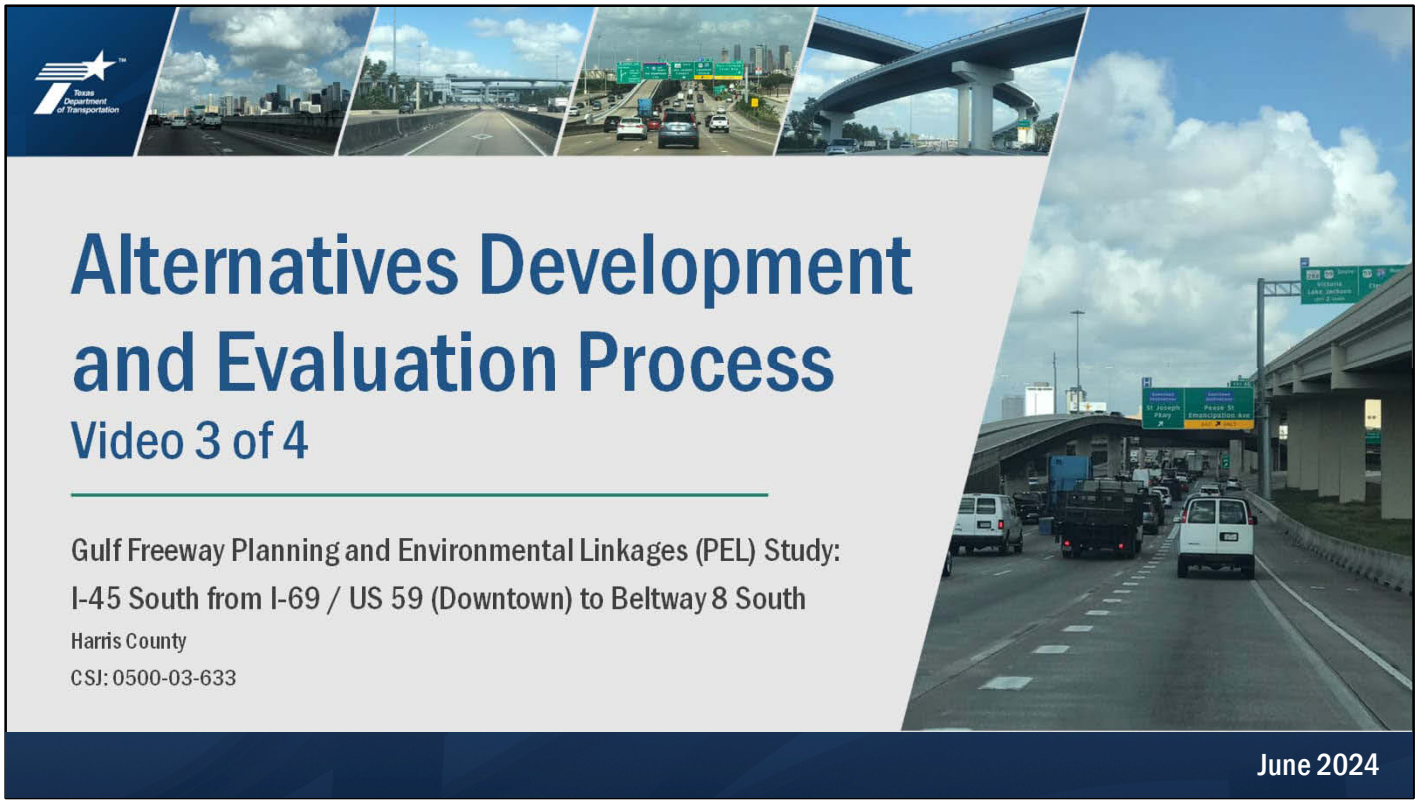
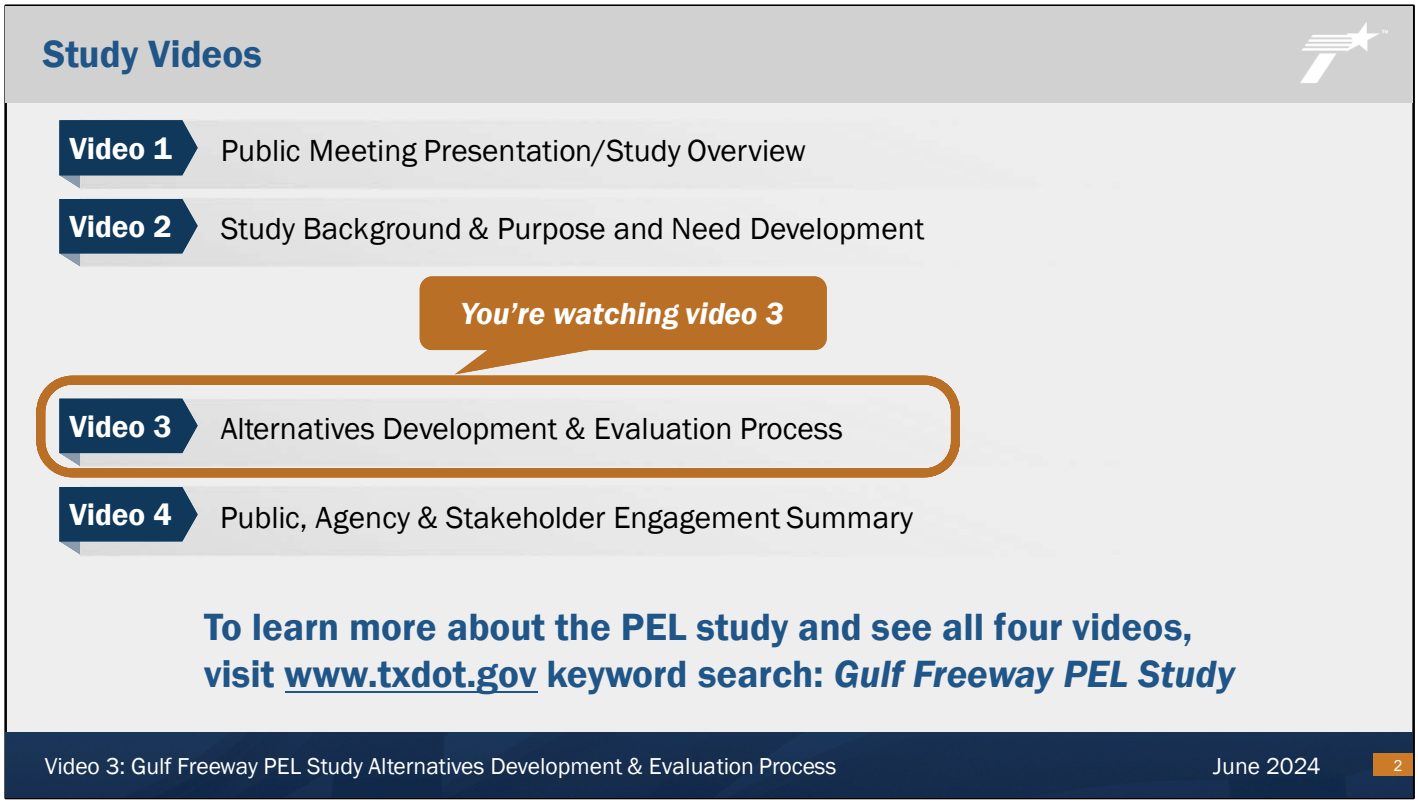


Script:

