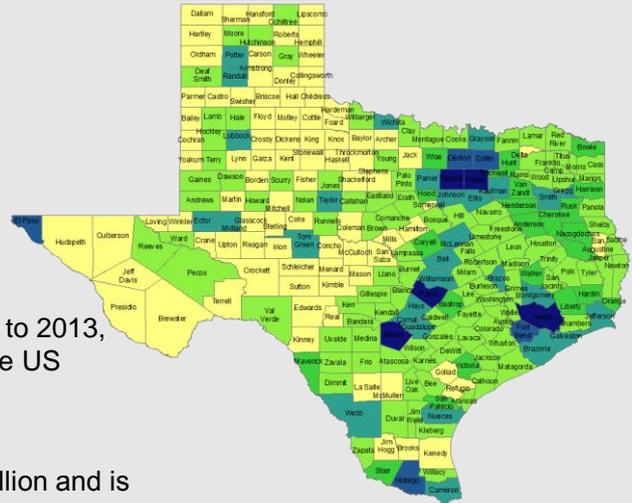
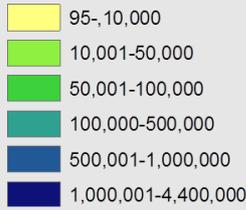
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Houston Area Major Projects – Eliza Paul, P.E. Deputy District Engineer

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Alternative Delivery Projects – Varuna Singh, P.E. Director

## Population Growth in Texas



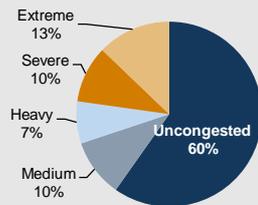
(Populations by County, 2013)

- Texas added 1.3 million people from 2010 to 2013, more than any other state, according to the US Census Bureau.
- Texas's population has pushed past 26 million and is projected to reach 40 million by 2050.

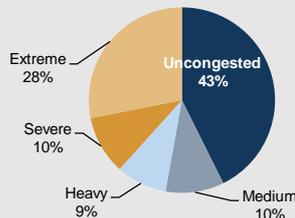
## Congestion Growth in Texas

### Levels of congestion on freeways and major roads

**2008**  
475 Million VMT/Yr



**2035**  
840 Million VMT/Yr



- Each year, congestion costs Texans:
  - 472 million extra hours of travel time
  - \$10.1 billion in delay and fuel costs
  - \$2.1 billion in truck freight moving costs
- Texas cities have highest levels of congestion in nation:
  - # 6 – Houston
  - # 13 – Dallas/Fort Worth
  - #17 – Austin
- By 2035, Texas will add 5 million new residents

Source: Texas Transportation Institute's "2012 Urban Mobility Report"

# MAJOR PROJECTS UPDATE

## I-610/U.S. 290 Construction

1964



2009



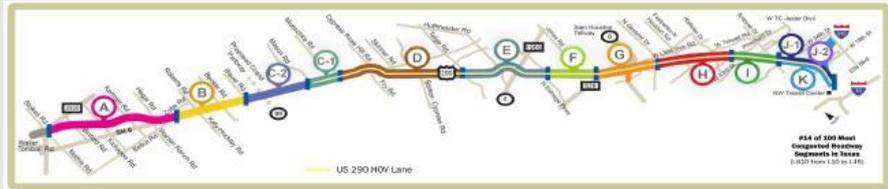
2014



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## US 290 Program

- Reconstruction & widening of 38 miles
  - 250,000 vehicles a day, 3 segments on 100 Most Congested list
- 13 active projects
- \$1.1B under construction
- Completion 2017/2018
- TxDOT proceeding with additional general purpose lanes & single HOV/HOT lane configuration
- Revised memorandum of understanding with Harris County
  - \$200M financial contribution
  - TxDOT sole owner, operator and maintainer of facility



