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

Segment #1, Committee Meeting #2

Amarillo, TX

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. Forecasted Conditions
4. Planned and Programmed Projects
5. Break
6. Identification of Gaps
7. Preliminary Corridor Feasibility Analysis
8. Review and Discussion of Report Chapters 1 and 2
9. Open Discussion
10. Adjourn

Segment #1

Recap of Previous Meeting

Caroline Mays, TxDOT

Jared Miller, Segment 1 Committee Chair

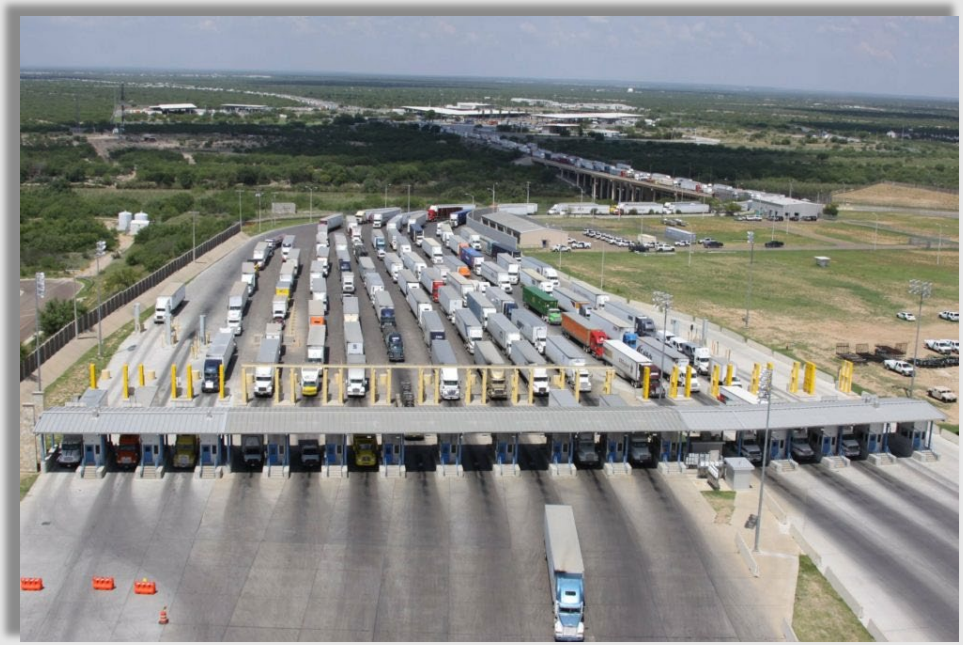
Overview of Segment Meeting #1 – November 20, 2019

- Overview of the study
- Study goals, scope and schedule
- Existing conditions and needs
- Interstate facility design features
- Committee members and chair
- Report outline

Ports-to-Plains Feasibility Study

House Bill (HB) 1079 requires TxDOT to conduct a comprehensive feasibility study of the Ports-to-Plains (P2P) Corridor, as defined by Tex. Transp. Code 225.069.

- The study must evaluate the feasibility of, and costs and logistical matters associated with, improvements to the corridor that create a continuous-flow, four-lane divided highway that meets interstate standards to the extent possible.



Ports-to-Plains Corridor Feasibility Study Goals

Verbatim HB 1079, Section 1, Subsection (h)

An examination of the ability of the energy industry to **transport products** to market

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

A determination of whether improvements or expansion of the Ports-to-Plains Corridor would **relieve traffic congestion** in the segment

Ports-to-Plains Corridor Feasibility Study Goals

An examination of **freight movement** along the Ports-to-Plains Corridor

A determination and prioritization of improvements and expansion of the Ports-to-Plains Corridor that are warranted in order to promote safety and mobility, while **maximizing the use of existing highways** to the greatest extent possible and **striving to protect private property** as much as possible

A determination of the areas that are preferable and suitable for **interstate designation**

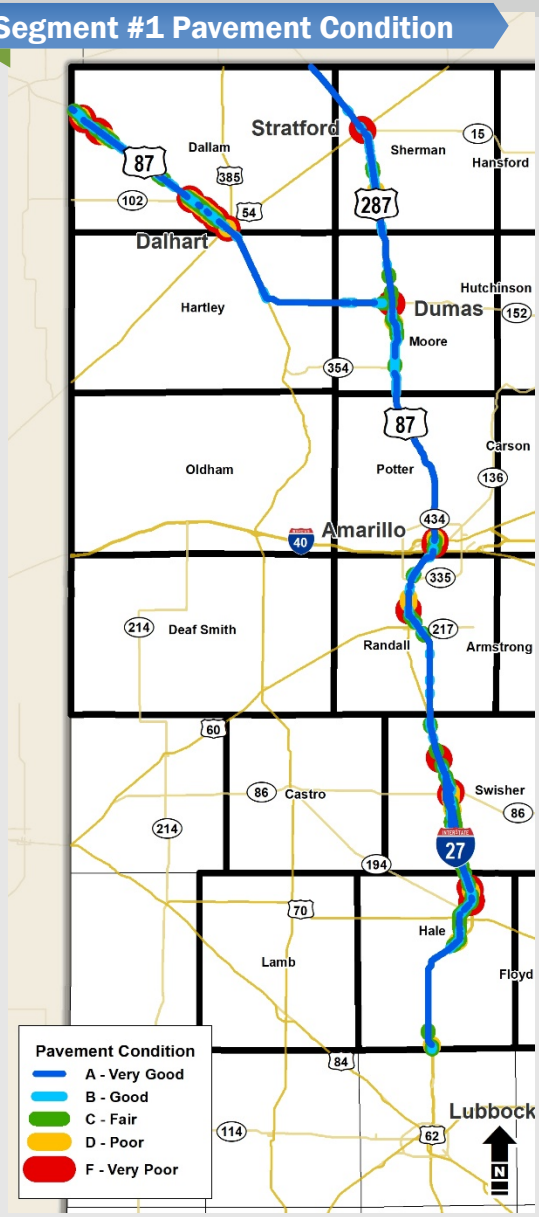
An examination of **project costs** related to the improvement or expansion of the Ports-to-Plains Corridor

An assessment of federal, state, local, and private **funding sources** for a project improving or expanding the Ports-to-Plains Corridor

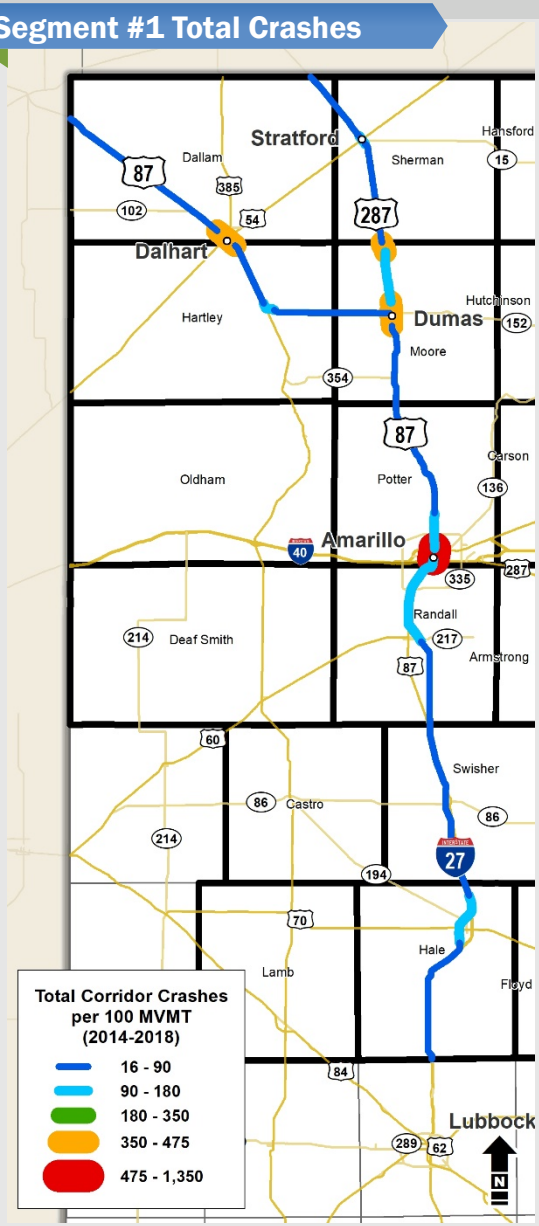
Existing Conditions

Segment #1 Total Traffic 2017

Segment #1 Pavement Condition

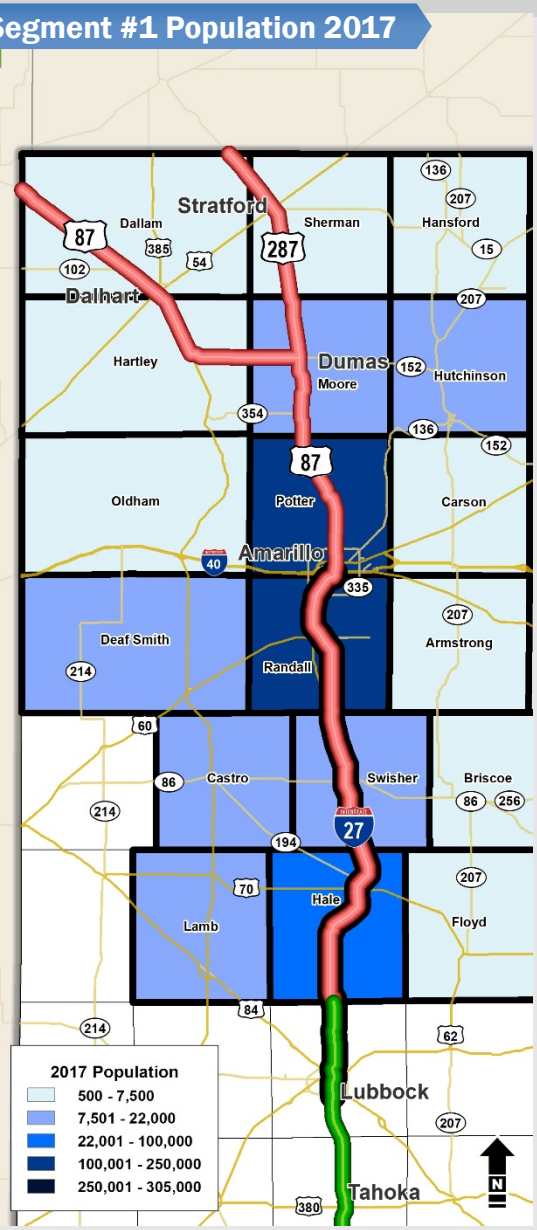


Segment #1 Total Crashes

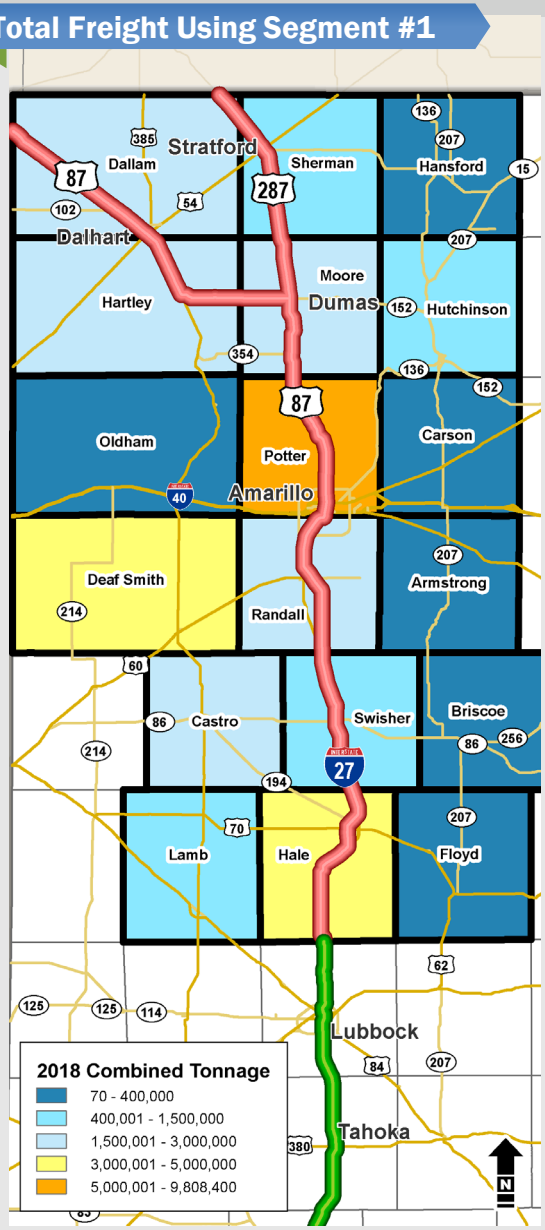


Existing Conditions

Segment #1 Population 2017



Total Freight Using Segment #1



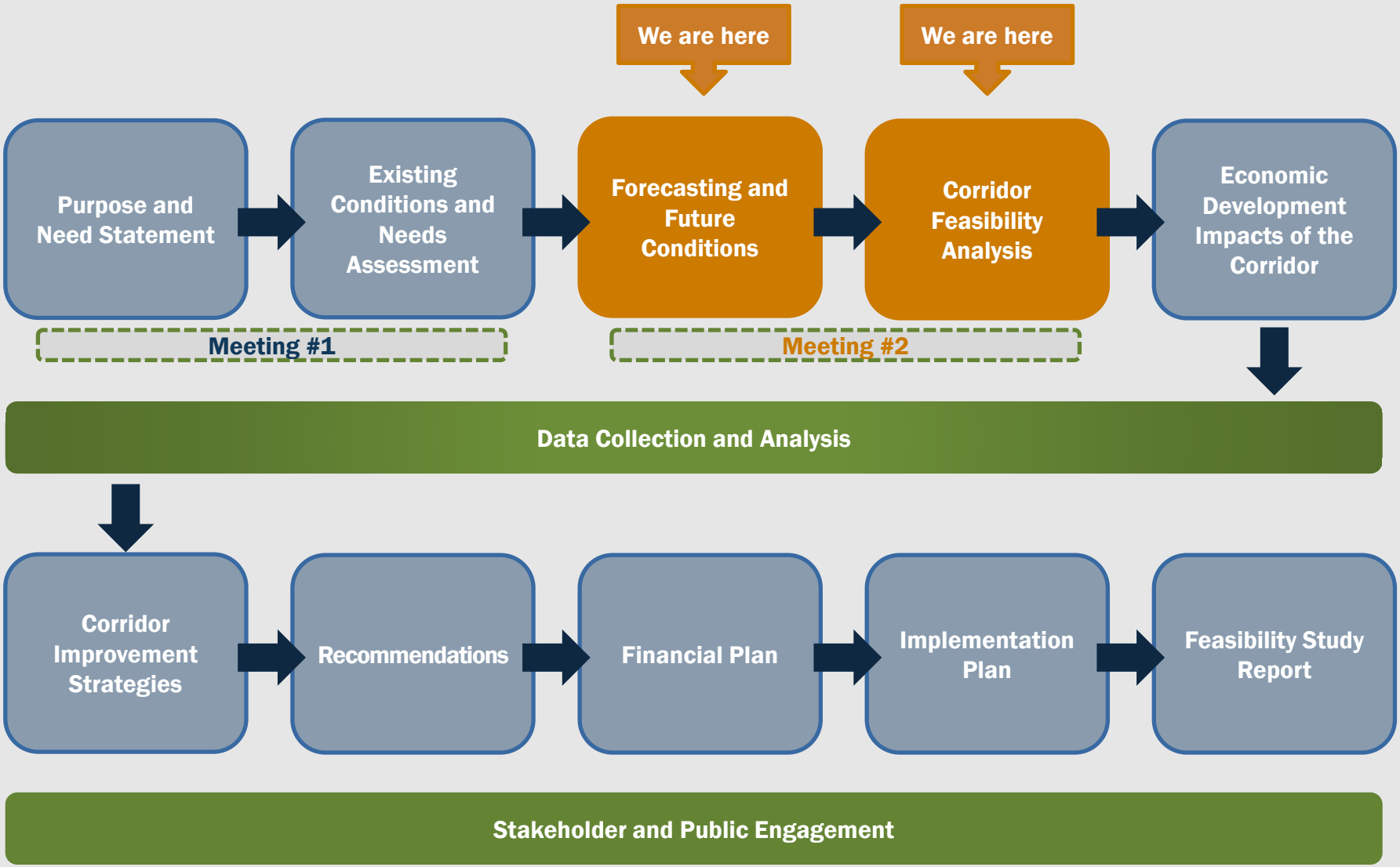
Segment #1 Total Agricultural Sales

Overview of Public Meeting #1 – November 20, 2019

- **Held in Amarillo, TX**
- **57 Attendees**
  - 29 General Public
- **Use of Interactive Tool (Mentimeter)**
- **Comments/Input**
  - Economic development
  - Safety and mobility
  - Truck traffic and access
  - A relief route to bypass local cities in the segment
  - Congestion relief

"This project is 25 years past due. Laredo to Del Rio to Raton, New Mexico makes sense moving products to markets and connecting I-27 north and south to I-10 and I-20 east/west."

