

# **WELCOME TO THE MEETING!**

**Please Sign In**

**Pick Up Handouts**

**View Presentation**

**View Exhibits**

**Ask Questions**

**Share Your Thoughts**

**Leave Your Comments**

# **Purpose of the 2<sup>nd</sup> Public Scoping Meeting**

- 1. *Present and gather your input on the:***
  - a. Alternatives Evaluation Process
  - b. Universe of Alternatives
  - c. Six Preliminary Alternatives
- 2. *Present updated and approved documents:***
  - a. Need and Purpose Statement
  - b. Agency Coordination and Public Involvement Plan
- 3. *Discuss project with you and answer questions***
- 4. *Receive comments on the project***
- 5. *Present the project timeline***
- 6. *Encourage your continued involvement***

# Project Team



Lead Federal Agency



Joint Lead Agency



Environmental



Design Engineering



Public Involvement



Archeological Resources



Traffic Engineering



EIS Support



Historical Resources



Biological Resources

# 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

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

# What is an EIS?

## What is an Environmental Impact Statement (EIS)?

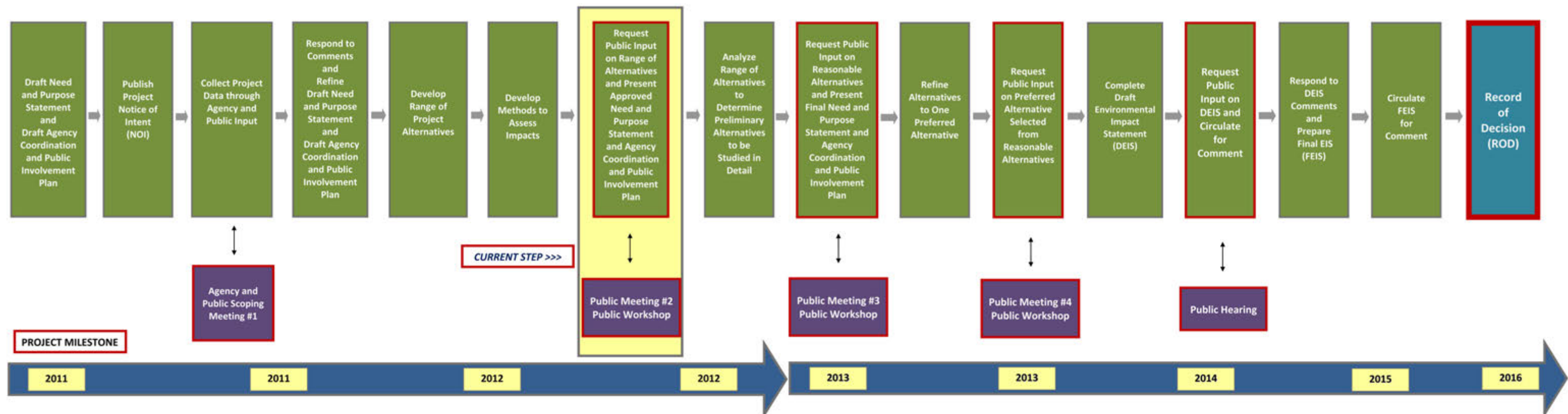
- A full disclosure document detailing the environmental review process through which the transportation project was developed
- Includes the consideration of a range of reasonable alternatives
- Analyzes the potential impacts resulting from the alternatives
- Demonstrates compliance with other applicable environmental laws and executive orders
- The EIS process is completed in the following ordered steps
  - Notice of Intent (NOI)
  - Draft EIS document (DEIS)
  - Final EIS document (FEIS)
  - Record of Decision (ROD)
- The National Environmental Policy Act of 1969, as amended, requires Federal agencies to prepare Environmental Impact Statements (EISs) for major Federal actions that will significantly affect the quality of the human environment