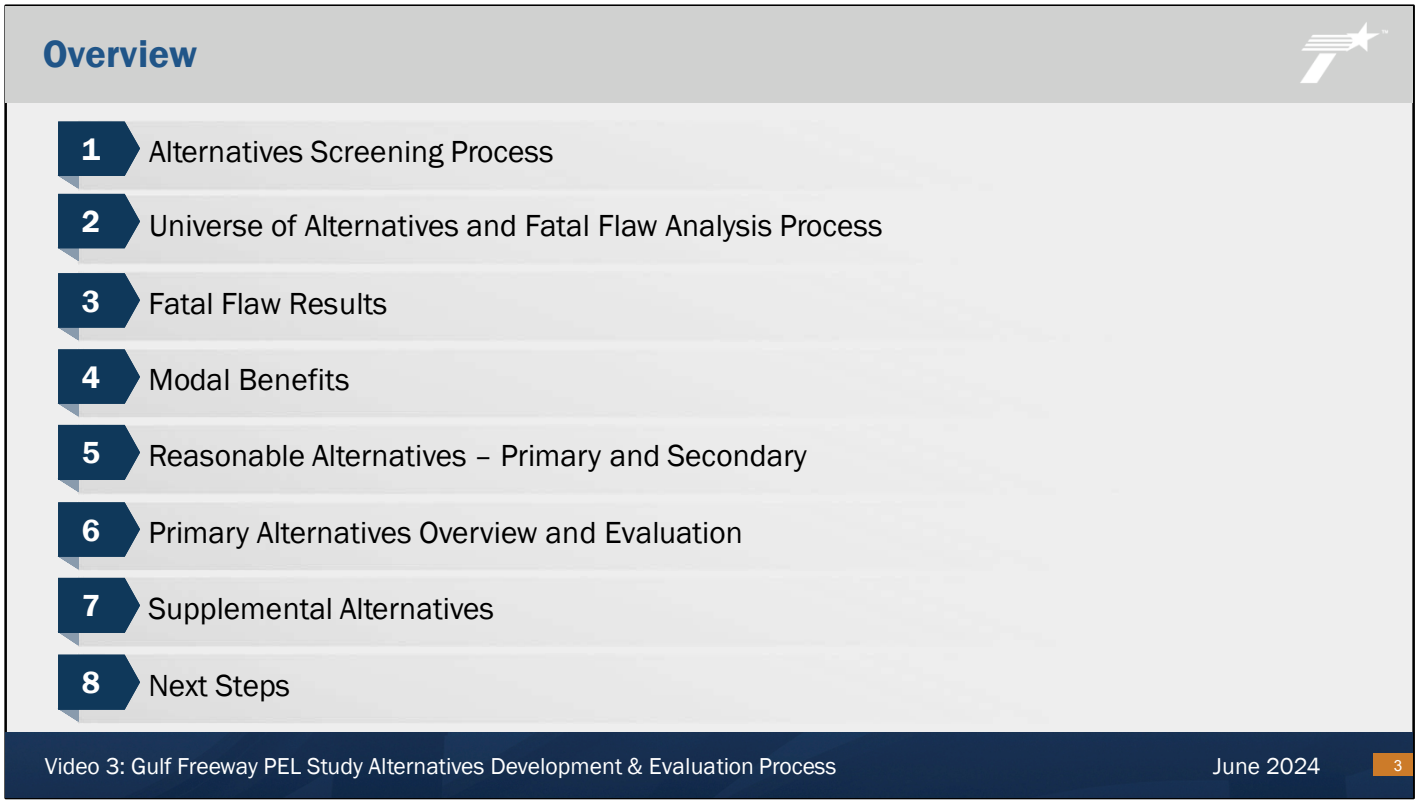
The Texas Department of Transportation, Houston District is conducting a Planning and Environmental Linkages Study, also known as a PEL Study, along Interstate 45 South from Interstate 69 / US 59 in Downtown Houston to Beltway 8 South. This video will discuss the alternatives development and evaluation process for the Gulf Freeway PEL Study.



Script:

You are watching the third video in a series of 4 videos that will provide more information about the Gulf Freeway PEL Study. This video, video 3, summarizes the alternatives development and evaluation process. Video 1 is the official public meeting presentation and provides a study overview. Video 2 focuses on the study background and development of the purpose and need. Video 4 summarizes the public, agency, and stakeholder engagement.

To learn more about the PEL study and to see all four videos please visit www.TxDOT.gov and use keyword search Gulf Freeway PEL Study.

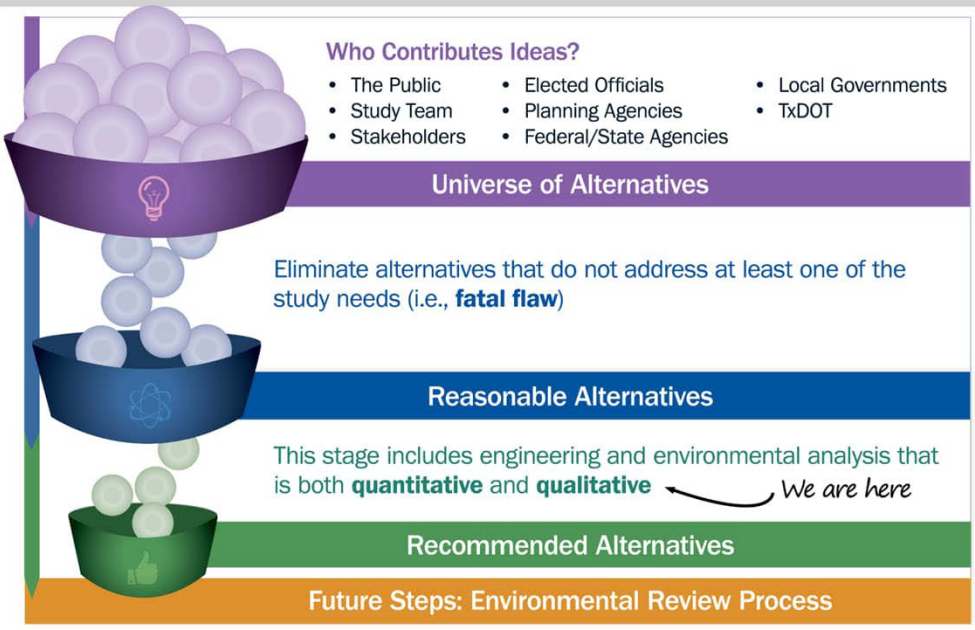


Script:

In this video we will provide project information related to:

- Alternatives screening process
- The universe of alternatives and fatal flaw analysis process
- Fatal Flaw results
- Modal benefits
- Reasonable Alternatives; Primary and secondary
- Primary alternatives overview and evaluation
- Supplemental alternatives
- And next steps

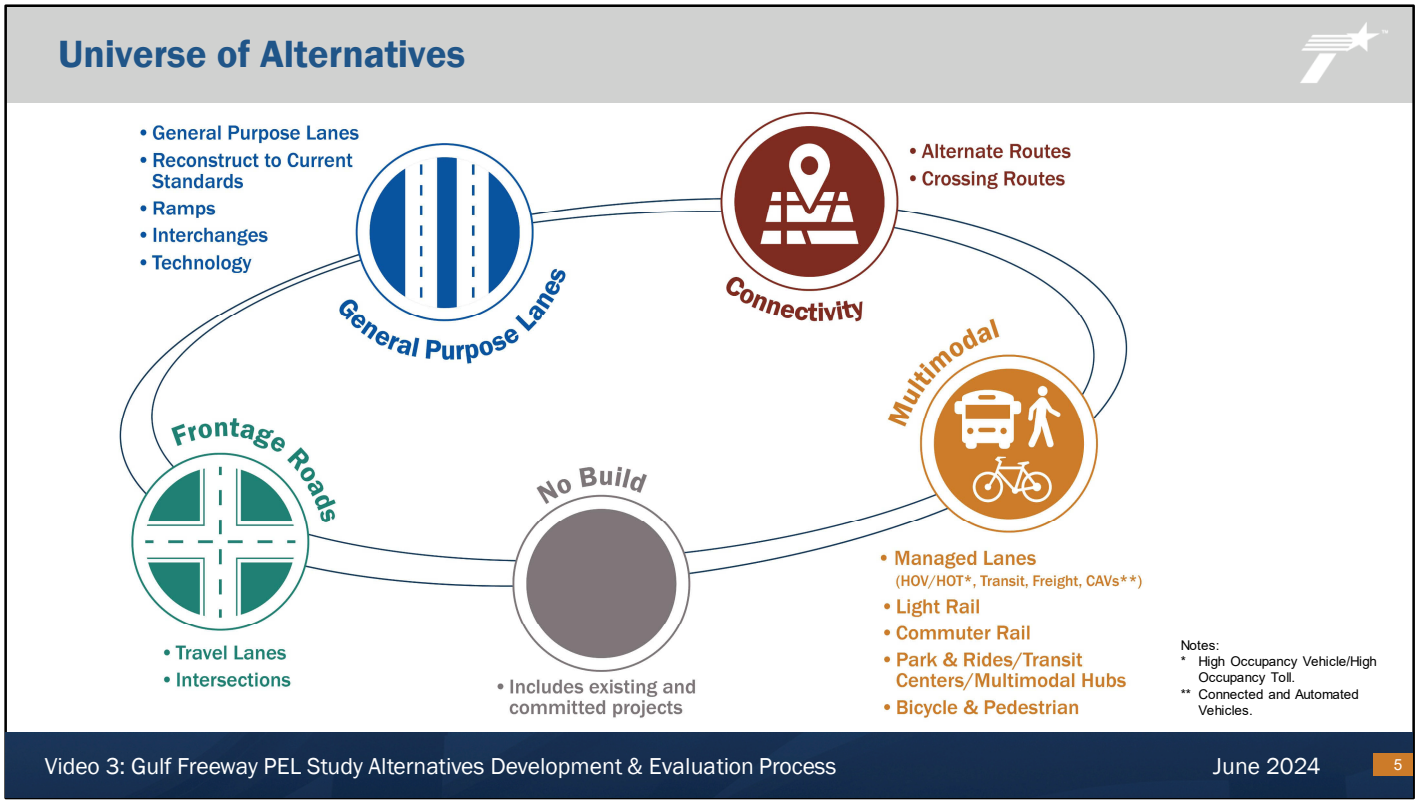
Alternatives Screening Process



Script:

We are using a multi-level screening process to move from the Universe of Alternatives to the Recommended Alternatives. The Universe of Alternatives was developed based on input from the public, study team, agencies, local governments, and elected officials. The fatal flaw analysis was used to screen and eliminate the alternatives that do not address at least one of the study needs. The remaining alternatives were identified as the reasonable alternatives.

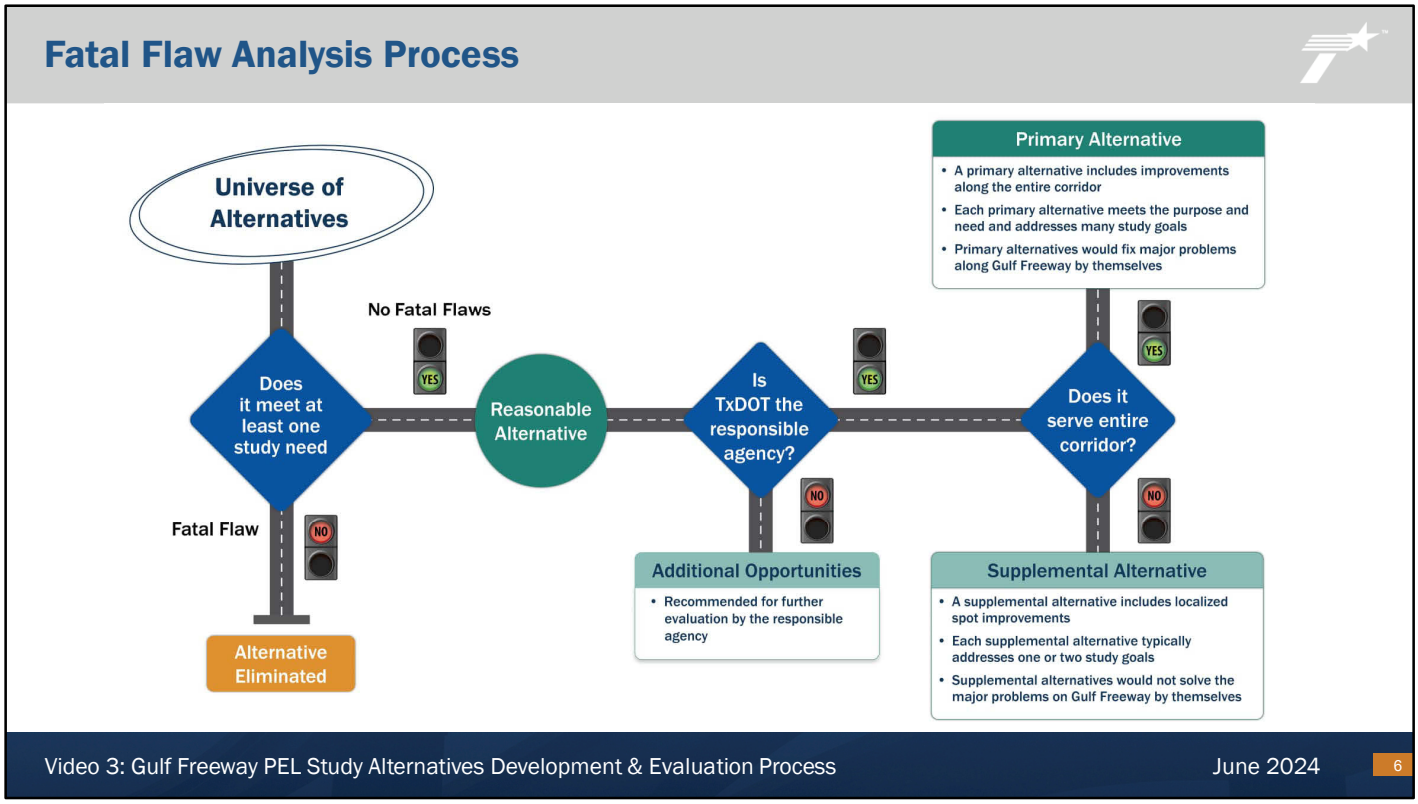
At this public meeting we are presenting the reasonable alternatives and draft analysis results. We need your input to finalize the evaluation of the reasonable alternatives and identify the recommended alternatives. The recommended alternatives will be used in a future environmental review process.



Script:

Using input from the public, stakeholders, agencies, local governments, and elected officials, the study team identified the Universe of Alternatives. The 15 alternatives have been broken into five categories: No Build, Frontage Roads, General Purpose Lanes, Connectivity, and Multimodal.

- No Build, serving as a baseline for comparison purposes
- Frontage Roads, potentially involving enhancements to travel lanes and intersections
- General Purpose Lanes, potentially incorporating upgrades to general purpose travel lanes, ramps, and interchanges
- Connectivity, potentially incorporating enhancements to parallel and east-west routes
- Multimodal, potentially incorporating enhancements to managed lanes, transit systems, park & ride facilities, bicycle and pedestrian facilities and rail systems



Script:

A fatal flaw analysis process was used to eliminate any alternative that does not meet at least one of the study needs. To review or learn about study needs, please refer to video 2 of the series. Alternatives that are the responsibility of other agency were recommended for further evaluation by the responsible agency. Reasonable alternatives under TxDOT responsibility were categorized as either a Primary Alternative or Supplemental Alternative.

Primary Alternatives include improvements along the entire corridor, meeting the need and purpose of the study and addressing many study goals. Supplemental Alternatives include localized spot improvements, each typically address one or more goals of the study, and would not solve the major problems along the corridor by themselves.

Fatal Flaw Results

Universe of Alternatives		Fatal Flaw Analysis				Reasonable Alternatives	
Category	Alternative	Improves Safety?	Improves Mobility and Reduces Congestion?	Improves Multimodal Connections?	Improves Deficient Infrastructure?	Responsible Agency	Next Steps
No Build	No Build	Carried forward as a baseline for comparison				TxDOT	P
Mainlanes	Reconstruct to Current Standard	✓	✗	✗	✓	TxDOT	P
	General Purpose Lanes	✓	✓	✗	✓	TxDOT	P
	Ramps	✓	✗	✓	✗	TxDOT	S
	Interchanges	✓	✓	✓	✗	TxDOT	S
	Technology	✓	✓	✓	✗	TxDOT/Others	S
Frontage Roads	Travel Lanes	✓	✓	✓	✓	TxDOT	S
	Intersections	✓	✓	✓	✗	TxDOT	S
Connectivity	Alternate Routes	✗	✓	✓	✗	TxDOT/City/County	S
	Crossing Routes	✗	✗	✓	✗	TxDOT/City/County	S
Multimodal	Managed Lanes (HOV/HOT[1], Transit, Freight, and CAVs[2])	✓	✓	✓	✓	TxDOT/Houston METRO	P
	Light Rail[3]	✗	✓	✓	✗	Houston METRO	B
	Commuter Rail[3]	✗	✗	✓	✗	Houston METRO	B
	Park & Rides/Transit Centers/ Multimodal Hubs	✗	✓	✓	✗	TxDOT/Houston METRO	S
	Bicycle & Pedestrian	✓	✗	✓	✗	TxDOT/City/County	S

Meets Fatal Flaw Analysis?