Ports-to-Plains Corridor Feasibility Study Scope



Segment #1

Forecasted Conditions

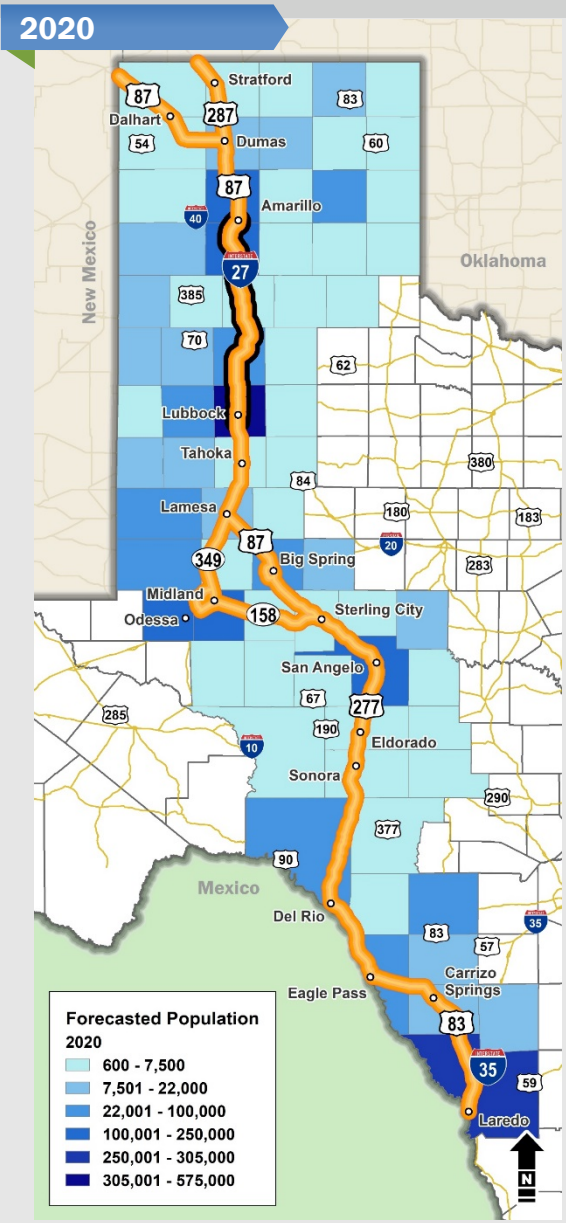
Caroline Mays, TxDOT

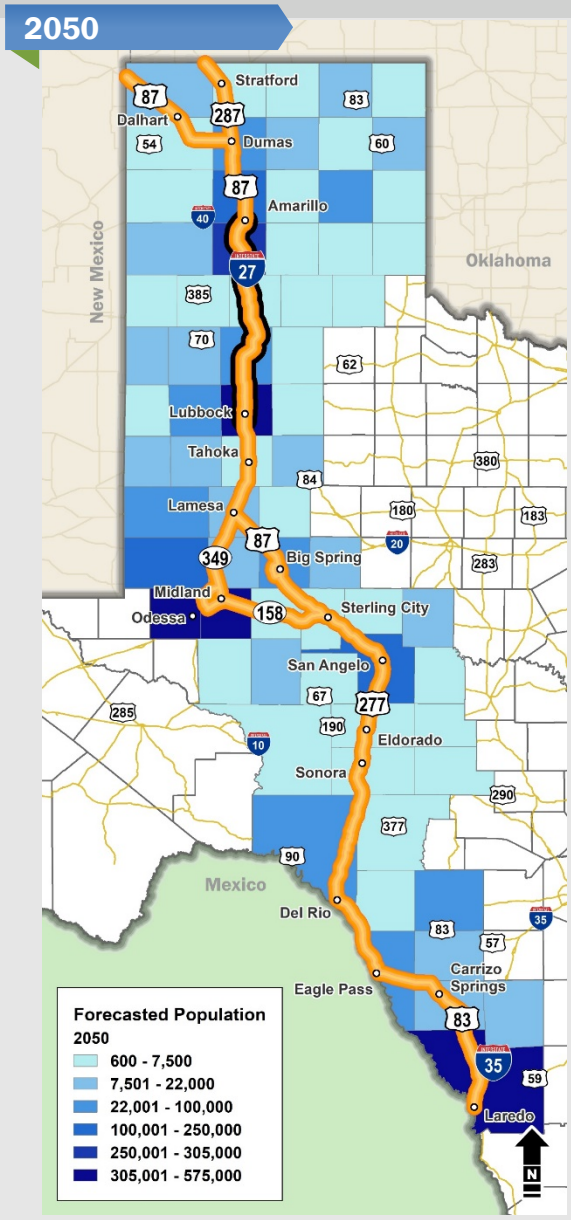
Consultant Team

Discussion Review

1. Population Forecasts
2. Economic Forecasts
3. Land Use Forecasts
4. Traffic Forecasts
5. Freight Forecasts

Corridor Forecasted Total Population 2020 and 2050

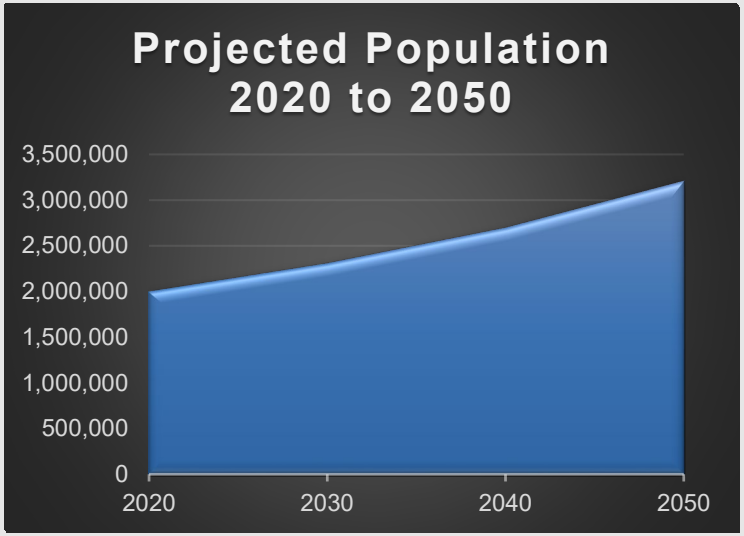




1,996,680 (2020)

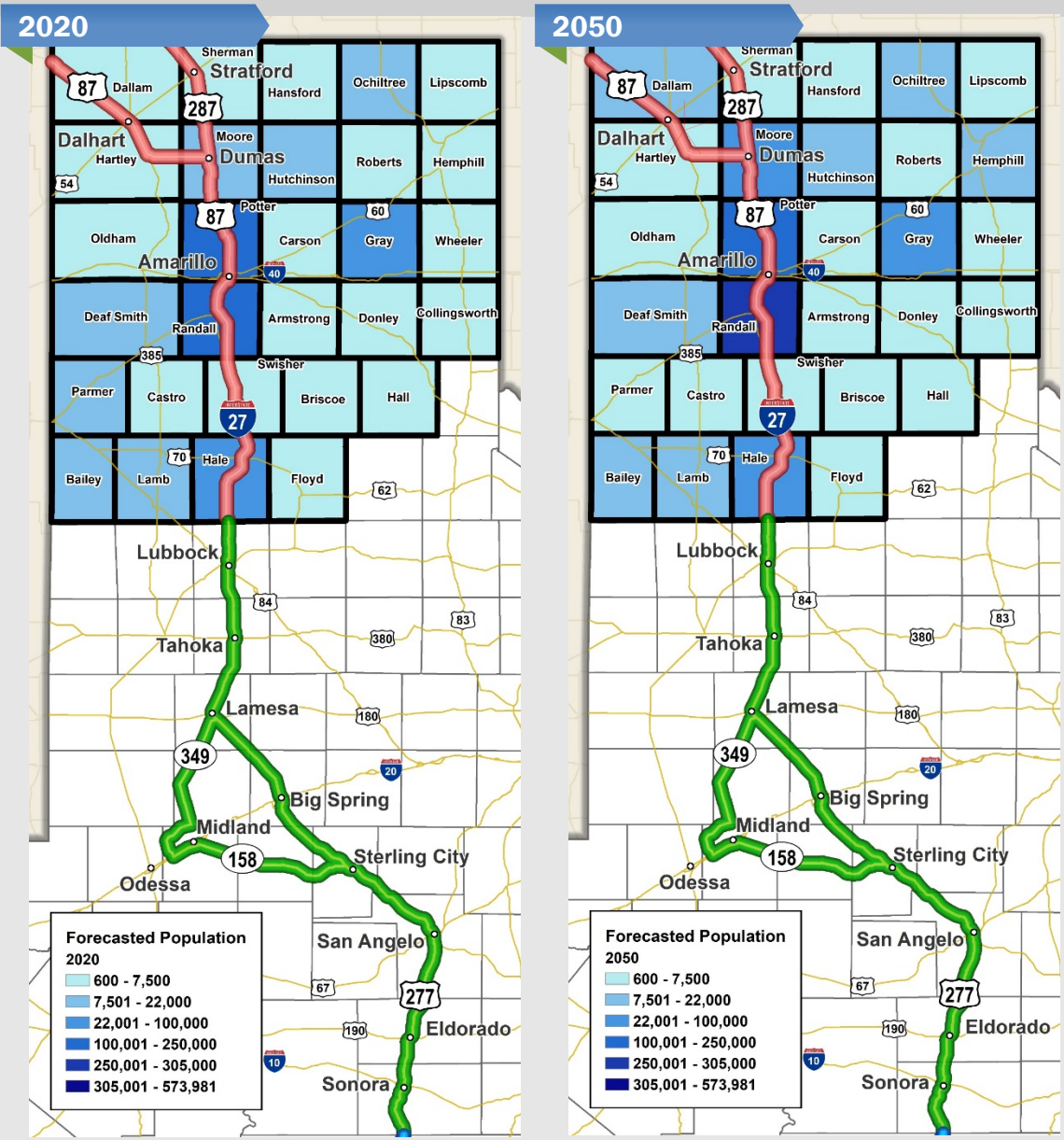
3,207,968 (2050)

- Corridor total population for all 69 counties is projected to **increase by 1,211,288 persons**.
- Overall corridor population is projected to **grow by 61%**.



Source: Texas Demographic Center

Segment #1 Forecasted Total Population 2020 and 2050



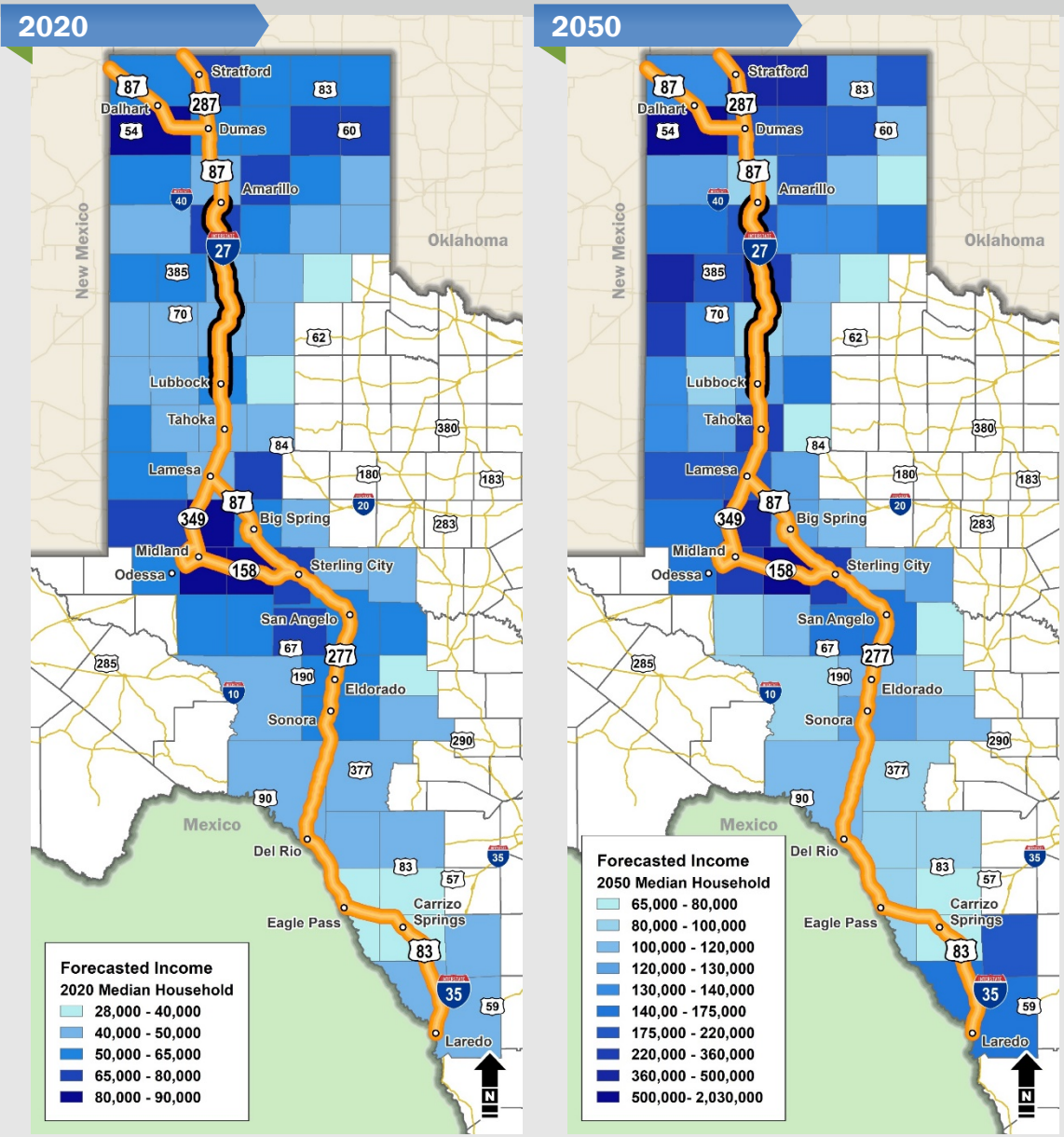
499,624 (2020)

602,827 (2050)

- Total population for the 29 counties is projected to **increase by 103,203** persons.
- **Randall County** (81%) and **Dallam County** (28%) have the highest projected population growth.
- **Castro County** (-35%) and **Hale County** (-33%) have the largest projected population declines.
- Overall Segment #1 population is projected to **grow by 21%**.

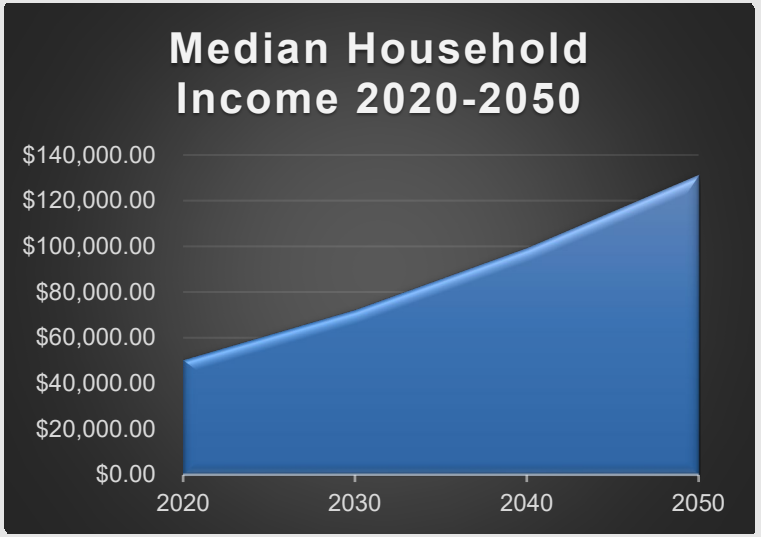
Source: Texas Demographic Center

Corridor Forecasted Median Incomes 2020 and 2050



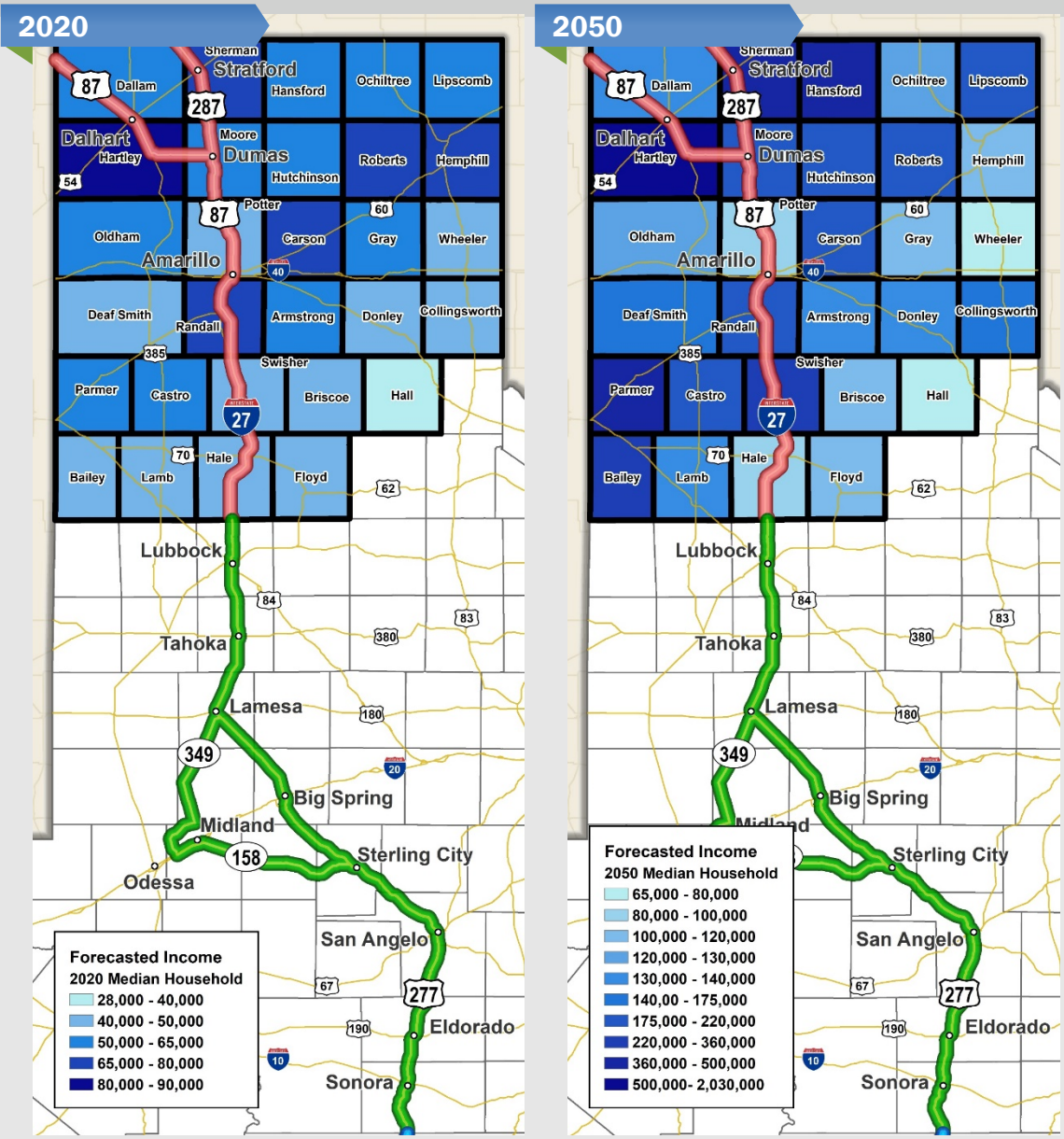
$50,460 (2020) **$131,467** (2050)

- Corridor median household income is projected to **increase by $81,006.**
- Overall corridor median household income projected to **grow by 161%**



Source: Moody's Analytics Forecasted Data

Segment #1 Forecasted Median Incomes 2020 and 2050



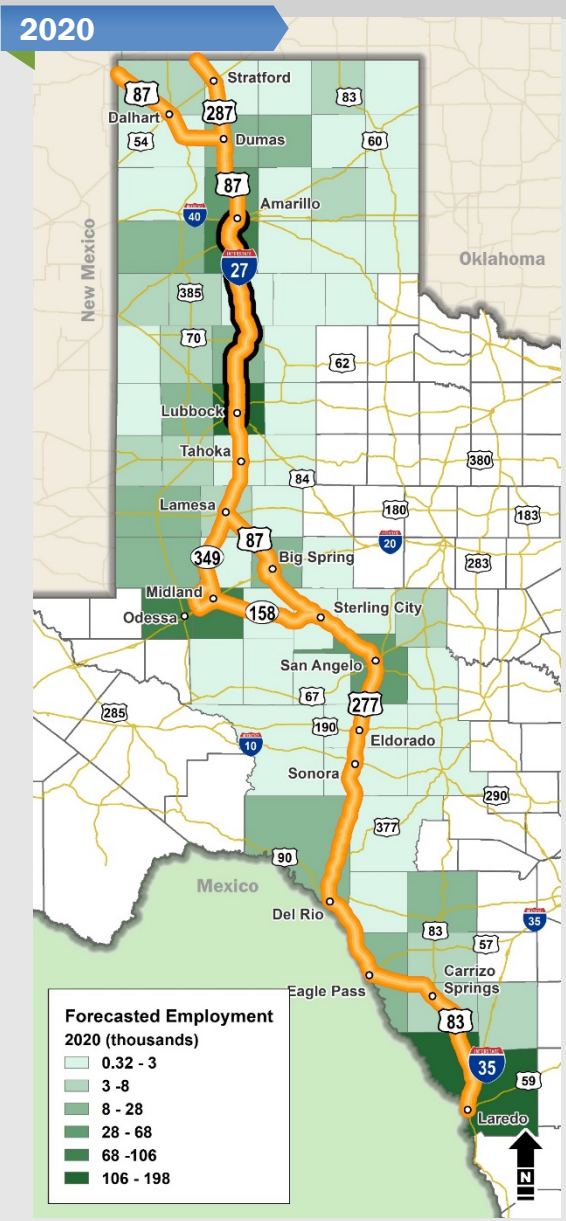
$53,650 (2020)