## What is the National Environmental Policy Act (NEPA)?

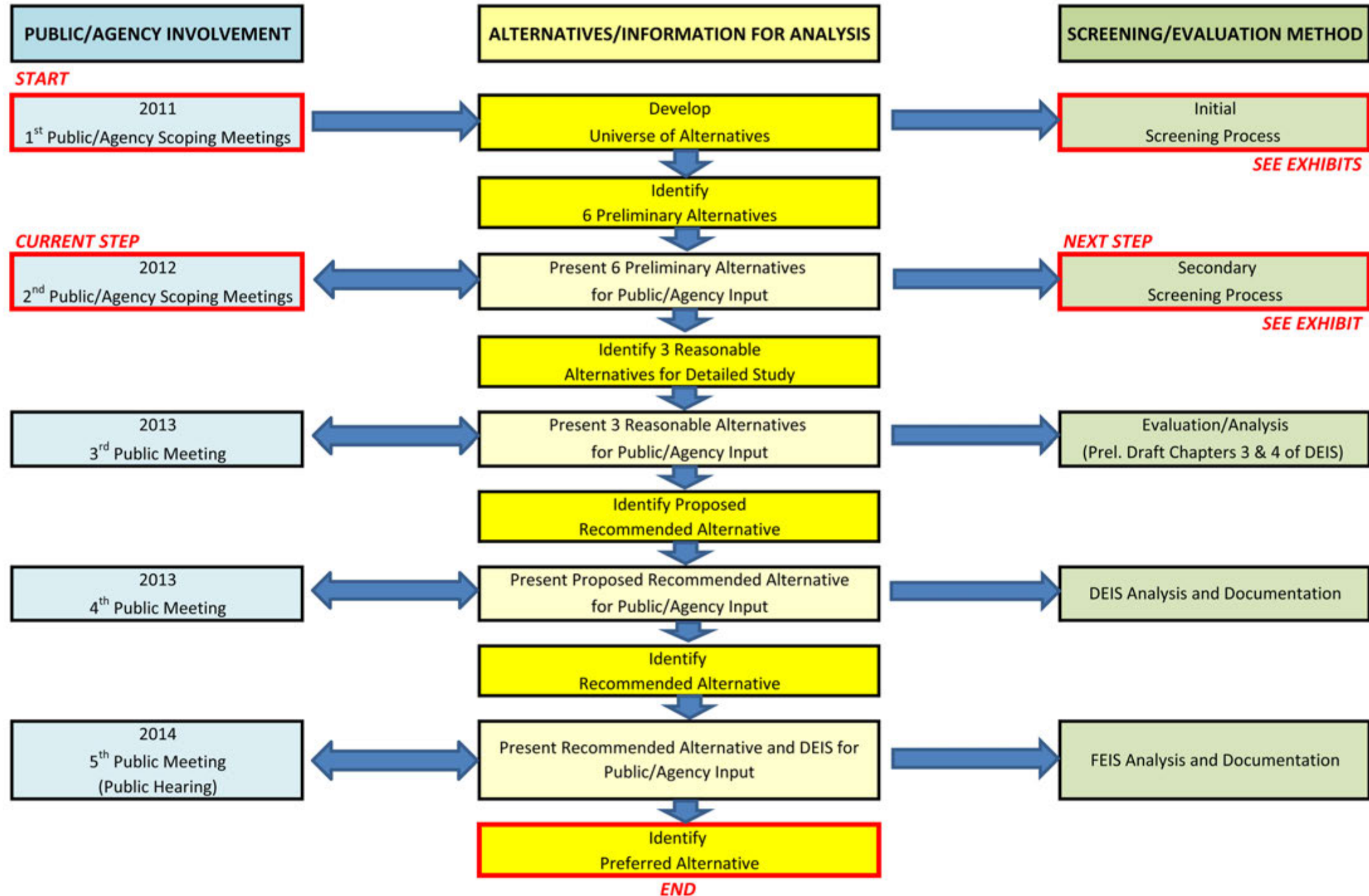
- An environmental review process that considers multiple alternatives as possible ways to complete a project
- Includes alternative alignments and variations of multi-modal configurations, such as railway and roadway combinations
- Considers the no-build or no-action alternative, which would be to do nothing
  - Provides a baseline to which we can compare the build alternatives
  - Analyzes what would occur if nothing was done to address the needs of the project area
- Alternatives are identified, analyzed, evaluated, and documented, with regard to the impact each would have on the natural, built and social environment.
- Potential impact information, along with engineering schematic design, is used to determine the best possible alternative for the community and those who use the facility