	A	B	C-2	C-1	D	E	F	G	H	I	J-1	J-2	K
<b>Project Limits</b>	FM 2920 to Badtke Rd	Badtke Rd to Bauer	Bauer Rd to Mason Rd	Mason Rd to Mueschke Rd	Mueschke Rd to Tejeda Rd	Tejeda Rd to Eldridge Pkwy	Eldridge Pkwy to FM 529	FM 529 to W. Little York	W. Little York to Pinemont	Pinemont to W. 34th St	US 290 IH 610	US 290 IH 610	US 290 IH 610
<b>Letting</b>	June 2015	May 2015	May 2015	2014	2015	2015	2015	2012	2015	2015	2012	2013	2011
<b>Contract Amount</b>	\$60m	\$35m	\$37m	\$49m	\$55m	\$155m	\$58m	\$110m	\$153m	\$143m	\$107m	\$152m	\$151m
<b>Contract Award</b>	June 2015	May 2015	May 2015	July 2014	November 2015	April 2015	March 2015	September 2012	April 2015	May 2013	October 2012	November 2013	May 2011
<b>Contractor</b>	Williams Brothers Construction Co., Inc.	V.V. Webber, LLC	V.V. Webber, LLC	V.V. Webber, LLC	OHL USA	Williams Brothers Construction Co., Inc.	Williams Brothers Construction Co., Inc.	Williams Brothers Construction Co., Inc.					
<b>% Complete</b>	33%	51%	39%	50%	63%	52%	53%	73%	28%	47%	74%	39%	54%

## US 59/I-69 Corridor Status

- State-wide effort to construct and designate I-69 throughout Texas
  - More than **153 miles** of the Interstate 69 route in Texas are already at freeway standard and about 100 more miles are near freeway standard
- I-69 designation for US 59 throughout Houston District
  - Total of 75 miles through Fort Bend, Harris & Montgomery Counties
- Widening of US 59 in Fort Bend County underway from FM 762 to Spur 10
  - \$135 Million
  - Construction completion: 2018
- Recently let projects from SPUR 10 to Wharton County Line



## I-45: SPUR 5 to I-69/US 59

### Reconfigure Northbound Connector

- Reconfigures existing Elevated Downtown Connector to become the I-69/US 59 Connector
  - Eliminates Left-Hand Exit
  - Improves Mobility
  - Reduces Congestion
- Recently let for Construction
- \$28.5 Construction Contract
  - Anticipated Completion – Summer 2017



## I-45 at I-610 South Loop Connectors

### Direct Connector Construction

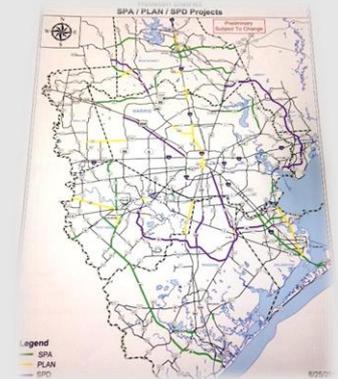
- Constructs the “Missing” connectors at the I-45/I-610 South Loop Interchange
  - I-610 Eastbound to I-45 Northbound
  - I-45 Southbound to I-610 Westbound
- Improves Operational Efficiency of the Interchange
- Recently Let for Construction
- \$73 Million Construction Contract
- Anticipated Completion – Winter 2017



# FUTURE MAJOR PROJECTS

## Key Projects In Development

- Full development authority to work on **over 80 unfunded projects totaling over \$2.5 billion**
  - 8 State Highways, 4-Interstate Highways, 3- US Highways, and 16 Farm to Markets.
    - Including IH 45 South, SH 36 South, & IH 10 West
- Over **46 Planning Projects** (Schematic and Environmental) underway **totaling over \$6.6 B**
  - 3-interstates, 8-State Highways, 2- US Highways and 7-Farm to Markets.
- **NEPA Projects**
  - 13 Environmental Impact Statements (EISs)
  - 87 Environmental Assessments (EAs)
  - 318 Categorical Exclusions (CEs)



## I-610 West Loop/I-69 Interchange

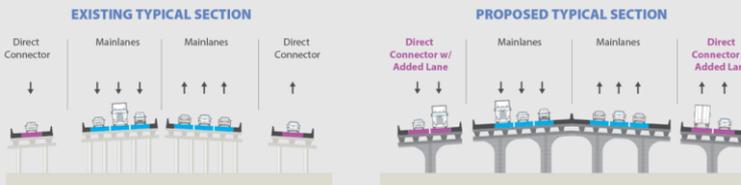
Reconstructs IH 610/IH 69 interchange in the Uptown Houston area  
 - Two highly congested corridors

Proposed Project:

- Reduces weaving maneuvers
- Replaces one-lane connector ramps with two-lane connector ramps
- Increases vertical clearances
- Reconstructs the IH 610 main lane bridge

