

What the Future Holds for TxDOT Houston

American Society of Highway Engineers - Houston

James W. Koch, P.E.

**Houston District Director of Transportation Planning and
Development**

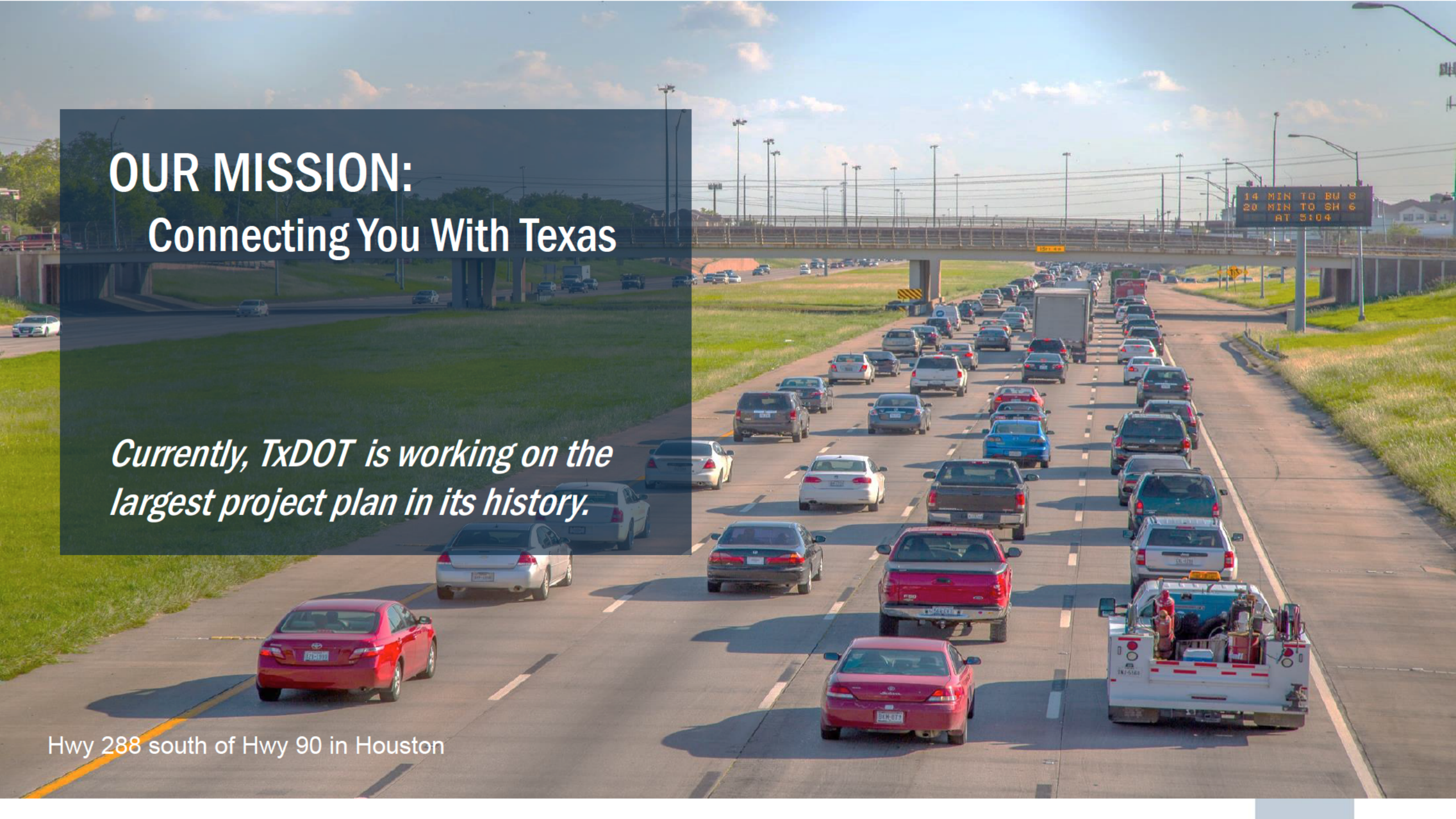
June 18, 2020

OUR MISSION: Connecting You With Texas

Currently, TxDOT is working on the largest project plan in its history.

Hwy 288 south of Hwy 90 in Houston

14 MIN TO BU 8
20 MIN TO SH 6
AT 5:04

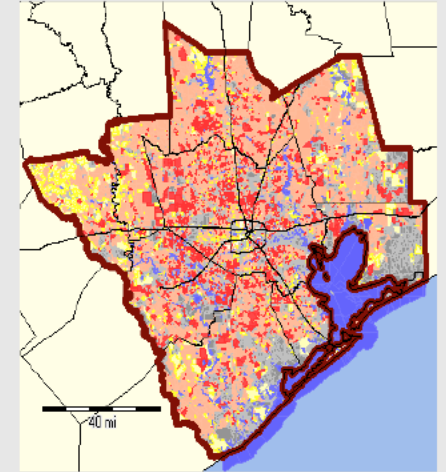


THE HOUSTON DISTRICT

DID YOU KNOW?



- The population in the Houston-Galveston region rose from approximately 3.1 million residents in 1980 to about 6.8 million in 2018 – an increase of nearly one million residents per decade.
- Similarly, employment in the region grew by about half a million new jobs between 2010 and 2015, indicative of a strong and diverse economy. This growth trend is expected to continue.
- By 2045, the region will be home to about 10.7 million people and will support up to 4.8 million jobs.
- Houston is the second fastest-growing major city in the United States, falling just short of New York City, and is poised soon to overtake Chicago and become the third largest city in the country.



**Stats from the H-GAC and www.tripsavvy.com*



HOUSTON TRANSTAR

- State of Texas (TxDOT)
- Harris County
- City of Houston
- Metropolitan Transit Authority of Harris County



TranStar's traffic management activities have helped reduce the public's travel times and fuel consumption

- \$6.5 billion saved since the program's inception in 1997), and has lowered exhaust emissions (hydrocarbons, carbon monoxide and nitrogen oxides).
- In 2018, the savings in travel time lowered fuel consumption by 35.6 million gallons.
- Real-Time Traffic Map gives an instant view of current traffic conditions, 24/7 at www.houstontranstar.org.