# ENVIRONMENTAL IMPACT STATEMENT (EIS) PROCESS AND TIMELINE

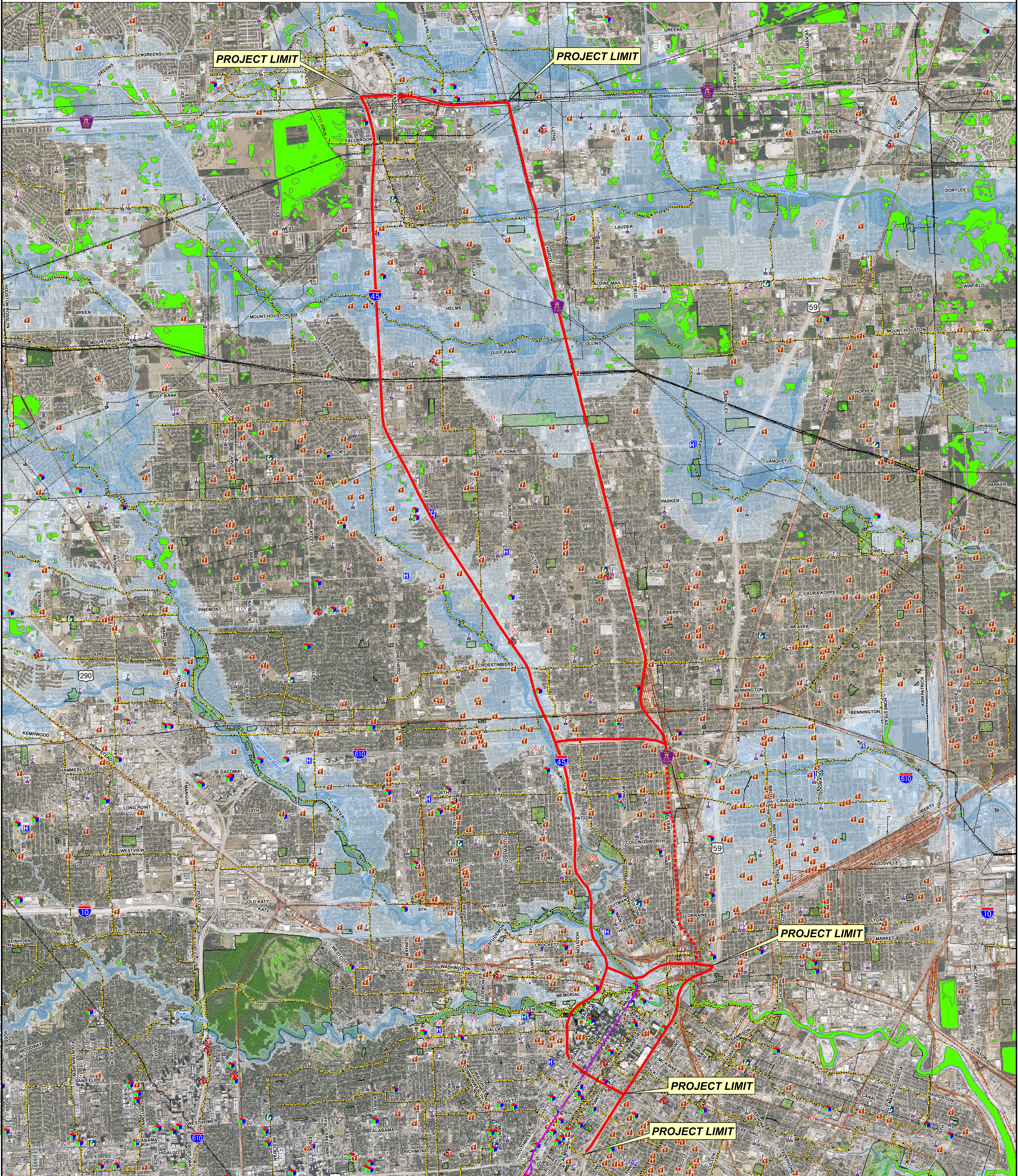


# ALTERNATIVES SCREENING PROCESS





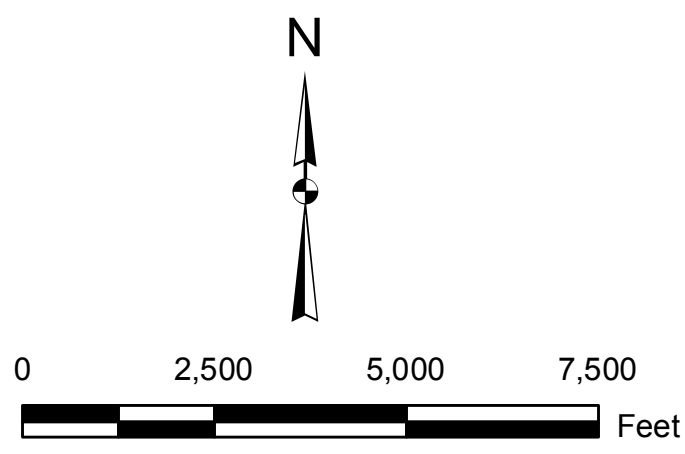
# ENVIRONMENTAL CONSTRAINTS MAP



## Legend

- |                                 |          |                      |              |                     |                            |
|---------------------------------|----------|----------------------|--------------|---------------------|----------------------------|
| Project Area                    | Railroad | Church               | Library      | Floodway            | National Wetland Inventory |
| Future Hardy Downtown Connector | Bikeway  | Museum               | Hospital     | 100-Year Floodplain | Park                       |
| Metro Light Rail                | Pipeline | Learning Center      | Fire Station | 500-Year Floodplain |                            |
|                                 |          | School               | Cemetery     |                     |                            |
|                                 |          | University / College |              |                     |                            |

## North Houston Highway Improvement Project





SEGMENT 1

<div>DRAFT</div>			EVALUATION CRITERIA							
			Initial Screening of Universe of Alternatives							
				Engineering		Traffic	Environmental			
							Land Use and Cultural Resources within the Right-of-Way			
SEGMENT 1 BW 8 to IH 610	Alternative Type	Description	Meets Need and Purpose and Project Goals (Yes/No)	Meets Current Design Criteria (Yes/No)	Additional ROW - Cavalcade to Quitman (Yes/No)	Traffic/Mobility Improvements* (High/Medium/Low)	Community Parks (Yes/No)	Cemeteries (Yes/No)	National Register of Historic Places (Yes/No)	Recorded Archeological Sites (Yes/No)