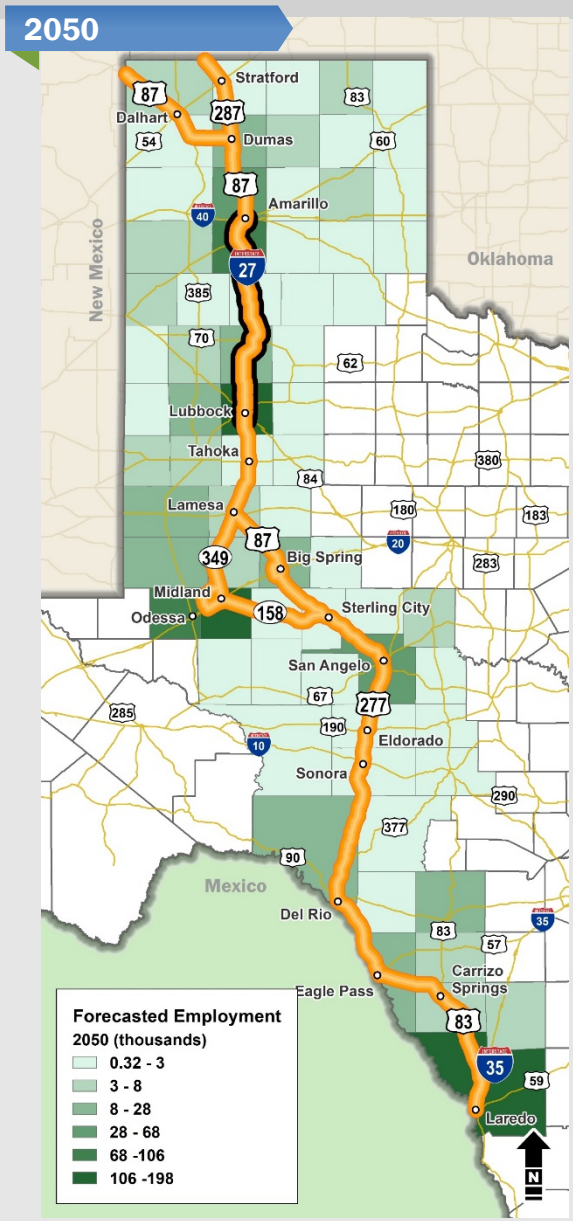
$153,632 (2050)

- Median income is projected to **increase by $99,982**.
- **Hartley County** (2,165%) **and Parmer County** (702%) have the highest projected increases in income.
- No counties saw declines in household income.
- Overall Segment #1 income is projected to **grow by 186%**.

Source: Moody's Analytics Forecasted Data

Corridor Forecasted Employment 2020 and 2050

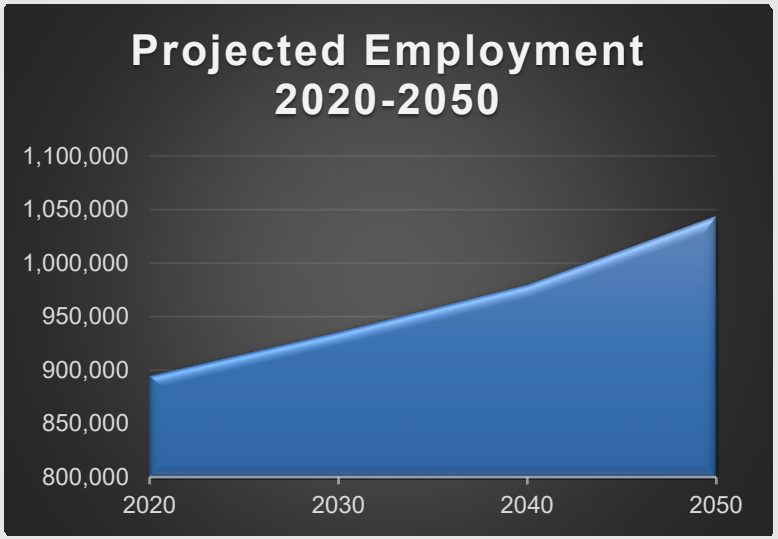




894,768 (2020)

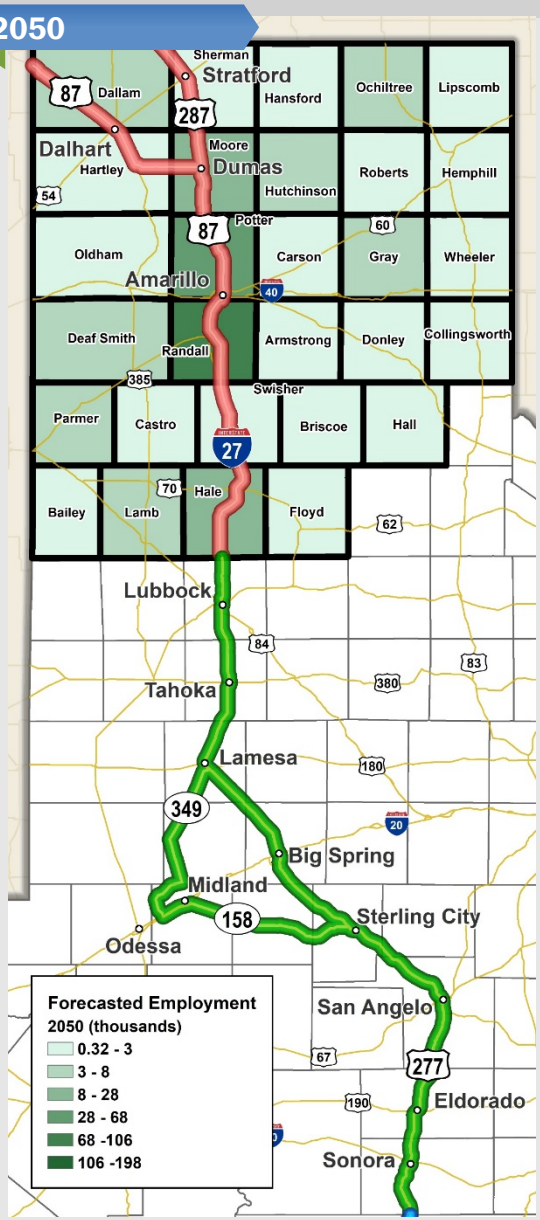
1,044,139 (2050)

- Corridor total employment is **projected to increase by 149,372**.
- Overall corridor employment **is projected to grow by 17%.**



Source: Moody's Analytics Forecasted Data

Segment #1 Forecasted Employment 2020 and 2050



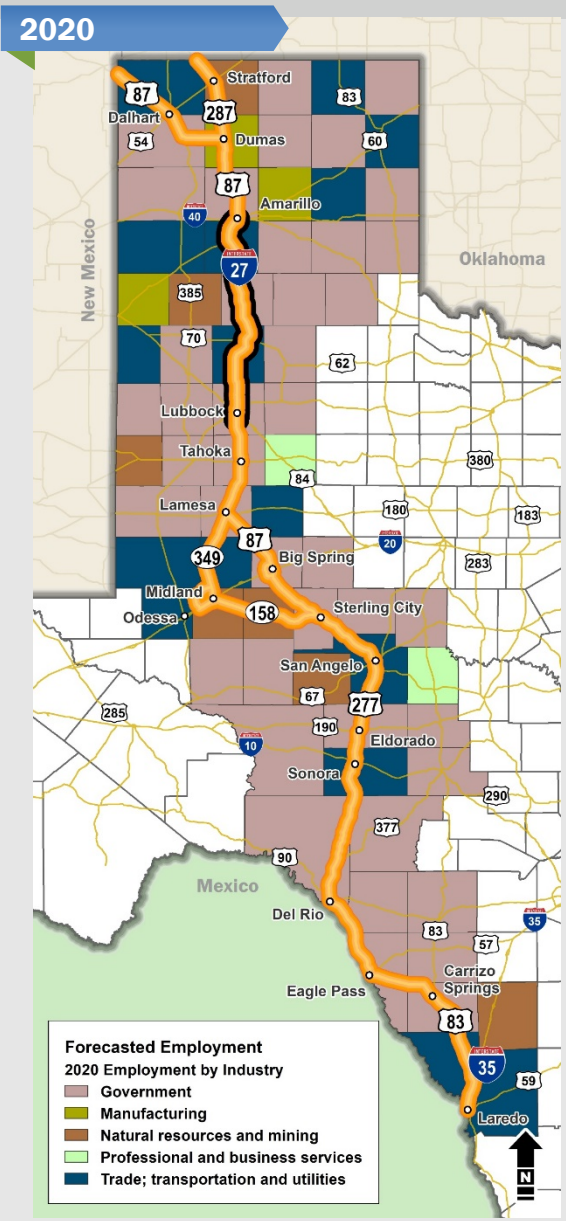
224,060 (2020)

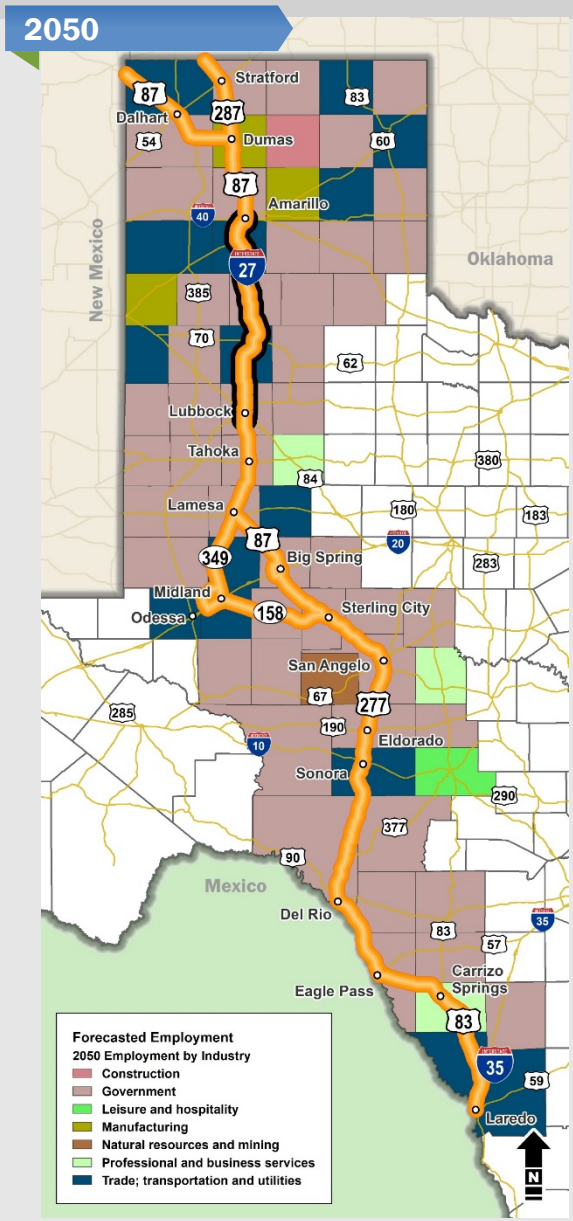
241,547 (2050)

- Employed population projected to **increase by 17,487** persons.
- **Randall County** (45%) and **Oldham County** (23%) have the highest projected growth in employment.
- **Hall County** (-36%) and **Floyd County** (-35%) have the largest projected decline in employment.
- Overall Segment #1 employment is projected to **grow by 8%.**

Source: Moody's Analytics Forecasted Data

Corridor Projected Employment by Industry 2020 and 2050



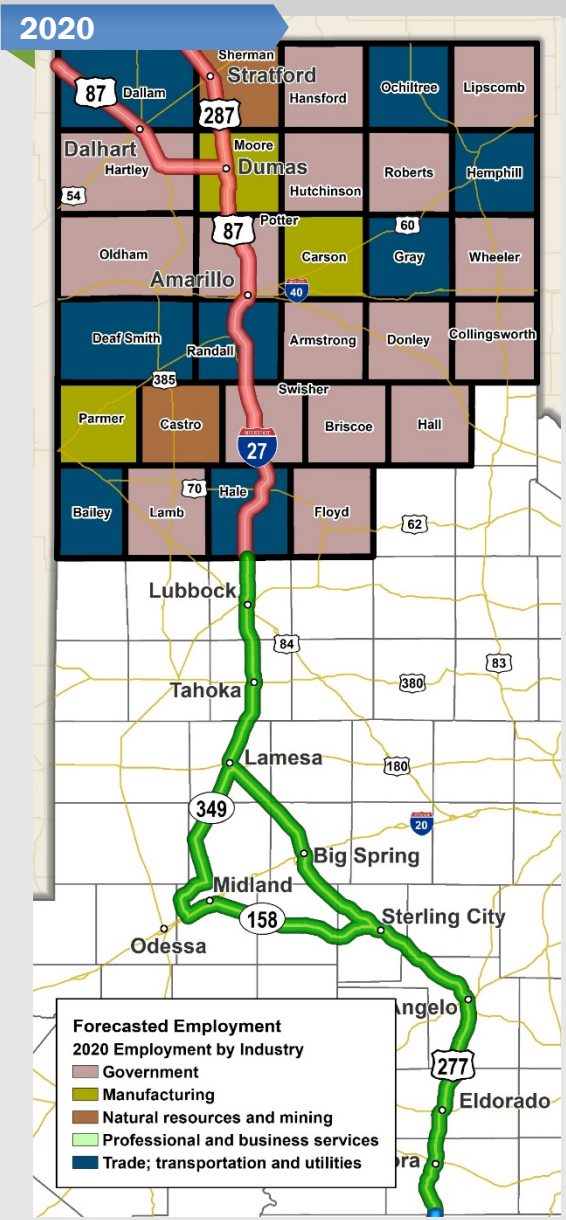


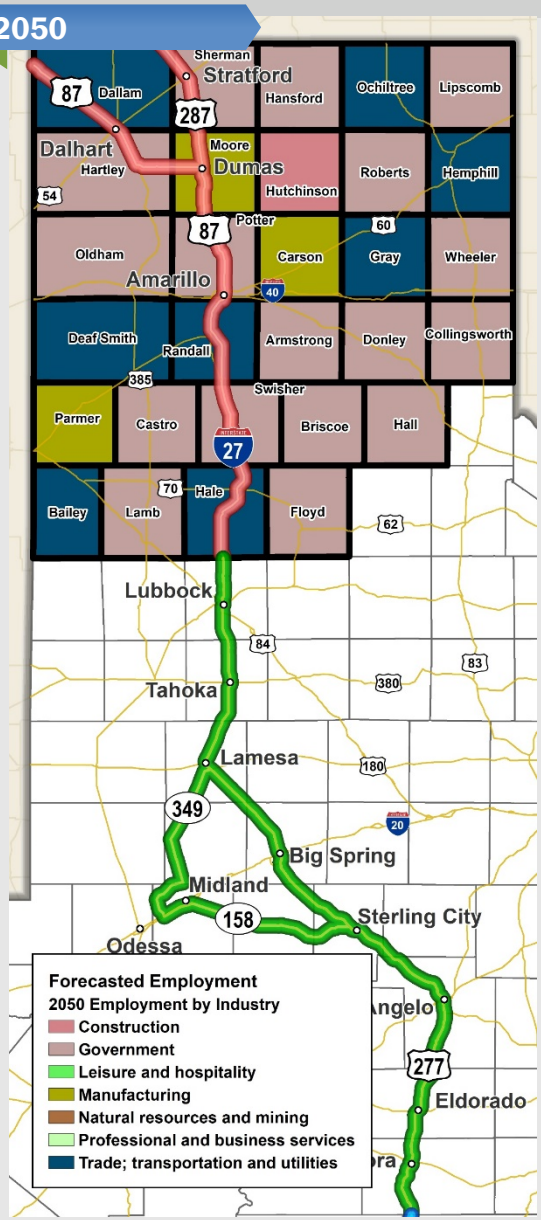
- Corridor highest **industries for employment** are projected to be:
  - Government (42 counties in 2020 and 46 counties in 2050), and
  - Trade; transportation and utilities (15 counties in 2020 and 14 counties in 2050).