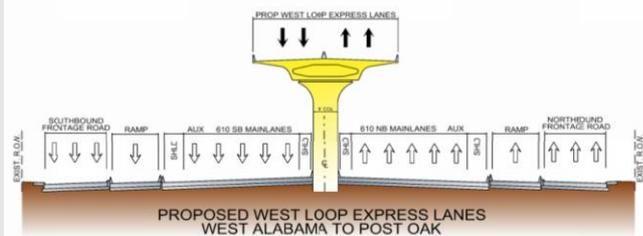
Ready to Let – **Summer 2017**

Estimated Cost - \$310 M



## I-610/West Loop Express Lanes

- I-610 West Loop is #1 Most Congested Highway in Texas
- Proposed Four elevated Express Lanes
  - From I-69 to I-10
- Construction Cost Estimate \$310M



## I-10 West

### I-10 from FM 3538 to FM 359 (15 miles)

- Sealy to Brookshire
- Two TxDOT Districts – Yoakum and Houston
- Reconstruct & widen the existing facility from **four to six lanes**
- Convert existing two-way frontage roads to one-way
- Total project cost \$568 million
- First section from **FM 359 to Brazos River**
  - Ready to let – **Summer 2017**

### Purpose and Need

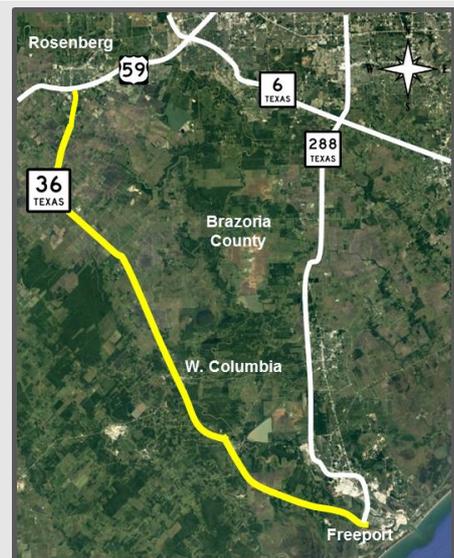
- Reduce congestion and improve mobility
- Facilitate freight movement by increasing vertical clearances
- Facilitate hurricane evacuation
- Improve safety by upgrading to current standards and eliminating two-way frontage roads



## SH 36 Corridor

### Reconstruct and Widen to Four Main Lanes

- Hurricane Evacuation Route
- Freight corridor between Rosenberg and Freeport
- Right-of-way Acquisition On-Going
- Detailed Design underway
- FM 2218 to SH 35 in West Columbia (\$143 Million)
  - Anticipated Letting – 2018
- West Columbia to Freeport (\$142 Million)
  - Anticipated Letting – 2022



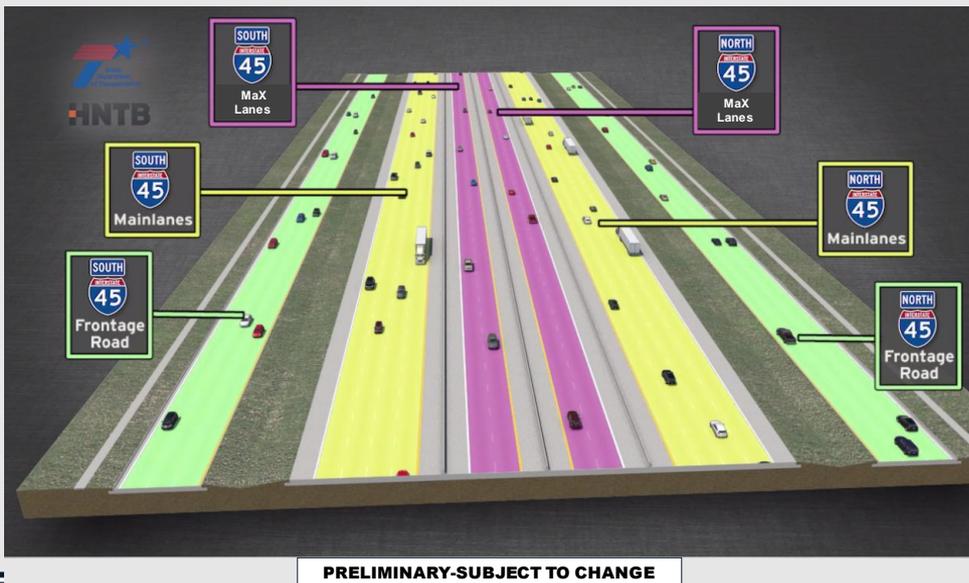
# I-45 - North Houston Highway Improvement Project