Alternative 1	Existing Configuration	NO BUILD SCENARIO	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A
Alternative 2	TSM Upgrades	TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROJECTS	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A
Alternative 3	WIDEN EXISTING WITH ELEVATED MANAGED LANES	ADDITION OF DIRECT CONNECTOR FROM IH 45 TO HARDY TOLL ROAD THAT INCLUDES FOUR (4) MANAGED LANES. ALSO INCLUDES WIDENING OF HARDY TOLL ROAD TO PROVIDE ONE ADDITIONAL LANE INBOUND AND OUTBOUND.	Yes	Yes	N/A	Medium	No	No	No	No
Alternative 4	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES. ADDITIONAL ROW WILL BE ACQUIRED ON WEST SIDE OF IH 45.	Yes	Yes	N/A	High	No	No	No	No
Alternative 5	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES. ADDITIONAL ROW WILL BE ACQUIRED ON EAST SIDE OF IH 45.	Yes	Yes	N/A	High	No	No	No	No
Alternative 6	WIDEN EXISTING	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES. ADDITIONAL ROW WILL BE ACQUIRED ON BOTH SIDES OF IH 45.	Yes	Yes	N/A	High	No	No	No	No
Alternative 7	ELEVATED MANAGED LANES	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON A SINGLE STRUCTURE AT CENTER.	Yes	Yes	N/A	High	No	No	No	No
Alternative 8	ELEVATED MANAGED LANES	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON TWO (2) SEPARATE STRUCTURES ON LEFT AND RIGHT SIDES OF CENTERLINE.	Yes	Yes	N/A	High	No	No	No	No

Selected as Preliminary Alternative

Alternative 1, the "No Build" Alternative, will advance with the Build Alternatives through the process.

\*Traffic/Mobility Improvements is a rating determined using outputs from the travel demand models. The model provides information on how many drivers will use the highway if improved, how this compares among various alternative improvements, and how many hours drivers can expect to save traveling on the highway if improved, also known as Vehicle-Hours Traveled (VHT).