Other Top Employment Industries	2020 (# of Counties)	2050 (# of Counties)
Natural Resources and Mining	7	1
Manufacturing	3	3
Professional and Business Services	2	3
Construction	0	1
Leisure and hospitality	0	1

Source: Moody's Analytics Forecasted Data

Segment #1 Projected Employment by Industry 2020 and 2050

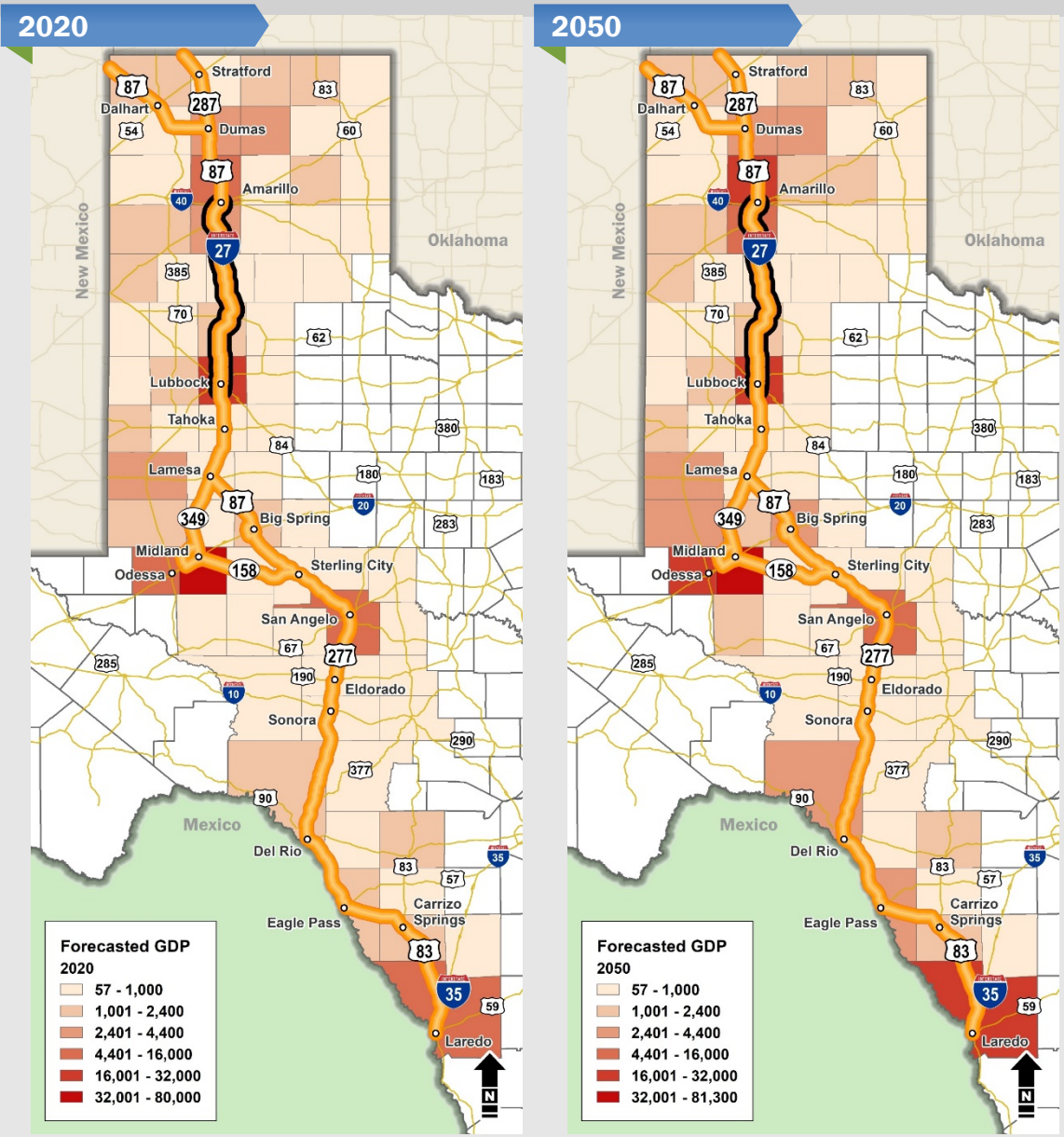




- Corridor highest **industries for employment** are projected to be:
  - Government (16 counties in 2020 and 17 counties in 2050),
  - Trade; transportation and utilities (8 counties in 2020 and in 2050),
  - Manufacturing (3 counties in 2020 and in 2050),
  - Natural resources and mining (2 counties in 2020), and
  - Construction (1 county in 2050).

Source: Moody's Analytics Forecasted Data

Corridor Forecasted Gross Domestic Product 2020 and 2050



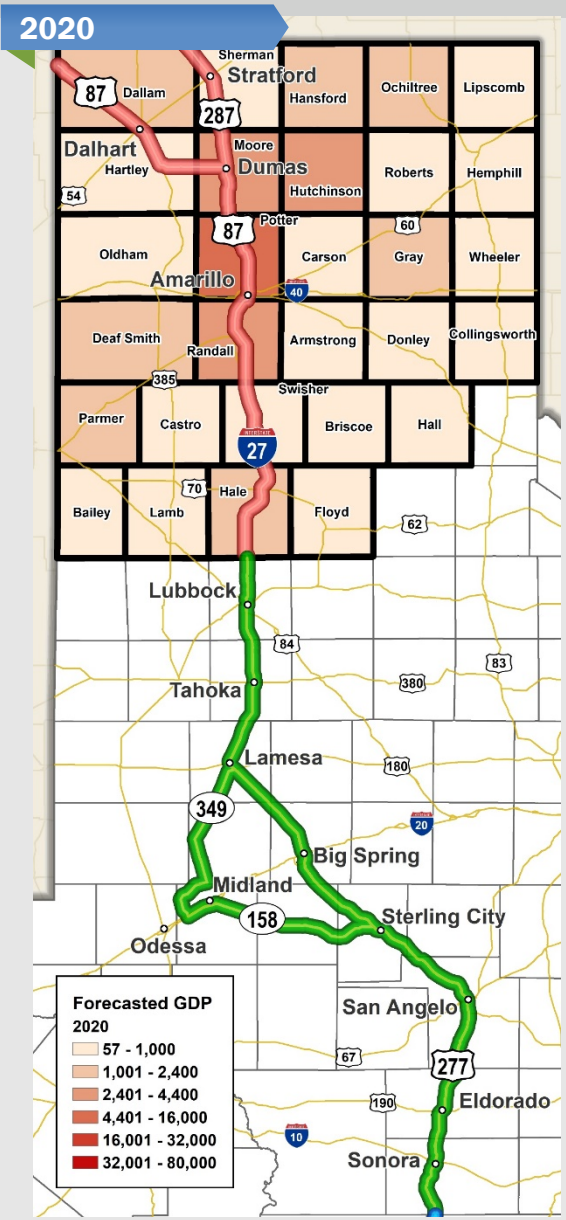
155,377 million (2020)

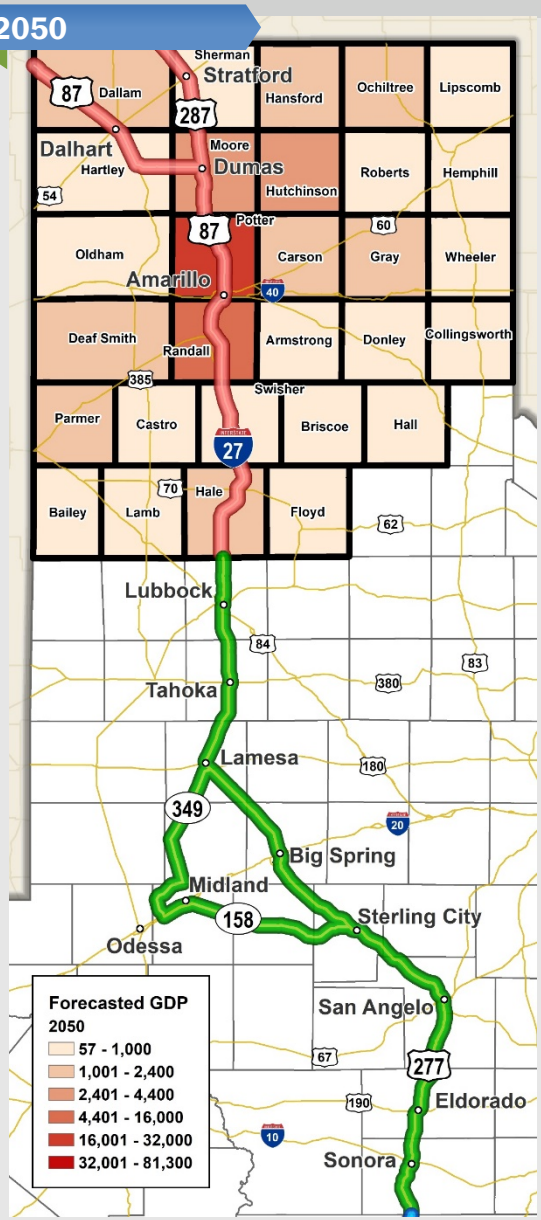
263,243 million (2050)

- Corridor Gross Domestic Product (GDP) is projected to **increase by 107,866 million**.
- Overall corridor GDP is projected to **grow by 69%** .

Source: Moody's Analytics Forecasted Data

Segment #1 Forecasted GDP 2020 and 2050





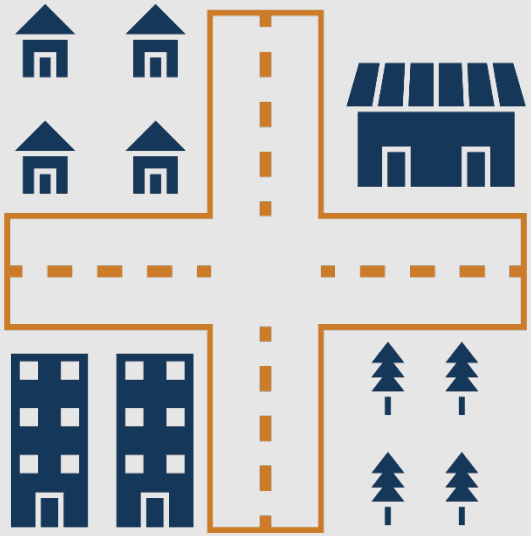
36,609 million (2020)

53,904 million (2050)

- Gross Domestic Product (GDP) is projected to **increase by 17,295 million**.
- **Randall County** (163%) **and Carson County** (123%) have the highest projected increases in GDP.
- **Hartley County** (-16%) **and Hutchinson County** (-10%) have the largest projected declines in GDP.
- Overall Segment #1 GDP is projected to **grow by 47%** .

Source: Moody's Analytics Forecasted Data

Corridor Land Use Future Potential



- **76% Developable**
- **19% Developed**

  Areas consist of:

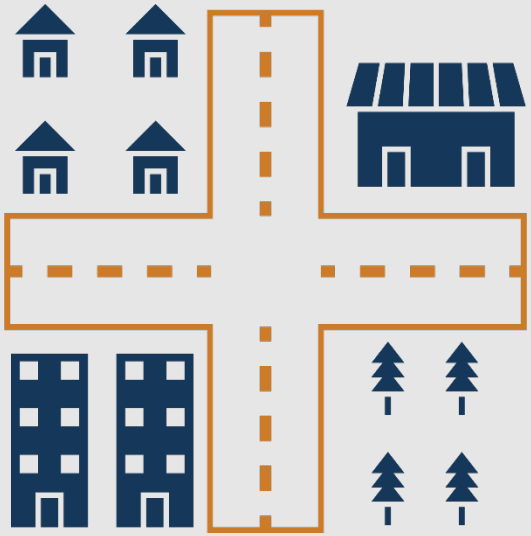
  - » **Cities' and towns' existing developed areas**
- **5% Not Developable**

  Areas constrained by:

  - » **floodplains (3%),**
  - » **wetlands (1%),**
  - » **parks (0.4%), and**
  - » **historic sites, cemeteries, and hazardous material sites (<0.01%).**

Source: ESRI Aerial Imagery, NWI, FEMA, THC, and EPA data.

Segment #1 Land Use Future Potential



- **81% Developable**
- **15% Developed**

  Areas consist of:

  - » **Cities' and towns' existing developed properties**
- **4% Not Developable**

  Areas constrained by:

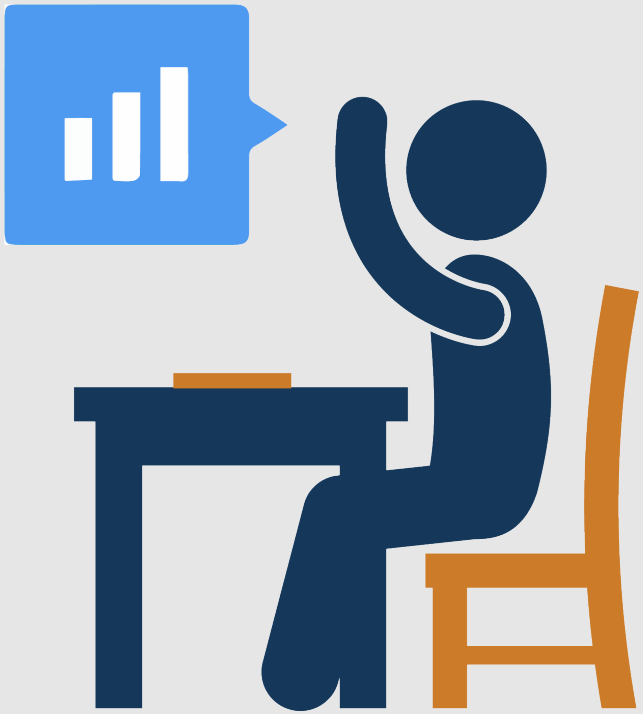
  - » **floodplains (2%),**
  - » **wetlands (1%),**
  - » **parks (1%), and**
  - » **historic sites, cemeteries, and hazardous material sites (<0.02%).**

Source: ESRI Aerial Imagery, NWI, FEMA, THC, and EPA data.

Committee Feedback

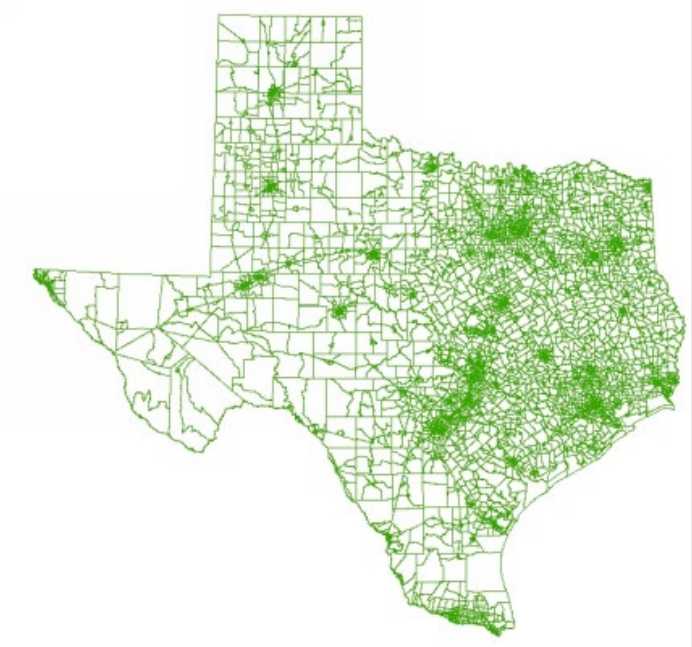
- What factors do you think are influencing future population, economic and land use conditions?

- Do you envision the local population, economy and land use changing if improvements are made to the Ports-to-Plains Corridor? If so, where?



Traffic Forecasting Process

- Use baseline traffic from TxDOT 2018 daily traffic counts
- Deploy TxDOT Statewide Travel Demand Model (SAM) for future traffic volumes
- Compute growth between base year and 2050 horizon year within SAM
- Add growth to baseline traffic to predict 2050 traffic forecasts
- Repeat for alternative improvement scenarios



Forecasted Traffic Conditions

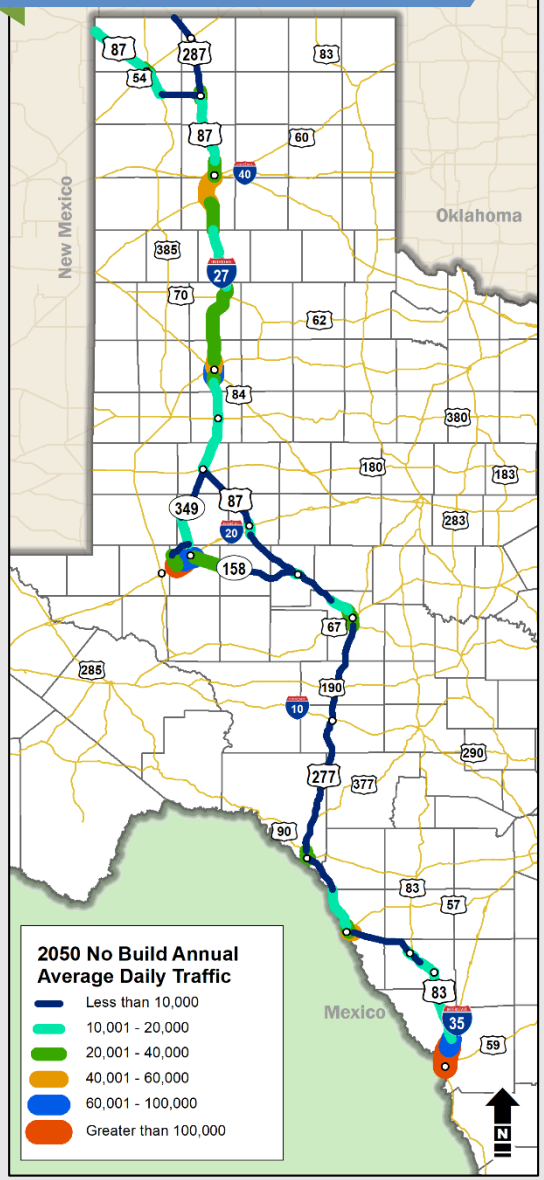
Existing Cross Sections

Traffic Growth Scenarios

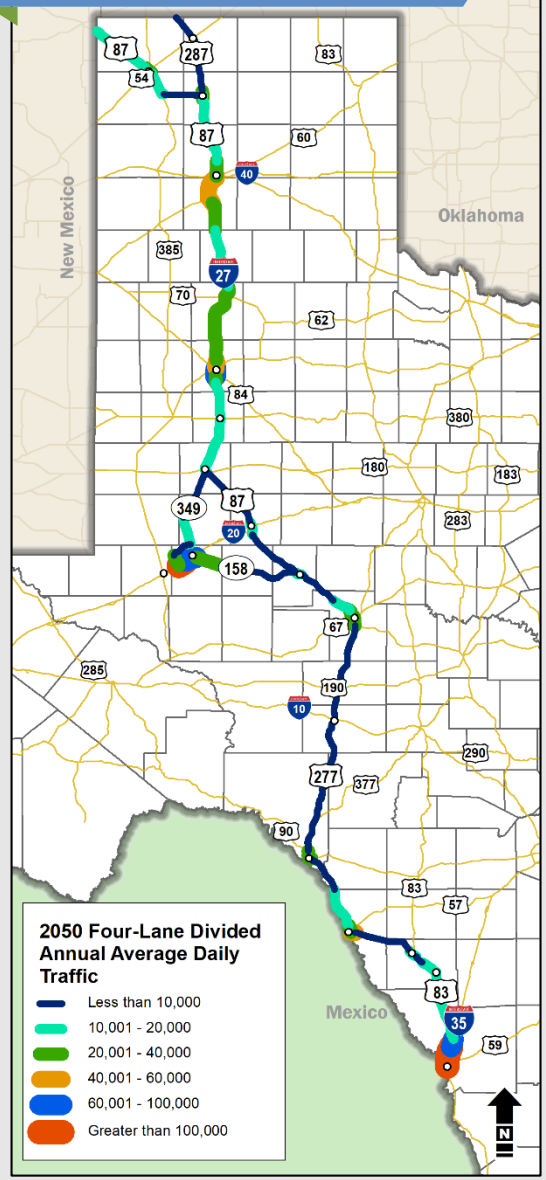
- **No Build**
  - Corridor lane configurations include only what is planned/programmed
- **4-lane Divided Highway**
  - Would upgrade most of US 277 & US 83
  - Route still traverses small towns and cities as urban streets
- **Interstate Highway**
  - Full control of access for entire corridor (75 mph)
  - Traverses urban areas via local preferred route (urban freeway or relief route)