IH 45 from BW 8 North to the Downtown Loop System

- Divided into 3 Segments
  - Segment 1: BW 8 to IH 610 (9 miles)
  - Segment 2: IH 610 to IH 10 (3 miles)
  - Segment 3: The Downtown Loop System (12.3 miles)
- Provides a facility with additional capacity by incorporating transit opportunities, travel demand management strategies, and flexible operations
- Currently preparing an Environmental Impact Statement (EIS)

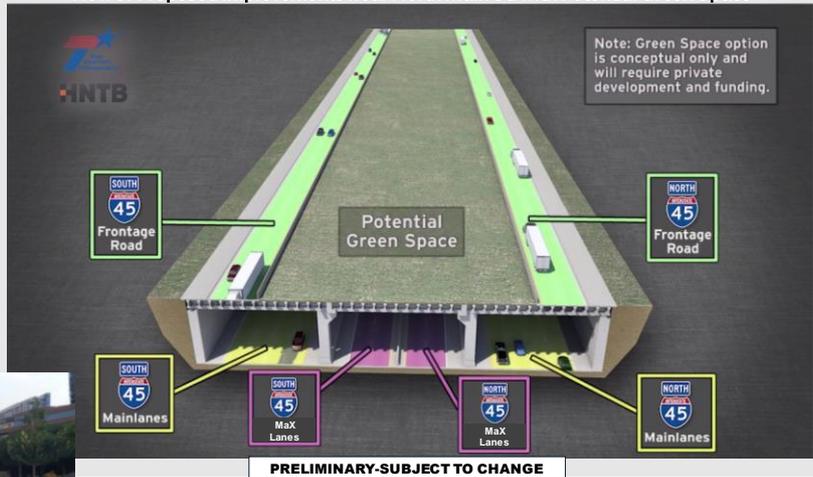


## Segment 1 Recommended Alternative



# I-45 - North Houston Highway Project

View of Proposed Improvements near North Main St. with Potential Green Space



## Downtown Traffic Analysis

Proposed Recommended Alternative Compared to the No-Build Alternative (AM Peak)

Reduction in Delay	Increase in Systemwide Speed	Increase in Downtown Access
20%	35% <b>24+ MPH</b>	15%

The improvements in the Proposed Recommended Alternative result in a systemwide speed increase that directly improves the flow on all surrounding freeways - a significant, positive improvement to the region's air quality.

PRELIMINARY-SUBJECT TO CHANGE



## Grand Parkway (SH 99) Overview – approx. 180 miles



- **Segment D - 18 miles**
  - TxDOT Existing Frontage O&M
  - FBCTRA Toll Overpasses
- **Segment E - 15 miles**
  - TxDOT Operational January 2014
- **Segments F & G - 38 miles**
  - TxDOT Operational February-March 2016
- **Segments H & I - 52 miles**
  - TxDOT Active Design-Build Procurement Phase
- **Segment C - 27 miles**
  - Preliminary Design
  - FBCTRA / BCTRA primacy
- **Segment B - 28 miles**
  - EIS Stage
  - BCTRA / Galveston primacy

## Grand Parkway Segments F-1, F-2 & G: Project Overview

- CDA – Design-Build with CMA Delivery Model
- 38 mile new location four lanes toll road (2 lanes in each direction) with discontinuous frontage roads
- From US 290 to I-69N/US 59N
- Interchanges at US 290, I-45, and I-69N/US 59N
- In Harris and Montgomery Counties
- \$1.04 Billion Design-Build Contract with Zachry-Odebrecht Parkway Builders



## Grand Parkway Segments F-1, F-2 & G: Project Overview

- Design-Build Contract Executed on March 22, 2013
- ROW acquisition: 433 Total Parcels, 100% released for construction
- Construction began in June 2013
- Overall construction completion at 98.6% through late February 2016
- Substantial completion
  - F-1: achieved on February 2, 2016
  - F-2: achieved on February 5, 2016
  - G: achieved on March 29, 2016



