



Welcome and thank you for joining the Ports-to-Plains Corridor Feasibility Study Segment 1 Committee Meeting.

The meeting will begin in a few minutes.

Mentimeter

The Mentimeter tool will be used during this meeting. Visit www.menti.com and enter the code **67 73 37**.

Mic Check

To reduce microphone feedback during the meeting, please mute your devices, including phones and computer microphones and speakers unless you are speaking.



Ports-to-Plains Corridor Feasibility Study (HB 1079)

Segment #1, Committee Meeting #4
Conference Call/Web-Ex



Welcome

TxDOT Leadership

**Caroline Mays,
Director, Freight, Trade and Connectivity, TxDOT**

**Honorable Dan Pope, Mayor, City of Lubbock,
Ports-to-Plains Advisory Committee Chair**

**Jared Miller,
Amarillo City Manager, Segment 1 Committee Chair**

Agenda Review



1 Welcome

2 Recap of Previous Meeting

3 Economic Analysis

4 Revised Cost Estimates

5 Break

6 Prioritization of Recommendations

7 Review and Discussion of Draft Report Chapters

8 Open Discussion

9 Adjourn



Segment #1

Recap of Previous Meeting

Caroline Mays, TxDOT

Jared Miller, Segment 1 Committee Chair



- **Members attended via online conference due to COVID-19**
- **Agenda**
 - Determination of Areas Preferable and Suitable for Interstate Designation
 - Preliminary Cost Estimates
 - Preliminary Committee Recommendations
 - Funding Sources
 - Review and Discussion of Report Chapters 3 and 4



Online Conference



- **FHWA has approval authority**

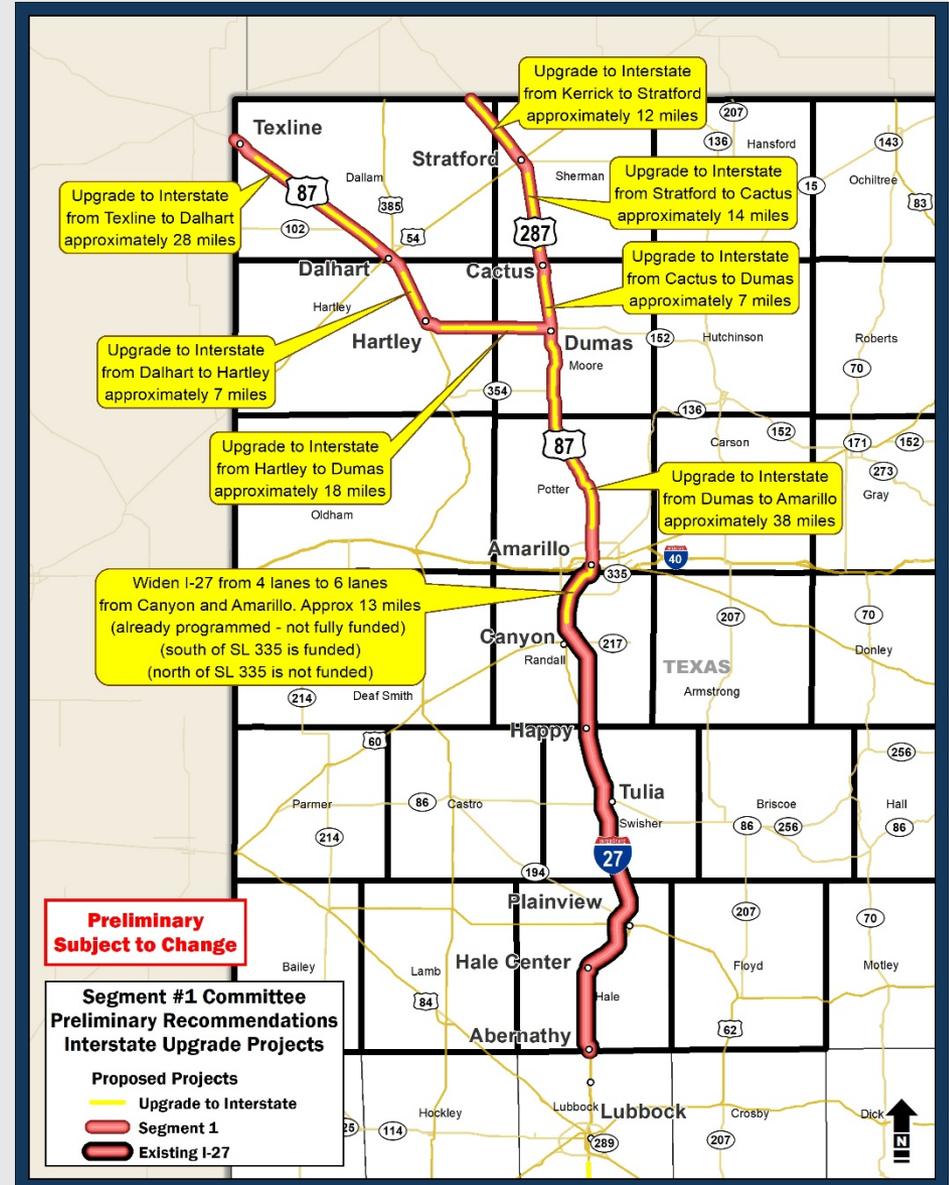
- **Three methods to obtain interstate designation**
 - **Method 1:** The US DOT Secretary may designate, if the corridor currently meets standards
 - **Method 2:** TxDOT may submit a proposal requesting designation as a future interstate
 - **Method 3:** By congressional act

Interstate Upgrade Projects



Committee members suggested these preliminary recommended projects during a meeting held on April 1, 2020.

Roadway	From	To	Description of Work
US 287	Kerrick	Stratford	Upgrade to Interstate (approx. 12 miles)
US 287	Stratford	Cactus	Upgrade to Interstate (approx. 14 miles)
US 287	Cactus	Dumas	Upgrade to Interstate (approx. 7 miles)
US 87	Texline	Dalhart	Upgrade to Interstate (approx. 28 miles)
US 87	Dalhart	Hartley	Upgrade to Interstate (approx. 7 miles)
US 87	Hartley	Dumas	Upgrade to Interstate (approx. 18 miles)
US 87	Dumas	Amarillo	Upgrade to Interstate (approx. 38 miles)

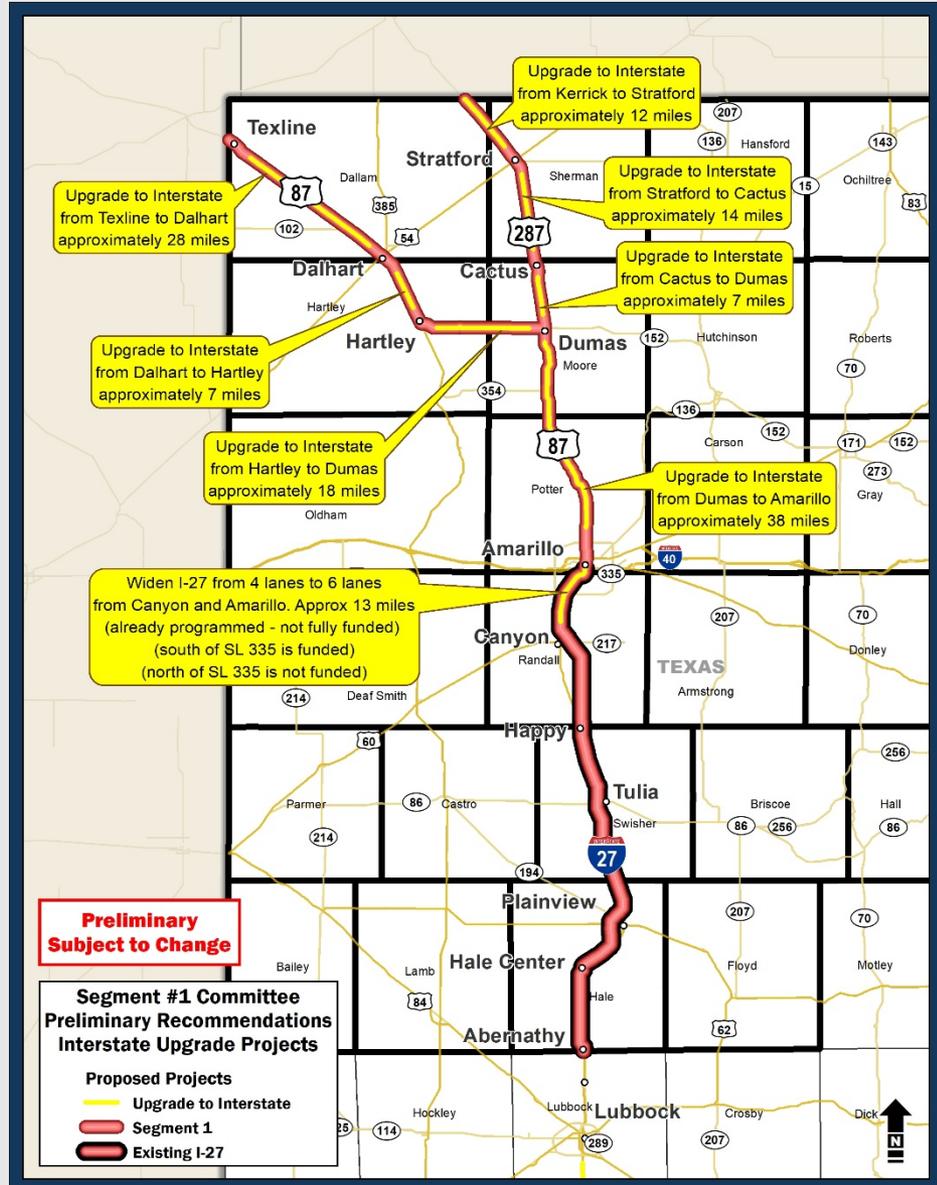


Interstate Upgrade Projects (continued)



Roadway	From	To	Description of Work
I 27	Amarillo	Canyon	<p>Widen from 4 to 6 lanes (approx. 13 miles)*+</p> <ul style="list-style-type: none"> • South of SL 335 is funded • North of SL 335 is not funded • Currently has 2-lane frontage roads

* denotes a planned and programmed project
 + denotes project not fully funded



Relief Route Studies

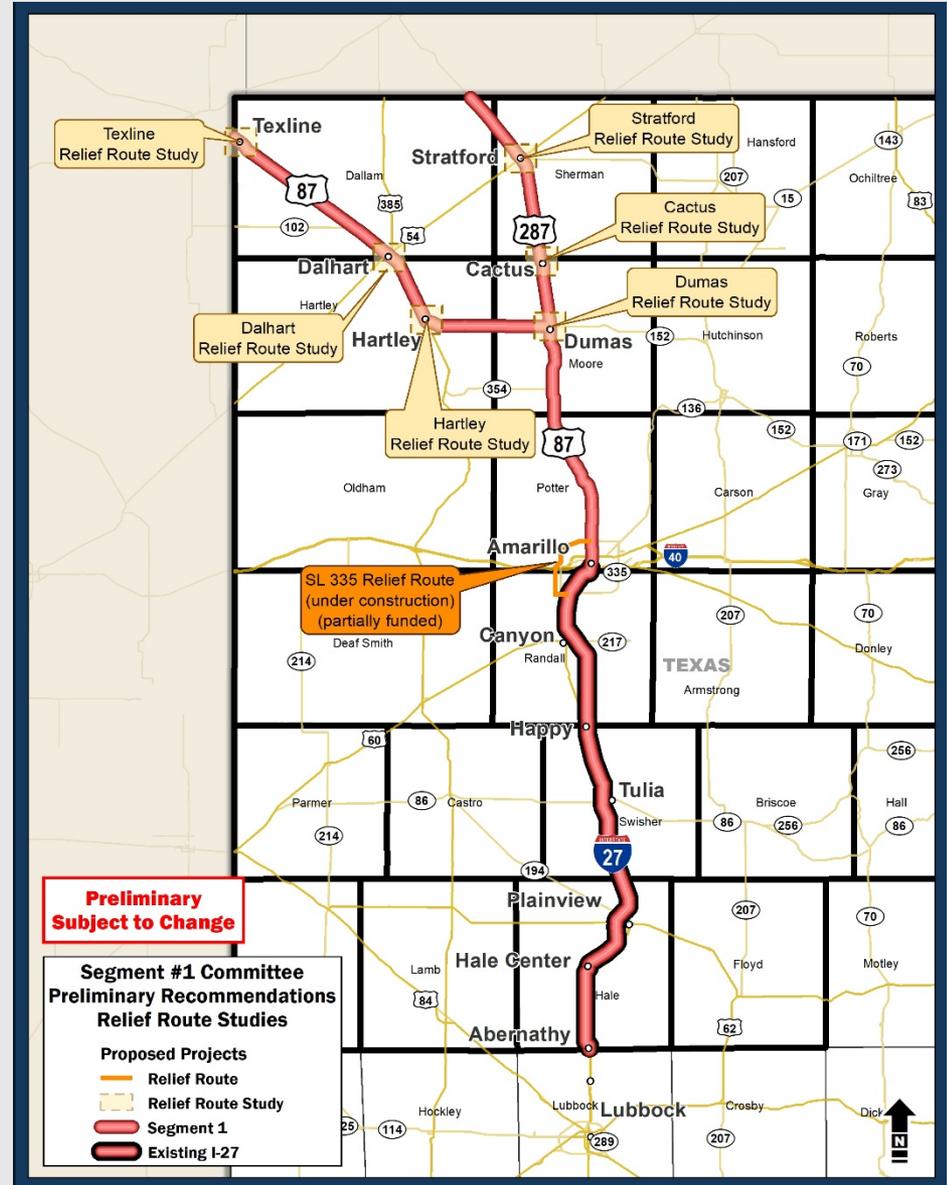


Committee members suggested these preliminary recommended projects during a meeting held on April 1, 2020.