Forecasted Traffic Conditions

2050 Traffic – No Build



2050 Traffic - 4 Lane Divided



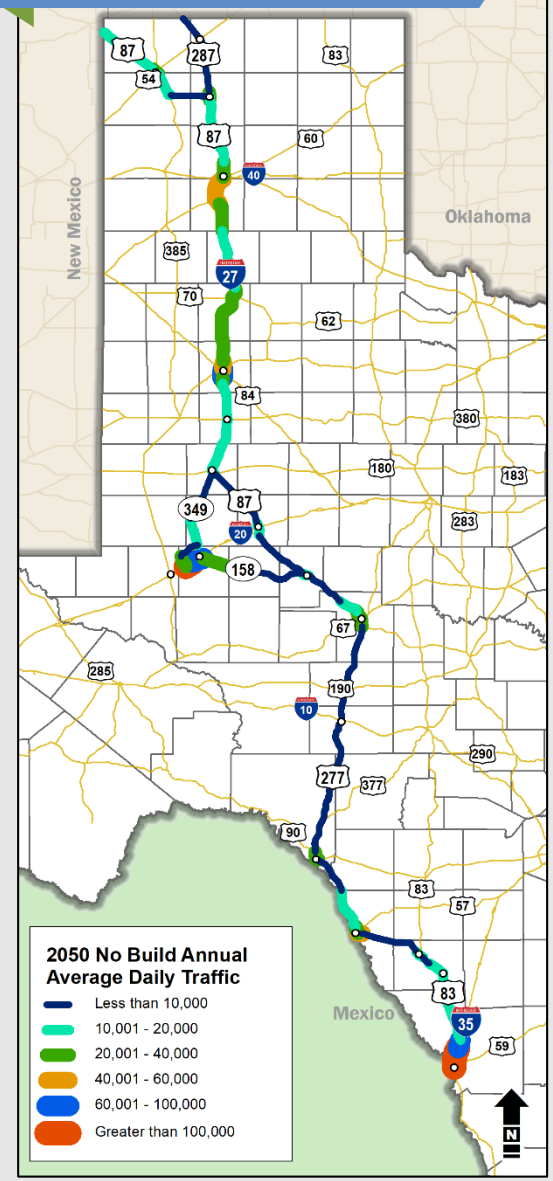
Overview of Findings

- **No Build Growth**
  - Solid corridor growth
  - High growth on US 83 north of Laredo (163%), SH 158 near Midland (124%)
  - Low Growth on US 287 near Oklahoma border (10%), US 87 near Big Spring (10%)
- **4-Lane Divided Growth**
  - Very similar to No Build
  - Doesn't attract more traffic – urban mobility/reliability still an issue

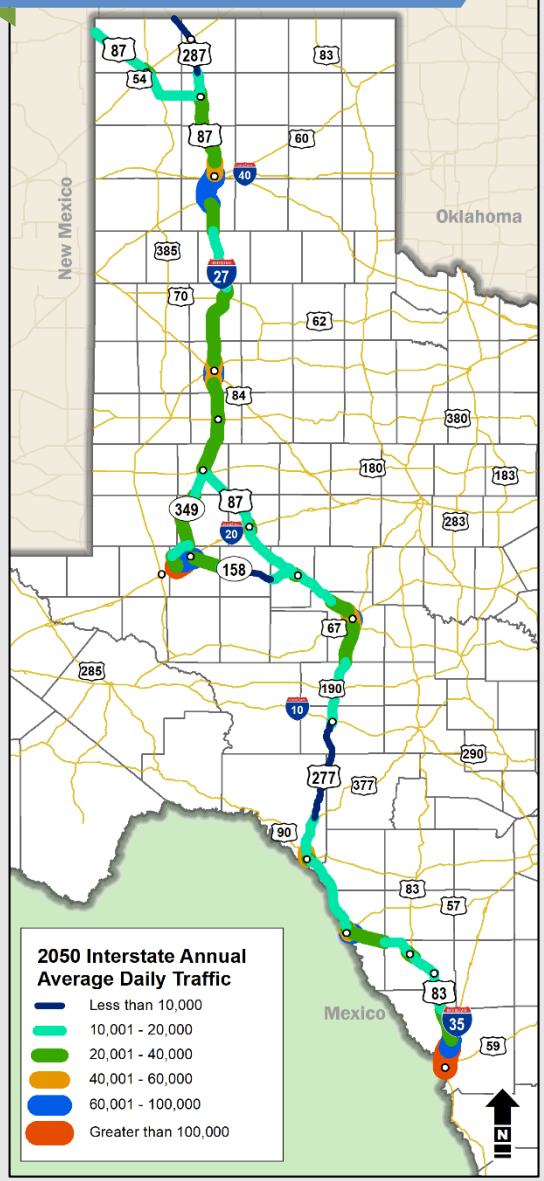
Source: TXDOT SAM and TxDOT 2018 RID

Forecasted Traffic Conditions

2050 Traffic – No Build



2050 Traffic – Interstate

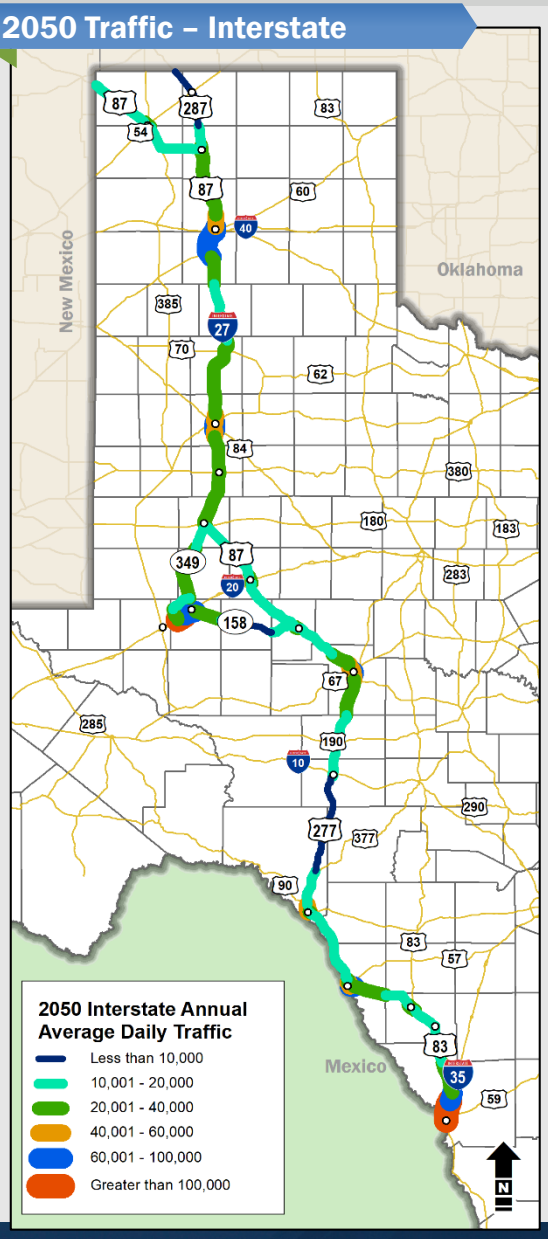


Overview of Findings

- **Interstate Highway Growth**
  - 100-200% growth over 2018 volumes found in all three segments on arterial sections
  - US-87 provides path to I-25
  - US-287 route unimproved in Oklahoma
- **Interstate Highway Diversions**
  - Fills in National Grid
  - Most diversions from within 100 miles
  - Diversions also traced on national and statewide basis

Source: TXDOT SAM and TxDOT 2018 RID

Forecasted Traffic Conditions



Traffic Volume on Texas Rural Interstates (2018)

- I-10: Fort Stockton to Junction – 5,000 to 15,000
- I-40: New Mexico to Oklahoma – 10,000 to 15,000
- I-20: Pecos to Big Spring– 15,000 to 25,000
- I-35:
  - San Antonio to Laredo: 20,000 to 30,000
  - San Antonio to San Marcos: 100,000 to 130,000 (6 lanes)

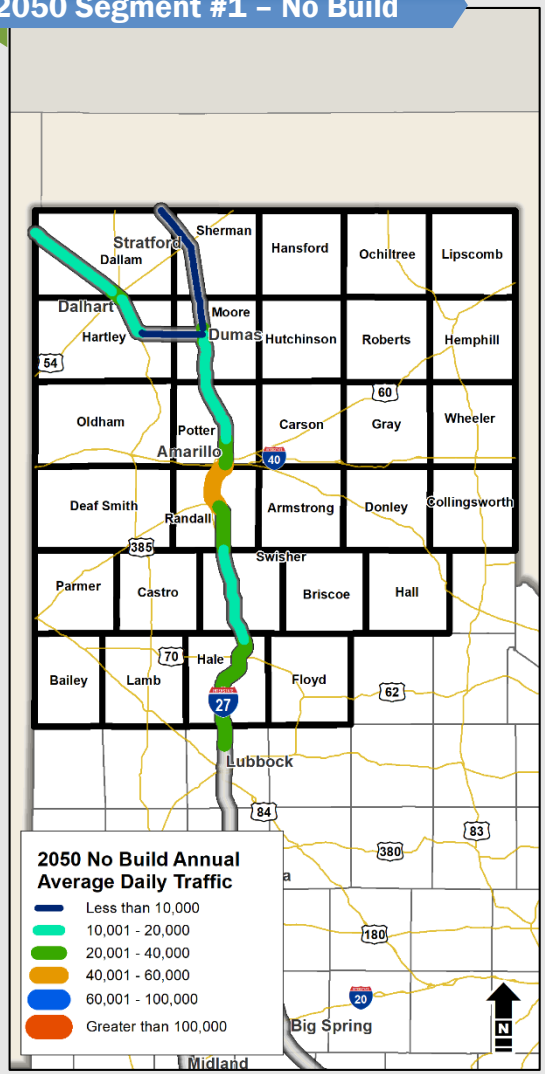
Ports to Plains Corridor Rural Traffic Volume as Interstate (2050)

- Dumas to Amarillo – 25,000 to 40,000
- Sterling City to San Angelo – 20,000 to 30,000
- Eagle Pass to Laredo – 15,000 to 25,000

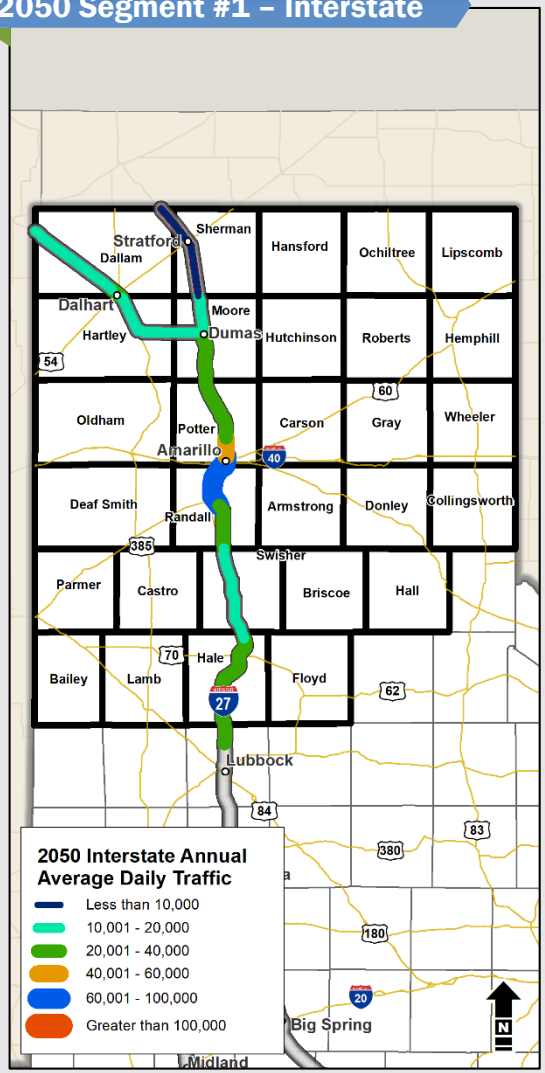
Source: TXDOT SAM and TxDOT 2018 RID

Forecasted Traffic Conditions

2050 Segment #1 – No Build



2050 Segment #1 – Interstate



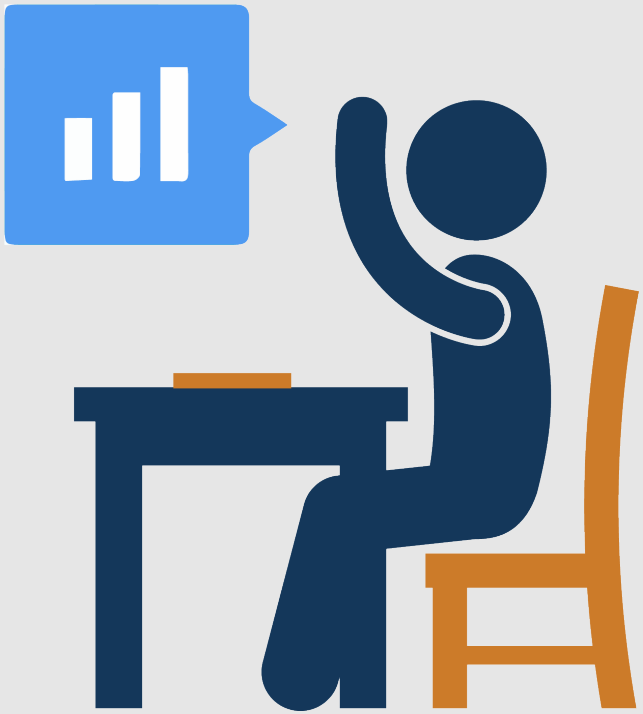
Segment #1 Forecast

- US-87 near New Mexico
  - 2018: 6,500
  - 2050 No Build/4-Lane: 10,700
  - 2050 Interstate: 13,200
- US-87 north of Amarillo
  - 2018: 11,700
  - 2050 No Build/4-Lane: 14,600
  - 2050 Interstate: 24,200
- I-27 north of Lubbock
  - 2018: 21,200
  - 2050 No Build/4-Lane: 32,100
  - 2050 Interstate: 33,000

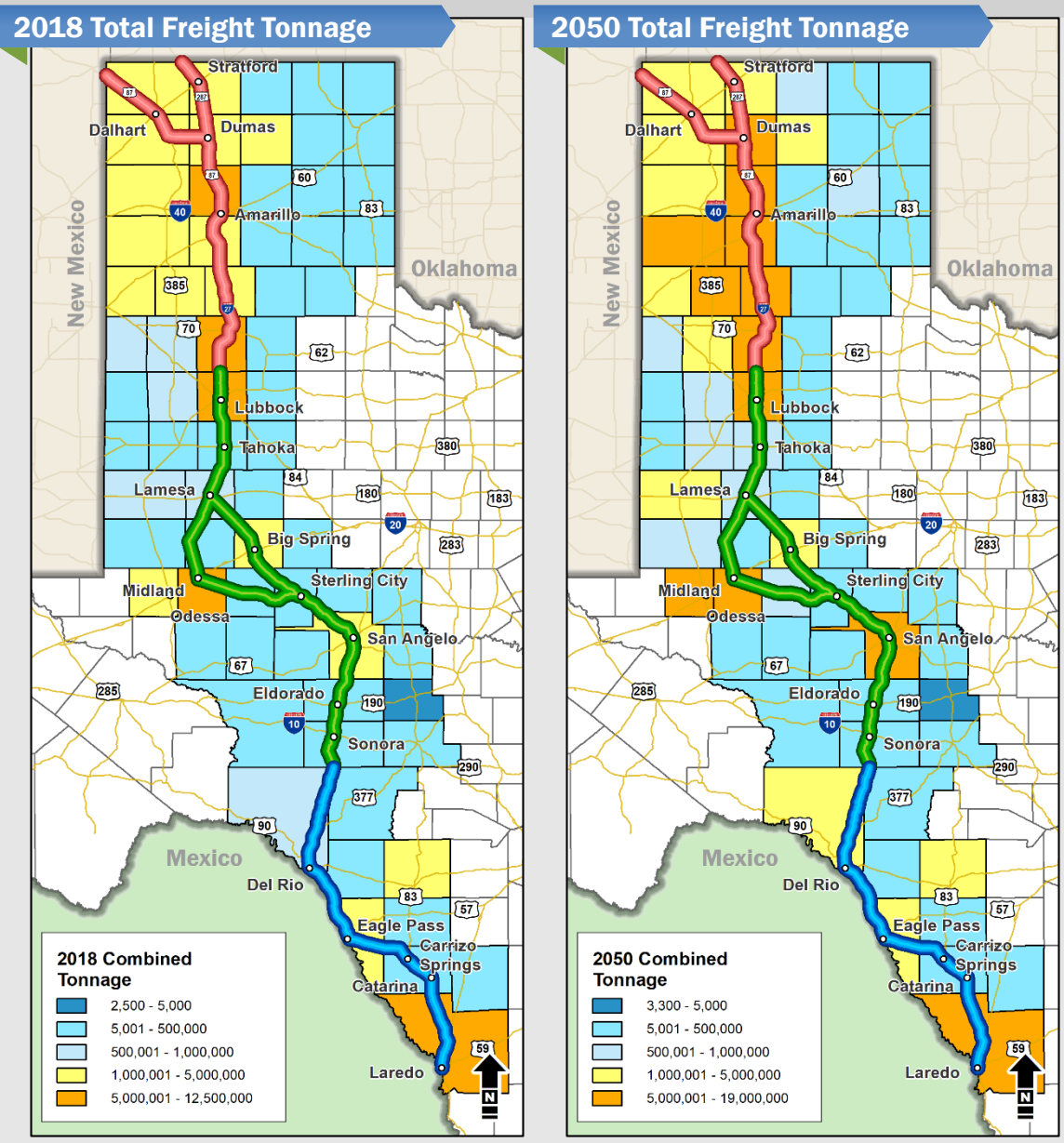
Source: TXDOT SAM and TxDOT 2018 RID

Committee Feedback

- The forecasts project that the interstate option will result in higher traffic growth than the 4-lane divided option.
- What are the opportunities and challenges related to the differences in traffic volumes between the 4-lane divided and interstate options?