REGIONAL PRIORITIES IN THE HOUSTON DISTRICT



- 1 US 290 Corridor
- 2 Proposed Hempstead Lanes
- 3 SH 99/Grand Parkway (Segments A-I2)
- 4 I-45 North Freeway Corridor
- 5 SH 288 Corridor
- 6 US 59/I69 Southwest Freeway (Harris County)
- 7 US 59/I-69/Southwest Freeway (Fort Bend County)
- 8 I-610 West Loop (including I-69 Interchange)
- 9 SH 249 Corridor
- 10 I-10 West (SH 6 – Brazos River)
- 11 Proposed SH 35 Corridor (Harris/Brazoria Counties)



WHERE TO FIND PROJECT INFORMATION



- The 2020 UTP contains thousands of planned transportation projects in various stages of development
- TxDOT publishes a subset of these projects in the annual UTP document (717 projects funded in Categories 2, 4, 12, and 10-CBI)
- Projects in all 12 UTP categories can be found on Project Tracker, TxDOT's online project reporting system and interactive map

TEXAS DEPARTMENT OF TRANSPORTATION

Project Tracker | TxDOT | Open Data Portal | Statewide Planning Map

SEARCH by KEYWORD

City, County, District, MPO..

Apply RESET

Switch to Advanced search

SUMMARY BY PHASE:

Projects	Est. Cost
228	\$24,681,676,345
5,262	\$29,412,474,609
2,021	\$57,133,799,311
269	\$20,721,999,494
14,760	\$131,949,949,757

TxDOT Project Tracker



UTP Document

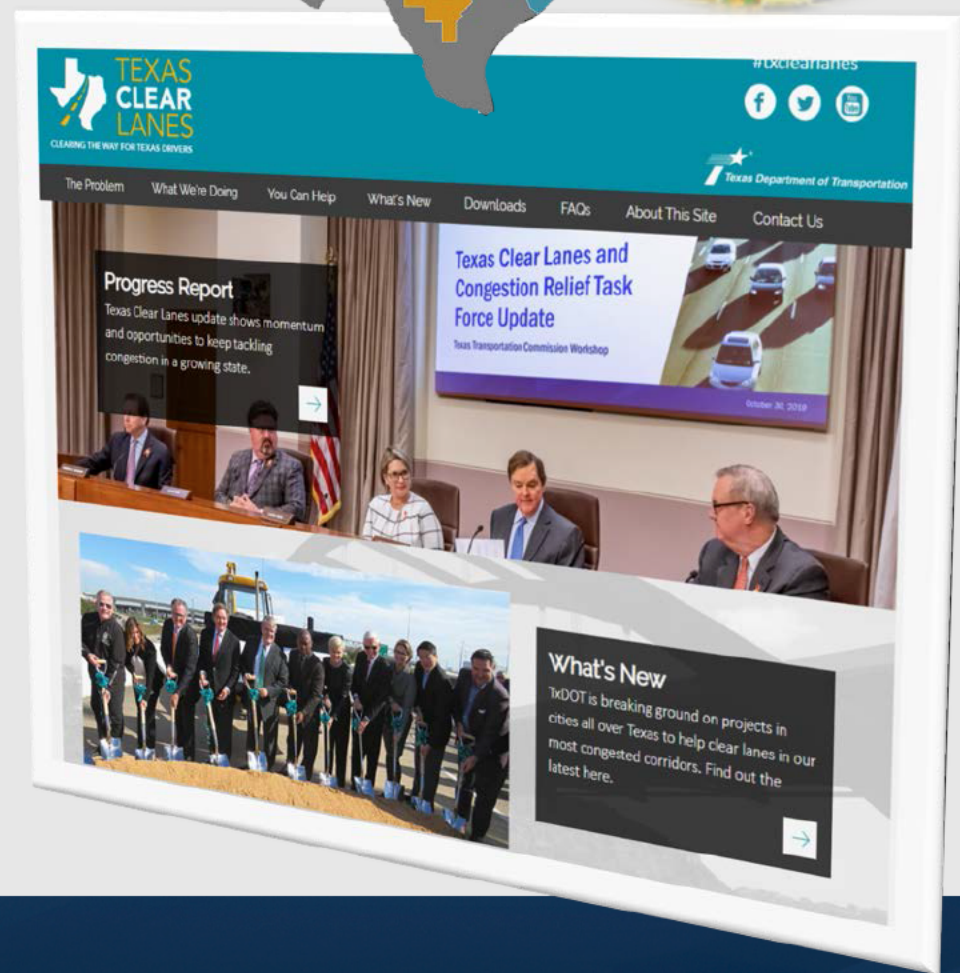
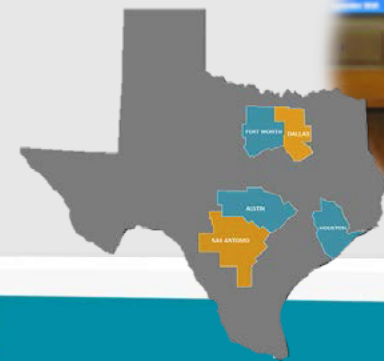


TEXAS CLEAR LANES & UPCOMING HOU LETTINGS

Texas Clear Lanes



- Governor Abbott's Priority Transportation Initiative
 - Goal: address gridlock for Texas drivers statewide.
 - TxDOT is compiling and developing critical projects in an effort to address congestion.
 - We're putting Texans and dollars to work to deliver on this commitment.