Description	Location
Texline Relief Route Study	Around City of Texline
Dalhart Relief Route Study	Around City of Dalhart
Hartley Relief Route Study	Around City of Hartley
Stratford Relief Route Study	Around City of Stratford
Cactus Relief Route Study	Around City of Cactus
Dumas Relief Route Study	Around City of Dumas
State Loop 335 Relief Route *+	Off US 87, extends along west side of Amarillo

* denotes a planned and programmed project

+ denotes project not fully funded

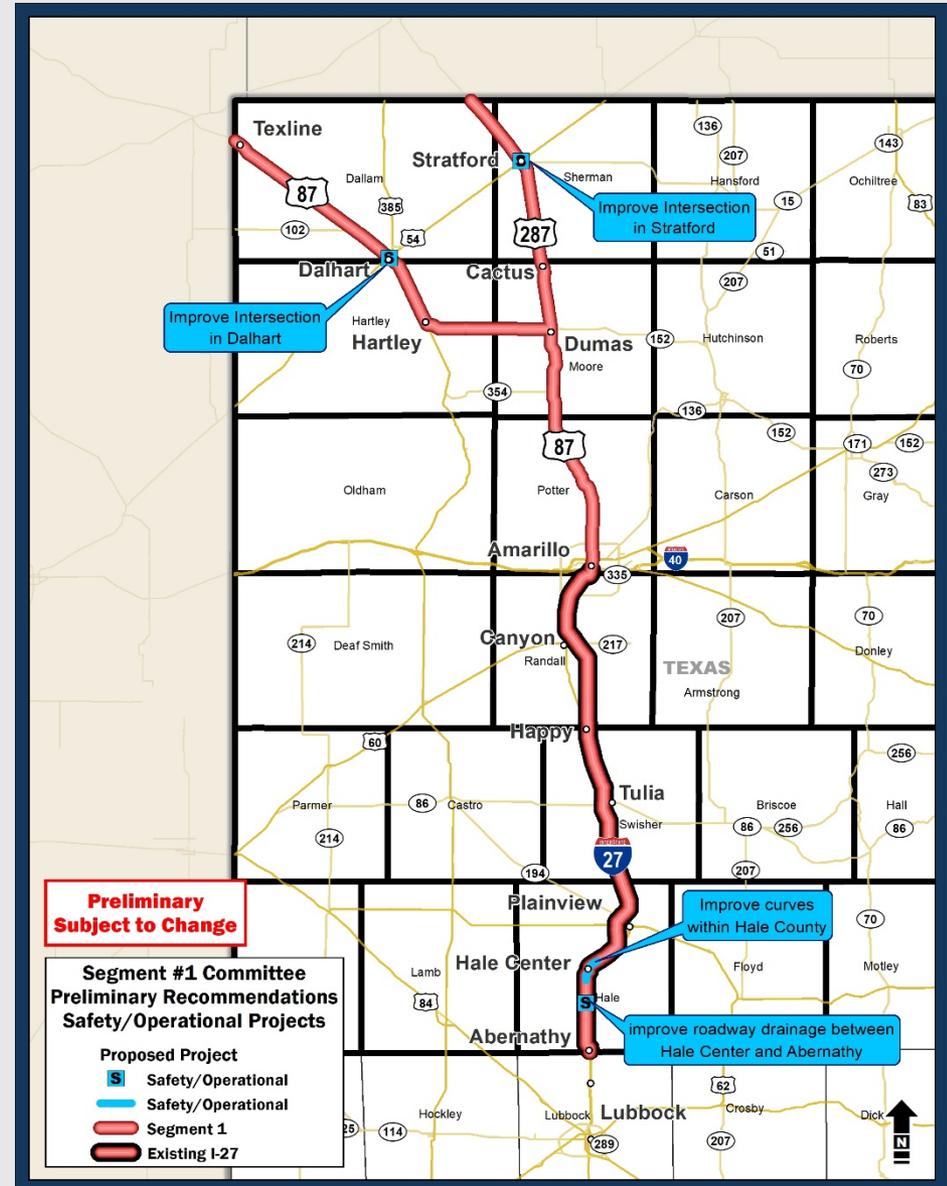


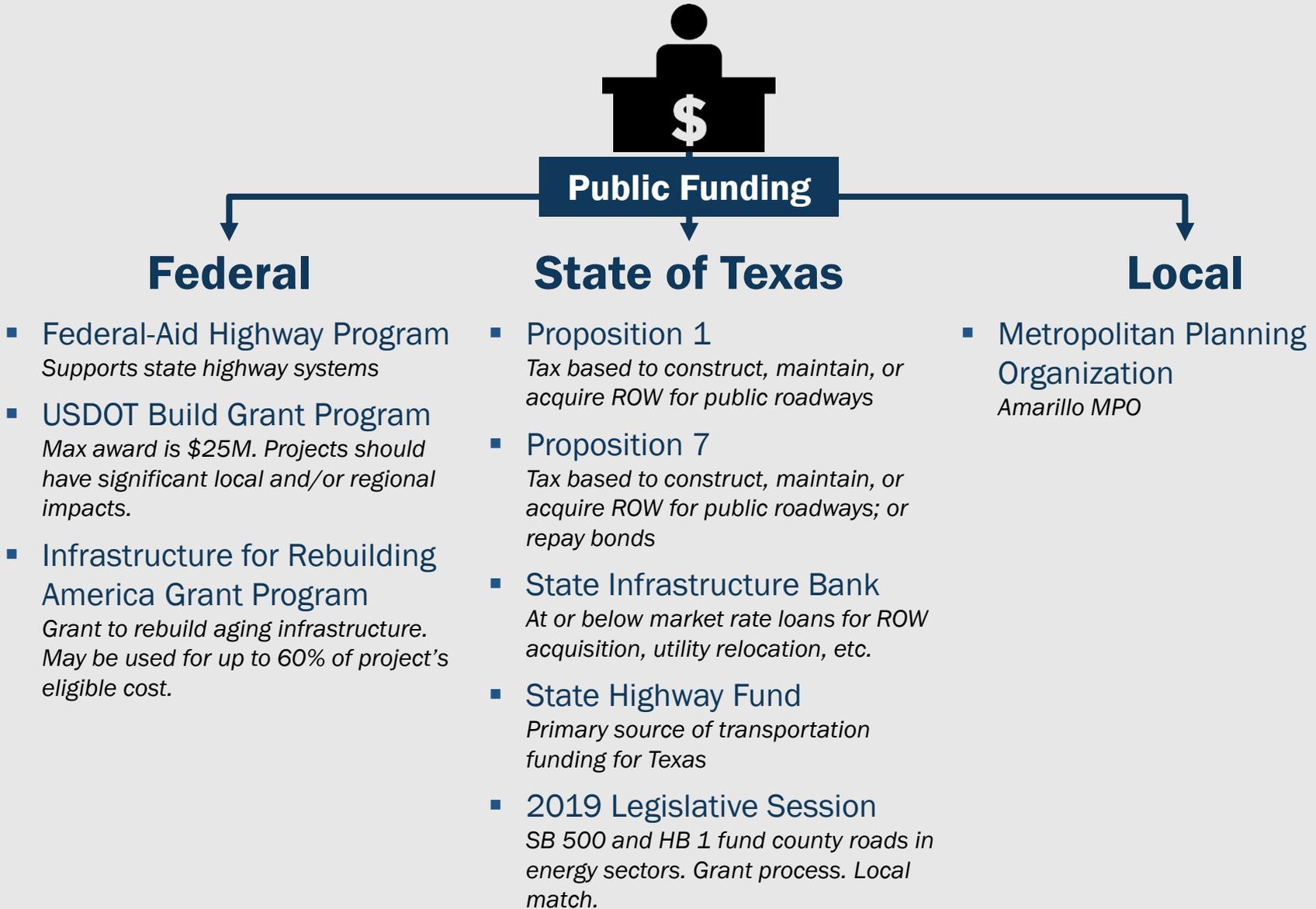
Safety and Operational Projects



Committee members suggested these preliminary recommended projects during a meeting held on April 1, 2020.

Roadway	Description of Work
US 287 at US 54	Improve intersection in Stratford
US 87 at US 54	Improve intersection in Dalhart
I-27	Improve curves within Hale County (near Hale Center)
I-27	Improve roadway drainage between Hale Center and Abernathy







- The Texas Transportation Commission and TxDOT use the Unified Transportation Program (UTP) as TxDOT's **10-year plan to guide transportation project development**.
- The **UTP authorizes projects for construction, development and planning activities** and includes projects involving highways along with planning and project selection processes for state funding in modal areas of aviation, rail, public transportation, and state and coastal waterways.
- The UTP is **neither a budget nor a guarantee that projects will or can be built**. However, it is a critical tool in guiding transportation project development within the long-term planning context.



The Texas Transportation Commission sets funding levels in the 12 categories based on the goals, performance measures, and targets established in the Statewide Long-Range Transportation Plan.

Category	Common Project Types
Category 1 – Preventative Maintenance and Rehabilitation	Roadway surfacing and rehabilitation
Category 2 – Metropolitan and Urban Area Corridor Projects	Urban road capacity, interchanges
Category 3 – Non-Traditionally Funded Transportation Projects	Various
Category 4 – Statewide Connectivity Corridor Projects	Regional corridor capacity
Category 5 – Congestion Mitigation and Air Quality Improvement	Intersection and interchange improvements
Category 6 – Structure Replacement and Rehabilitation (Bridge)	Bridge replacement and repair
Category 7 – Metropolitan Mobility and Rehabilitation	Urban transportation improvements
Category 8 – Safety	Medians, shoulders, signals, guard rails, rumble strips, grade separation, etc.
Category 9 – Transportation Alternatives Set-Aside Program	Bike and pedestrian infrastructure
Category 10 – Supplemental Transportation Programs	Border infrastructure, state park roads
Category 11 – District Discretionary	Roadway resurfacing, passing lanes
Category 12 – Strategic Priority	Urban and rural road capacity



- Executive Summary
- Letter from the Segment Committee Chair
- 1. Introduction
- 2. Existing Conditions
- 3. Forecasted Conditions
- 4. Segment Interstate Feasibility Analysis and Findings

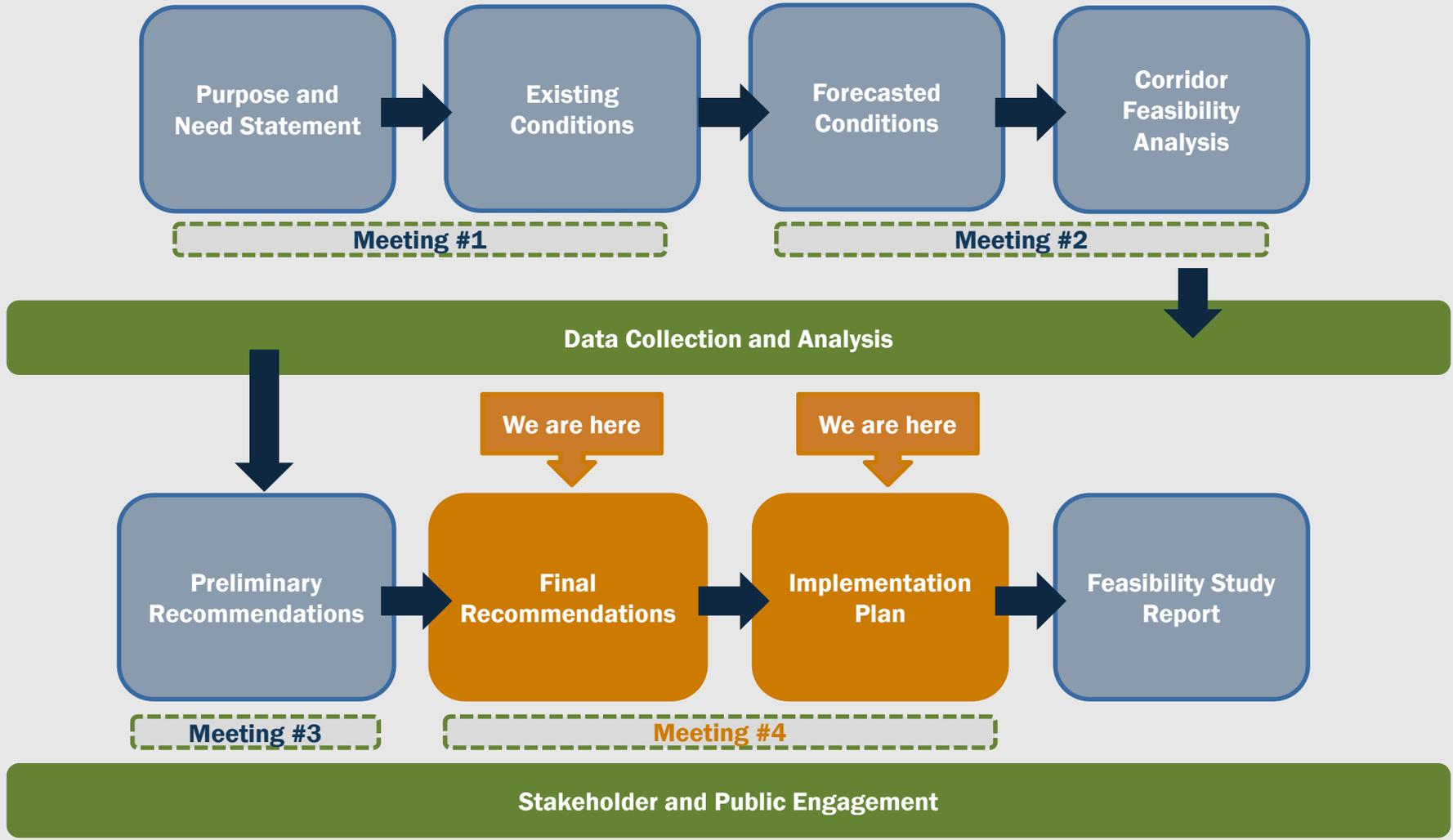
- 5. Public Involvement and Stakeholder Engagement
- 6. Segment Committee Recommendations and Implementation Plan
- Figures, Tables, and Appendices