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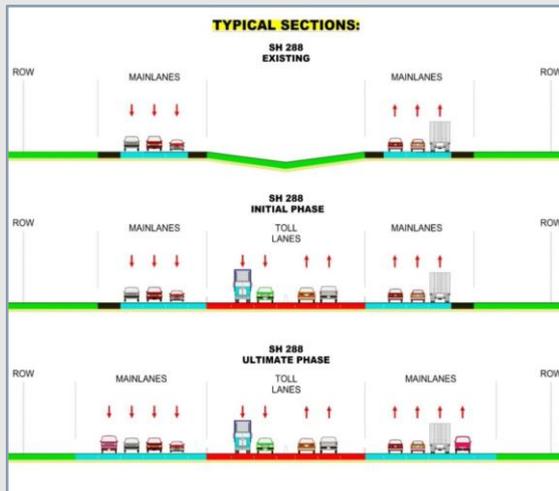
## SH 288 TxDOT Project Overview



### TxDOT Project:

- Limits: SH 288 Toll Lanes in **Harris County**, 10.3 miles from the Harris/Brazoria County Line to US59/I-69
- Project scope includes:
  - A toll **concession**, under a CDA for a 52 year term
  - 4 tolled lanes (2 each direction) within existing SH 288 median
  - 2 tolled direct connectors to Holcombe Boulevard near the Texas Medical Center (inbound and outbound)
  - **Innovative ATC**: Reconstruction of all 8 direct connectors at I-610 with added access to toll lanes
  - Addition of 8 new tolled direct connectors at Beltway 8
  - Developer to operate and maintain facility from ROW to ROW, including general purpose/free lanes

## SH 288 TxDOT Project Overview



- **Capital costs: \$815.5 million**
- **Funding:**
  - Public Funds by TxDOT: \$17.1 million
  - Developer Equity, TIFIA loan and Private Activity Bonds: \$798.4 million
- **Disadvantage Business Enterprise Participation goal is 12%**
- **Project must accommodate the ultimate configuration which includes:**
  - Improvements to IH 610 from west of Cambridge to Scott Street
  - One additional General Purpose Lane on SH 288 in each direction from IH 610 to Beltway 8
- **Commercial and Financial Close Spring 2016**
- **Construction to begin late 2016**
- **Open to Traffic by Mid 2019**

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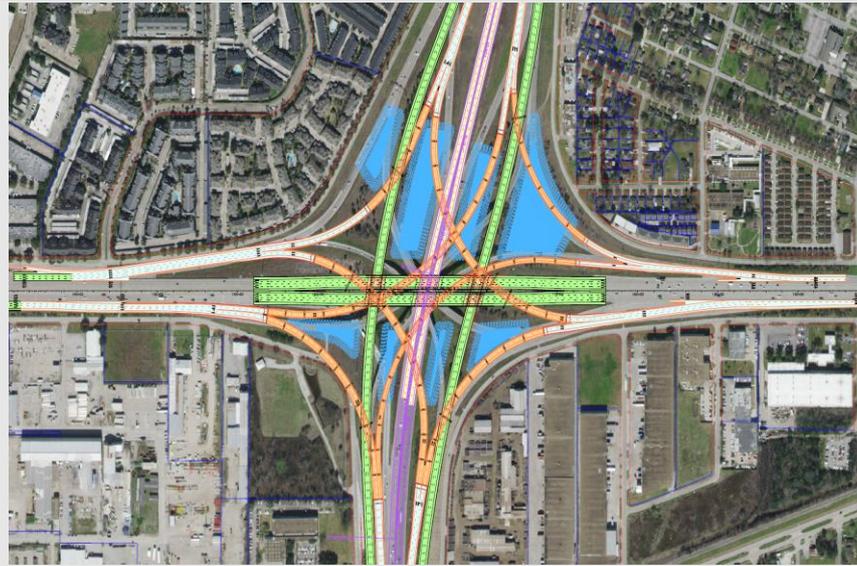
## Direct access to/from Texas Medical Center



- **Provide direct access to TMC via Holcombe Blvd – from northbound toll lanes**
- **Provide direct access from TMC via Holcombe Blvd to southbound toll lanes**

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## Interchange at SH 288 and I-610



- Reconstructing entire interchange
- Challenging bridge demolition
- Excavating ponds – over 1 million cubic yard of dirt removed
- Allows I-610 traffic to directly access SH 288 toll lanes

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## Interchange at SH 288 and Beltway 8



- Construct 8 new direct connect ramps
- Provides direct access between SH 288 toll lanes and Beltway 8
- Over 5.5 miles of bridges with this improvement
- Coordination with adjacent HCTRA Beltway 8 Project widening
- Existing movements between the frontage roads of SH 288 and Beltway 8 will be retained