<i>DRAFT</i>			EVALUATION CRITERIA							
			Initial Screening of Universe of Alternatives							
			Meets Need and Purpose and Project Goals (Yes/No)	Engineering		Traffic	Environmental			
				Meets Current Design Criteria (Yes/No)	Additional ROW - Cavalcade to Quitman (Yes/No)	Traffic/Mobility Improvements* (High/Medium/Low)	Land Use and Cultural Resources within the Right-of-Way			
							Community Parks (Yes/No)	Cemeteries (Yes/No)	National Register of Historic Places (Yes/No)	Recorded Archeological Sites (Yes/No)
SEGMENT 2 IH 610 to IH 10	Alternative Type	Description								
Alternative 1	Existing Configuration	NO BUILD SCENARIO	N/A	No	No	N/A	N/A	N/A	N/A	N/A
Alternative 2	TSM Upgrades	TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROJECTS	N/A	No	No	N/A	N/A	N/A	N/A	N/A
Alternative 3	Widen Existing	TWELVE (12) LANE SECTION - INCLUDES TEN (10) GENERAL PURPOSE LANES AND TWO (2) REVERSIBLE, SPECIAL PURPOSE LANES.	Yes	Yes	No	Medium	No	No	No	No
Alternative 4	Widen Existing	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES.	Yes	No	No	High	No	No	No	No
Alternative 5	Elevated Hot Lanes	TWELVE (12) LANE SECTION - INCLUDES TEN (10) GENERAL PURPOSE LANES AND TWO (2) ELEVATED HOT LANES.	No	Yes	No	Low	No	No	No	No
Alternative 6	Widen Existing	TWELVE (12) LANE SECTION - INCLUDES TEN (10) GENERAL PURPOSE LANES AND TWO (2) NON-BARRIER SEPARATED HOT LANES.	No	Yes	No	Low	No	No	No	No
Alternative 7	Widen Existing	TEN (10) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND TWO (2) BARRIER SEPARATED HOT LANES.	No	No	No	Low	No	No	No	No
Alternative 8	Widen Existing	TEN (10) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND TWO (2) NON-BARRIER SEPARATED HOT LANES.	No	Yes	No	Low	No	No	No	No
Alternative 9	Widen Existing	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND TWO (2) REVERSIBLE MANAGED LANES.	No	Yes	No	Low	No	No	No	No
Alternative 10	Widen Existing	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) MANAGED LANES.	Yes	Yes	No	High	No	No	No	No
Alternative 11	Widen Existing with Elevated Managed Lanes	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON A SINGLE STRUCTURE AT CENTER.	Yes	Yes	No	High	No	No	No	No
Alternative 12	Widen Existing with Elevated Managed Lanes	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON DOUBLE DECKER STRUCTURE AT CENTER.	Yes	Yes	No	High	No	No	No	No
Alternative 13	Widen Existing with Elevated Managed Lanes	TWELVE (12) LANE SECTION - INCLUDES EIGHT (8) GENERAL PURPOSE LANES AND FOUR (4) ELEVATED MANAGED LANES ON TWO (2) SEPARATE STRUCTURES ON LEFT AND RIGHT SIDES OF CENTERLINE.	No	Yes	No	High	No	No	No	No
Alternative 14	Add Tunnel to Existing	TUNNELED ROADWAY UNDERNEATH IH 45. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	No	High	No	No	No	No
Alternative 15	Add Direct Connector	ADDITION OF DIRECT CONNECTORS ALONG IH 610 CORRIDOR FROM IH 45 TO HARDY TOLL RD. INCLUDES FOUR (4) MANAGED LANES. THIS ALTERNATIVE ALSO INCLUDES WIDENING OF HARDY TOLL ROAD TO PROVIDE ONE ADDITIONAL LANE INBOUND AND OUTBOUND.	Yes	Yes	No	Medium	No	No	No	No

	Selected as Preliminary Alternative
	Alternative 1, the "No Build" Alternative, will advance with the Build Alternatives through the process.