Reviewed
with
Committee



— Reviewed with Committee
— To Be Reviewed

Ports-to-Plains Corridor Feasibility Study Scope





Segment #1

Economic Analysis

Akila Thamizharasan, TxDOT

Consultant Team



HB 1079 Requires:



An evaluation of the **economic development impacts** of the Ports-to-Plains Corridor, including whether the improvement or expansion of the Ports-to-Plains Corridor would create **employment opportunities** in this state

- Analysis compares **Interstate Scenario** to **Baseline Scenario** for **2050** horizon year
- Presents quantitative estimates of the corridor's **direct, indirect and induced economic impacts**, including the net increase in jobs, GDP, labor income, and other metrics
- Incorporates **competitive effects on key Corridor industries**: Food & Agriculture, Energy - plus trade access, warehouse & distribution development



Travel Changes

- Changes in trips, vehicle miles traveled (VMT) and vehicle hours traveled (VHT)
- Changes in crash rates
- Assumptions regarding average cost values

Market Access

- Change in access to international gateways
- Change in size of market accessible within one day
- Change in access to labor markets

New Development

- Assumptions regarding expected levels of development contingent on the Interstate

Cost Savings and Other Benefits

- Travel Time and Cost Savings
- Safety Benefits

Economic Impacts

- Employment
- Labor income
- GDP
- Population



- The interstate would reduce average end-to-end travel times across the Corridor from 962 minutes to 873 minutes, **saving 89 minutes in travel time.**
- Within Segment #1, the interstate would reduce end-to-end travel times from 277 minutes to 254 minutes, **saving 24 minutes in travel time.**

Travel Inputs to TREDIS

	Segment #1			Corridor		
	<i>Baseline</i>	<i>Interstate</i>	<i>Change</i>	<i>Baseline</i>	<i>Interstate</i>	<i>Change</i>
Daily Trips	103,300	140,700	37,400	181,500	266,200	84,700
Daily VMT	4,982,900	5,991,800	1,008,900	16,938,800	22,806,700	5,867,900
Daily VHT	85,400	95,800	10,400	292,900	355,700	62,800

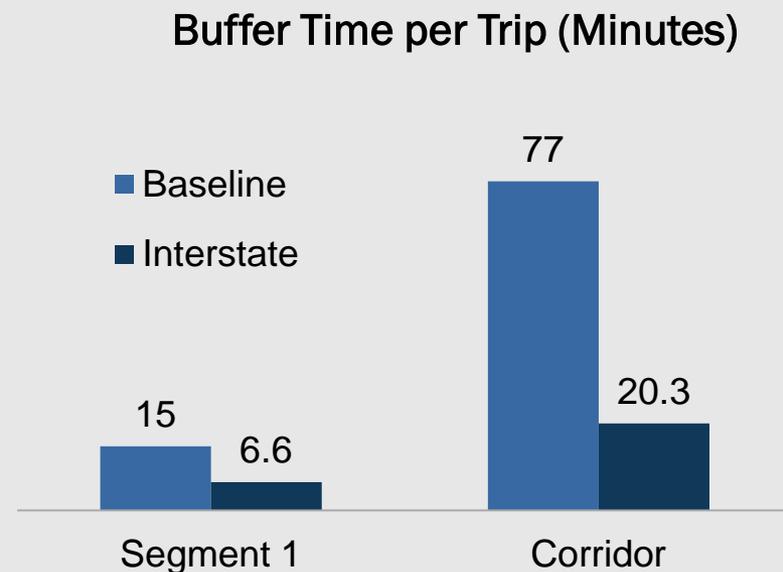
- Trucks make up ~22% of Corridor and Segment VMT under Baseline and Interstate scenarios



- With the interstate, **buffer time per trip is projected to decline by 57 minutes** along the whole Corridor, including by 8.4 minutes within Segment #1

- Buffer time = difference between “likely worst-case” and average travel time, or the time drivers add to their journey to ensure a punctual arrival
- Reflects padding built into freight schedules, reducing productivity to protect reliability
- Valued at \$160 per hour for trucks; ½ wage rate for passengers

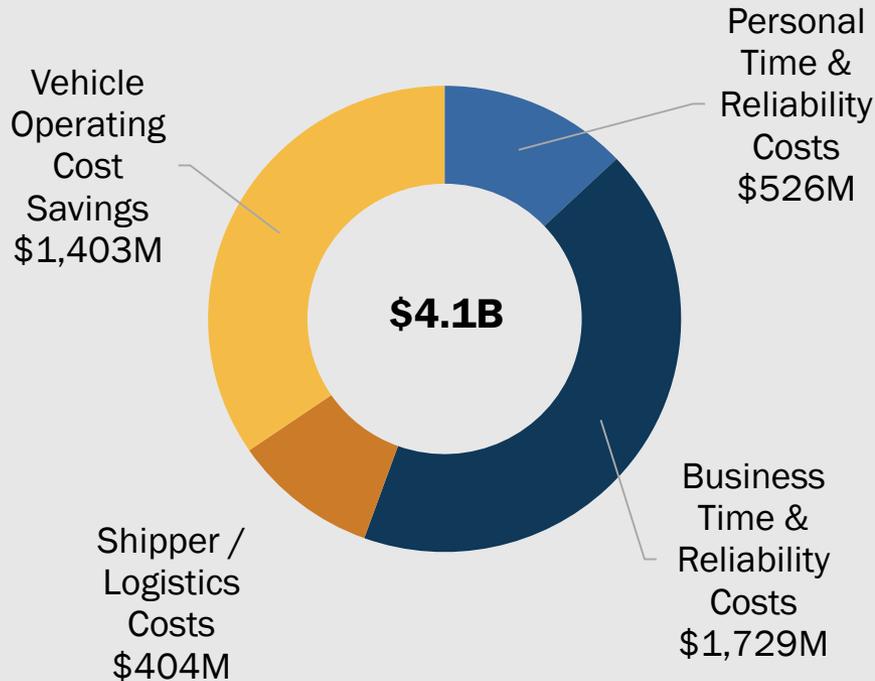
- Standard, best-practice values used to monetize travel benefits



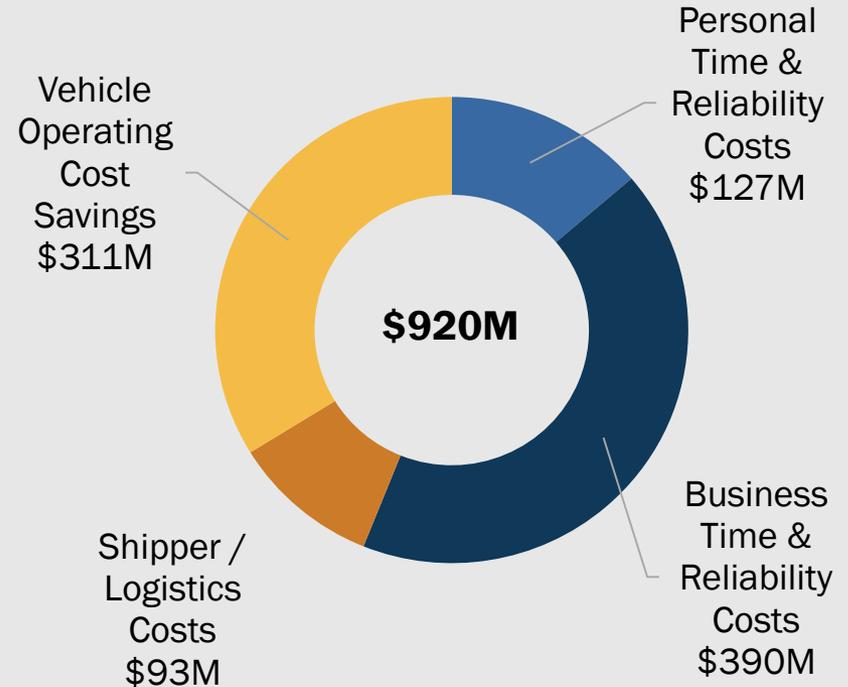


- Interstate creates annual Corridor-wide **travel cost savings of \$4.1 billion** (including \$920 million on Segment #1) relative to baseline, representing a **37% reduction in travel costs** on the Corridor

Corridor-wide Cost Savings



Segment #1 Cost Savings



Source: WSP Analysis, using TREDIS



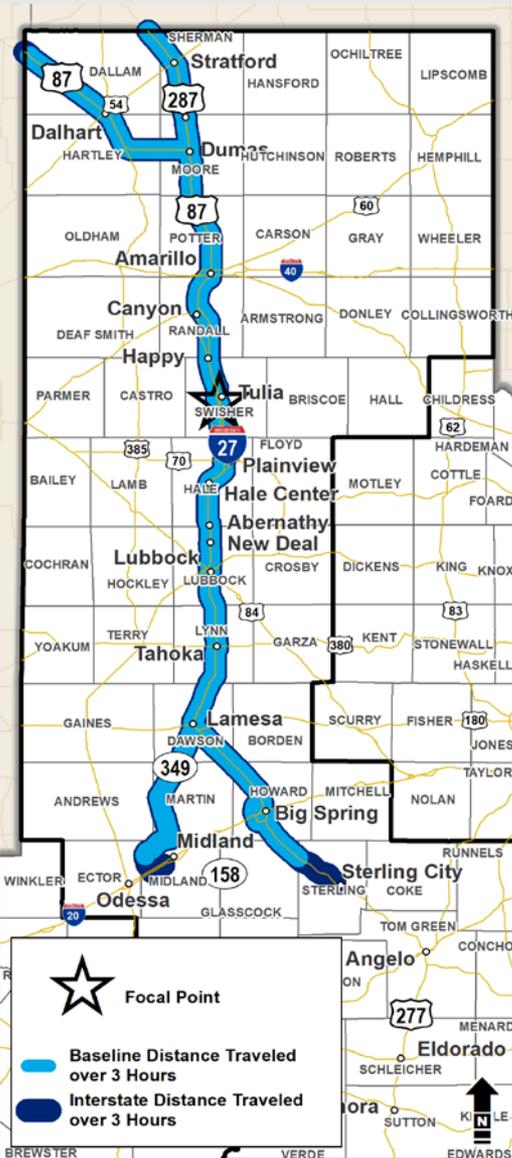
- Interstate **is anticipated to improve safety and reduce crash rates**, leading to approximately **8% fewer fatal collisions, 7% fewer injury collisions, and 11% fewer property damage crashes** throughout the corridor each year

Safety Inputs to TREDIS: Crash Rates per 100 VMT

	Segment #1		Corridor	
	<i>Baseline</i>	<i>Interstate</i>	<i>Baseline</i>	<i>Interstate</i>
Fatal Crash Rate	0.94	0.86	1.33	1.07
Injury Crash Rate	21.50	21.48	26.23	21.22
Non-Injury Crash Rate	58.35	55.49	58.85	45.56
Total Crash Rate	80.8	77.8	86.4	67.9

- Based on federal monetization values, these safety improvements are equivalent to **\$450 million** per year

Source: WSP Analysis, using TREDIS

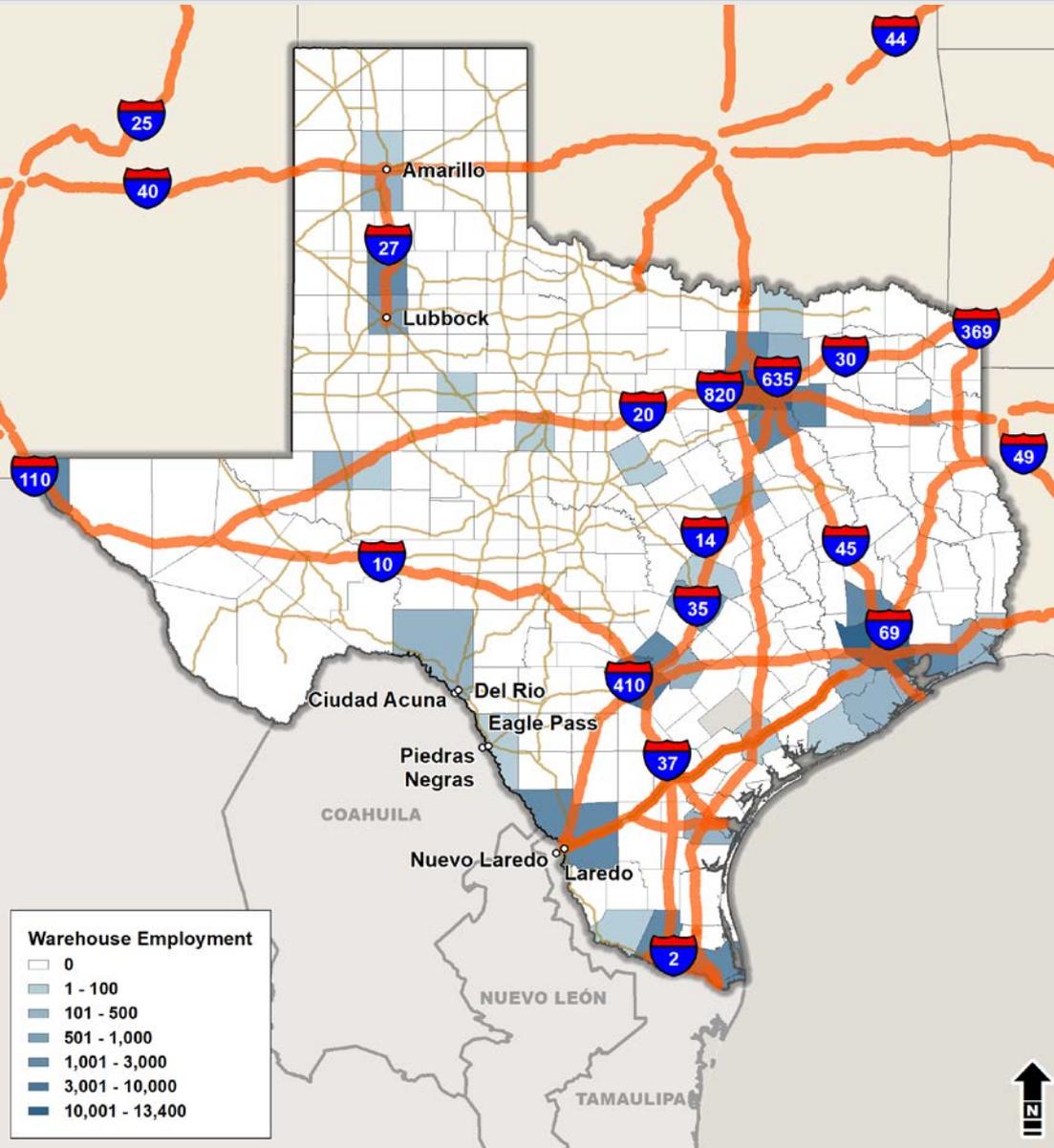


- Trucks will be able to **access major international gateways** more quickly
 - Calculated based on change in average travel time with Interstate relative to Baseline: nearly **one hour savings** for Segment #1. The corridor-wide average is 44 minute savings
- Time savings mean trucks can **reach a wider range of customers** within one day, saving shippers money
 - Same-day market access defined as delivery market reachable within 3 hour drive, enabling completion of a round trip within the same day: **3.9% improvement** for Segment #1 and 8.7% average improvement across the corridor