Corridor Total Truck Freight Growth by County - 2050

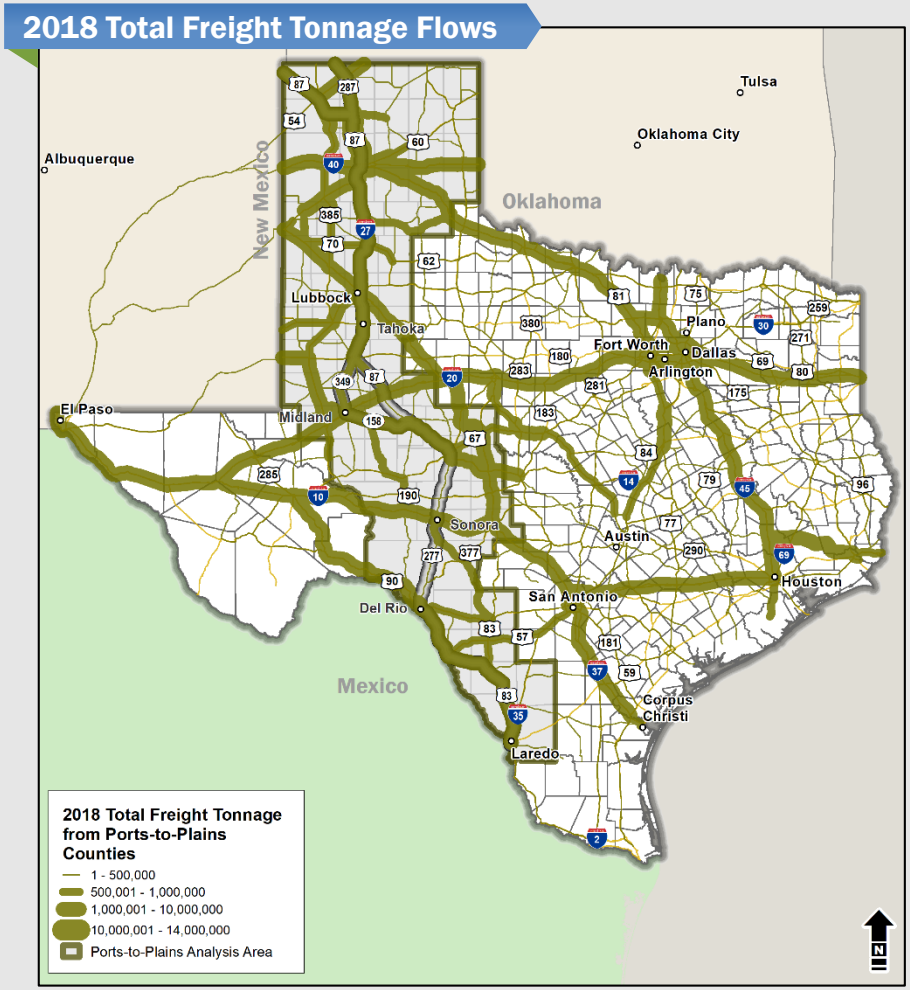


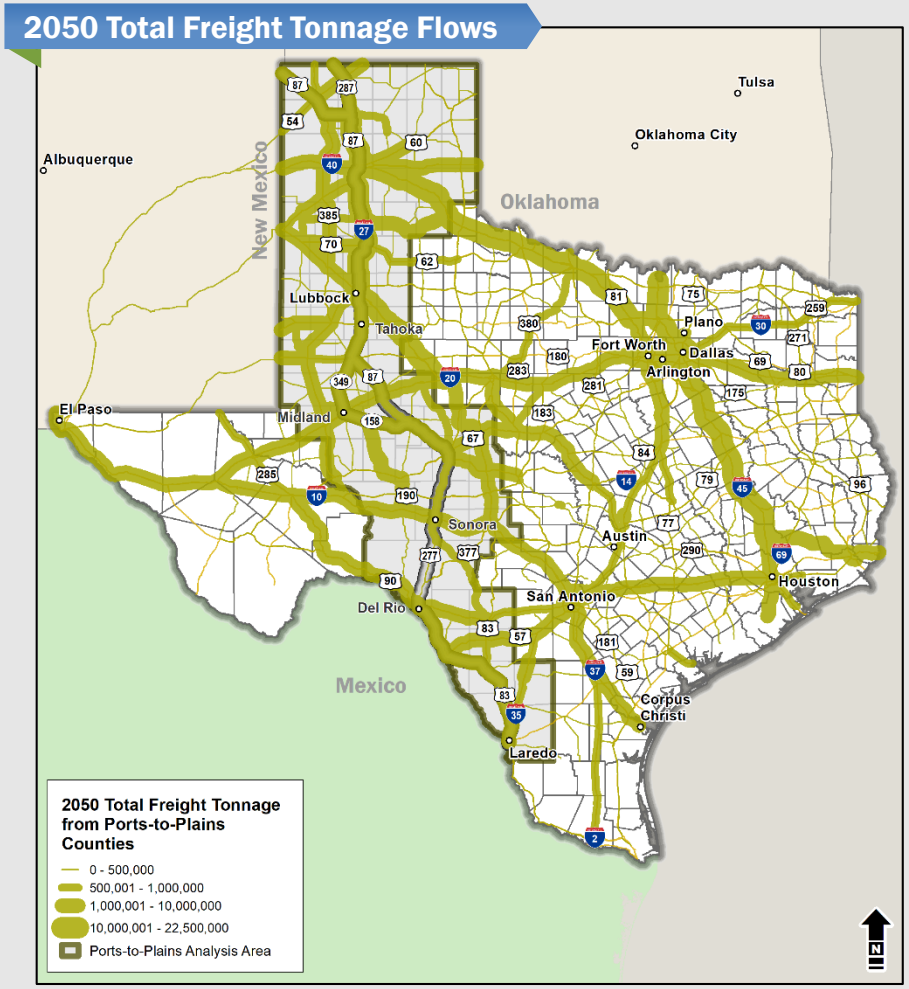
- Total truck tonnage is forecast to grow 78% through 2050
  - 73 million tons added
  - Total volume reaches 167 million tons
- Top locations for growth are
  - **Laredo** (Webb County)
  - **Midland/Odessa** (Midland/Ector Counties)
  - **Lubbock** (Lubbock County)
- Growth is strong generally along existing I-27, in San Angelo (Tom Green County), and along the border

Source: TXDOT SAM and TRANSEARCH database

Corridor Total Truck Freight Growth in Texas Network – 2050

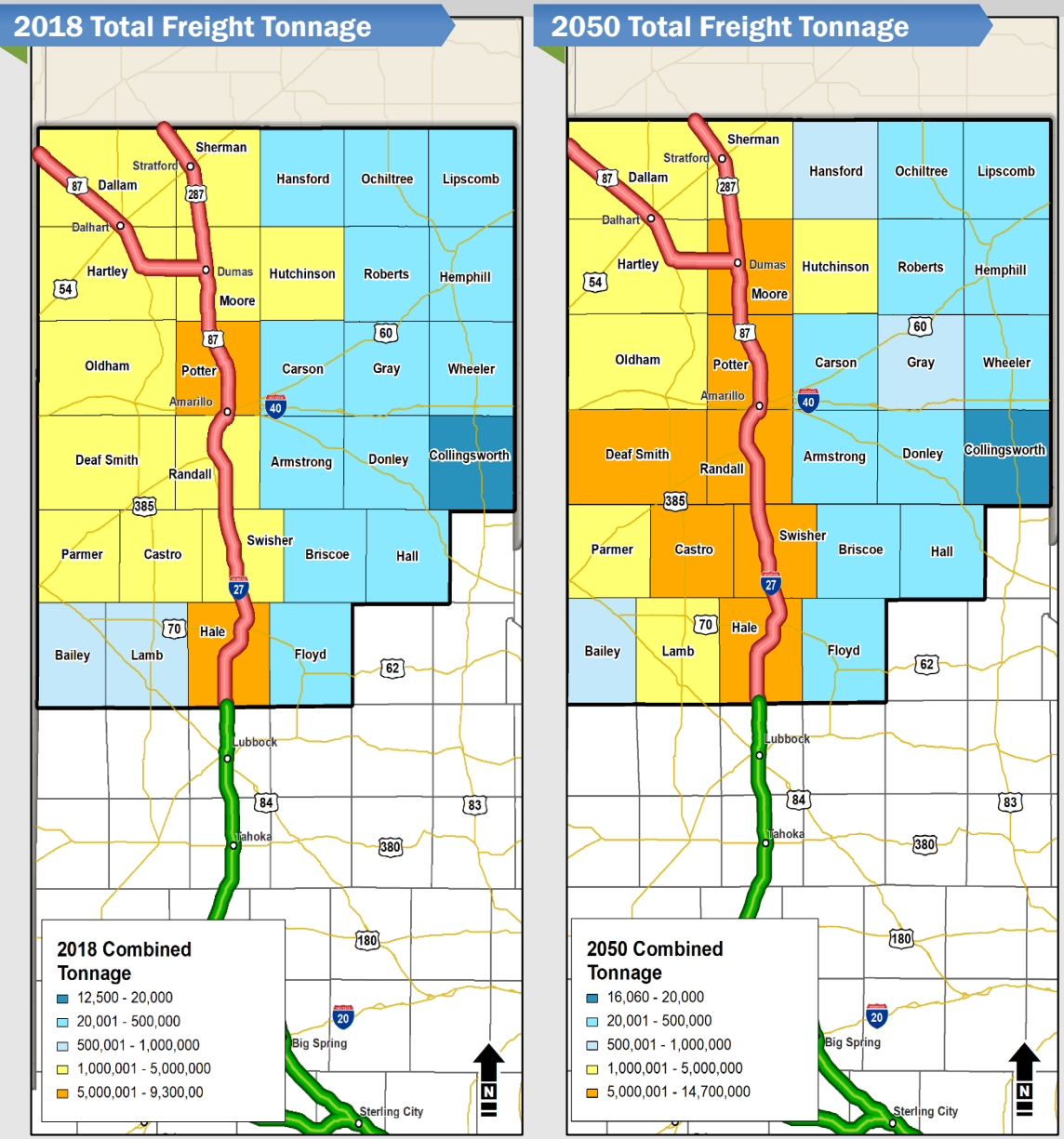
- Corridor truck traffic connects across the state and is forecast to grow broadly





Source: TXDOT SAM and TRANSEARCH database

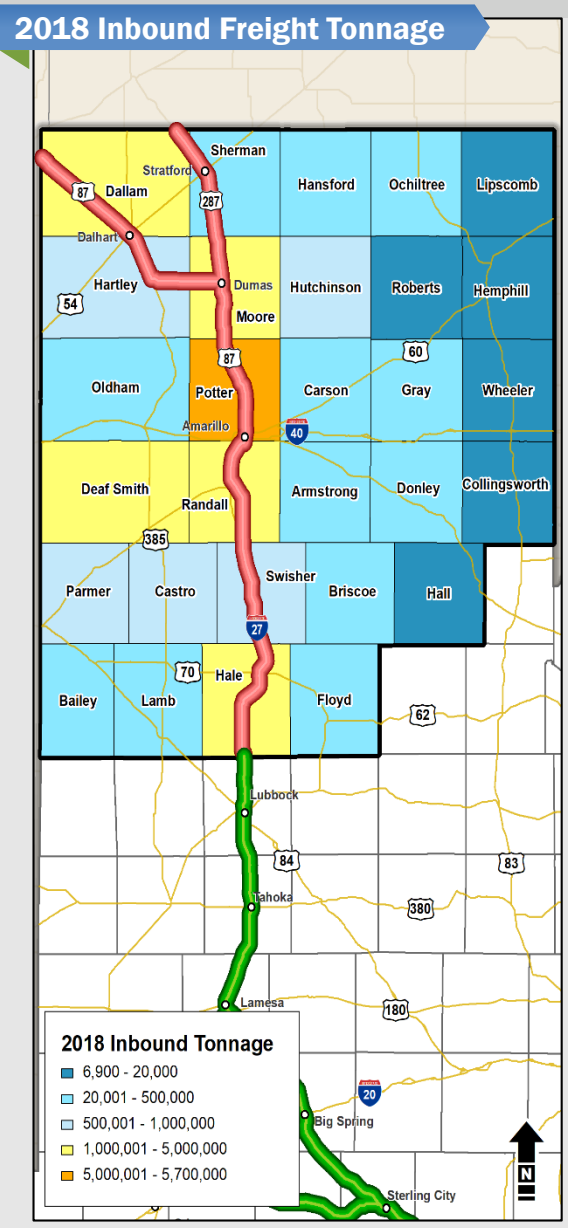
Segment #1 Total Freight Growth by County - 2050

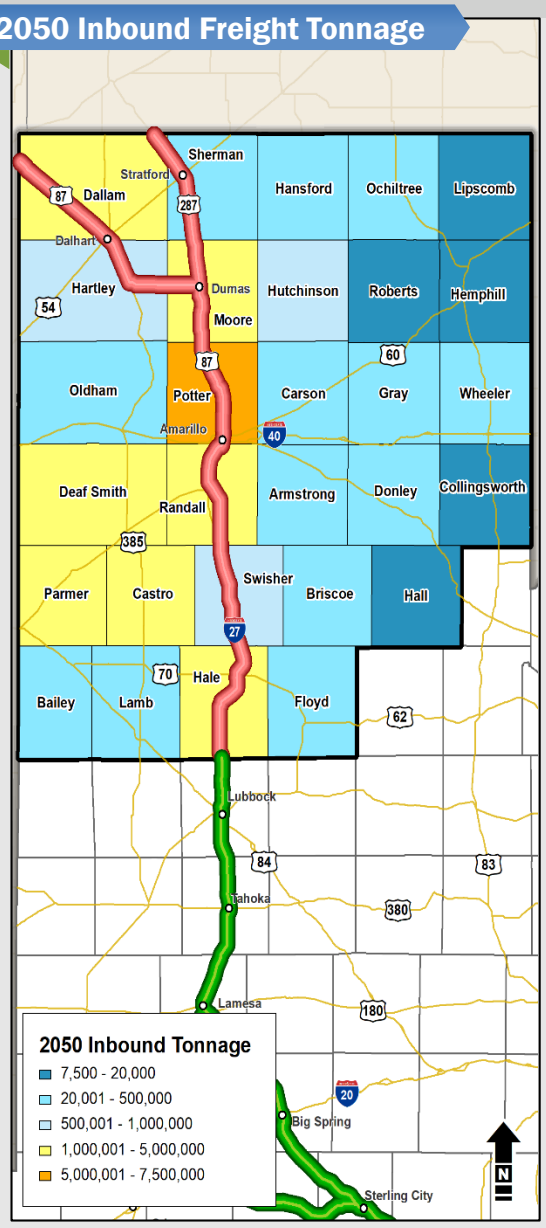


- Segment #1 total truck tonnage is projected to grow 59% through 2050, concentrated particularly along I-27
  - 28 million tons added, for 39% of the new tons on the corridor
  - Total volume 79 million tons
- Fastest county growth:
  - **Castro** - 115%
  - **Hansford** - 104%
  - **Moore** - 94%
- Largest county growth:
  - **Potter** + 5.4 mil. tons
  - **Moore** + 3.1 mil. tons
  - **Castro** +3.0 mil. tons

Source: TXDOT SAM and TRANSEARCH database

Segment #1 Inbound Freight Growth by County - 2050

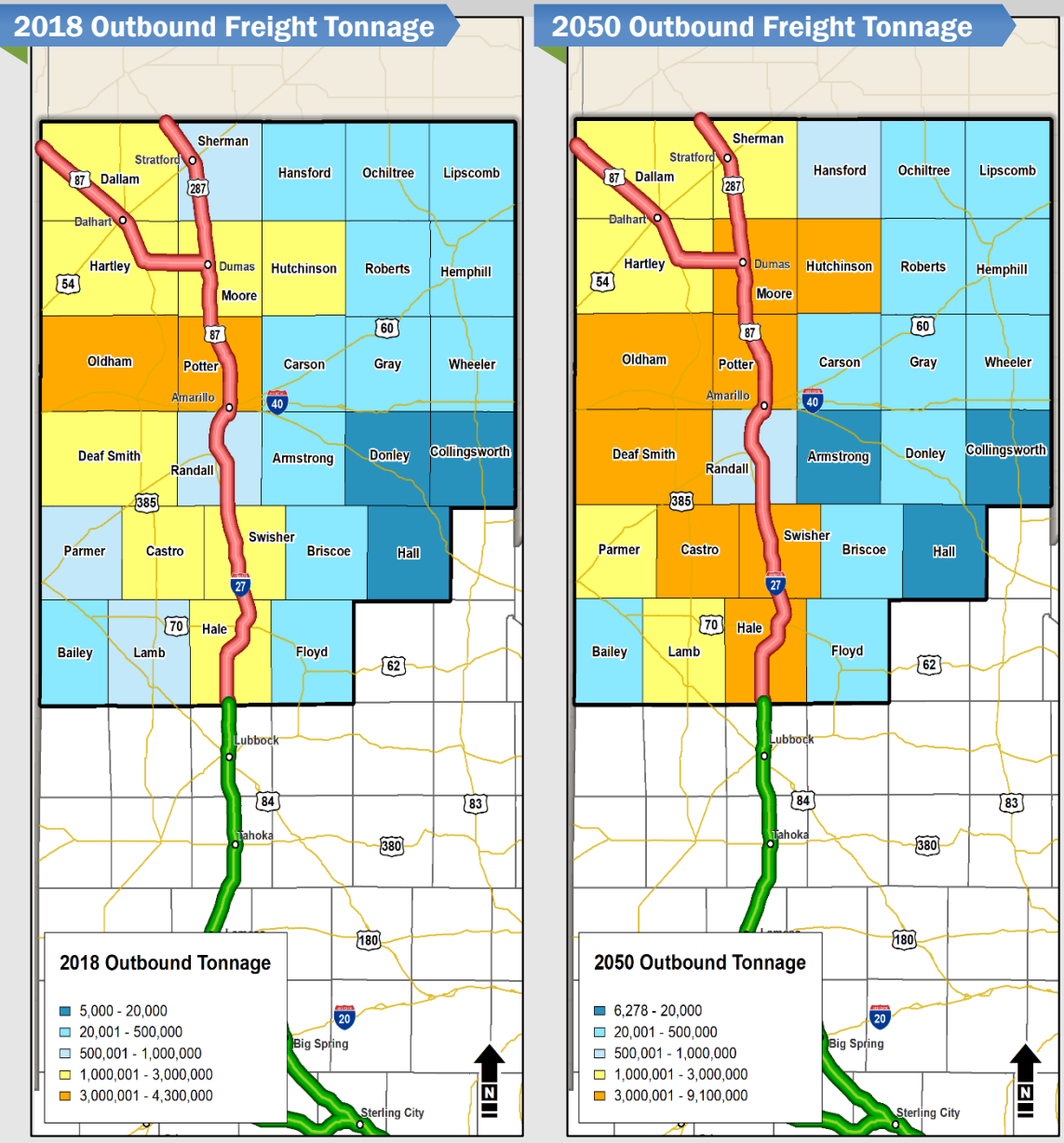




- Segment #1 inbound truck tonnage is projected to **grow 43%** through 2050
  - 10 million tons added, for 27% of new inbound tons on the corridor
  - Total inbound volume reaches 32 million tons
- Fastest county growth:
  - **Briscoe** - 102%
  - **Randall** - 93%
  - **Parmer** - 79%
- Largest county growth:
  - **Randall** + 2.1 mil. tons, 22% of new segment tons
  - **Potter** + 1.7 mil. tons, 18% of new segment tons
  - **Moore** +1.3 mil. tons, 14% of new segment tons