Congestion Relief -- A Focus on the 5 Major Metro Areas

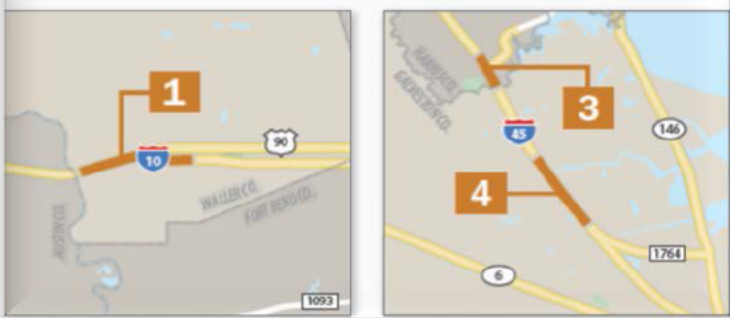
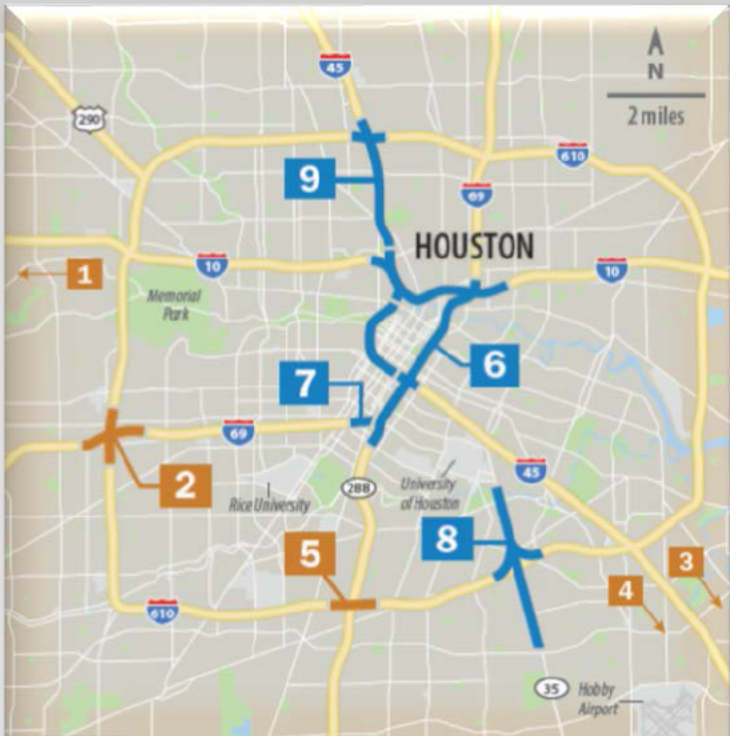


Texas Clear Lanes is a statewide strategic plan to provide congestion relief through **non-tolled roads** and is focused on five major metro areas Austin, Dallas, Fort Worth, Houston and San Antonio:



- Currently more than 65 percent of the Texas population is located in these five metropolitan areas, according to the Texas state demographer. By 2050, these five metropolitan areas may comprise nearly 74 percent of our state's population.
- Home to 92 of Texas' "Top 100" chokepoints based on the Nov. 1, 2017, Texas A&M Transportation Institute list:
 - Austin 13 chokepoints
 - Dallas 24 chokepoints
 - Fort Worth 7 chokepoints
 - Houston 38 chokepoints
 - San Antonio 10 chokepoints

HOUSTON DISTRICT TEXAS CLEAR LANES PROJECTS



TEXAS CLEAR LANES PROJECTS (UNDER CONSTRUCTION)

#	Project Highway	Project Limits	Description	Top 100 Congestion Ranking ¹	Total Proj. Cost	CST Cost	CST TCL Funding	Other CST Funding	CST Funding Status	CST Start	CST Compl.
1	IH-10 ²	FM 359 to Brazos River	Construct 1 additional ML in each direction.	(I) 37	\$195.0 M	\$141.5 M	\$141.5 M	—	Funded	2017	2021
2	IH-69 at IH-610 ²	IH-69 at IH-610	Reconstruction of DCs. Reconstruction of IH-610 ML bridge.	(D) 1, 2, 29, 34 (I) 57	\$327.8 M	\$258.8 M	\$87.5 M	\$171.3 M	Funded	2017	2023
3	IH-45 ²	IH-45 from NASA 1 to FM 518	Widen to 10 MLs, two 3-lane FRs., and access into 2 Diamond Lanes.	(I) 27	\$133.5 M	\$99.8 M	\$64.5 M	\$35.3 M	Funded	2017	2021
4	IH-45 ²	IH-45 from N. of FM 517 to S. of FM 1764	Reconstruct pavement to eight Mainlanes and two 2-lane Frontage Roads.	(I) 27	\$288.8 M	\$228.8 M	\$40.0 M	\$188.8 M	Funded	2018	2022
5	IH-610 at SH 288 ²	IH-610 at SH 288	Reconstruct MLs, FRs, and construct overpass at Cambridge.	(D) 34, 42, 63 (I) 12, 38	\$101.2 M	\$83.2 M	\$81.8 M	\$1.4 M	Funded	2018	2022
Estimated Total					\$1,046.3 M	\$812.1 M	\$415.3 M	\$396.8 M			

TEXAS CLEAR LANES PROJECTS (FUNDED IN 2020 UTP)

#	Project Highway	Project Limits	Description	Top 100 Congestion Ranking ¹	Total Proj. Cost	CST Cost	CST TCL Funding	Other CST Funding	CST Funding Status	CST Start	CST Compl.
6	IH-45 ²	IH-45 at I-10	Reconstruct interchange. NHHIP	(D) 11, 16, 17, 20 (I) 5, 12, 64, 100	\$4,230 M	\$3,650.4 M	\$1,418.4 M	\$2,232.0 M	Funded	2022	2028
	IH-45, IH-69 and IH-10 ²	IH-45 at IH-69 and IH-10	Reconstruct IH-45, IH-10, and IH-69 interchange. NHHIP	(D) 5, 16, 64, 100 (I) 11, 12, 17, 20							
	IH-45 ²	IH-45 at IH-69	Reconstruct interchange. NHHIP	(D) 5, 11, 12 (I) 2, 16, 64, 100							
	IH-69 ²	IH-45 to SH 288	Reconstruct interchange. NHHIP	(D) 2, 5, 12 (I) 11							
	IH-69 ²	IH-69 at McGowen, Tuam, and Elgin	Construct three bridges. NHHIP	(D) 2, 5, 12 (I) 11							
	IH-45 ²	IH-69 from IH-10	Construct Parkway Connectors into Downtown Hou. and remove existing Pierce Elevated. NHHIP	(D) 11 (I) 5, 12							
7	IH-69 ²	SH 288 to Spur 527	Reconstruct to 10 GPs. NHHIP	(D) 2, 5, 12 (I) 11	\$273.7 M	\$210.0 M	\$210.0 M	—	Funded	2021	2026
8	SH 35 ² , IH-610 ²	SH 35 N. of OST to Bellfort St., Interchange at IH 610	Construct 8-lane freeway, 2-lane FRs on new location, and DCs at SH 35 and IH-610	(I) 11, 12, 27, 38, 42	\$445.0 M	\$338.2 M	\$243.5 M	\$94.7 M	Funded	2022	2027
9	IH-45 Seg. 2 ²	IH-10 to IH-610 and Interchange at IH-610	Reconstruct GPs, FRs., and interchange. Construct 4 new NTMLs. NHHIP	(D) 10, 18, 20, 50 (I) 11, 16, 17	\$1,225.0 M	\$1,055.0 M	\$122.5 M	\$932.5 M ⁴	Funded	2024	2028
Estimated Total					\$6,173.7 M	\$5,253.6 M	\$1,994.4 M	\$3,259.2 M			