- Commuters also save time, allowing businesses and employees to find **better job matches**
 - Local market access defined as population reachable within 1 hour: **12.5% improvement** for Segment #1 and 13.4% average improvement across the corridor
- Labor and freight market access impacts anticipated to grow over first 10-15 years, as industry changes decision-making in response to Interstate, and then stabilize
 - Analysis assumes Interstate opens in 2035

Warehouse & Distribution Development

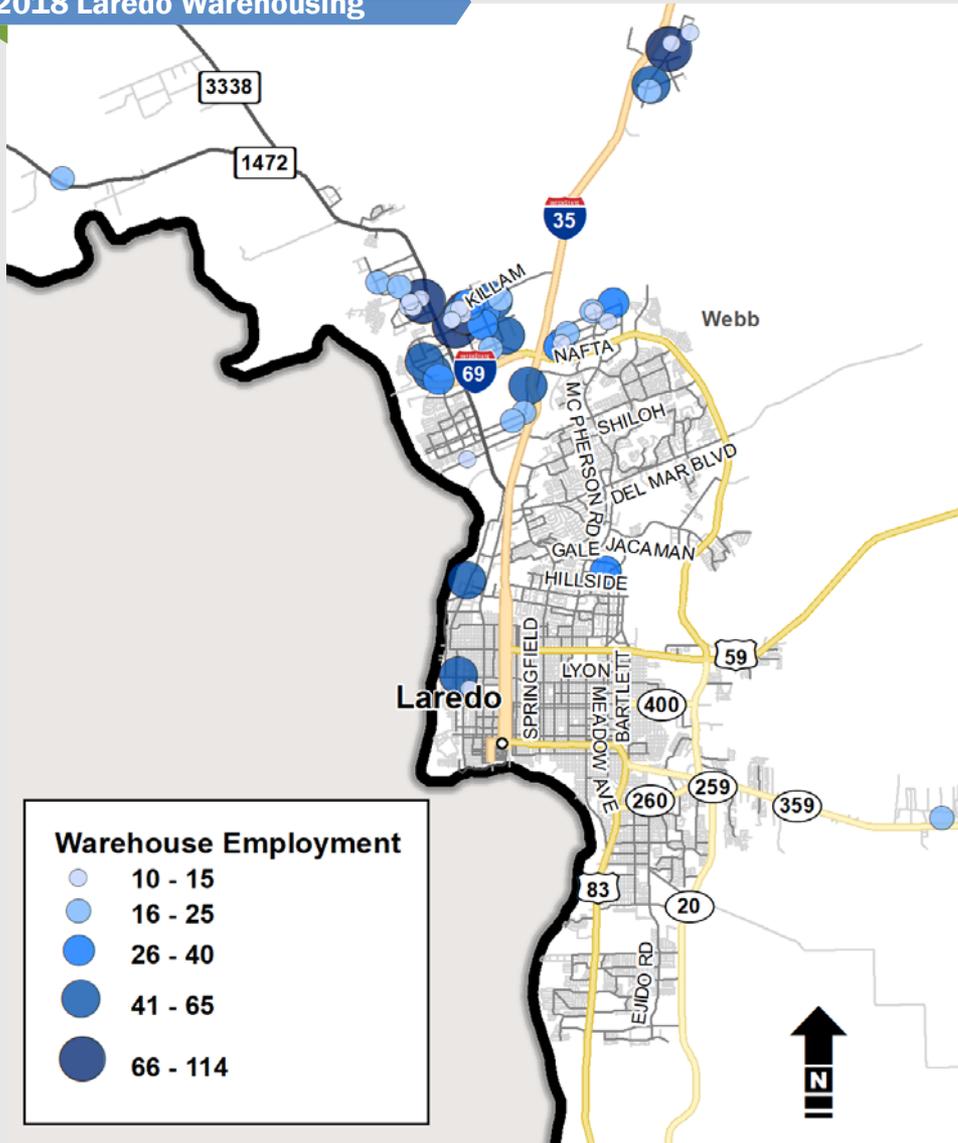


- Warehouse & distribution sector development is driven by access to Interstate highways
 - Demonstrated by national research (NCFRP Report 13)
 - Clear pattern in Texas site location

Source: WSP Analysis of US BEA data



2018 Laredo Warehousing



- Interstate influence reflected by experience on Ports to Plains Corridor
 - Warehouse employment growth in Lubbock County added an extra 0.7 percent per year after I-27 completed in 1992 (2.2% annual growth before 1992, 2.9% after)
 - By comparison, Tom Green County (San Angelo) with no interstate continued at same growth rate (1.3% before and after 1992)
 - I-35 a major advantage to Laredo gateway (4.1% annual growth after 1993/NAFTA)

Source: WSP Analysis of IHS Markit Freight Finder



- With I-27 experience as benchmark, the sector grows an additional 10% from Interstate access starting in 2035
 - Over \$600 million additional product value distributed
 - Reverses forecast decline in Segment 1

Segment	Warehouse & Distribution Outbound Volume (\$mil.)					
	Baseline 2018	Baseline 2050	Baseline Growth	2050 with Interstate	2050 Added Growth	2050 Total Growth
Segment 1	\$ 838	\$ 775	-7%	\$ 852	9.9%	2%
Segment 2	\$ 1,102	\$ 1,920	74%	\$ 2,109	9.9%	91%
Segment 3	\$ 1,442	\$ 3,700	156%	\$ 4,065	9.9%	182%
P2P Total	\$ 3,383	\$ 6,395	89%	\$ 7,027	9.9%	108%

Source: WSP Analysis of Moody's and TRANSEARCH data

Review: Corridor Baseline Growth



Employment

894,770

(2020)

1,044,140

(2050)

- Corridor employment is **projected to increase by 149,370.**
- Overall corridor employment **is projected to grow by 16.7%.**

Labor Income

\$95.0B

(2020)

\$161.8B

(2050)

- Corridor labor income is **projected to increase by \$66.7 billion**
- Overall corridor labor income **is projected to grow by 70.2%**

GDP

\$155.4B

(2020)

\$263.2B

(2050)

- Corridor GDP is projected to **increase by \$108 billion**
- Overall corridor GDP is projected to **grow by 69.4% .**

Population

1,996,680

(2020)

3,207,970

(2050)

- Corridor population is projected to **increase by 1.2 million**
- Overall corridor population is projected to **grow by 60.7%.**

Corridor Economic Impacts



Employment

1,044,140 (Baseline 2050) **1,061,850** (Interstate 2050)

- **17,710 more jobs** across corridor with interstate
- Corridor **employment growth of 18.7%**, 2.0% higher than baseline.

Labor Income

\$161.8B (Baseline 2050) **\$163.1B** (Interstate 2050)

- **\$1.4 billion more labor income** within Corridor with interstate
- Corridor **labor income growth of 71.6%**, 1.4% higher than baseline.

GDP

\$263.2B (Baseline 2050) **\$265.4B** (Interstate 2050)

- **\$2.2 billion more GDP** across corridor with interstate
- Corridor **GDP growth of 70.8%**, 1.4% higher than baseline.

Population

3,207,970 (Baseline 2050) **3,236,280** (Interstate 2050)

- **28,310 higher population** within Corridor with interstate
- Corridor **population growth of 62.1%**, 1.4% higher than baseline.

Source: WSP Analysis, using TREDIS

Review: Segment #1 Baseline Growth



Employment

224,060
(2020) **241,550**
(2050)

- Segment #1 employment is **projected to increase by 17,490**
- Overall Segment #1 employment is **projected to grow by 7.8%**

Labor Income

\$21.2B
(2020) **\$31.4B**
(2050)

- Segment #1 labor income is **projected to increase by \$10.2 billion**
- Overall Segment #1 labor income is **projected to grow by 47.9%**

GDP

\$36.6B
(2020) **\$53.9B**
(2050)

- Segment #1 GDP is projected to **increase by \$17.3 billion**
- Overall Segment #1 GDP is projected to **grow by 47.3%**.

Population

499,620
(2020) **602,830**
(2050)

- Segment #1 population is projected to **increase by 103,210**
- Overall Segment #1 population is projected to **grow by 20.7%**.

Segment #1 Economic Impacts



Employment

241,550

(Baseline 2050)

244,200

(Interstate 2050)

- **2,650 more jobs** within Segment #1 with interstate
- Segment #1 **employment growth of 9.0%**, 1.2% higher than baseline.

Labor Income

\$31.4B

(Baseline 2050)

\$31.6B

(Interstate 2050)

- **\$0.2 billion more labor income** within Corridor with interstate
- Corridor **labor income growth of 48.9%**, 1.0% higher than baseline.

GDP

\$53.9

(Baseline 2050)

\$54.3B

(Interstate 2050)

- **\$0.4 billion more GDP** within Segment #1 with interstate
- Segment #1 **GDP growth of 48.3%**, 1.0% higher than baseline.

Population

602,830

(Baseline 2050)

606,340

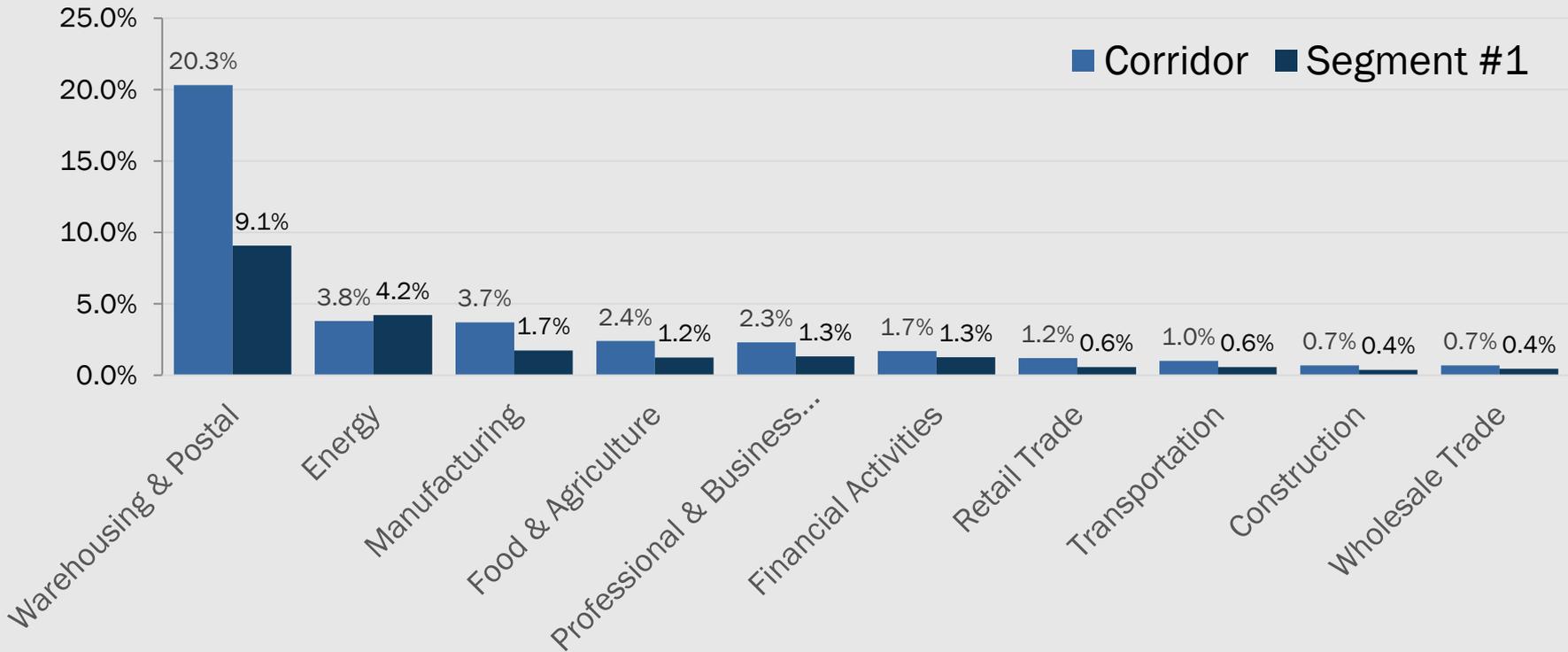
(Interstate 2050)

- **3,510 higher population** within Corridor with interstate
- Corridor **population growth of 21.4%**, 0.7% higher than baseline.