✓ Yes ✗ No

P – Primary Alternative: Carried forward for further evaluation as a Primary Alternative

S – Supplemental Alternative: Carried forward for further evaluation as a Supplemental Alternative

B – By Others: To be further evaluated by Houston METRO, City, County, or other responsible agencies

Notes:
1. High Occupancy Vehicle/High Occupancy Toll
2. Connected and Automated Vehicles
3. Based on previous public input, Light Rail and Commuter Rail alternatives were identified as "Additional Opportunities" and recommended for further evaluation by responsible agency.

Script:

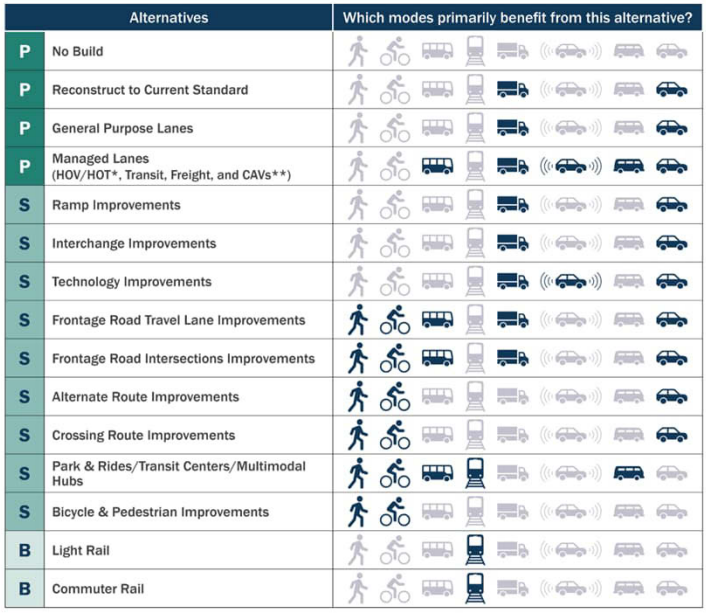
The results of the fatal flaw analysis are summarized in this table.

The first two columns list the categories and sub-categories considered for Universe of Alternatives. The next four columns list the four study needs and the assessment for each alternative. A green check mark indicates that the alternative is anticipated to address the study need. A gray X indicates that the alternative is not anticipated to address the study's purpose and need. All of the considered Universe of Alternatives are anticipated to address at least one of the study needs, therefore they will all move forward as Reasonable Alternatives.

The next column indicates the agency responsible for the funding, implementation and maintenance of the facility. Some alternatives include joint responsibility between multiple agencies. TxDOT has full or joint responsibility for all but two of the alternatives. Houston METRO has full responsibility for light rail and commuter rail considerations.

The last column categorizes each alternative as a primary (letter P) or supplemental alternative (letter S). There are four primary alternatives and nine supplemental alternatives. Light rail and commuter rail along the Gulf freeway corridor are not included in Houston METRO's long-range plan, and therefore will no longer be considered by TxDOT and are commended to be further evaluated by another agency.

Modal Benefits



	Alternatives	Which modes primarily benefit from this alternative?
P	No Build	
P	Reconstruct to Current Standard	
P	General Purpose Lanes	
P	Managed Lanes (HOV/HOT*, Transit, Freight, and CAVs**)	
S	Ramp Improvements	
S	Interchange Improvements	
S	Technology Improvements	
S	Frontage Road Travel Lane Improvements	
S	Frontage Road Intersections Improvements	
S	Alternate Route Improvements	
S	Crossing Route Improvements	
S	Park & Rides/Transit Centers/Multimodal Hubs	
S	Bicycle & Pedestrian Improvements	
B	Light Rail	
B	Commuter Rail	

The PEL study alternatives benefit a variety of travel modes. When combined together, all modes of travel will improve.

P – Primary Alternative: Carried forward for further evaluation as a Primary Alternative

S – Supplemental Alternative: Carried forward for further evaluation as a Supplemental Alternative

B – By Others: To be further evaluated by Houston METRO, City, County, or other responsible agencies

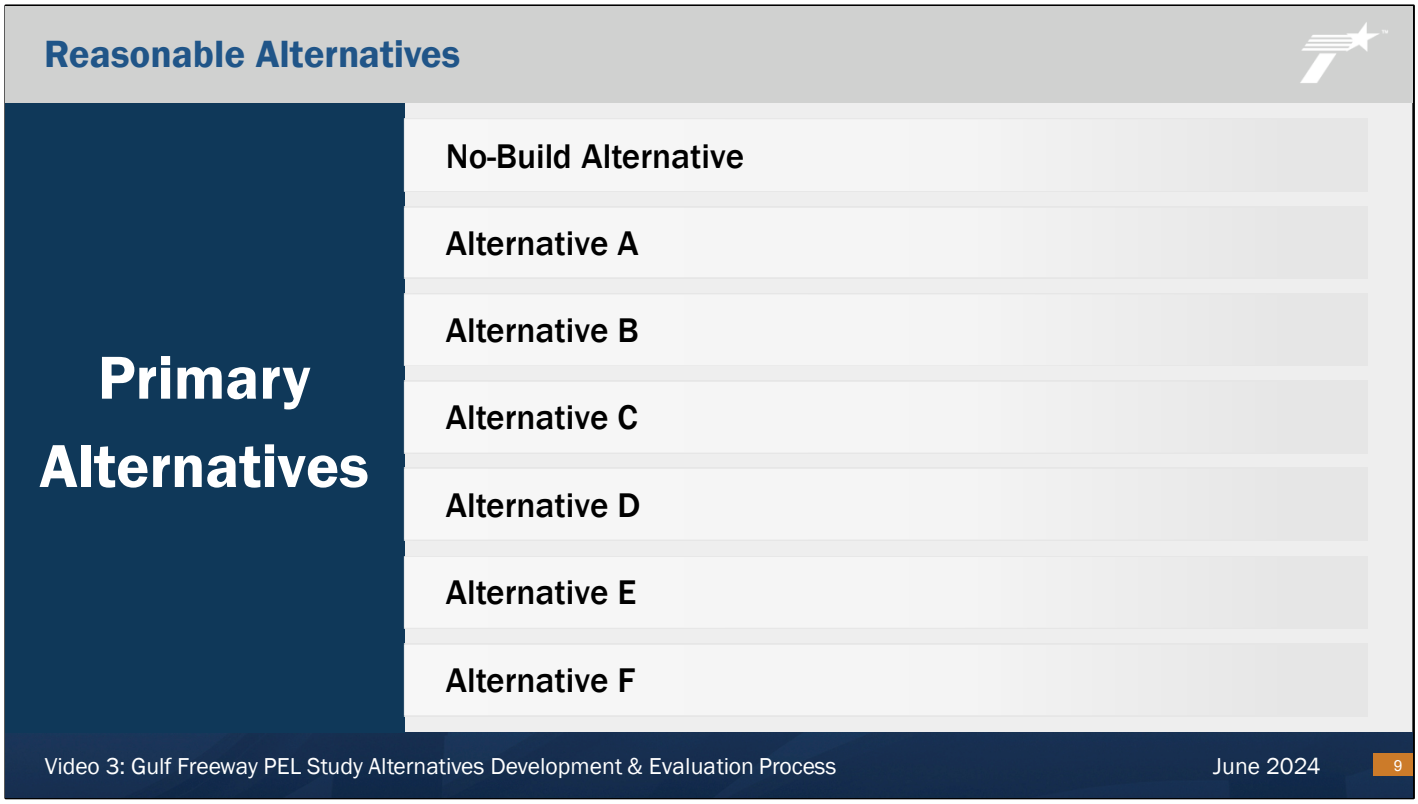
Pedestrian
Bicycle
Bus
Rail
Truck
CAVs *
HOV **
Car

Notes:
* Connected and Automated Vehicles
** High Occupancy Vehicle/High Occupancy Toll

Video 3: Gulf Freeway PEL Study Alternatives Development & Evaluation Process June 2024 8

Script:

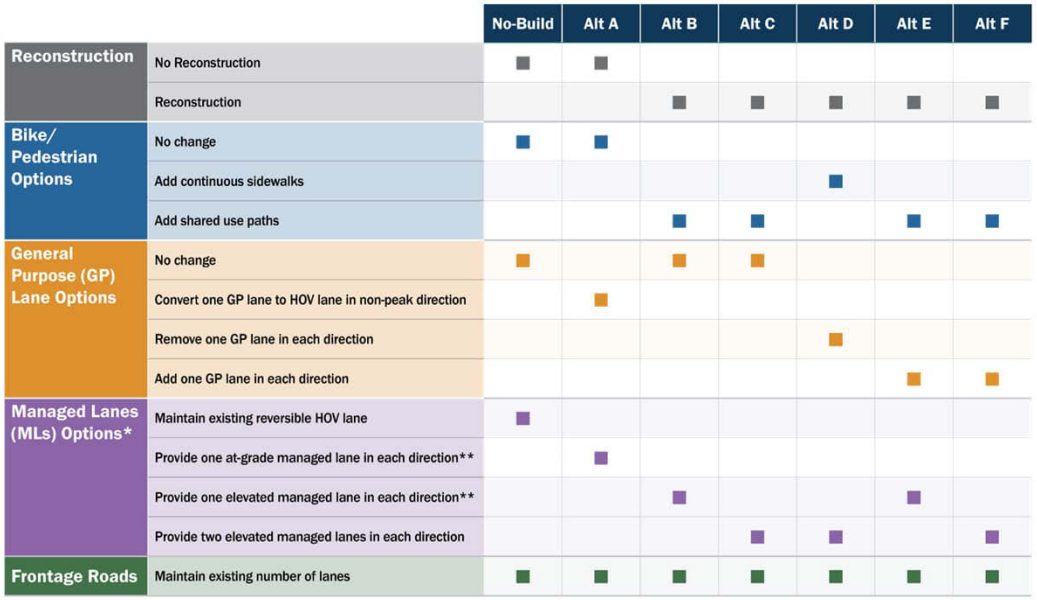
At the last public meeting, the public expressed a lot of interest in multimodal accommodations. The alternatives being considered as part of the Gulf Freeway PEL study would benefit a variety of travel modes. The table shows the modes benefiting from each of the alternatives. A solid blue icon indicates that the corresponding alternative is anticipated to provide benefits to the highlighted mode. A gray icon means that a mode is not anticipated to be benefitted by the corresponding alternative. Individually, the alternatives may only benefit a couple modes, but when combined together, travel would improve for all modes.



Script:

Next we will present the reasonable alternatives. TxDOT has identified primary alternatives to address the corridor-wide study needs. The primary alternatives consist of the No-Build Alternative and six build alternatives.

Primary Alternatives Overview



Notes:
* Public meeting #2 feedback stated preference of new elevated managed lanes over new at-grade lanes.
** Consistent with METRONext Plan.

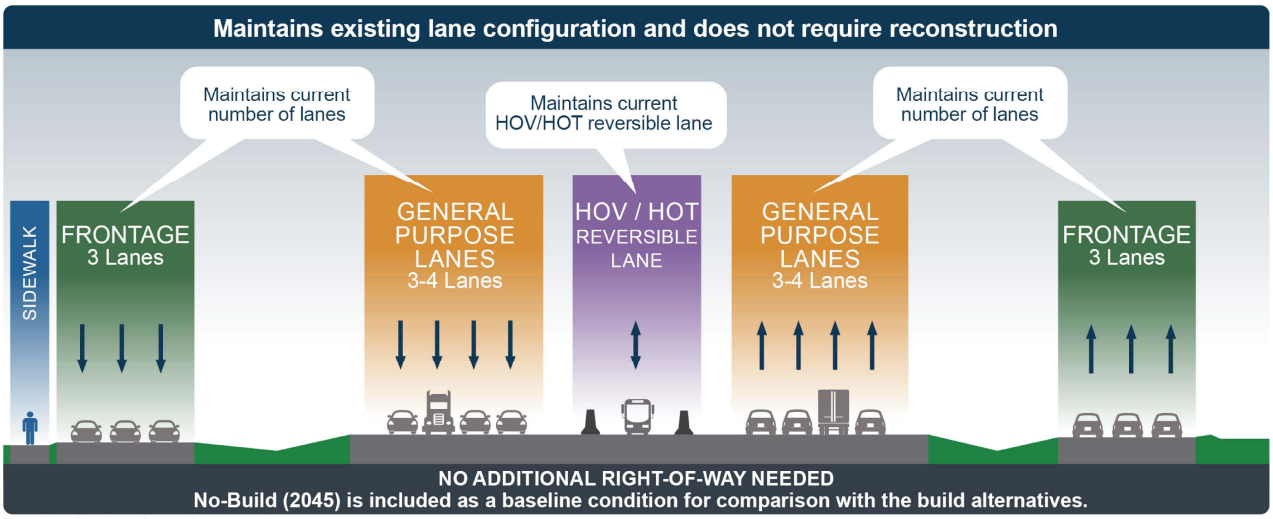
Video 3: Gulf Freeway PEL Study Alternatives Development & Evaluation Process June 2024 10

Script:

Each of the primary alternatives is unique, but each is comprised of five different elements: roadway reconstruction, bicycle and pedestrian accommodations, general purpose lanes, managed lanes, and frontage roads. This slide provides a brief overview on how each of the alternatives are different within each of these categories.

Feedback received during Public Meeting #2 indicated a preference for adding elevated lanes over adding at-grade lanes. As a result, alternatives B thru F add elevated managed lanes instead of at-grade lanes.

Future No-Build (2045)

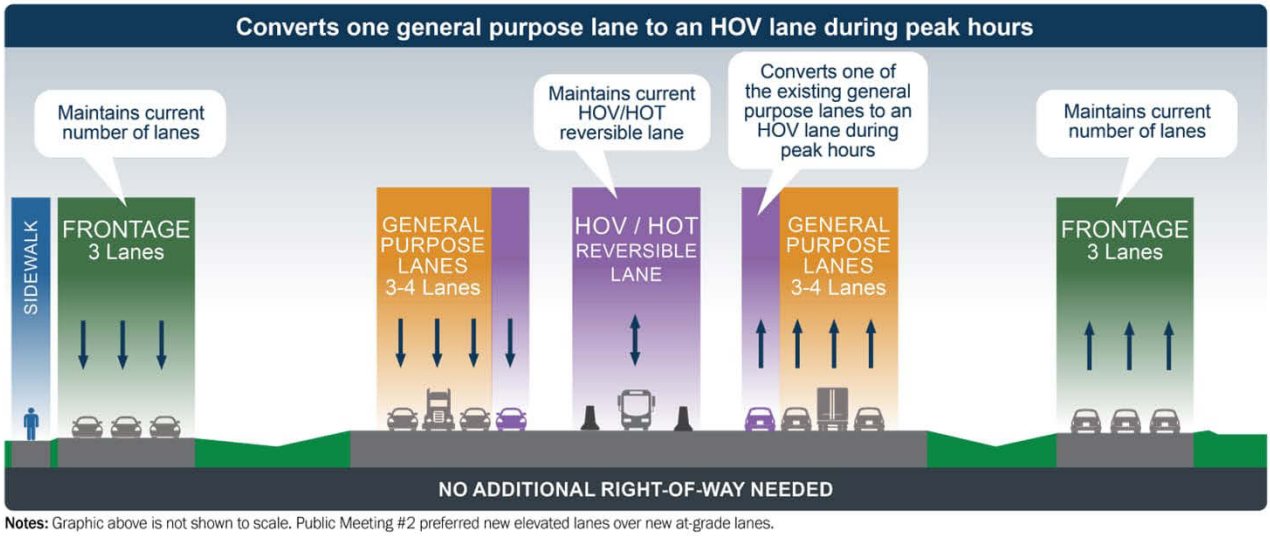


Note: Graphic above is not shown to scale.

Script:

The no-build alternative would not require reconstruction and would maintain the current number of lanes and the reversible HOV/HOT lane, and there would be no changes to existing pedestrian accommodations. Regular maintenance activities would be carried out as planned and as needed .