Note: Total Project Cost consists of Construction Cost, Preliminary Engineering, ROW, Utilities and Construction Engineering. If the project is a Design Build it also includes Developer Costs.
 NHHIP = North Houston Highway Improvement Project FRs = Frontage Roads NTMLs = Non-Tolled Managed Lanes (D) = Direct (I) = Indirect TCL = Texas Clear Lanes CST = Construction
 P = Planning PE = Preliminary Engineering (studies have begun including environmental, surveys, traffic, etc) PS&E = Developing design (plans, specifications and estimates) R = ready for construction

1. Statewide TTI Most Congested List 2018 2. Construction costs only include construction for a traditional Design-Bid-Build
 3. Construction costs include engineering and utility relocations for a Design-Build Contract. 4. \$215 M funding anticipated in future UTP via LAR and programmed as CAT 3 DB funds.
 5. Anticipated in future UTP via LAR and programmed as CAT 3 DB Funds. 6. Potential \$140 M candidate project in METRO's Fall 201 Bond Election
 7. Start/completion estimates are based on the assumption funding is available as of November 2019. These estimates are for discussion purposes only and do not guarantee project schedule or delivery.





- FY 2019 letting volume was **\$916 Million**
 - I-610 South Loop @ Cambridge (Harris County)
 - FM 2100 Antelope Dr. to Diamondhead Blvd (Harris County)
 - SH 242 from I-69 to Needham Drive (Montgomery County)
 - SH 36 SH 35 to FM 2218 (Brazoria & Fort Bend Counties)
 - I-45 South FM 517 to FM 1764 (Galveston County)
- FY 2020 planned letting volume is **\$1.1 Billion**
 - *See next slide for details*



FY 2020 Construction Lettings > \$10M



HOUSTON DISTRICT STATEWIDE LETTINGS

PRELIMINARY - SUBJECT TO CHANGE

CSJ	Contract CSJ	Let Date	Let Amount	Highway	County	Limit From	Limit To	Description
1258-04-063	1258-04-063 \$12.235M	12/01/2019	\$5,845,061	FM 1093	HARRIS	DUNVALE ROAD	IH 610	2" PLANING, SEAL COAT, 1/2" TOM-F, 1" TOM-C & PAVEMENT MARKINGS
1258-04-066		12/01/2019	\$6,389,488	FM 1093	HARRIS	DAIRY ASHFORD	DUNVALE ROAD	2" PLANING, SEAL COAT, 1" TOM-F, 1" TOM-C & PAVEMENT MARKINGS
2093-01-010	2093-01-010	04/01/2020	\$40,538,537	FM 2218	FORT BEND	SH 36	IH 69	WIDEN FROM 2 LANES TO 4-LANE DIVIDED
0912-72-391	0912-72-391	05/01/2020	\$17,132,000	CS	HARRIS	MEMORIAL DR; FROM SL 8	EAST OF TALLOWOOD RD	RECONSTRUCT ROADWAY INCLUDING DRAINAGE, ACCESS MANAGEMENT & BICYCLE & PEDESTRIAN ACCOMMODATIONS
1685-01-092	1685-01-092	06/01/2020	\$14,991,000	FM 1960	HARRIS	AT ELDRIDGE PARKWAY	.	DUAL LEFT AND RIGHT TURN LANES AND BICYCLE/PEDESTRIAN ACCOMMODATIONS
1685-03-058	1685-03-058	07/01/2020	\$64,271,701	FM 1960	HARRIS	BF 1960A	TWIGSWORTH LN	WIDEN FROM 4 TO 6 LANE DIVIDED W/ RAISED MEDIANS, CHANNELIZED TURN LANES
1685-03-098	1685-03-098	07/01/2020	\$69,055,631	FM 1960	HARRIS	TWIGSWORTH LN	JACINTO RIVER BRIDGE	CHANNELIZED TURN LANES AND 4-LN OVERPASS AT WEST LAKE HOUSTON PKWY
0523-04-017	0523-08-007 \$28.900M	07/01/2020	\$2,000,000	FM 1488	WALLER	W OF JOSEPH ROAD	MONTGOMERY C/L	RECONSTRUCT AND WIDEN FROM 2-LANE TO 4-LANE DIVIDED
0523-08-007		07/01/2020	\$26,900,000	FM 1488	MONTGOMERY	WALLER COUNTY LINE	FM 1774 IN MAGNOLIA	RECONSTRUCT AND WIDEN FROM 2 TO 4 LANES DIVIDED
0500-01-107	0500-01-107 \$94.125M	08/01/2020	\$78,400,000	IH 45	GALVESTON	0.1 MI N OF CAUSEWAY	S OF TEXAS CITY WYE	RECONSTRUCT TWO 2-LANE FRONTAGE ROADS (FROM S OF TEXAS CITY WYE TO N OF BNSF RR) AND CONSTRUCT FRONTAGE ROADS
0500-01-144		08/01/2020	\$15,725,000	IH 45	GALVESTON	IH 45 NB AT BNSF RR	.	REPLACE BRIDGE AND APPROACHES (NBI# 12085050001001)
0500-04-103	0500-04-103 \$234.000M	08/01/2020	\$106,000,000	IH 45	GALVESTON	N OF TEXAS CITY WYE	S OF TEXAS CITY WYE	RECONSTRUCT IH 45/SH 146/SH 6 INTERCHANGE AND WIDEN IH 45 MAINLANES FROM 6 TO 8 LANES
0500-04-104		08/01/2020	\$128,000,000	IH 45	GALVESTON	N OF FM 519	N OF TEXAS CITY WYE	RECONSTRUCT AND WIDEN FROM 6 TO 8 MAIN LANES AND RECONSTRUCT TWO 2-LANE FRONTAGE ROADS
1259-01-043	1259-01-043	08/01/2020	\$16,900,000	FM 1097	MONTGOMERY	LAKE CONROE HILLS	ANDERSON ROAD	RECONSTRUCT AND WIDEN FROM 2 TO 4 LANES WITH CONTINUOUS LEFT TURN LANE