Source: WSP Analysis, using TREDIS



Employment Growth, Interstate 2050 vs. Baseline 2050



- Employment growth resulting from the Interstate is most robust for the Warehousing industry, followed by Energy and Manufacturing industries

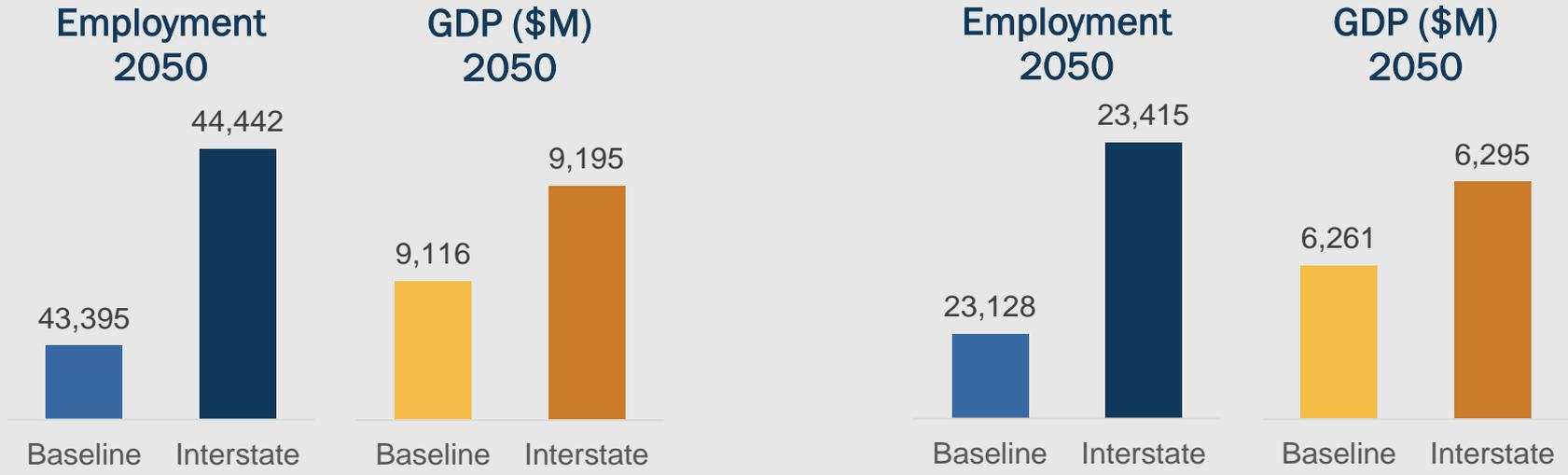
Source: WSP Analysis, using TREDIS

Food and Agriculture Industry Impacts



Corridor

Segment #1



- As the largest industry in Segment #1, the Food and Agriculture industry will experience significant benefits from the Interstate, including via **reduced annual travel costs** of \$295M across the corridor (including \$146M for Segment #1), making it easier to **compete in the global market**
- The enhanced transportation network will **create nearly 1,050 jobs and \$80M in GDP** in the Food and Agriculture industry across the corridor, including **290 jobs and \$34M in GDP within Segment #1**

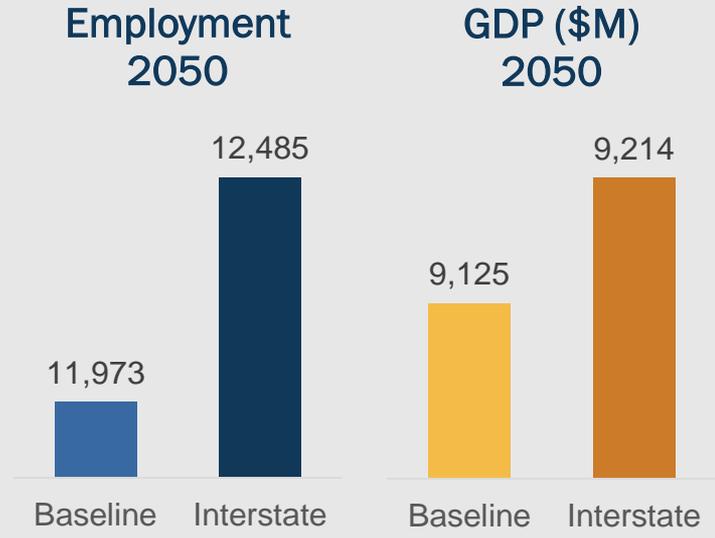
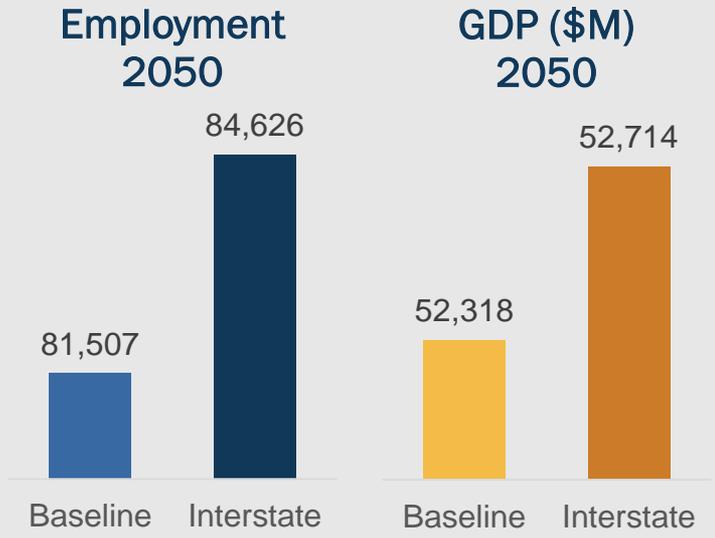
Source: WSP Analysis, using TREDIS

Energy and Extraction Industry Impacts



Corridor

Segment #1



- The Interstate will **reduce annual travel costs** for Texas' Energy and Extraction industry by \$505M corridor-wide, including a \$76M reduction within Segment #1. These travel benefits will also **support access to global markets**
- Due to these improvements, the Energy and Extraction industry is projected to experience an increase of **approximately 3,120 jobs and \$400M in GDP** relative to the Baseline scenario, including more than 500 jobs and nearly \$90M in GDP in Segment #1.

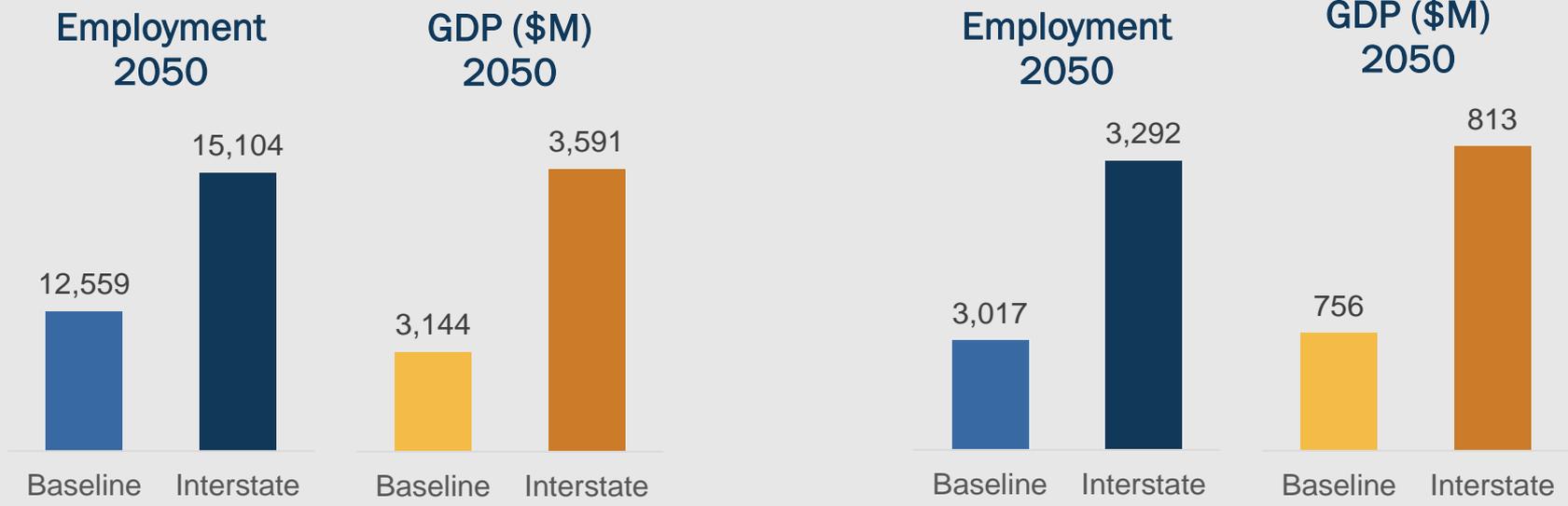
Source: WSP Analysis, using TREDIS

Warehousing and Distribution Industry Impacts



Corridor

Segment #1



- The projected increase in Warehousing development, alongside improvements in market access and **reductions in travel costs** of \$197 million annually across the corridor and \$20 million in Segment #1 will generate significant economic impacts.
- Top-level economic impacts include the addition of **approximately 2,550 jobs and \$450M in GDP corridor-wide** relative to the Baseline scenario, including **280 jobs and \$56M in GDP in Segment #1.**

Source: WSP Analysis, using TREDIS

Summary: Corridor



Metric	Baseline 2020	Baseline 2050	Interstate	Change
Employment	894,770	1,044,140	1,061,850	17,710
Employment Growth	N/A	16.7%	18.7%	2.0%
GDP (\$B)	\$155.4	\$263.2	\$265.4	\$2.2
GDP Growth	N/A	69.4%	70.8%	1.4%
Labor Income (\$B)	\$95.0	\$161.8	\$163.1	\$1.4
Labor Income Growth	N/A	70.2%	71.6%	1.4%
Population	1,996,680	3,207,970	3,236,280	28,310
Population Growth	N/A	60.7%	62.1%	1.4%

Source: WSP Analysis, using TREDIS

Summary: Segment #1



Metric	Baseline 2020	Baseline 2050	Interstate	Change
Employment	224,060	241,550	244,200	2,650
Employment Growth	N/A	7.8%	9.0%	1.2%
GDP (\$B)	\$36.6	\$53.9	\$54.3	\$0.4
GDP Growth	N/A	47.3%	48.3%	1.0%
Labor Income (\$B)	\$21.2	\$31.4	\$31.6	\$0.2
Labor Income Growth	N/A	47.9%	48.9%	1.0%
Population	499,620	602,830	606,340	3,510
Population Growth	N/A	20.7%	21.4%	0.7%

Source: WSP Analysis, using TREDIS



- Economic impacts of the interstate have thus far been presented relative to the baseline for the **2050 horizon year**
- In reality, these impacts will continue for many years afterward, representing an **ongoing improvement** relative to the baseline scenario
- Over first 20 years of interstate operations, statewide GDP gains total \$55.6B, or **\$41.3B in new GDP** once time value of money (3% discount rate) is taken into account
- Compared to capital costs of \$23.5B, this represents a net **return on investment of \$17.8B—a 76% return**



- BCA focuses on economic benefits—like travel cost savings and crash reductions—and compares these to capital and operating & maintenance (O&M) costs
- Statewide economic benefits of the Interstate accumulate to \$104.1B over 20-years of operations, or the equivalent of **\$76.7B in benefits** when discounted using 3% rate
- **Total costs equal \$27.4B** discounted, including capital and O&M (or \$28.7B before discounting)
- The **benefit-to-cost ratio (BCR) is 2.8**
 - Anything > 1 is considered worthwhile
- The **net present value (NPV) is \$49.4B**
 - Anything > 0 is considered worthwhile



- Though the primary benefits of the Interstate would arise once it is built and operating, its construction would also support **178,600 job-years** and **\$17.2B in cumulative GDP gains** across Texas
 - One job year = one job held for one year = 2 jobs held for ½ year, etc.
 - These impacts spread out over ~30 years of design and construction
- Ongoing maintenance of Interstate will also support **2,090 long-term jobs** and **\$185M in annual GDP** statewide
- These jobs would primarily support the construction industry, but through multiplier effects would also provide opportunities in countless other industries



Key Takeaways:

- Interstate would **reduce travel times and travel costs**, saving businesses and individuals **\$4.1 billion** per year across the corridor
- Interstate would **enhance access to markets** for businesses across the Ports-to-Plains Corridor: domestic, USMCA, global
- Interstate would **attract new business**, particularly in key industries:

<i>Industry</i>	<i>2050 Increase with Interstate Relative to Baseline</i>		
	<i>Employment</i>	<i>GDP</i>	<i>Travel Cost Savings</i>
<i>Food & Agriculture</i>	1,050	\$80M	\$295M
<i>Energy & Extraction</i>	3,120	\$400M	\$505M
<i>Warehousing & Distr.</i>	2,550	\$450M	\$197M

- Corridor-wide economic gains of more than **17,000 jobs** and **\$2 billion** in annual GDP projected
- Return on investment of **\$17.8B**, representing a **76% return**
- **Benefit cost ratio of 2.8**, with **net-present value of \$49.4B**



Key Takeaways:

- Interstate would **reduce travel times and travel costs**, saving businesses and individuals **\$920 million** in Segment #1
- Interstate would **enhance access to markets** for businesses across the Ports-to-Plains Corridor: domestic, USMCA, global
- Interstate would **attract new business**, particularly in key industries:

<i>Industry</i>	<i>2050 Increase with Interstate Relative to Baseline</i>		
	<i>Employment</i>	<i>GDP</i>	<i>Travel Cost Savings</i>
<i>Food & Agriculture</i>	290	\$34M	\$146M
<i>Energy & Extraction</i>	500	\$90M	\$76M
<i>Warehousing & Distr.</i>	280	\$56M	\$20M

- Segment #1 economic gains of more than **2,500 jobs** and approximately **\$400 million** in annual GDP projected

Summary of Corridor Benefits



Total Annual Travel Cost Savings*		\$4.79B
Corridor Annual Travel Cost Savings		\$4.1B
Food & Agriculture	\$295M (7.2%)	
Energy & Extraction	\$505M (12.3%)	
Warehousing & Distribution	\$197M (4.8%)	
Rest of Texas Travel Annual Cost Savings		\$690M
Total Annual Increase in GDP		\$2.84B
Corridor Annual Increase in GDP		\$2.2B
Food & Agriculture	\$80M (3.6%)	
Energy & Extraction	\$400M (18.2%)	
Warehousing & Distribution	\$450M (20.5%)	
Rest of Texas Annual Increase in GDP		\$640M
Total Increase in Employment		22,110
Corridor Annual Increase in Employment		17,710
Food & Agriculture	1,050 (5.9%)	
Energy & Extraction	3,120 (17.5%)	
Warehousing & Distribution	2,550 (14.4%)	
Rest of Texas Annual Increase in Employment		4,400
Total Capital Costs		\$23.5B
Return on Investment		76% \$17.8B
Benefit-Cost Ratio / Net Present Value		2.8 \$49.4B