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## SH 288 Project Team

**Owner:** TxDOT

**Developer:** Blueridge Transportation Group (BTG) - 6 Equity Owners

- ACS Servicios y Concesiones, S.L.
- InfraRed Capital Partners Ltd.
- Shikun & Binui Concessions USA, Inc.
- Northleaf Capital Partners
- Clal Insurance Company Ltd.
- Star America Infrastructure Fund

**Lead Contractor:** Almeda-Genoa Constructor (A-GC)

- Dragados USA, Inc
- Pulice Construction, Inc
- Shikun & Binui America

**Lead Engineering Firm:** Stantec (formerly KBR Infrastructure)

**Lead Operation and Maintenance Firm:** Roy Jorgenson Co.



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## SH 288 Brazoria County Project Overview



**Brazoria County Toll Road Authority (BCTRA) Project:**

- 5 miles from Harris/Brazoria County line to CR 58/Croix Rd
- Project Scope:
  - 4 tolled lanes (2 each direction) within existing SH 288 Median
  - Hughes Ranch Road T-ramp access to and from toll lanes
  - Braided entrance and exits to SH 288 frontage road North of FM 518
  - Slip ramps between general purpose lanes and toll lanes south of FM 518 and CR 58/Croix Rd
  - Approximately construction cost: \$115 million
- Toll lane operation and maintenance by BCTRA
- Design-Bid-Build Delivery
- Start of construction is expected 6 months after start of construction of TxDOT Project
- End of construction is expected at the same time or after end construction of TxDOT Project

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## Grand Parkway (SH 99) Segments H & I: Project Overview



### – Segments H and I-1

- Proposed 2 to 4 Toll Lanes, 37.5 miles, I-69N/US 59N to I-10E
- Interchanges at I-69/US 59, US 90, and I-10E

### – Segment I-2

- Existing (I-2A): Four Toll Lanes, 8.7 miles, I-10E to FM 1405
- Proposed Toll Lanes (I-2B): Four Toll Lanes, 6.5 miles, FM 1405 to SH 146

– TxDOT Districts – Beaumont and Houston

– Harris, Montgomery, Liberty and Chambers Counties

– Design and Construction Cost of \$825 million

## Grand Parkway (SH 99) Segments H & I: Project Overview

### Short-Listed Proposers

- RFQ issued on July 31, 2014
- RFQ responses received September 30, 2014
- 3 teams short-listed on October 30, 2014:

#### 1. ZOTPB:

- Zachry – Odebrecht – Traylor Parkway Builders

#### 2. FBW:

- Fluor – Balfour Beatty – Williams Brothers

#### 3. Grand Parkway Infrastructure (GPI):

- Ferrovial – Webber - Granite

### Procurement Phase

- Final RFP issued April 30, 2015
- Addendum #1 thru 5 issued between June 25, 2015 and October 22, 2015
- Proposals received on October 27, 2015
- DRAFT Addendum #6 associated Best and Final Offer issued June 16, 2016
- FINAL Addendum #6 associated Best and Final Offer issued August 12, 2016
- Best and Final Offer Proposals anticipated to be due September 2016
- Conditional Award anticipated in November 2016

### Implementation Schedule

- Contract Execution anticipated in Q1 of CY17
- Notice to Proceed 1 (develop Project Schedule and PMP) anticipated in Q1 of CY17
- Notice To Proceed 2 (design and construction) anticipated in Q2 of CY17

Target Open to Traffic Q3 2021



## SH 249 Project Overview

### Short-Listed Proposers

- RFQ issued May 15, 2015
- RFQ responses received July 17, 2015
- 5 Teams short-listed on August 27, 2015:
  1. Webber – Ferrovial
  2. Zachry
  3. McCarthy – James Construction (*withdrawn*)
  4. Williams Brothers
  5. Granite – Texas Sterling (*withdrawn*)

### Procurement Phase

- First Draft Request for Proposals issued January 15, 2016
- Second Draft Request for Proposals issued June 10, 2016
- Final RFP anticipated to be issued in August 2016
- ATCs submittal and review anticipated in September 2016
- Proposals due in Q4 of CY16
- Conditional Award in Q1 of CY17

### Implementation Phase

- Contract Execution in Q2 of CY17
- NTP1 in Q2 of CY17
- NTP2 in Q3 of CY17
- Begin Construction in Q3 of CY17

Target Open to Traffic: Segment 1A in Q2 of 2019, Segments 1B and 2 in Q4 of 2020