Active Construction Projects

■ SH 288 Toll Lanes in Harris County

- CDA/Design/Build Project - \$832M
- Blueridge Transportation Group, LLC (BTG)
 - Lead Contractor: Alameda-Genoa Constructors (A-GC)
- Constructing 10.3 miles of Toll Lanes
 - Anticipated Completion Summer 2020
 - www.drive288.com

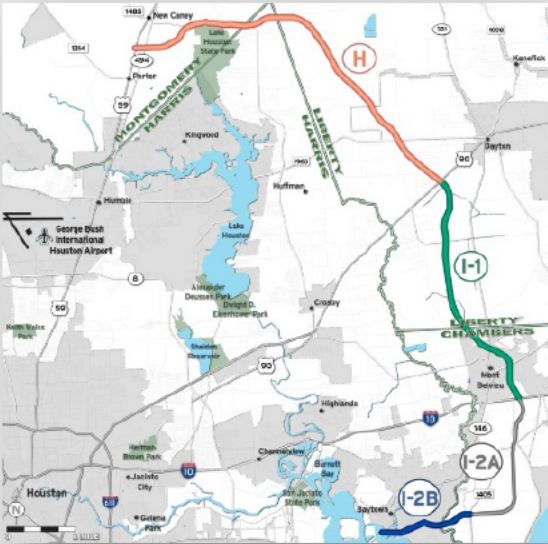
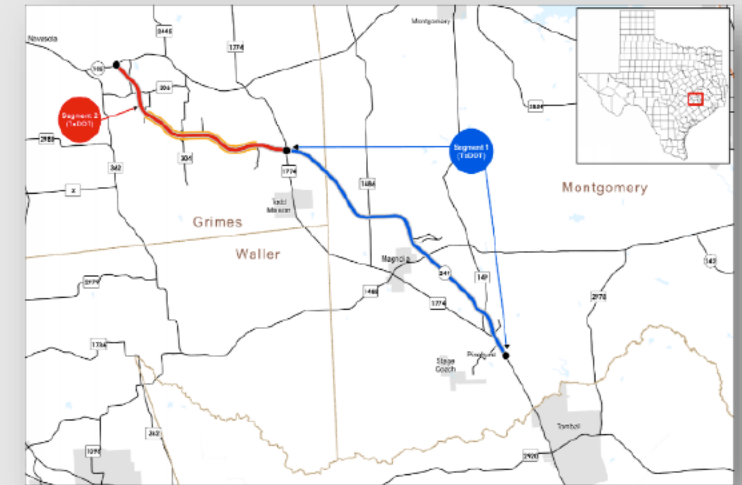


■ SH 249 Corridor in Montgomery & Grimes Counties

- Design/Build Project -550 Million
- WBCCI, LLC (Williams Brothers)
- Constructing 24 miles of Toll & Non-toll Lanes
 - Anticipated Completion Summer 2020
 - www.txsh49.com

■ Grand Parkway (SH 99) Segments H&I

- Harris, Montgomery, Liberty and Chambers Counties
- Design/Build Project - \$894 million
- Grand Parkway Infrastructure (GPI)
- Constructing 53 miles of Toll & Non-toll Lanes
 - Anticipated Completion Spring 2022
 - www.sh99grandpkwy.com