*Travel cost savings includes:

- Vehicle Operating Cost Savings
- Personal Time and Reliability Costs
- Shipper Logistics Costs
- Business Time and Reliability Costs

Other benefits include:

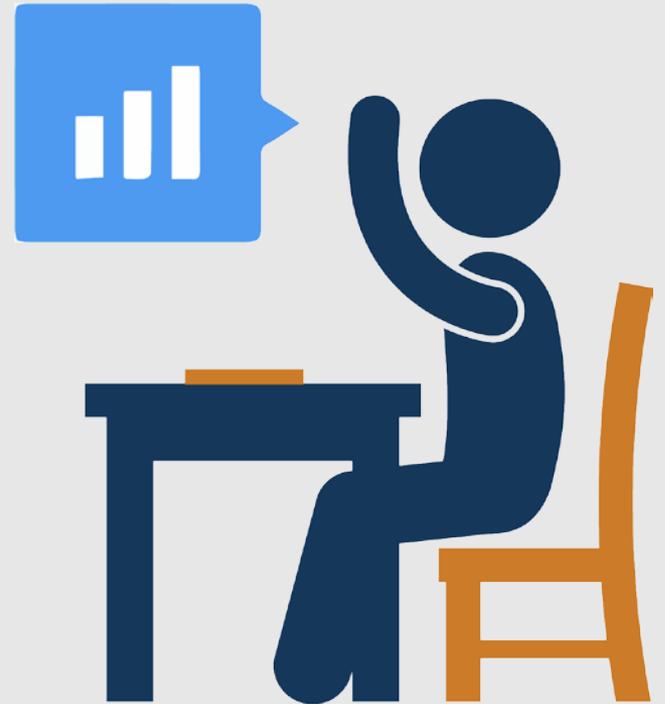
- \$450M in annual safety benefits
- Improved access to major international gateways
- Wider range of shipper customers within one day

Source: WSP Analysis, using TREDIS



Committee Feedback

- What future trends may impact the economic profile of this corridor in the future?
- How does increased connectivity of the interstate factor into any changes?





Segment #1

Revised Cost Estimates

Caroline Mays, TxDOT

Consultant Team

Preliminary Interstate Cost Estimates for Segment #1



	Preliminary Interstate Estimate (No Rural Frontage Roads)	Preliminary Interstate Estimate (All Rural Frontage Roads)	Preliminary Interstate Estimate (Some Rural Frontage Roads)
Interstate	<i>4-Lane Divided: 172 miles*</i>	<i>4-Lane Divided: 172 miles*</i>	<i>4-Lane Divided: 172 miles*</i>
Frontage Roads in Urban Areas**	<i>All (2-lane)</i>	<i>All (2-lane)</i>	<i>All (2-lane)</i>
Frontage Roads in Rural Areas**	<i>None</i>	<i>All (1-lane)</i>	<i>All (157 out of 157 miles) (1-lane)</i>
Construction	\$3.250 billion (\$18.9 M/mi)	\$4.220 billion (\$24.5 M/mi)	\$4.220 billion (\$24.5 M/mi)
Right of Way	\$0.325 billion	\$0.422 billion	\$0.422 billion
Utilities	\$0.104 billion	\$0.127 billion	\$0.127 billion
Total	\$3.679 billion	\$4.769 billion	\$4.769 billion

*Miles do not include I-27

**Number of lanes shown are in each direction. Frontage roads are assumed to be on both sides of the interstate.

Preliminary Interstate Cost Estimates for Corridor



	Preliminary Interstate Estimate <i>(No Rural Frontage Roads)</i>	Preliminary Interstate Estimate <i>(All Rural Frontage Roads)</i>	Preliminary Interstate Estimate <i>(Some Rural Frontage Roads)</i>
Interstate	<i>4-Lane Divided: 811 miles*</i>	<i>4-Lane Divided: 811 miles*</i>	<i>4-Lane Divided: 811 miles*</i>
Frontage Roads in Urban Areas***	<i>All** (2-lane)</i>	<i>All** (2-lane)</i>	<i>All** (2-lane)</i>
Frontage Roads in Rural Areas***	<i>None</i>	<i>All (1-lane)</i>	<i>533 out of 718 miles (1-lane)</i>
Construction	\$16.434 billion (\$20.3 M/mi)	\$21.911 billion (\$27.0 M/mi)	\$20.584 billion (\$25.4 M/mi)
Right of Way	\$1.643 billion	\$2.191 billion	\$2.058 billion
Utilities	\$0.780 billion	\$0.904 billion	\$0.874 billion
Total	\$18.857 billion	\$25.006 billion	\$23.516 billion

*Miles do not include I-27, I-20, and I-35

** Estimate includes approximately 100 miles of frontage roads in urban areas

***Number of lanes shown are in each direction. Frontage roads are assumed to be on both sides of the interstate.



Meeting Break



Segment #1

Prioritization of Recommendations

Caroline Mays, TxDOT

Consultant Team



PRELIMINARY RECOMMENDATIONS

Interstate Upgrade Projects

Relief Route Studies

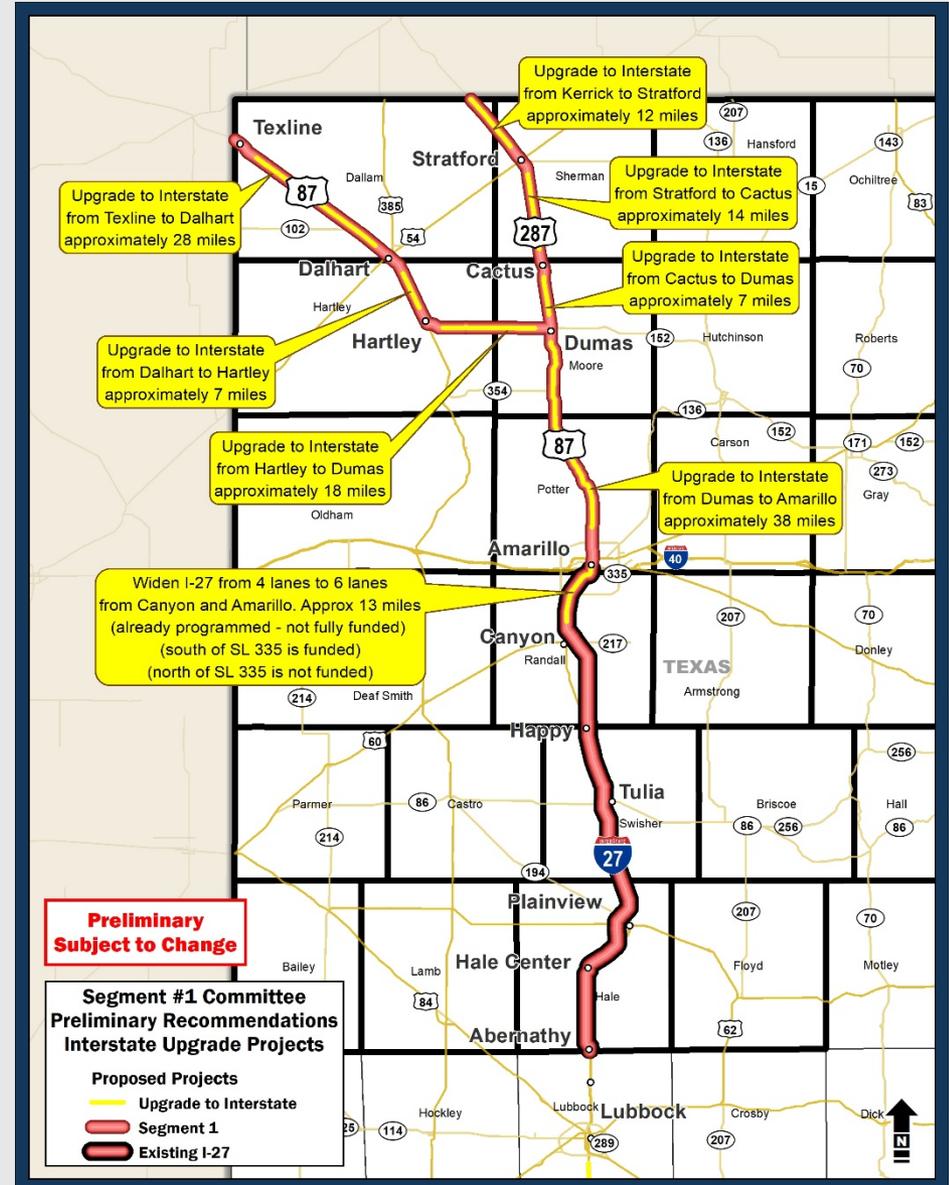
Safety and Operational Projects

Interstate Upgrade Projects



Committee members suggested these preliminary recommended projects during a meeting held on April 1, 2020.

Roadway	From	To	Description of Work
US 287	Kerrick	Stratford	Upgrade to Interstate (approx. 12 miles)
US 287	Stratford	Cactus	Upgrade to Interstate (approx. 14 miles)
US 287	Cactus	Dumas	Upgrade to Interstate (approx. 7 miles)
US 87	Texline	Dalhart	Upgrade to Interstate (approx. 28 miles)
US 87	Dalhart	Hartley	Upgrade to Interstate (approx. 7 miles)
US 87	Hartley	Dumas	Upgrade to Interstate (approx. 18 miles)
US 87	Dumas	Amarillo	Upgrade to Interstate (approx. 38 miles)

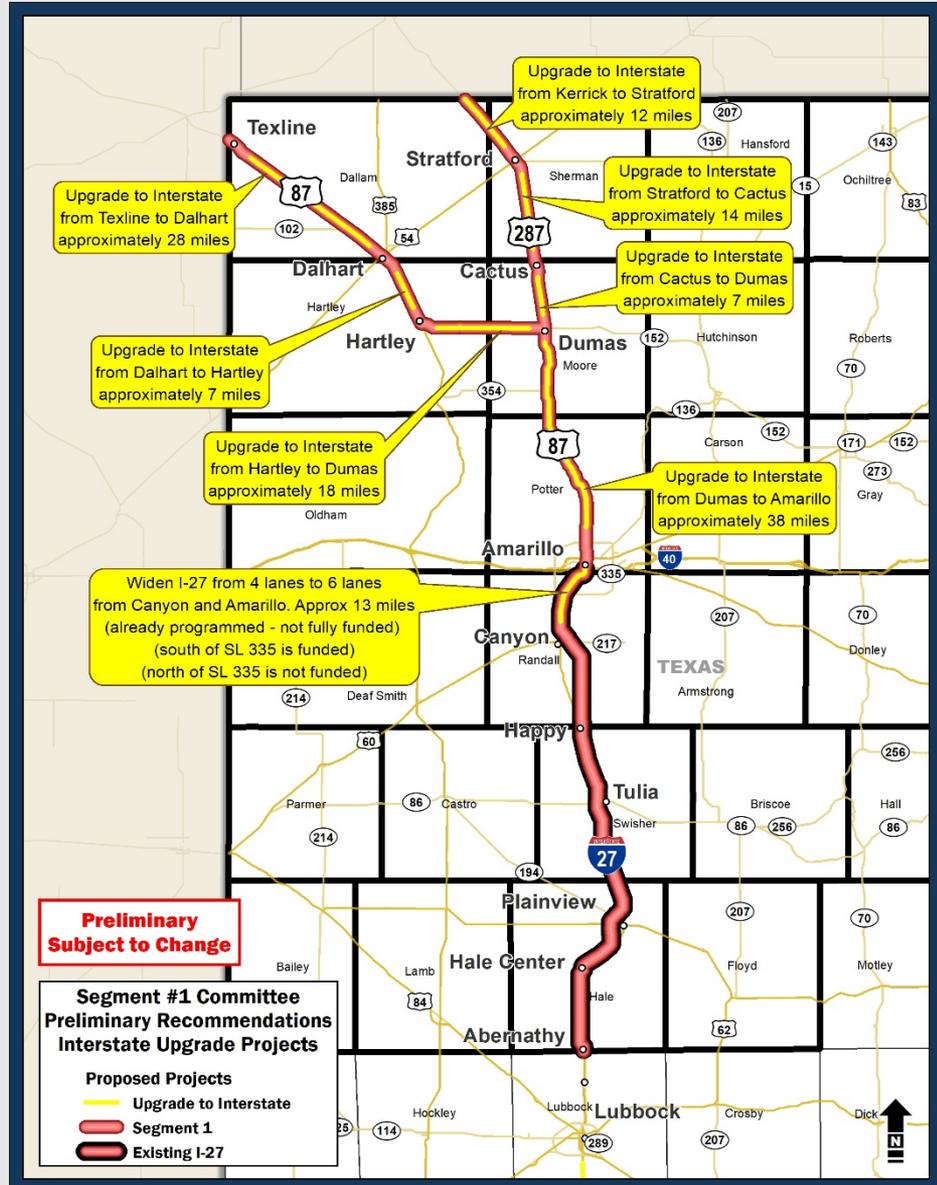


Interstate Upgrade Projects (continued)



Roadway	From	To	Description of Work
I 27	Amarillo	Canyon	<p>Widen from 4 to 6 lanes (approx. 13 miles)*+</p> <ul style="list-style-type: none"> • South of SL 335 is funded • North of SL 335 is not funded • Currently has 2-lane frontage roads