Alternative A

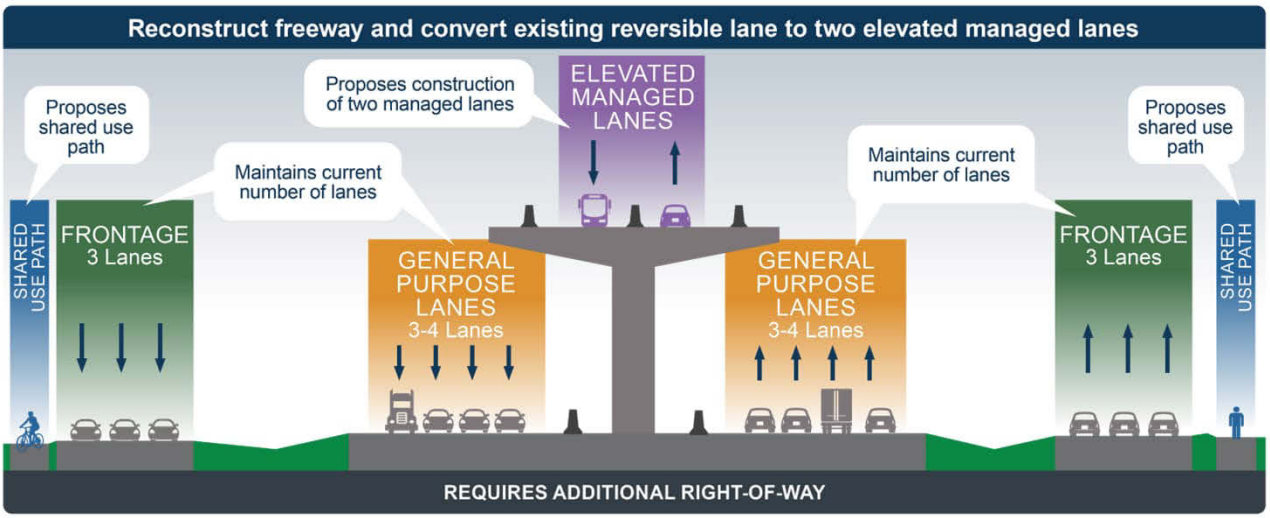


Notes: Graphic above is not shown to scale. Public Meeting #2 preferred new elevated lanes over new at-grade lanes.

Script:

Alternative A would not require reconstruction and would convert one general purpose lane to an HOV lane during peak AM or PM hours. This could be accomplished by restriping and redesignating the inside lane in the opposite direction of peak traffic.

Alternative B

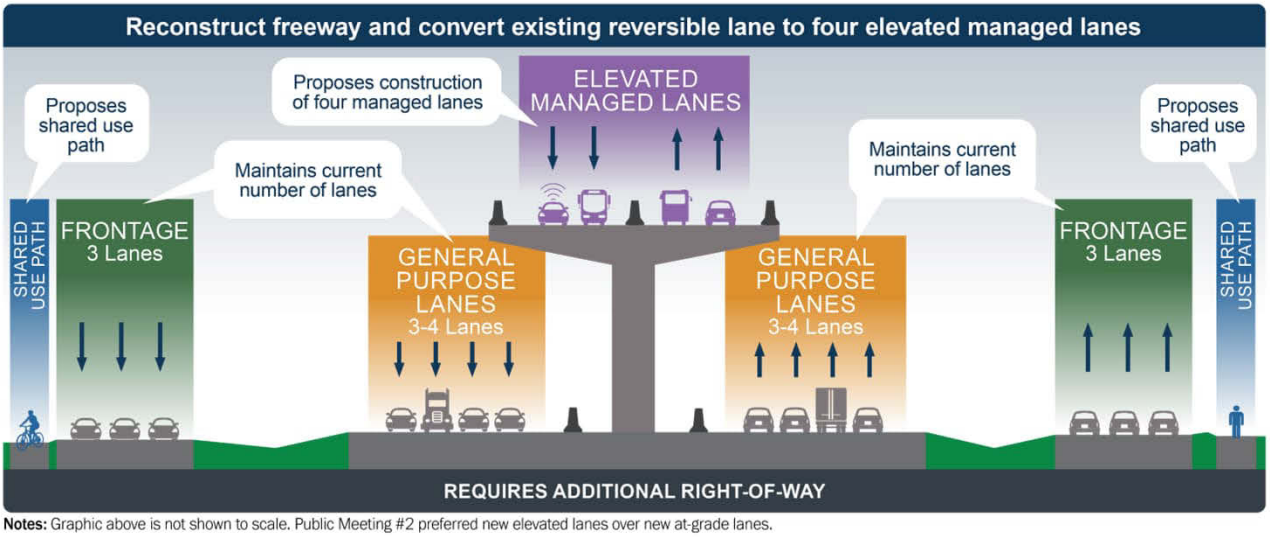


Notes: Graphic above is not shown to scale. Public Meeting #2 preferred new elevated lanes over new at-grade lanes.

Script:

Proposed improvements for **Alternative B** would include the reconstruction of the entire facility, provide two elevated managed lanes, maintain the same number of general purpose lanes and frontage roads, and provide a new continuous shared use path for pedestrians and bicycle users on both sides of the corridor. This alternative would upgrade the facility to current design standards and would require some additional right-of-way.

Alternative C



Notes: Graphic above is not shown to scale. Public Meeting #2 preferred new elevated lanes over new at-grade lanes.

Script:

Proposed improvements for **Alternative C** would include reconstruction of the entire facility, provide four elevated managed lanes, maintain the same number of general purpose lanes and frontage road lanes, and provide a new continuous shared use path for pedestrians and bicycle users on both sides of the corridor. This alternative would upgrade the facility to current design standards and would require some additional right-of-way.

The difference between Alternative B and Alternative C is the number of managed lanes. Alternative B has two managed lanes and Alternative C has four managed lanes.

Alternative D

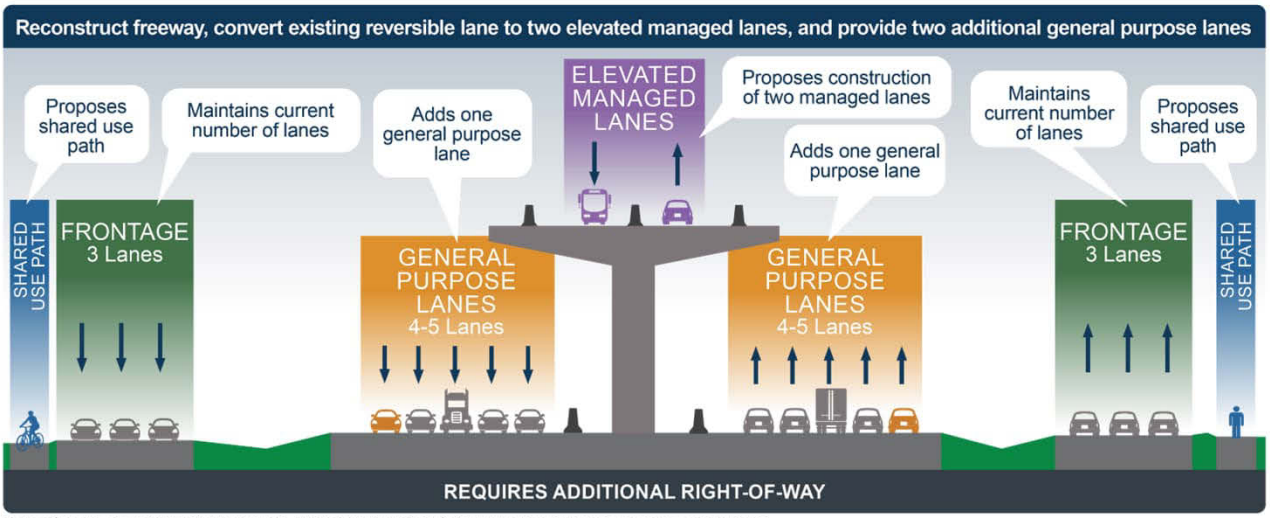
Notes: Graphic above is not shown to scale. Public Meeting #2 preferred new elevated lanes over new at-grade lanes.

Script:

Proposed improvements for **Alternative D** would include reconstruction of the entire facility, provide four elevated managed lanes, reduce the number of general purpose lanes by one lane in each direction, maintain the same number of frontage road lanes, and provide continuous sidewalks for pedestrians on both sides of the corridor. This alternative would upgrade the facility to current design standards where possible and would not require additional right-of-way.

Alternative D reduces the number of general purpose lanes. This would reduce needing to acquire additional right-of-way.