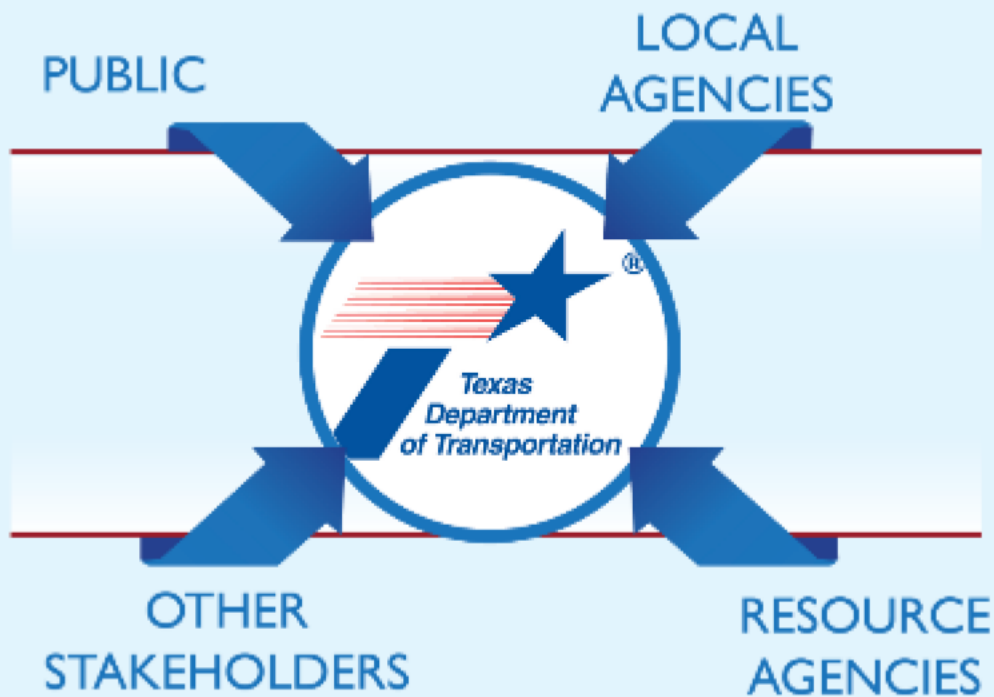


ON THE PLANNING HORIZON



PEL = Planning and Environmental Linkages

PEL Study Coordination

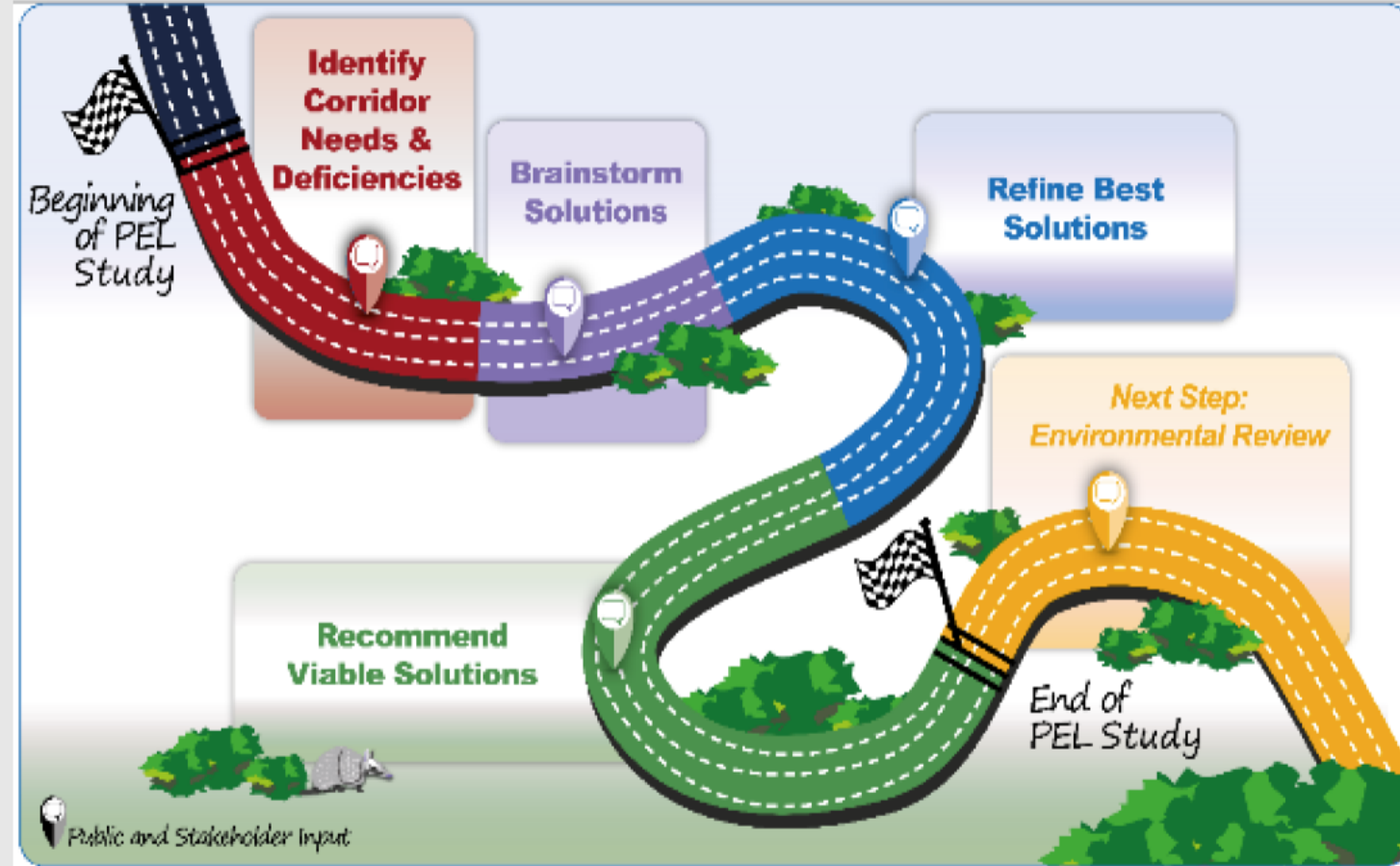


- Approach to decision making
- Early consideration of:
 - Environmental goals
 - Community goals
 - Economic goals
- Promotes efficient and cost-effective solutions
- Minimizes duplication of effort
- Reduces delays in project implementation
- Open and frequent communication at all levels

PEL STUDY BACKGROUND



- A PEL study can:
 - Identify future projects
 - Develop project Purpose and Need
 - Define project scope
 - Refine the range of viable alternatives
 - Link planning to environmental issues which move into NEPA*
- Decisions made with stakeholder input



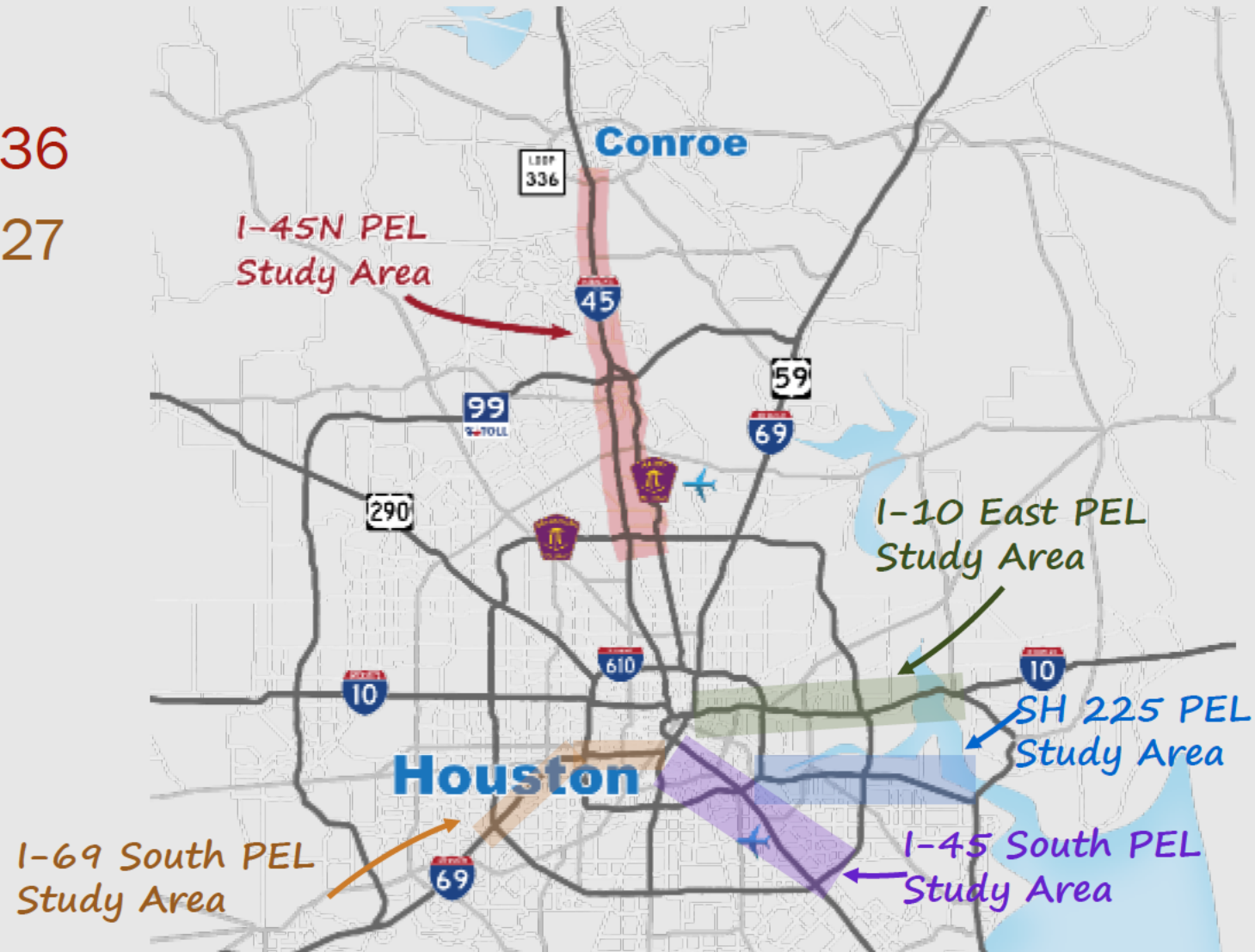
* The adoption of the PEL study into the NEPA process is subject to determination by FHWA.