* denotes a planned and programmed project
 + denotes project not fully funded



Relief Route Studies

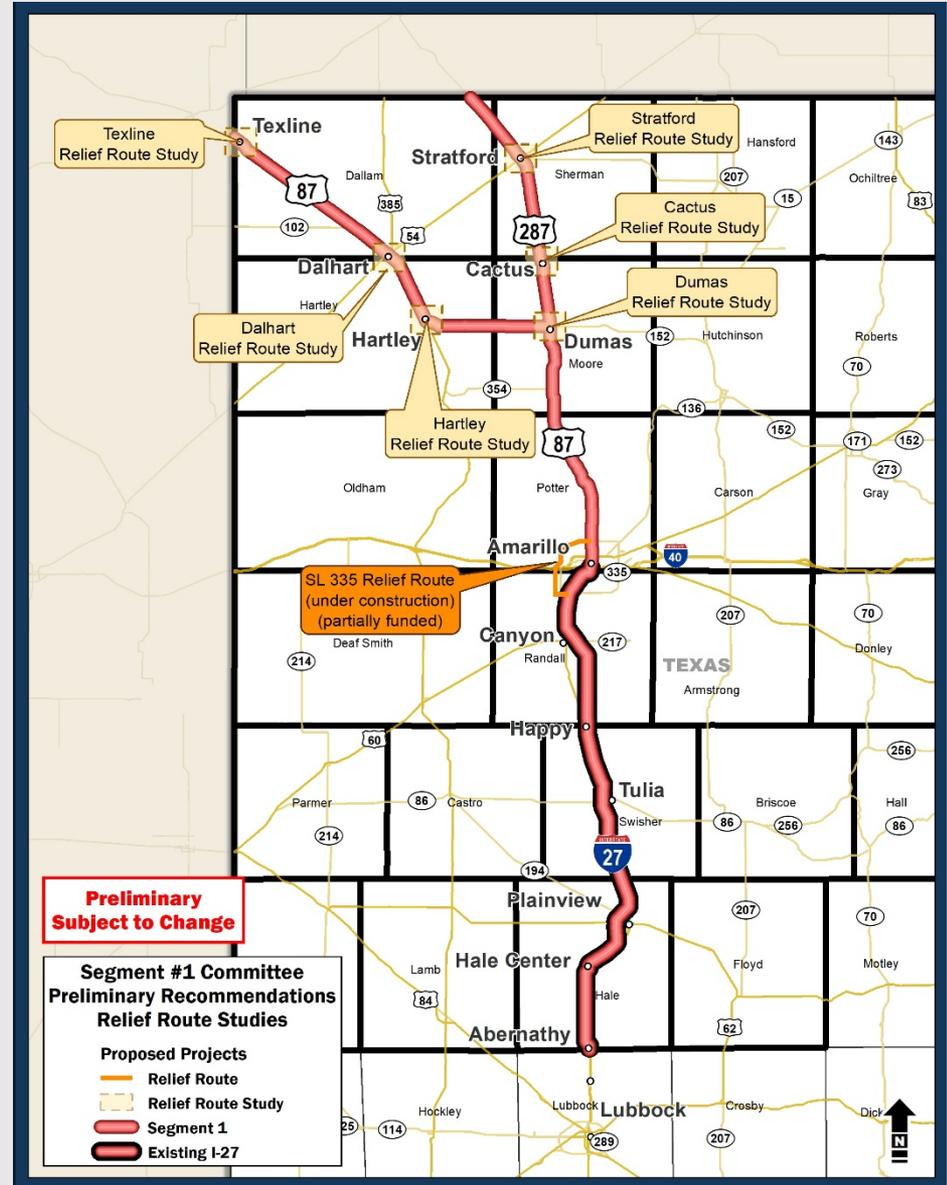


Committee members suggested these preliminary recommended projects during a meeting held on April 1, 2020.

Description	Location
Texline Relief Route Study	Around City of Texline
Dalhart Relief Route Study	Around City of Dalhart
Hartley Relief Route Study	Around City of Hartley
Stratford Relief Route Study	Around City of Stratford
Cactus Relief Route Study	Around City of Cactus
Dumas Relief Route Study	Around City of Dumas
State Loop 335 Relief Route *+	Off US 87, extends along west side of Amarillo

* denotes a planned and programmed project

+ denotes project not fully funded

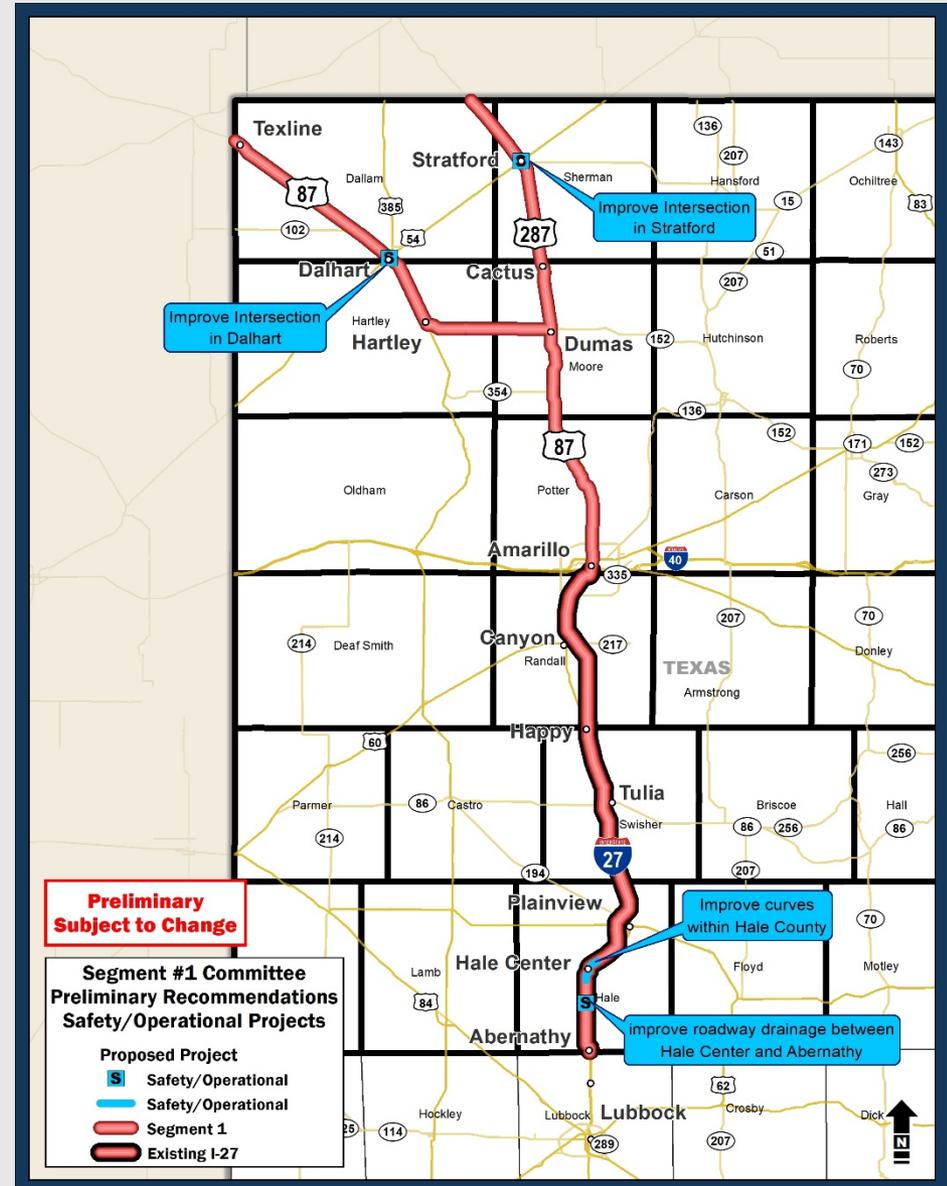


Safety and Operational Projects



Committee members suggested these preliminary recommended projects during a meeting held on April 1, 2020.

Roadway	Description of Work
US 287 at US 54	Improve intersection in Stratford
US 87 at US 54	Improve intersection in Dalhart
I-27	Improve curves within Hale County (near Hale Center)
I-27	Improve roadway drainage between Hale Center and Abernathy





PRELIMINARY PRIORITIZATION RESULTS

Segment Committee #1 members provided input via a survey between April 27 and May 3, 2020.

Short-Term (0-5 years)

Mid-Term (6-10 years)

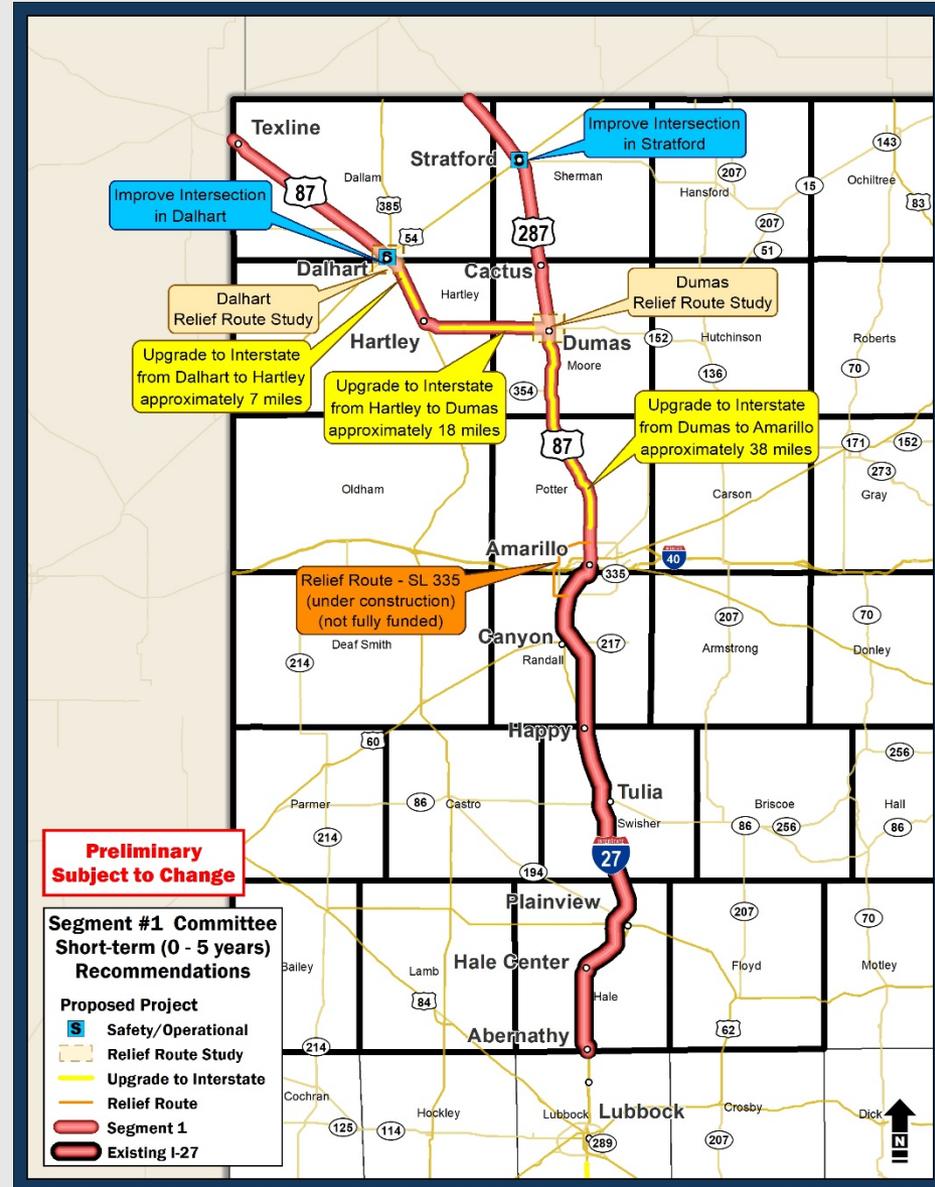
Long-Term (11+ years)

Committee Short-Term (0-5 years) Recommendations



Project Type	Roadway	Description of Work
Interstate Upgrade (approx. 7 miles)	US 87 from Dalhart to Hartley*	Upgrade to Interstate
Interstate Upgrade (approx. 18 miles)	US 87 from Hartley to Dumas	Upgrade to Interstate
Interstate Upgrade (approx. 38 miles)	US 87 from Dumas to Amarillo	Upgrade to Interstate
Relief Route	Dalhart Relief Route Study*	Around City of Dalhart
Relief Route	Dumas Relief Route Study	Around City of Dumas
Relief Route	State Loop 335 Relief Route	Under Construction/ Partially funded
Safety/Operational	US 287 at US 54	Improve intersection in Stratford
Safety/Operational	US 87 at US 54	Improve intersection in Dalhart

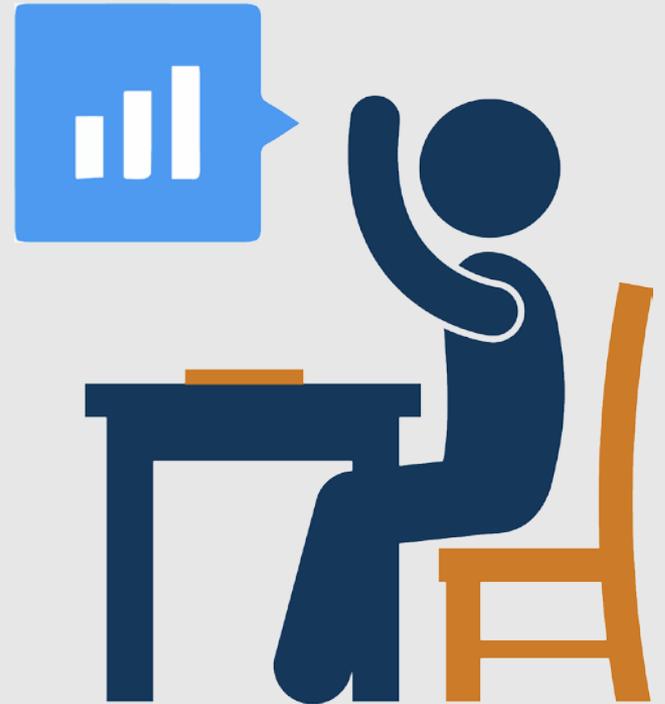
*This project was rated the same between Short and Mid-Term Improvement





Committee Feedback

- Do you agree with the Committee's Short-term priority rankings?
- Are there any you would consider moving to Mid-term or Long-term priorities?