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SEGMENT 3

<div>DRAFT</div> <div>SEGMENT 3 Downtown Loop System</div>	Alternative Type	Description	EVALUATION CRITERIA							
			Initial Screening of Universe of Alternatives							
			Meets Need and Purpose and Project Goals (Yes/No)	Engineering		Traffic	Environmental			
				Meets Current Design Criteria (Yes/No)	Additional ROW - Cavalcade to Quitman (Yes/No)	Traffic/Mobility Improvements* (High/Medium/Low)	Land Use and Cultural Resources within the Right-of-Way			
							Community Parks (Yes/No)	Cemeteries (Yes/No)	National Register of Historic Places (Yes/No)	Recorded Archeological Sites (Yes/No)
Alternative 1	Existing Configuration	NO BUILD SCENARIO	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A
Alternative 2	TSM Upgrades	TRANSPORTATION SYSTEMS MANAGEMENT (TSM) PROJECTS	N/A	No	N/A	N/A	N/A	N/A	N/A	N/A
Alternative 3	Convert Downtown Loop to One Way Loop	CONVERT EXISTING DOWNTOWN LOOP ROADWAY NETWORK TO A ONE-WAY LOOP.	Yes	Yes	N/A	Medium	No	No	No	No
Alternative 4	Add Tunnel to Existing	TUNNELED ROADWAY UNDERNEATH LA BRANCH ST AND TERMINATES AT THE US 59/SH 288 INTERCHANGE. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	N/A	Medium	No	No	No	No
Alternative 5	Add Tunnel to Existing	TUNNELED ROADWAY UNDERNEATH IH 45, THEN CONTINUES UNDERNEATH BAGBY ST AND TERMINATES AT SPUR 527. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	N/A	Medium	No	No	No	No
Alternative 6	Add Tunnel to Existing	TUNNELED ROADWAY UNDERNEATH IH 45, THEN CONTINUES TO JEFFERSON ST AND TERMINATES AT IH 45 SOUTH OF THE IH 45/US 59 INTERCHANGE. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	N/A	Medium	No	No	No	No
Alternative 7	Add Tunnel to Existing	TUNNELED ROADWAY UNDERNEATH HOUSTON AVE AND SPLITS TO JEFFERSON ST AND BAGBY ST. TUNNEL TERMINATES AT IH 45 SOUTH OF THE IH 45/US 59 INTERCHANGE AND SPUR 527. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	N/A	High	No	No	No	No
Alternative 8	Elevated Managed Lanes	ELEVATED ROADWAY ALONG HOUSTON AVE AND TERMINATES AT IH 45 NEAR ALLEN PARKWAY. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	N/A	Low	No	No	No	No
Alternative 9	Add Tunnel to Existing	UTILIZES EXISTING IH 10 HOV BRIDGE INTO DOWNTOWN AND THEN BECOMES TUNNELED ROADWAY UNDERNEATH IH 45 AND JEFFERSON ST AND TERMINATES AT IH 45 SOUTH OF THE IH 45/US 59 INTERCHANGE. INCLUDES FOUR (4) MANAGED LANES.	Yes	Yes	N/A	Low	No	No	No	No
Alternative 10	Widen Existing	EIGHT (8) LANE SECTION FROM IH-10 TO IH 45/US 59 INTERCHANGE INCLUDES EIGHT (8) GENERAL PURPOSE LANES.	Yes	Yes	N/A	Medium	No	No	No	No

Selected as Preliminary Alternative

Alternative 1, the "No Build" Alternative, will advance with the Build Alternatives through the process.

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# Secondary Screening Process for Preliminary Alternatives

EVALUATION CRITERIA																																				
<div>DRAFT</div> Secondary Screening Process of Preliminary Alternatives																																				
Segment 1 Preliminary Alternative	Alternative Type	Description	Meets Need and Purpose and Project Goals (Yes/No)	Signature Project Potential (Yes/No)	Engineering	Traffic	Environmental																													
					Meets Current Design Criteria (Yes/No)	Additional ROW - Cavalcade to Quitman (Yes/No)	Traffic/Mobility Improvements* (High/Medium/Low)	Land Use						Cultural Resources			Natural Resources				Air	Noise	Socioeconomics				HazMat									
								Community Parks (Yes/No)	Cemeteries (Yes/No)	Commercial (acres)	Residential (acres)	Industrial (acres)	Public (acres)	Total Additional ROW (acres)	National Register of Historic Places (Yes/No)	Recorded Archeological Sites (Yes/No)	Archeological High Probability Areas (acres)	Historic Sites Potentially Eligible for National Register (Yes/No)	Flooding			Wildlife	Wetlands	Streams	Number of Sensitive Receptors (number)	Noise-Sensitive Receivers (number)	Residential Displacements (number)	Commercial Displacements (number)	Residences Adjacent to Roadway (Yes/No)	Businesses Adjacent to Roadway (Yes/No)	Churches (number)	Schools (number)	Visual Impacts (Yes/No)	Changes in Community Cohesion (Yes/No)	Environmental Justice Issues (Yes/No)	Superfund Sites (number)
																			Floodway (acres)	100-Year Floodplain (acres)	Detention Basins (acres)															
Alt. 1																																				
Alt. 3																																				
Alt. 4																																				
Alt. 5																																				
Alt. 6																																				
Alt. 7																																				
Alt. 8																																				
MATRIX TO BE COMPLETED DURING THE NEXT STEP OF THE EIS PROCESS																																				

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