CURRENT HOUSTON DISTRICT PEL STUDIES



- I-10 East from I-69 to SH 99
- I-45 North from BW 8 to Loop 336
- I-69 South from BW 8 to Spur 527
- I-45 South from I-69 to BW 8
- SH 225 from I-610 to SH 146



UPCOMING PS&E



- Wave 4 FY 2020
 - IH 10 at San Jacinto River Project

- Wave 1 FY 2021
 - Multiple FM Road Improvement Projects



QUICK IH 45 UPDATE

WHY ARE WE DOING THIS PROJECT?



- **Need** for NHHIP
 - Existing congestion
 - Projected increases in population and employment
 - Projected growth in traffic
 - Outdated design elements
 - Aging infrastructure
- **Purpose** of NHHIP
 - Apply current design standards to enhance safety
 - Mitigate congestion by improving mobility and operational efficiency
 - Expand transit and carpool capacity with 2-way, 24/7 operations
 - Maintain effective evacuation routes
- NHHIP has **9 of the Top 40** Most Congested Roadways in Texas





▪ Continued Stakeholder Engagement

- Agency Partners
- Neighborhoods
- Management Districts
- Businesses
- Property Owners
- Schools and Colleges

Development of the Final Environmental Impact Statement

- Final Historic Resources Survey Report, posted 10/28/2019
- Draft Section 106 Programmatic Agreement for Historic Properties, posted 10/31/2019, public comment closed 11/30/2019
- Community Impacts Assessment Technical Report, posted December 2019, comment period closed 2/7/2020
- Cumulative Impacts Technical Report, posted December 2019, comment period closed 2/7/2020
- Final Environmental Impact Statement anticipated to be published July 2020, will have a 30 day comment period

▪ Record of Decision

- Anticipated to be issued late Summer 2020





▪ City of Houston

- Planning Department
 - Mayor's Facilitation Effort
- Public Works Department
 - NHHIP Traffic Steering Committee
- Mayor's Complete Communities

▪ Harris County

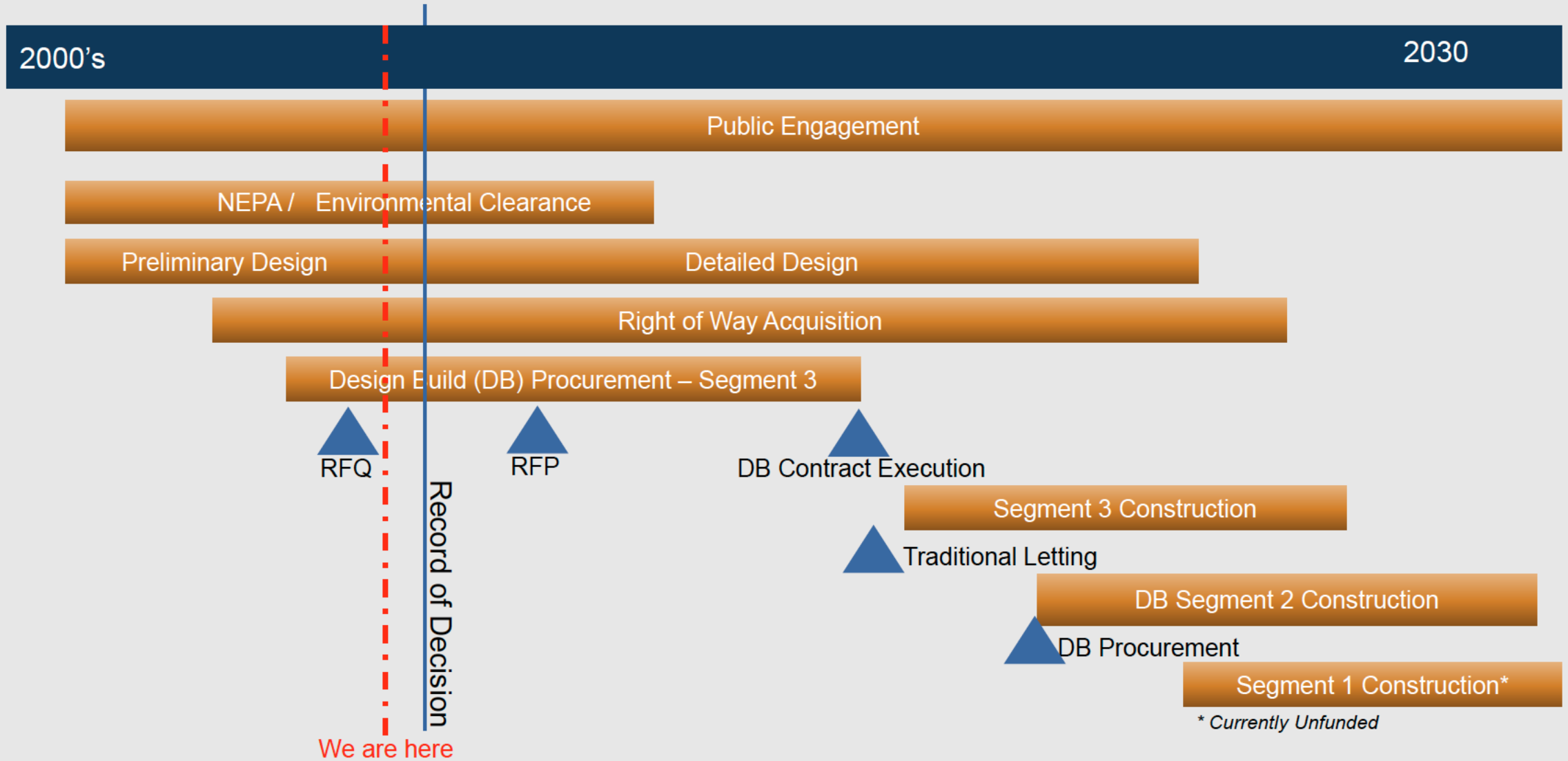
- Harris County Flood Control
 - NHHIP Drainage studies underway across all applicable bayou watersheds
- Harris County Toll Road Authority
 - Coordination of traffic analysis of Hardy Extension and NHHIP led by H-GAC
- Harris County Public Infrastructure
 - NHHIP Traffic Steering Committee