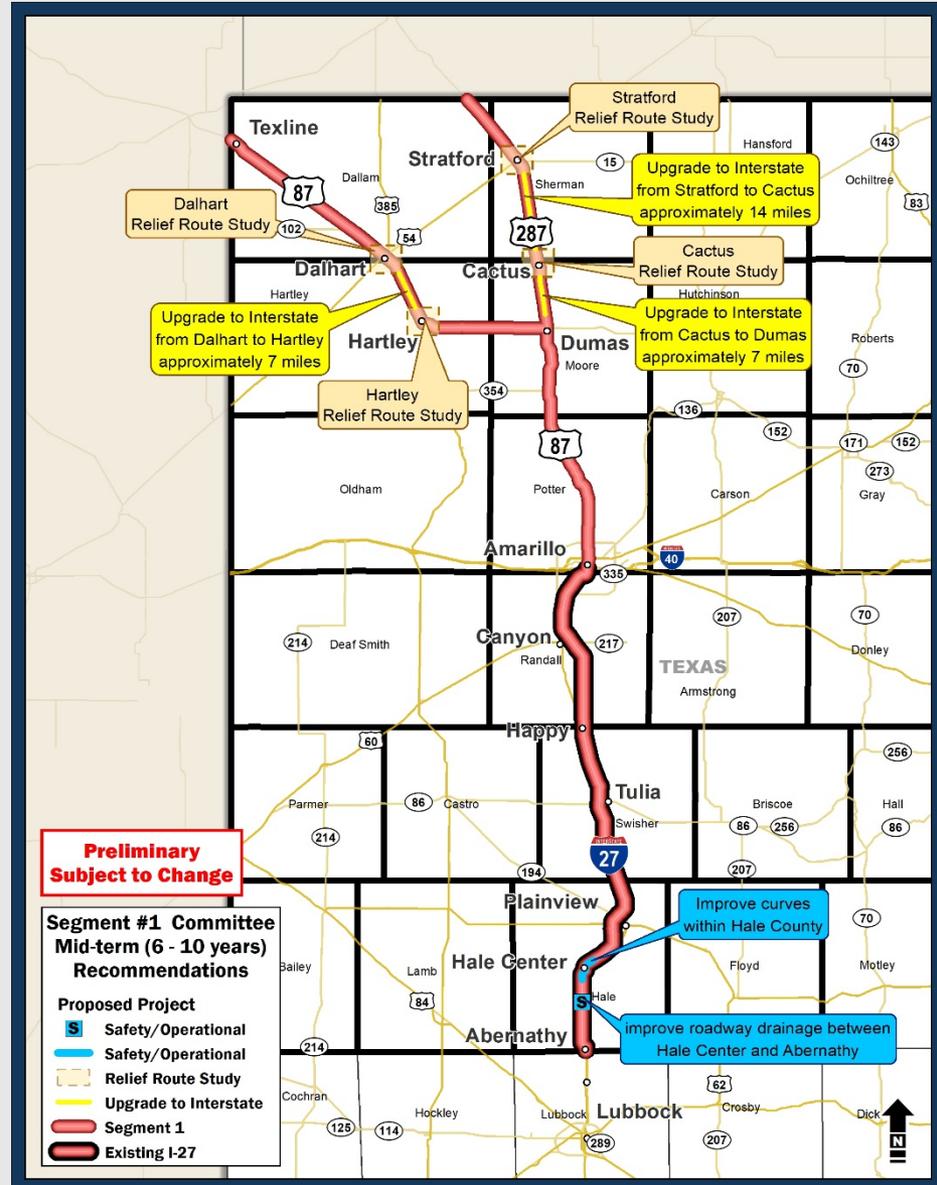


Committee Mid-Term (6-10 years) Recommendations



Project Type	Roadway	Description of Work
Interstate Upgrade (approx. 14 miles)	US 287 from Stratford to Cactus	Upgrade to Interstate
Interstate Upgrade (approx. 7 miles)	US 287 from Cactus to Dumas	Upgrade to Interstate
Interstate Upgrade (approx. 7 miles)	US 87 from Dalhart to Hartley*	Upgrade to Interstate
Relief Route	Dalhart Relief Route Study*	Around City of Dalhart
Relief Route	Hartley Relief Route Study	Around City of Hartley
Relief Route	Stratford Relief Route Study	Around City of Stratford
Relief Route	Cactus Relief Route Study	Around City of Cactus
Safety/Operational	I-27	Improve curves within Hale County (near Hale Center)
Safety/Operational	I-27	Improve roadway drainage between Hale Center and Abernathy

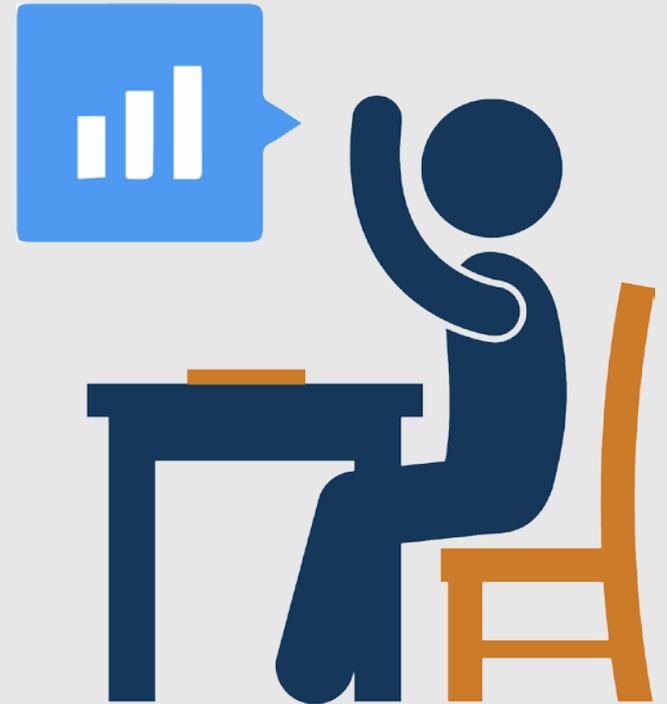
*This project was rated the same between Short and Mid-Term Improvement





Committee Feedback

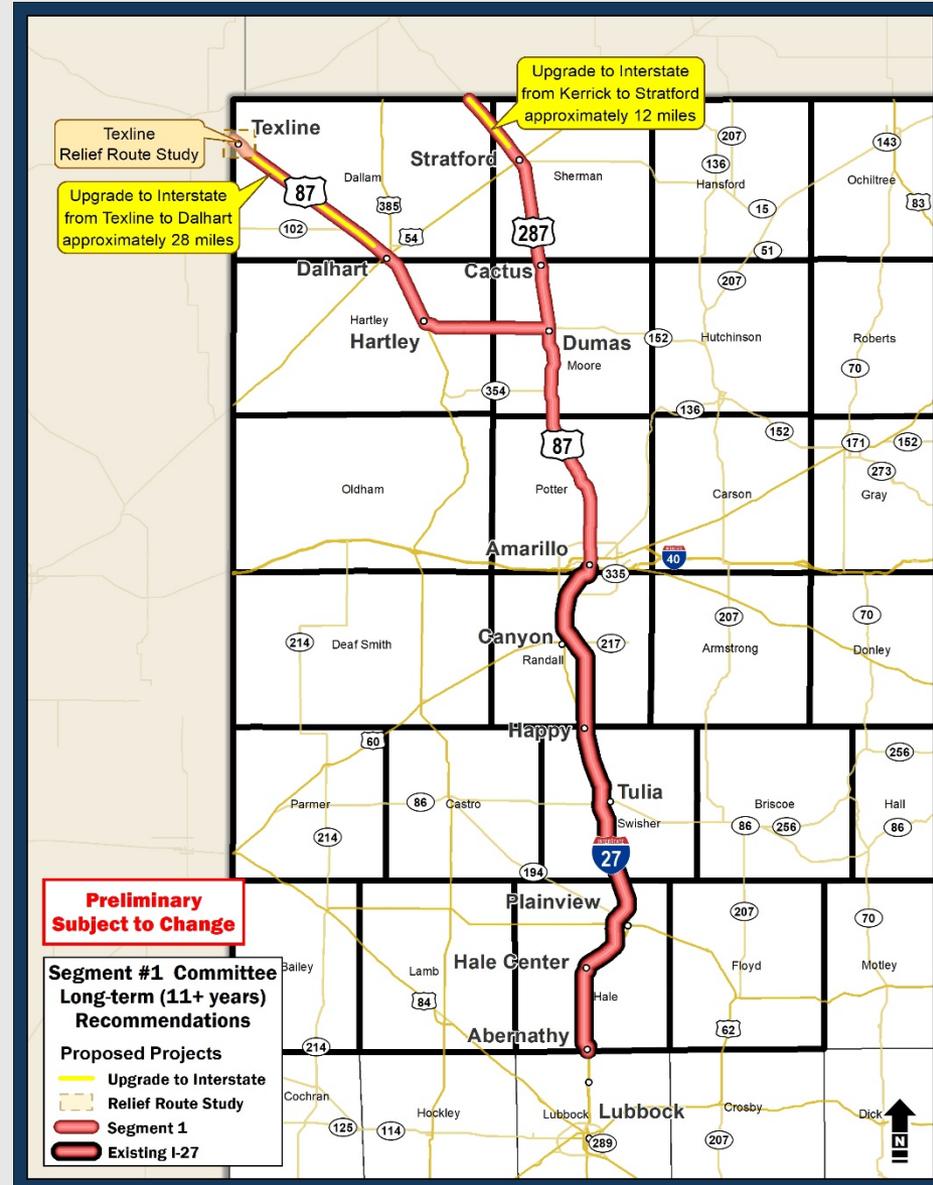
- Do you agree with the Committee's Mid-term priority rankings?
- Are there any you would consider moving to Short-term or Long-term priorities?



Committee Long-Term (11+) Recommendations



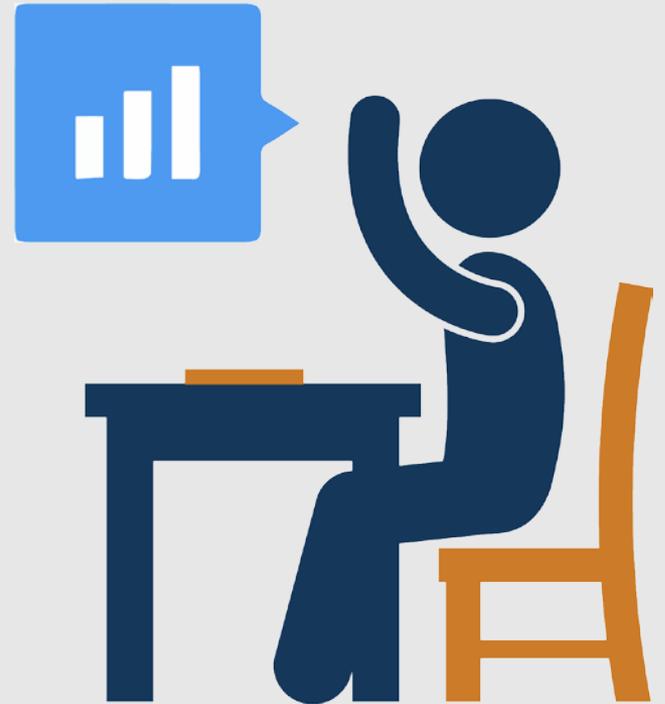
Project Type	Roadway	Description of Work
Interstate Upgrade (approx. 12 miles)	US 287 from Kerrick to Stratford	Upgrade to Interstate
Interstate Upgrade (approx. 28 miles)	US 87 from Texline to Dalhart	Upgrade to Interstate
Relief Route	Texline Relief Route Study	Around City of Texline





Committee Feedback

- Do you agree with the Committee's Long-term priority rankings?
- Are there any you would consider moving to Short-term or Mid-term priorities?





Segment #1

Review and Discussion of Draft Report Chapters

Caroline Mays, TxDOT

Jared Miller, Segment 1 Committee Chair

Segment Committee Report Outline



Review
Outline
with
Committee

- Executive Summary
- Letter from the Segment Committee Chair
- 1. Introduction
- 2. Existing Conditions
- 3. Forecasted Conditions
- 4. Segment Interstate Feasibility Analysis and Findings

- 5. Public Involvement and Stakeholder Engagement
- 6. Segment Committee Recommendations and Implementation Plan
- Figures, Tables, and Appendices

Review
with
Committee

— Reviewed with Committee
— To Be Reviewed



■ Chapter 5

- Review of public involvement and stakeholder engagement that occurred during the study process.

■ Public Involvement

- Dates of public meetings
- Public involvement process followed
- Topics discussed
- Attendance and comments

■ Segment Committee Meetings

- Recap of segment committee meetings
- Bill requirements
- Topics presented



■ Chapter 6

– Key Issues Considered for Recommendations:

- Energy Impacts, Freight Movement, Congestion Relief, Safety and Mobility, Agriculture

■ Committee Recommendations

- Interstate Upgrade for Entire Segment #1 Corridor
- Interstate Upgrade Projects
- Relief Route Studies
- Safety and Operational Improvements



▪ Executive Summary Outline

- High-level stand-alone document
 1. Introduction
 2. Purpose the Study
 3. Stakeholder and Public Engagement
 4. Existing and Future Corridor Conditions
 5. Feasibility Analysis of an Interstate and Findings
 6. Recommendations and Implementation Plan
 7. Next Steps



Open Discussion

Jared Miller, Segment 1 Committee Chair

Segment #1 Committee Next Steps



Segment #1



- Draft Report Sent to Committee for Review
Tuesday, May 19
- Draft Report Committee Comments Due
Tuesday, May 26
- Draft Final Report Sent to Committee for Review
Thursday, June 4
- Committee Meeting #5
Draft Final Report Page Turn
Thursday, June 11 (WebEx /Online)



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