Alternative E

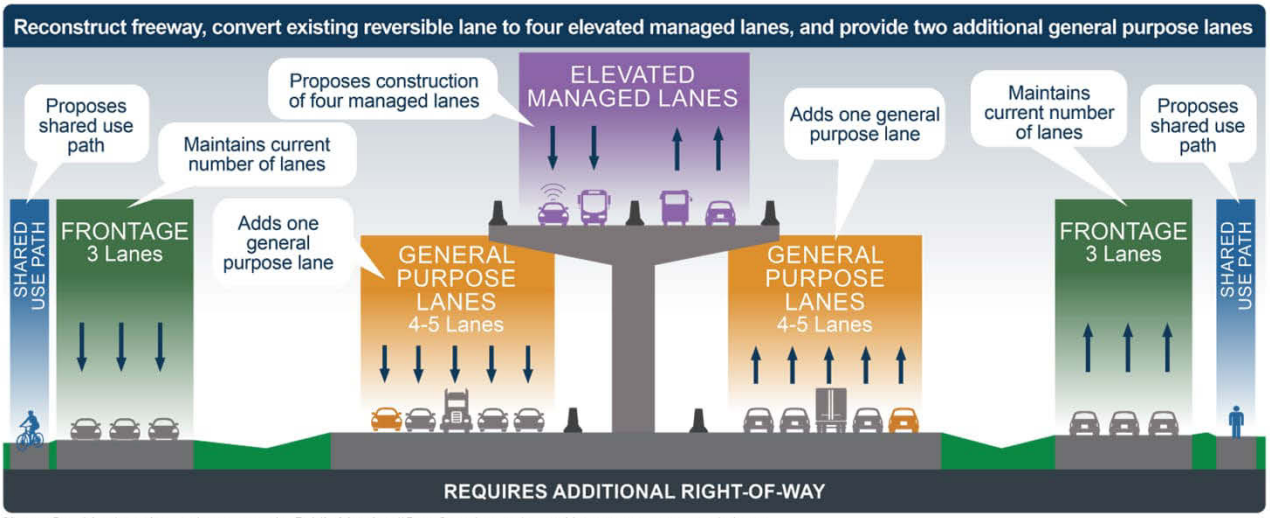


Notes: Graphic above is not shown to scale. Public Meeting #2 preferred new elevated lanes over new at-grade lanes.

Script:

Proposed improvements for **Alternative E** would include reconstruction of the entire facility, provide two elevated managed lanes, add one general purpose lane in each direction, maintain the same number of frontage road lanes, and provide a new continuous shared use path for pedestrians and bicycle users on both sides of the corridor. This alternative would upgrade the facility to current design standards and would require additional right-of-way.

Alternative F

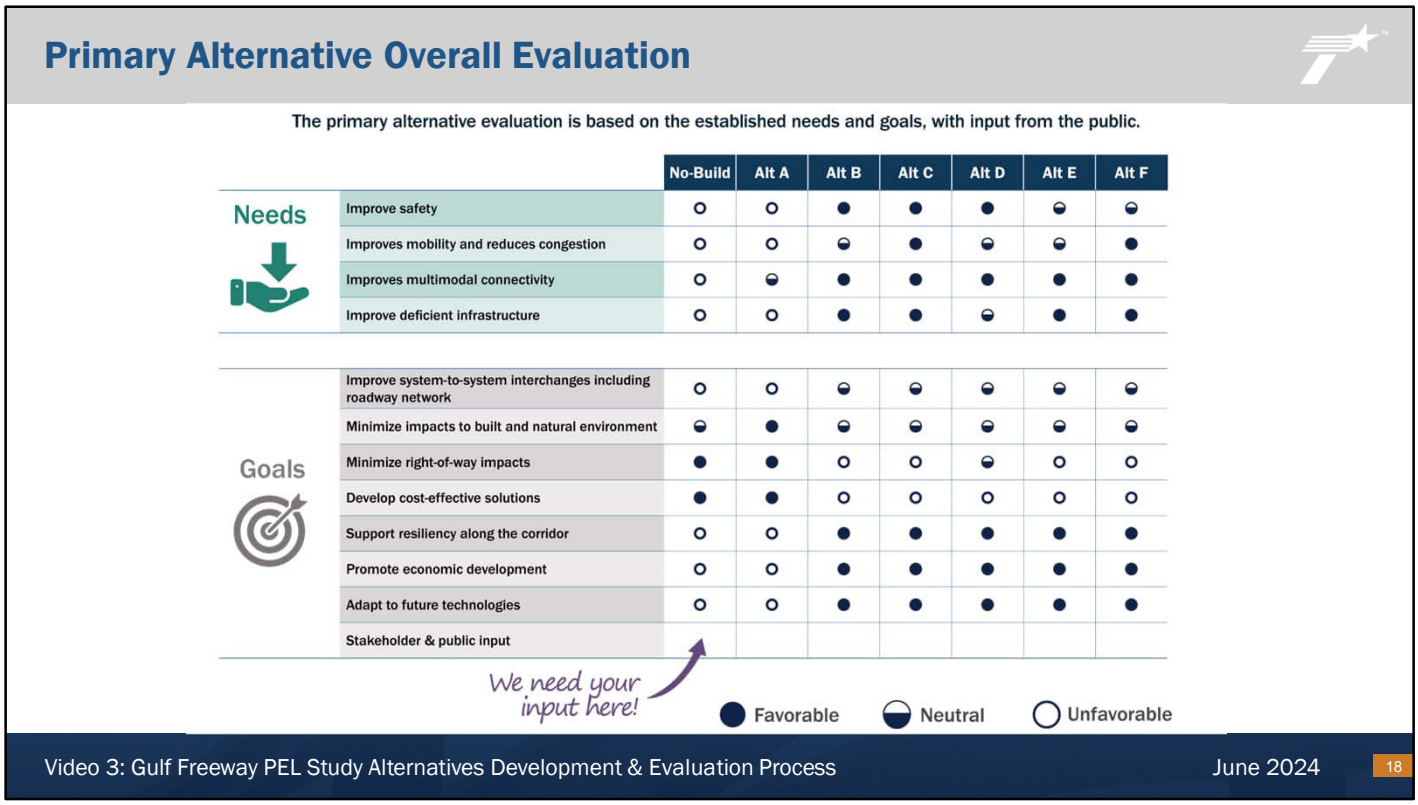


Notes: Graphic above is not shown to scale. Public Meeting #2 preferred new elevated lanes over new at-grade lanes.

Script:

Proposed improvements for **Alternative F** would include reconstruction of the entire facility, provide four elevated managed lanes, add one general purpose lane in each direction, maintain the same number of frontage road lanes, and provide a new continuous shared use path for pedestrians and bicycle users. This alternative would upgrade the facility to current design standards and would require additional right-of-way.

The difference between Alternative E and Alternative F is the number of managed lanes. Alternative E has two managed lanes and Alternative F has four managed lanes.



Script:

Each primary alternative was rated for its ability to meet the study needs and goals. A detailed, quantitative analysis was completed for each alternative to evaluate its performance to meet the study needs and goals. The goals were evaluated using a combination of qualitative and quantitative analysis.

To summarize each evaluation, a three-level rating scale was applied to the overall results for each of the primary alternatives: Favorable, Neutral and Unfavorable. These are shown as circles in the table.
A solid circle represents a favorable outcome, indicating that a need or goal is completely fulfilled by the alternative.
A half-filled circle represents a neutral outcome, indicating that a need or goal is partially fulfilled by the alternative.
An empty circle represents an unfavorable outcome, indicating that a need or goal is not fulfilled by the alternative.

In order to complete the study's evaluation, we need your input on each of the Primary Alternatives. The needs and goals assessment, along with input from the stakeholders and public, will be used to identify the recommended (or preferred) alternatives to move forward through the environmental analysis process.