Source: TXDOT SAM and TRANSEARCH database

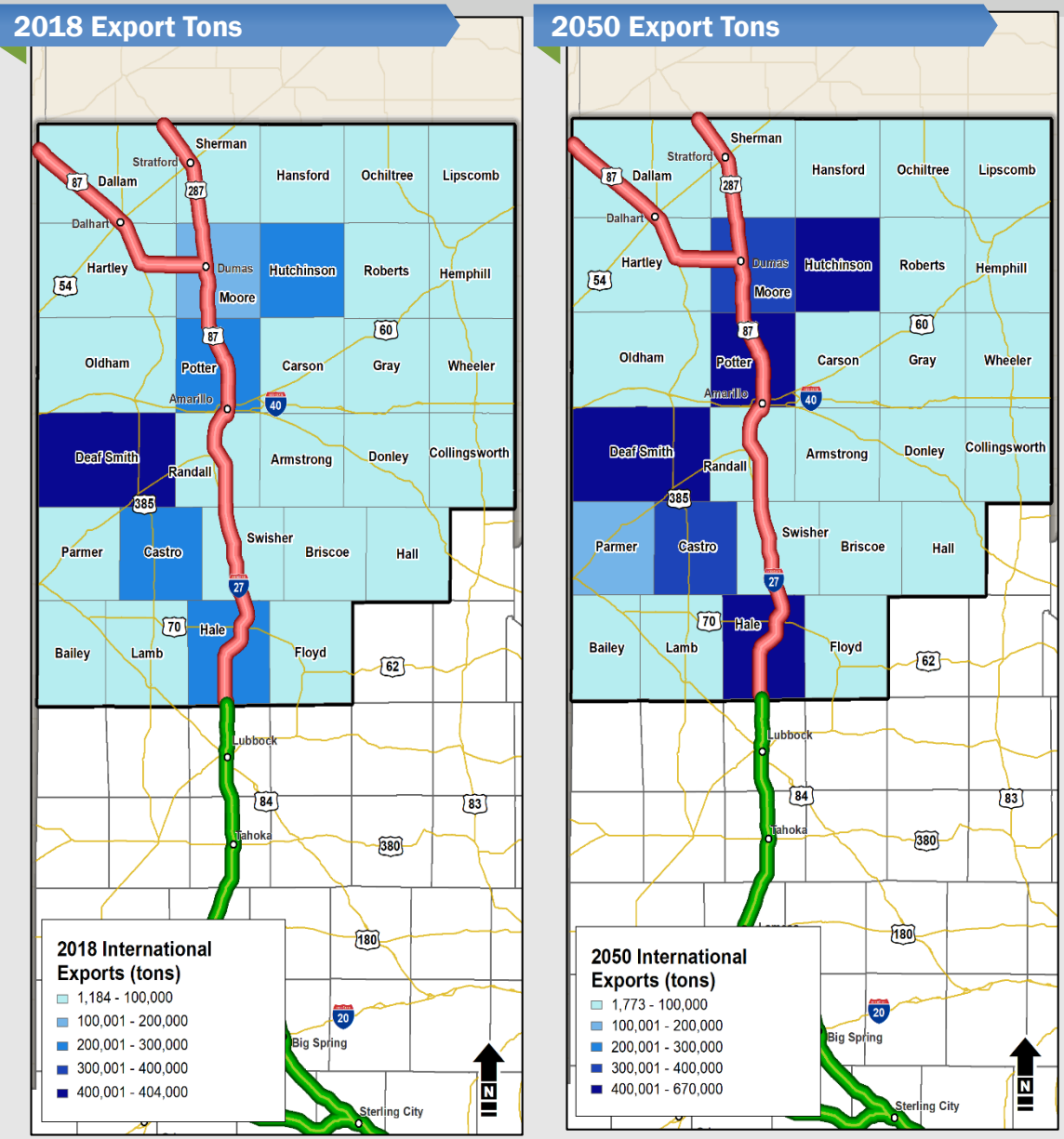
Segment #1 Outbound Freight Growth by County - 2050



- Segment #1 outbound truck tonnage is projected to **grow 73%** through 2050
  - 20 million tons added, for 42% of new outbound tons on corridor
  - Total outbound volume reaches 48 million tons
- Fastest county growth:
  - **Hansford** - 177%
  - **Gray** - 136%
  - **Moore** - 132%
- Largest county growth:
  - **Potter** + 4.7 mil. tons, 23% of new segment tons
  - **Castro** + 2.5 mil. tons, 13% of new segment tons
  - **Hutchinson** +2.0 mil. tons, 10% of new segment tons

Source: TXDOT SAM and TRANSEARCH database

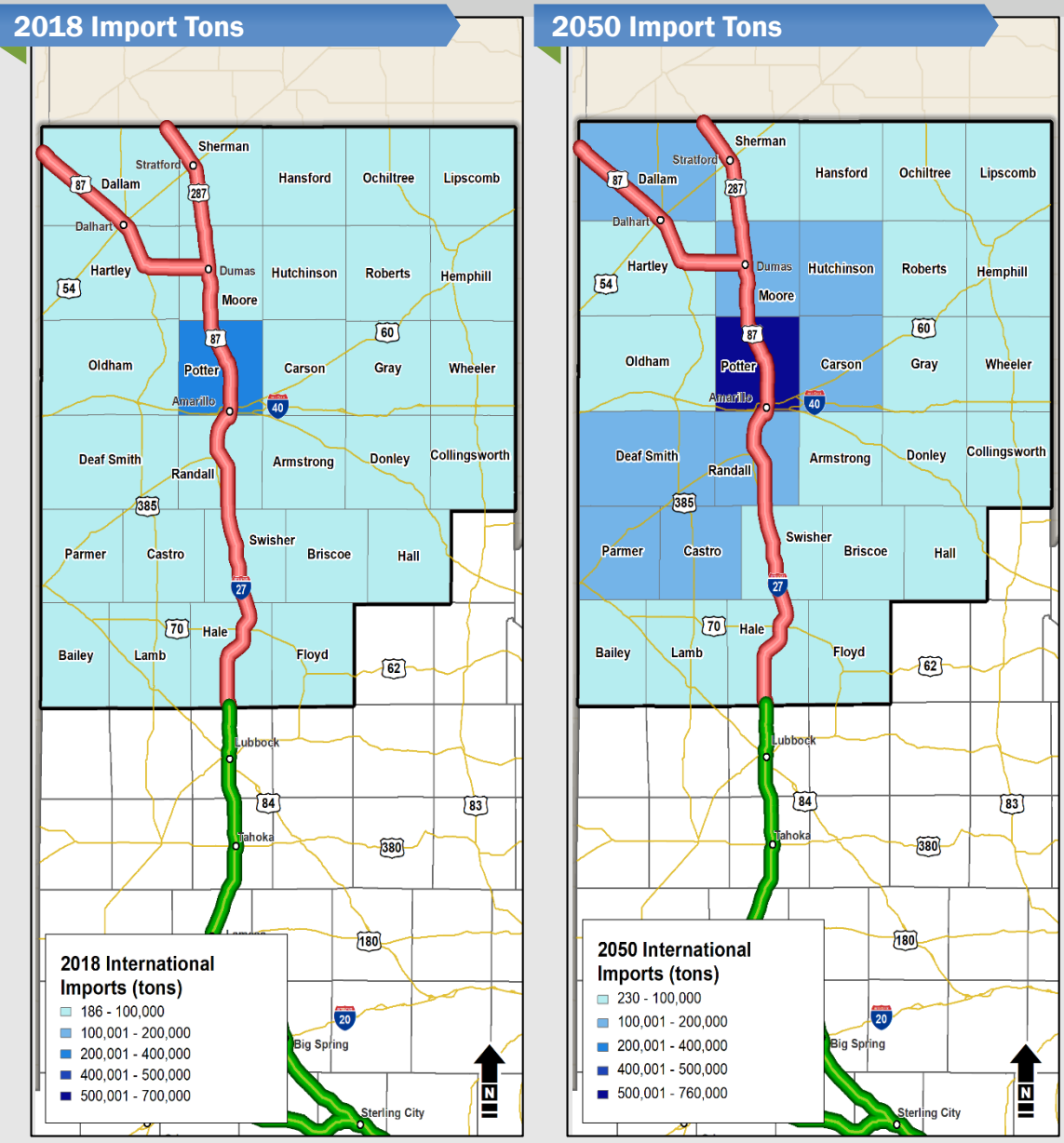
Segment #1 Truck Trade Growth by County – 2050 Exports



- Exports are projected to grow 88% in Segment #1 or by 1.7 million tons
- Half of the export growth by truck is in the top 3 counties:
  - Potter
  - Hutchinson
  - Deaf Smith

Source: TXDOT SAM and TRANSEARCH database

Segment #1 Truck Trade Growth by County – 2050 Imports



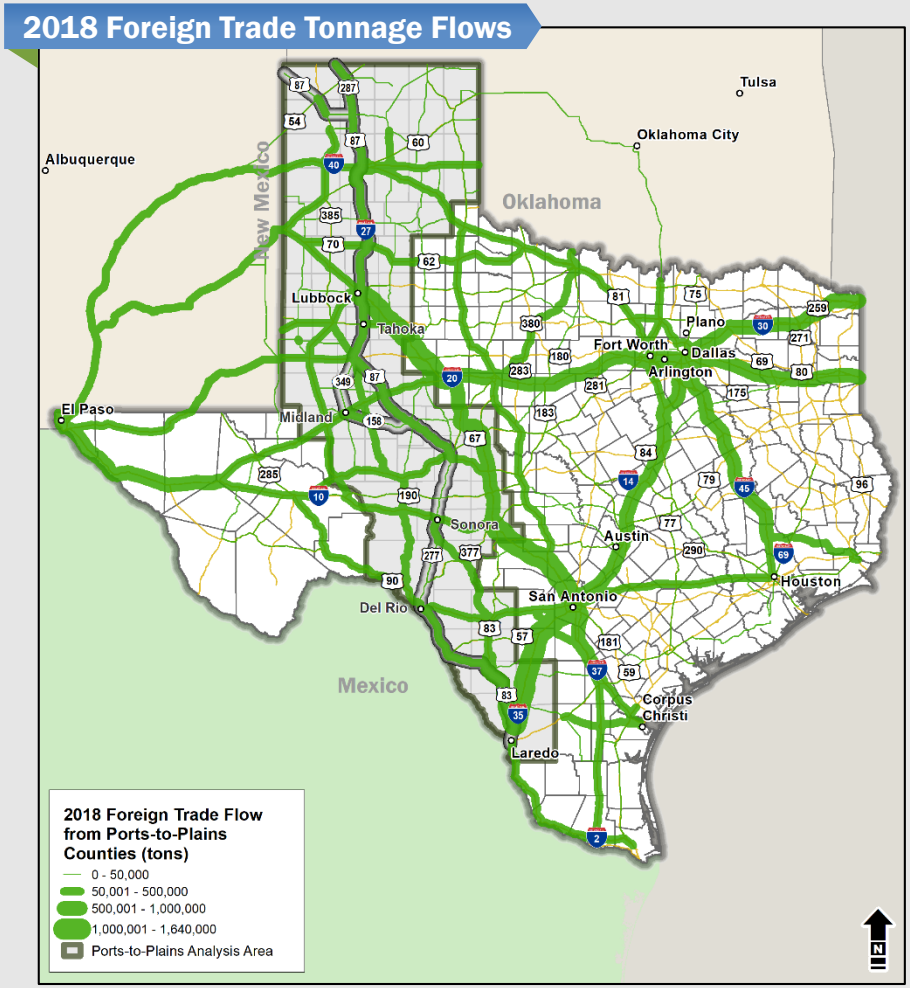
- Imports are projected to grow 135% in Segment #1 or by 1.3 million tons
- Half of the import growth by truck is in the top 3 counties:
  - Potter
  - Randall
  - Carson

Source: TXDOT SAM and TRANSEARCH database

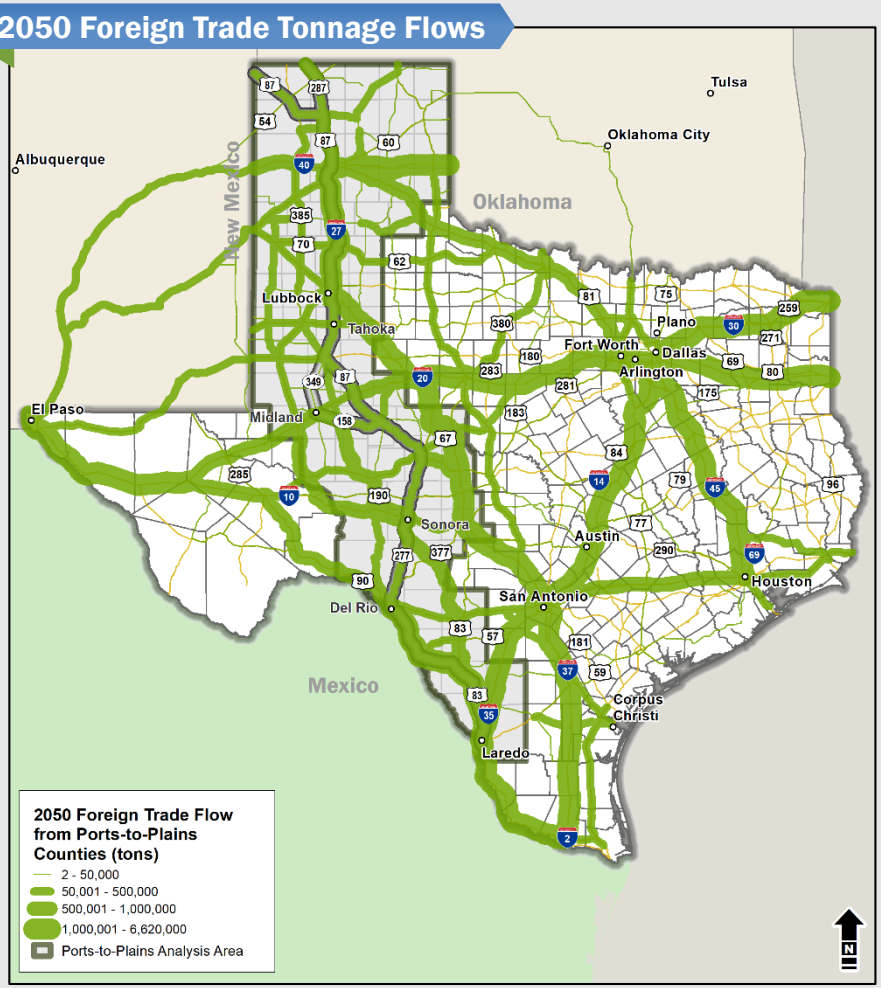
Corridor Supply Chain Network: 2050 Growth in Foreign Trade

- Corridor trade network is extensive and is forecast to grow everywhere

2018 Foreign Trade Tonnage Flows



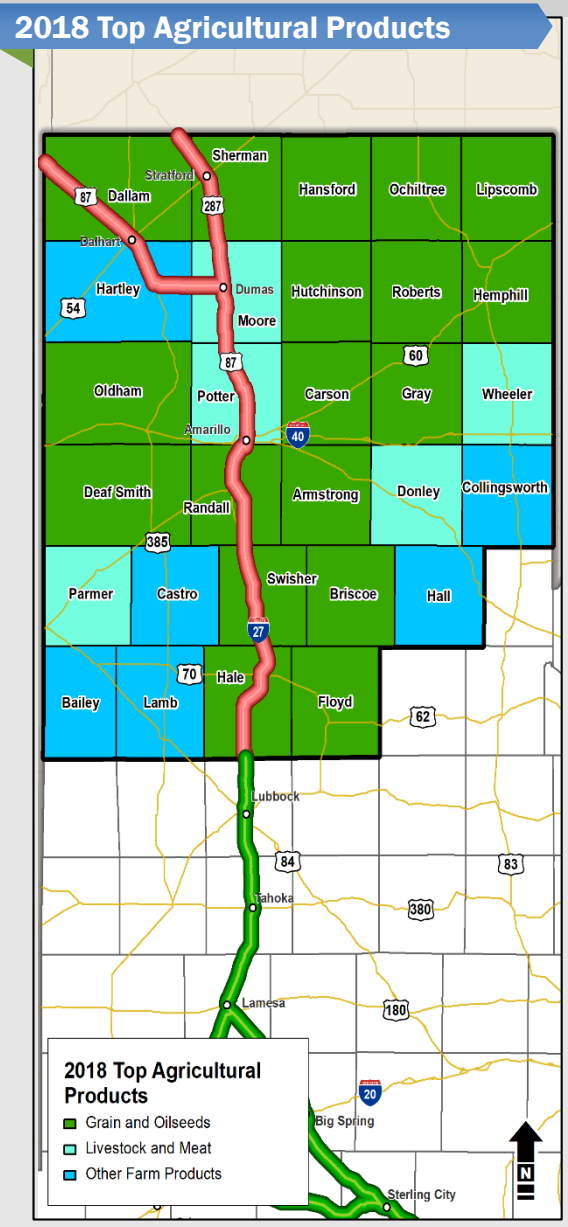
2050 Foreign Trade Tonnage Flows



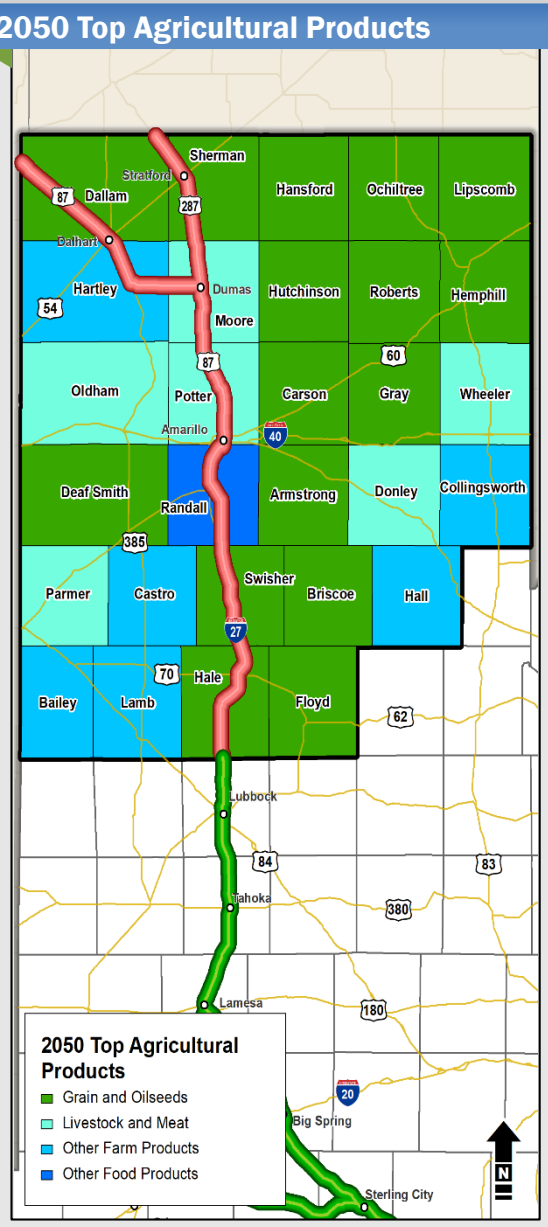
Source: TXDOT SAM and TRANSEARCH database