▪ METRO

- METRONext Implementation relating to NHHIP
- Light rail and Bus Network design, construction and operational considerations



Project Development Milestones 2003 - 2030



**SAFETY IS OUR HIGHEST
PRIORITY**

#EndTheStreakTX

- An estimated **3,641** people lost their lives on Texas highways in 2018.*
- 10 people were killed per day on average.
- 1 person was killed every 2 hours, 24 minutes.
- 1 person was injured every 2 minutes, 7 seconds.
- 1 reportable crash every 58 seconds.
- **November 7, 2000**, is the last deathless day on Texas roadways.
 - 7,163 days since this date.
 - **65,095** lost family members since this date.

*As of 05/28/19.



ENDING THE STREAK IS IN YOUR HANDS

Most crashes and fatalities are due to drunkenness, distracted driving or failure to use seat belts. In other words, they're preventable.

Here's what you can do:

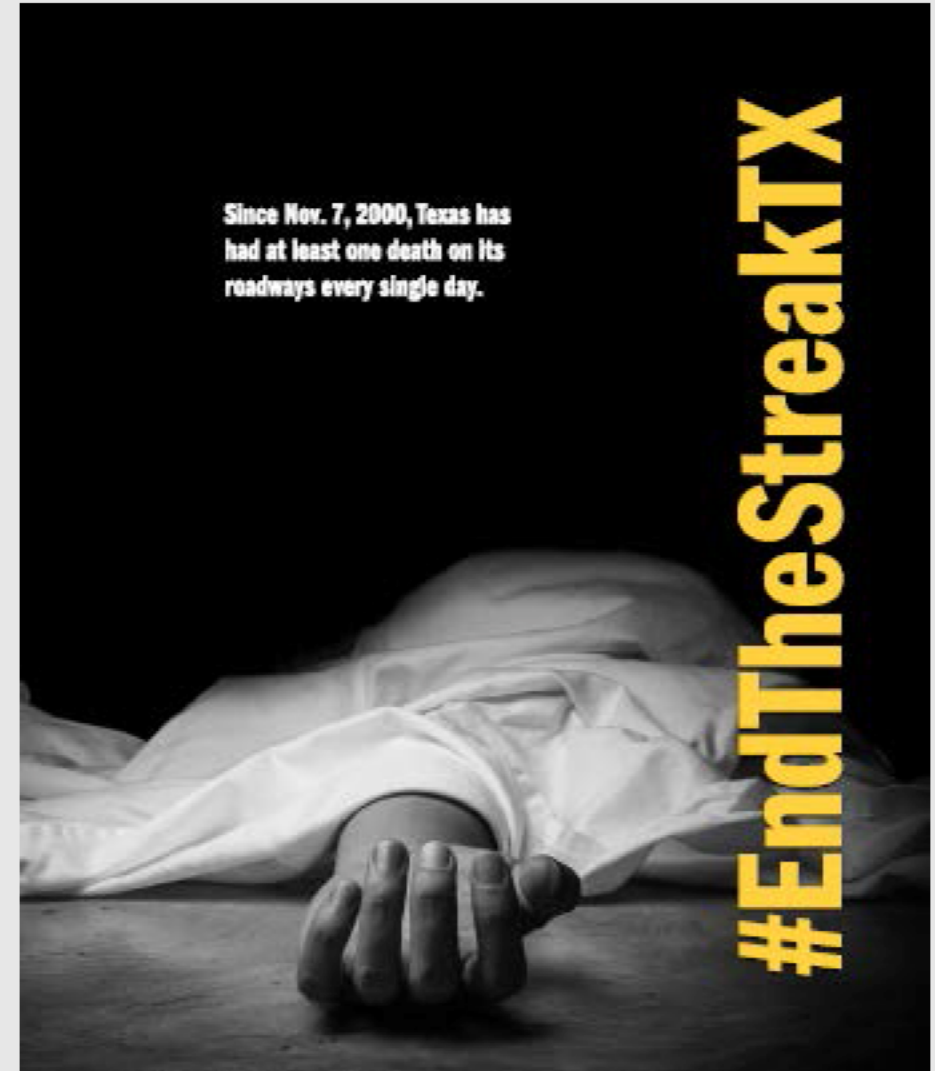
- Buckle up: Seat belts are your first line of defense.
- Drive the speed limit, or slower, depending on road or weather conditions.
- Never drive under the influence of alcohol or drugs. Plan a sober ride home.
- When driving, put your phone away or set to "Do Not Disturb".

Here's what TxDOT is doing:

- We engineer every road to be more forgiving of driver behaviors.
- Roadside rumble strips alert drivers if they start moving off the road.
- We use flashing Wrong Way signs to try to prevent head-on collisions.
- Electronic signs alert drivers to upcoming construction, road closures and conditions, and inclement weather.
- Driver education campaigns give drivers safety reminders.

Let's "End The Streak" together!

Show your support for safer driving in Texas by reminding your fellow drivers of our shared responsibility.



Mission

*Texans will work together on the road to **zero** traffic fatalities and serious injuries.*



Texas Transportation Commission adopted the Road to Zero Minute Order In May 2019:

- Directs TxDOT to work toward the goal of reducing the number of deaths on Texas roadways by half by the year 2035 and to zero by the year 2050.
- Acknowledges a majority of motor vehicle crashes can be prevented, thereby reducing fatalities.
- Directs TxDOT divisions and districts to develop and implement strategies to achieve this goal.



Eliza Paul, P.E.

TxDOT Houston District Engineer (DE)
713-802-5001 / Eliza.Paul@txdot.gov

James W. Koch, P.E.

TxDOT Houston Director of Transportation Planning & Development
713-802-5031 / James.Koch1@txdot.gov

Raquelle Lewis

TxDOT Houston District PIO
713-802-5071 / Raquelle.Lewis@txdot.gov