Supplemental Alternatives

Supplemental Alternatives include improvements to:

- Ramps
- Frontage Roads
- Interchanges
- Intersections
- Alternate / Crossing Routes
- Bicycle / Pedestrian
- Multimodal Hubs and Park & Rides
- Technology

Script:

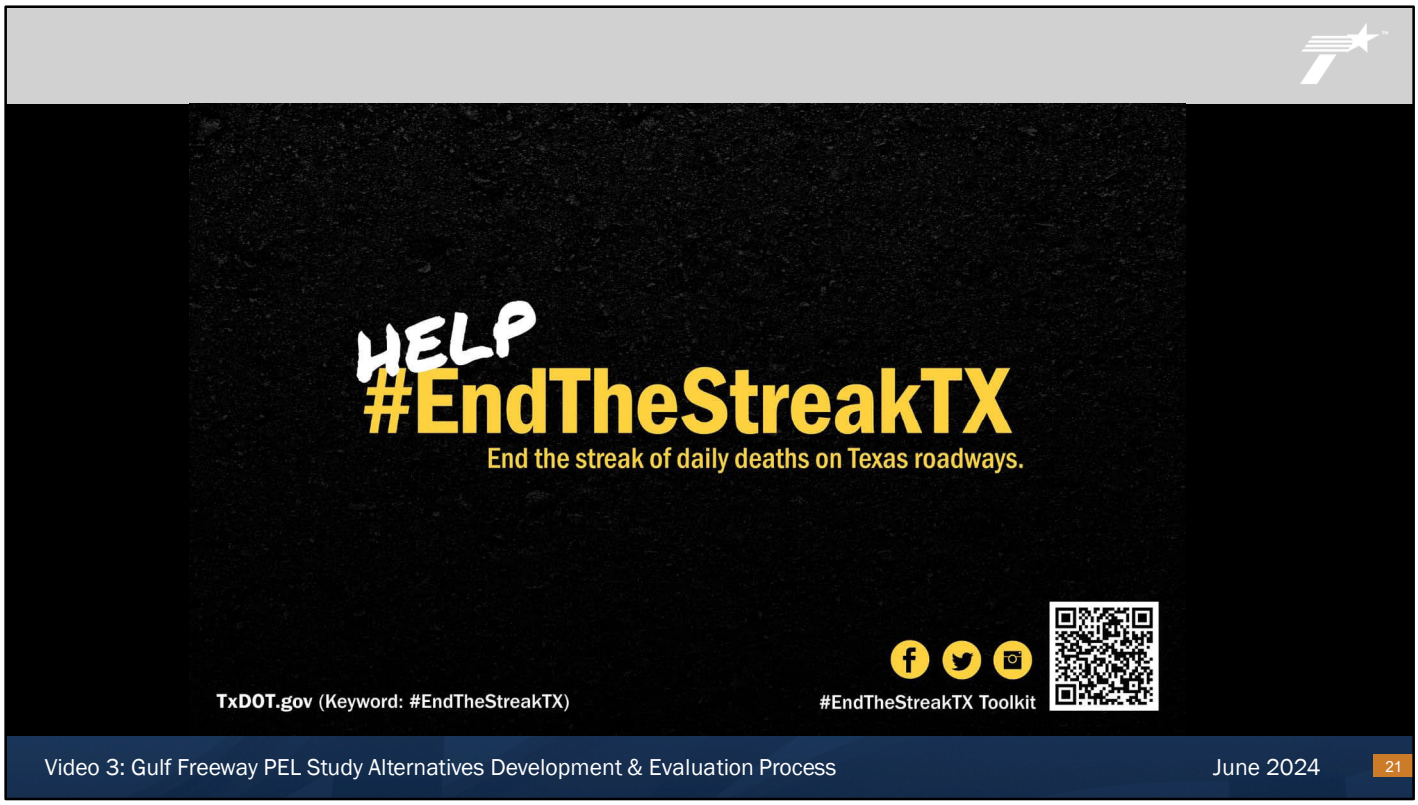
As previously mentioned, the study will also include recommendations for supplemental alternatives improvements that would be used to enhance the primary alternatives. Eight supplemental alternative categories have been identified. These 8 supplemental alternative categories are ramps, frontage roads, interchanges, intersections, alternate/crossing routes, bicycle/pedestrian infrastructure, multimodal hubs and park-and-rides, and implementation of technology.
More detail on each of the supplemental alternatives is included in the public meeting number 3 exhibit boards posted on the study webpage.

Script:

The next step in this Gulf Freeway PEL Study is to collect all input received from this public meeting engagement period, and compile and analyze the results.

The study team will then complete the screening of the reasonable alternatives and identifying recommended alternatives that meet the corridor needs and goals.

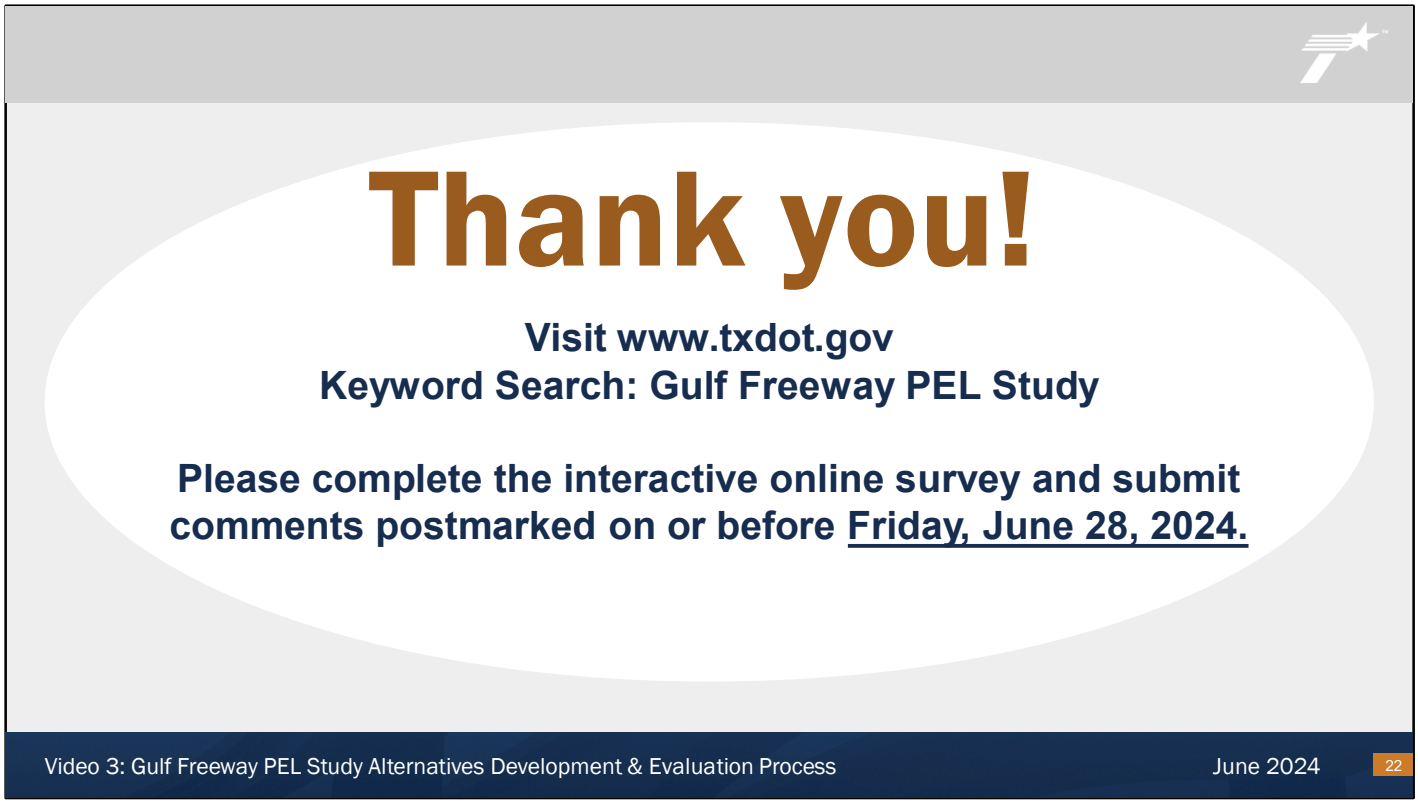
We are anticipating to have the 4th and final series of public meetings in early 2025 during which we will present the study findings and recommended alternatives. The findings are intended to be used to advance the potential projects through the environmental review, design, and construction phase.



Script:

Sadly, November 7, 2000 was the last deathless day on roadways in Texas. That means for nearly 24 years, at least one person has died every single day. We all have a part to play to change that. This message is that reminder – to End the Streak of deaths on Texas highways. We need drivers and passengers to act more responsibly and help us reach our goal of zero deaths by 2050. Texans can play a major role in ending fatal crashes with a few simple driving habits: wear seatbelts, drive the speed limit, put away the phone and other distractions, and never drive under the influence of alcohol or drugs. So please, do your part and share this message with your friends and family.

Scan the QR code on this screen or search #EndTheStreakTX to learn more about #EndTheStreakTX campaign.



Script:

Thank you for watching this video on the Gulf Freeway PEL study alternatives development and evaluation process.

To learn more about the Gulf Freeway PEL study, to access the online survey, or to provide feedback on the reasonable alternatives, please visit the TxDOT webpage and use the keyword search “Gulf Freeway PEL Study”. Please complete the online survey and submit comments postmarked on or before Friday, June 28, 2024.

Check out the other short videos on the study webpage to learn more about the study background, purpose and need, study goals, and public, agency and stakeholder engagement.