Segment #1 Food/Agriculture Total Tons Growth by County - 2050

2018 Top Agricultural Products



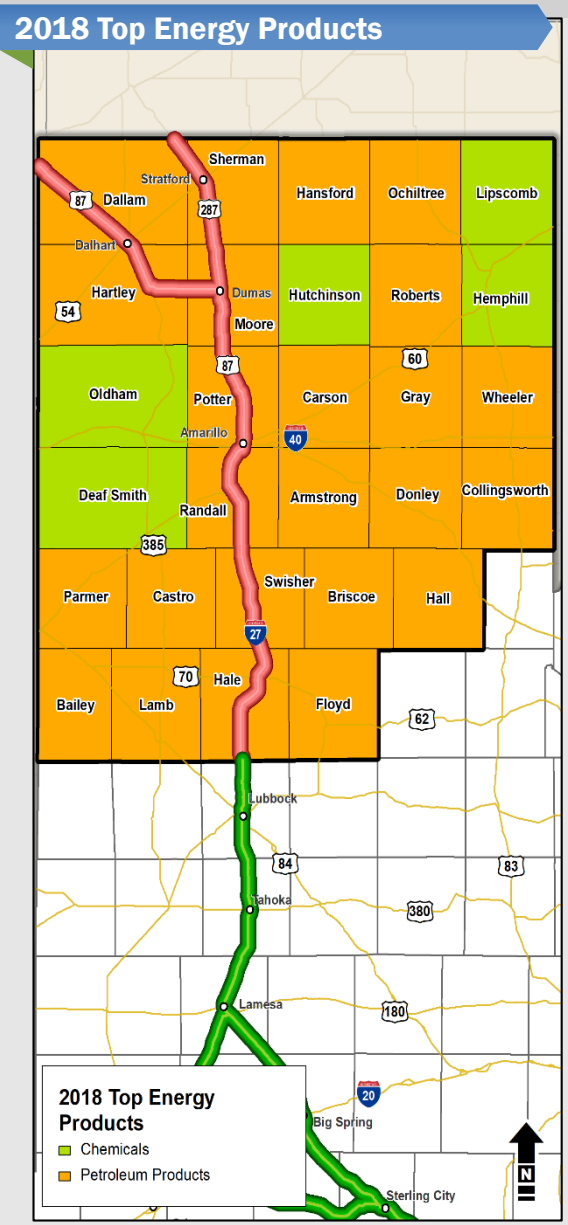
2050 Top Agricultural Products

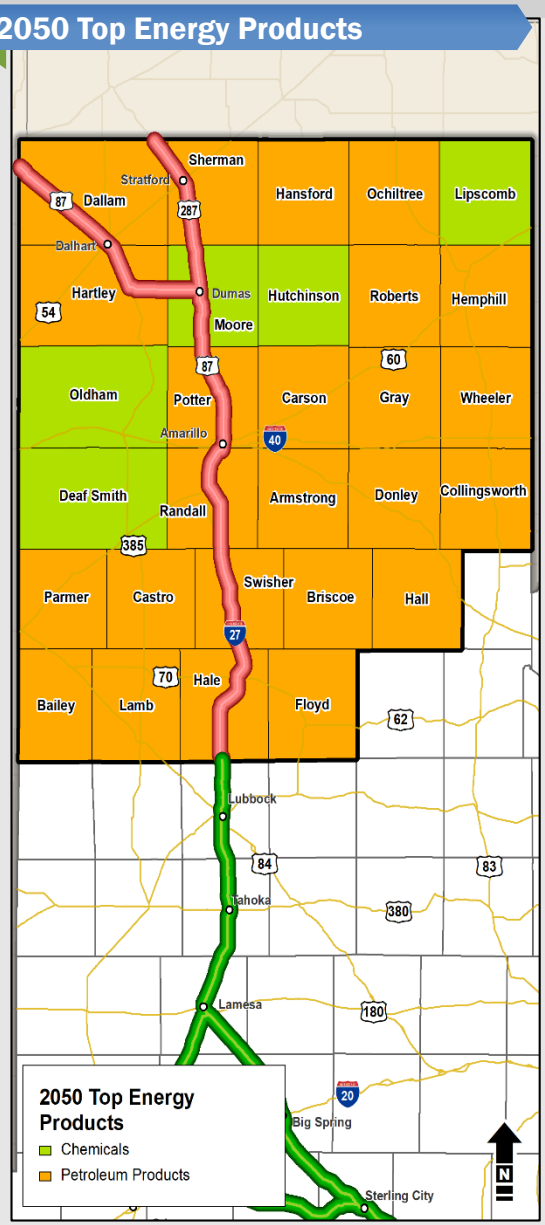


- The categories of top food/agricultural commodities remain much as they were in 2018
  - Grain & oilseeds, other farm products (e.g. forage) and livestock & meat are the principal types
- Greatest growth is in livestock & meat in Moore, Potter and Parmer Counties
- Greatest growth in grain & oilseeds is in Deaf Smith and Dallam Counties; other farm products in Hartley and Castro Counties

Source: TXDOT SAM and TRANSEARCH database

Segment #1 Energy/Oil Field Total Tons Growth by County - 2050





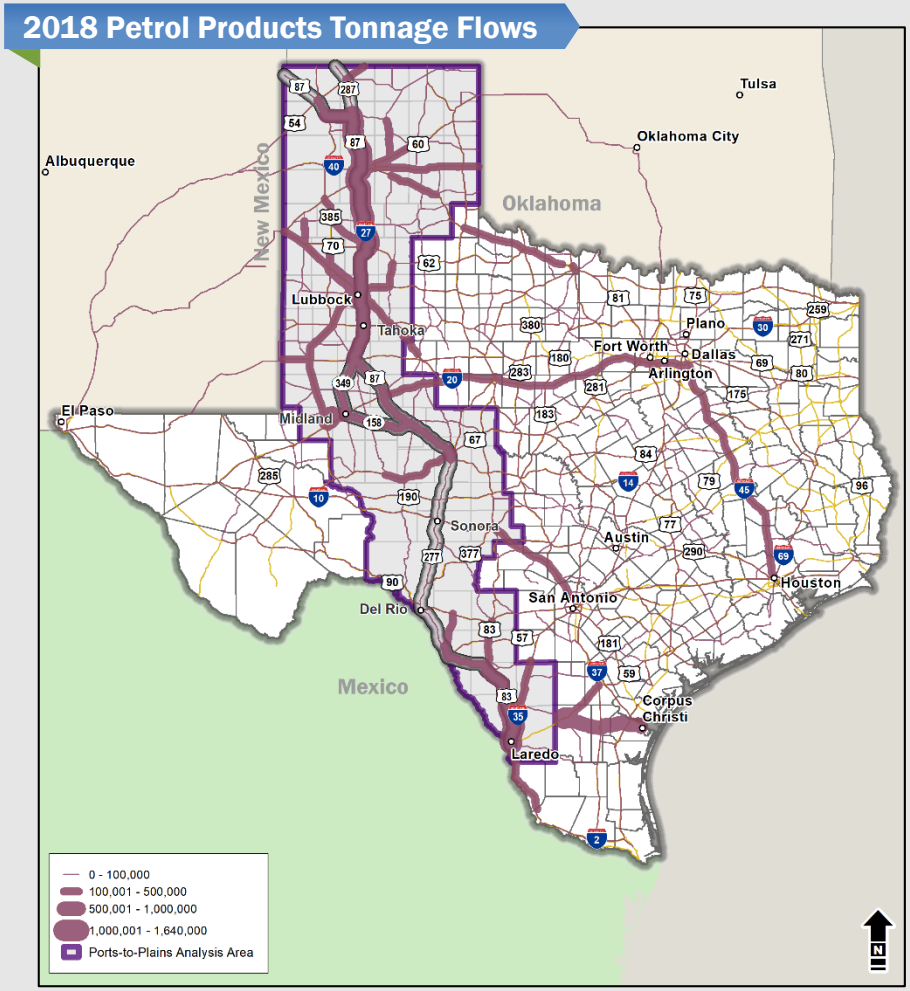
- Top energy products in most counties remain petroleum products, as they were in 2018
  - Growth is widespread and moderate
- Greatest individual county growth is **chemical products** in **Hutchinson County, +0.5 million** tons
  - Chemical products in Moore County add +0.4 million tons and become the top commodity, surpassing petroleum products

Source: TXDOT SAM and TRANSEARCH database

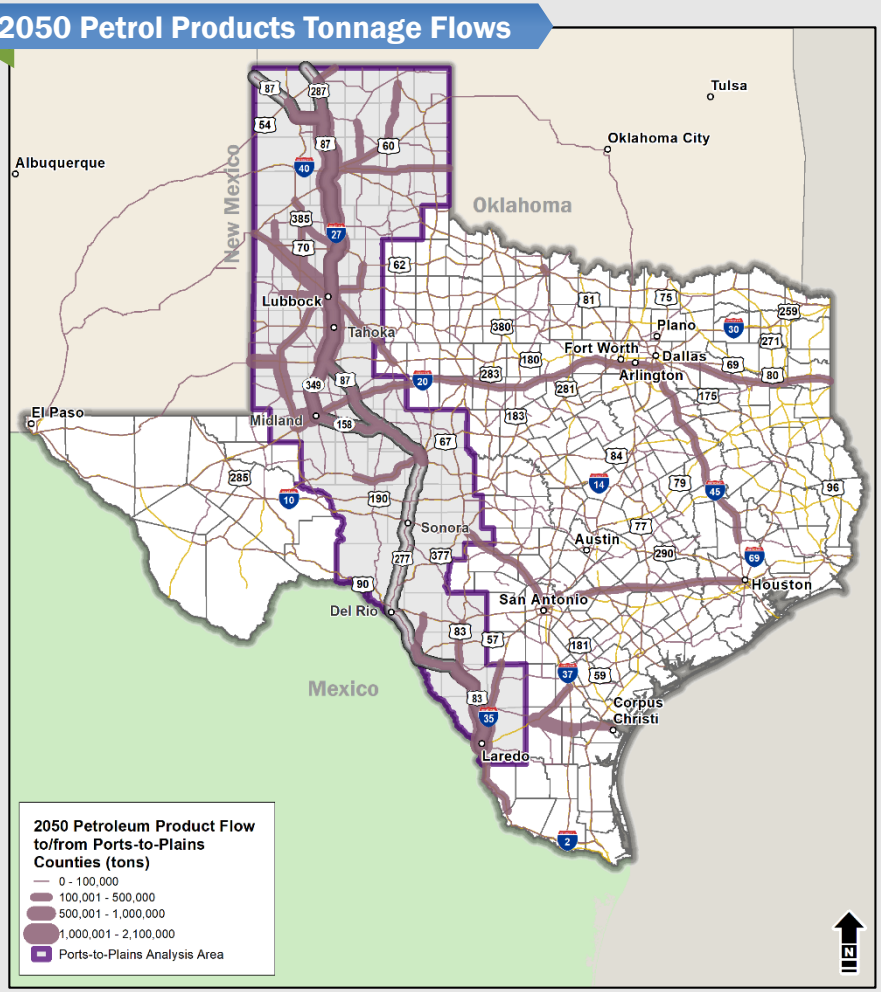
Corridor Supply Chain Network: 2050 Growth in Petrol Products

- Petroleum products are **trucked mainly within the corridor**. Growth by truck is moderate

2018 Petrol Products Tonnage Flows



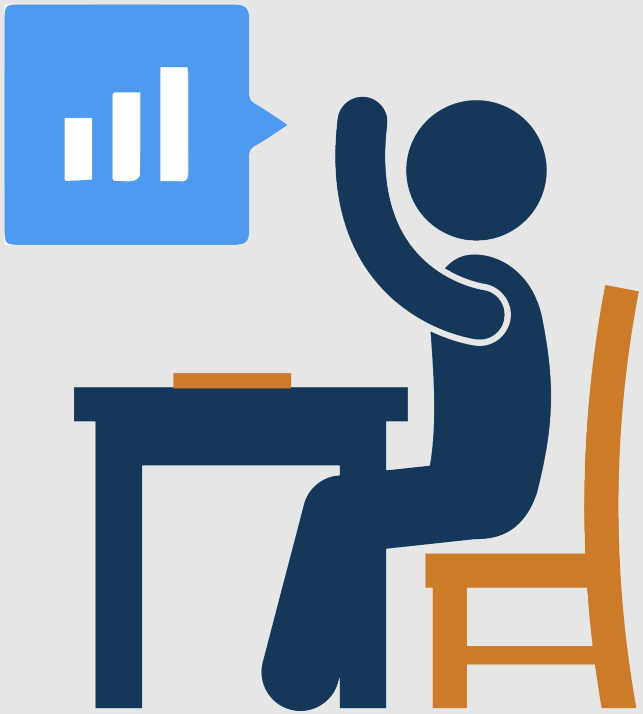
2050 Petrol Products Tonnage Flows



Source: TXDOT SAM and TRANSEARCH database

Committee Feedback

- What are the opportunities and challenges related to the increase of freight within the corridor?



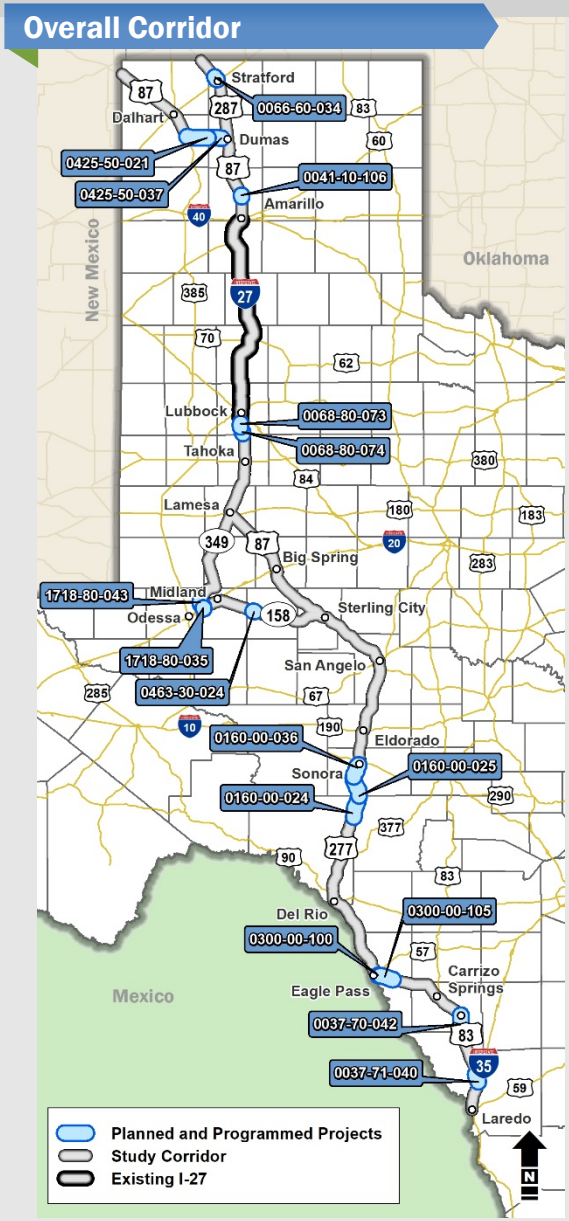
Segment #1

Planned and Programmed Projects

Akila Thamizharasan, TxDOT

Consultant Team

Corridor Project Analysis



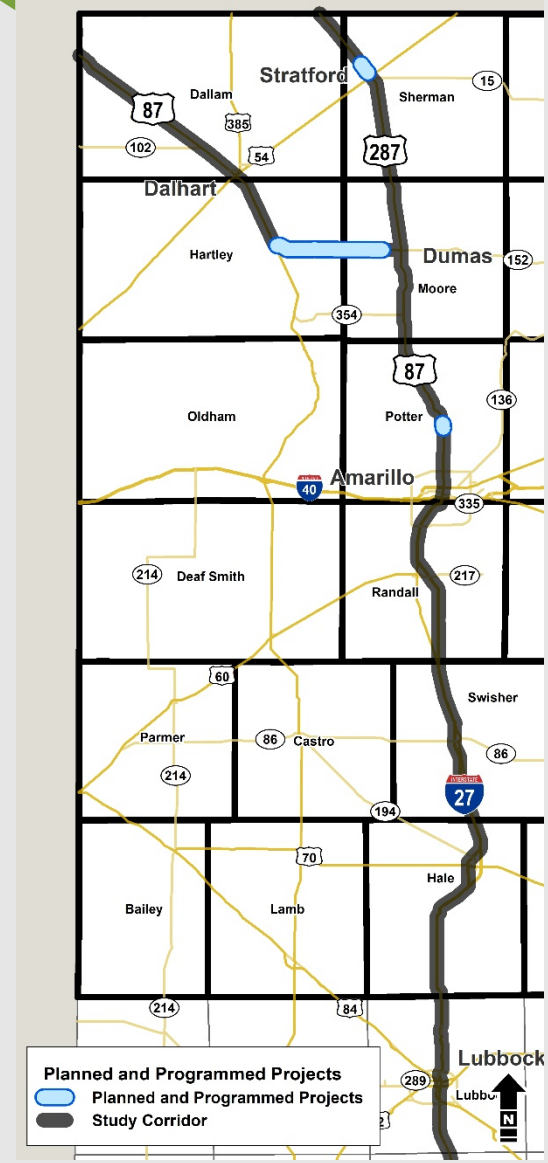
- **455** miles 4-lane divided or controlled access roadway
- **27** miles of programmed projects that will be upgraded to 4-lane divided or better
- Total Funded = $305,387,149

What are Planned and Programmed Projects?

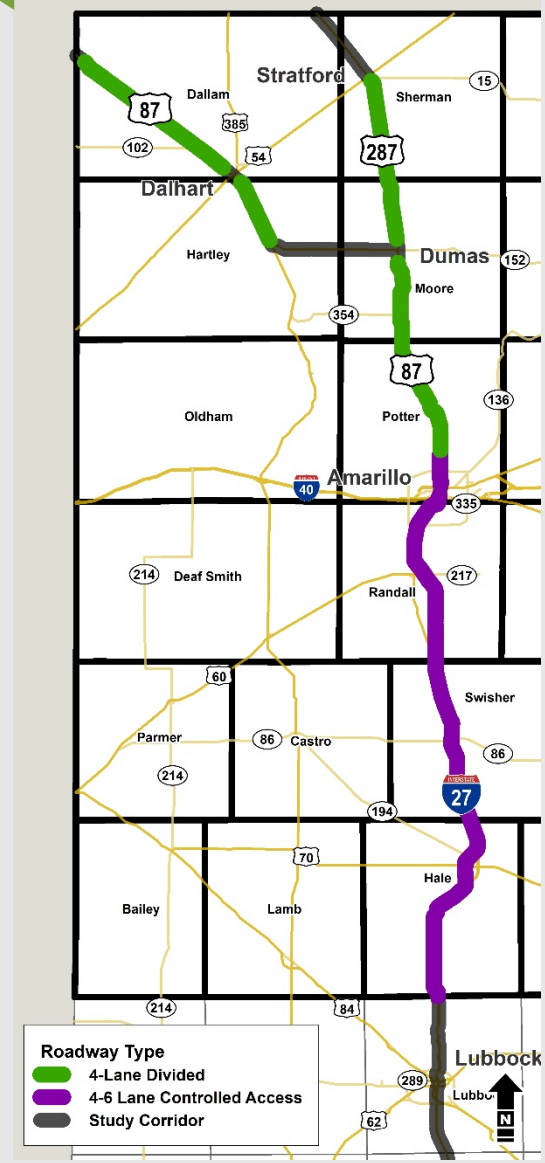
- A planned project is a project identified in a TxDOT or Metropolitan Planning Organization Plan
- A programmed project has been completely or partially funded

Segment 1 Project Analysis

Planned/Programmed Projects



Divided and Controlled Access



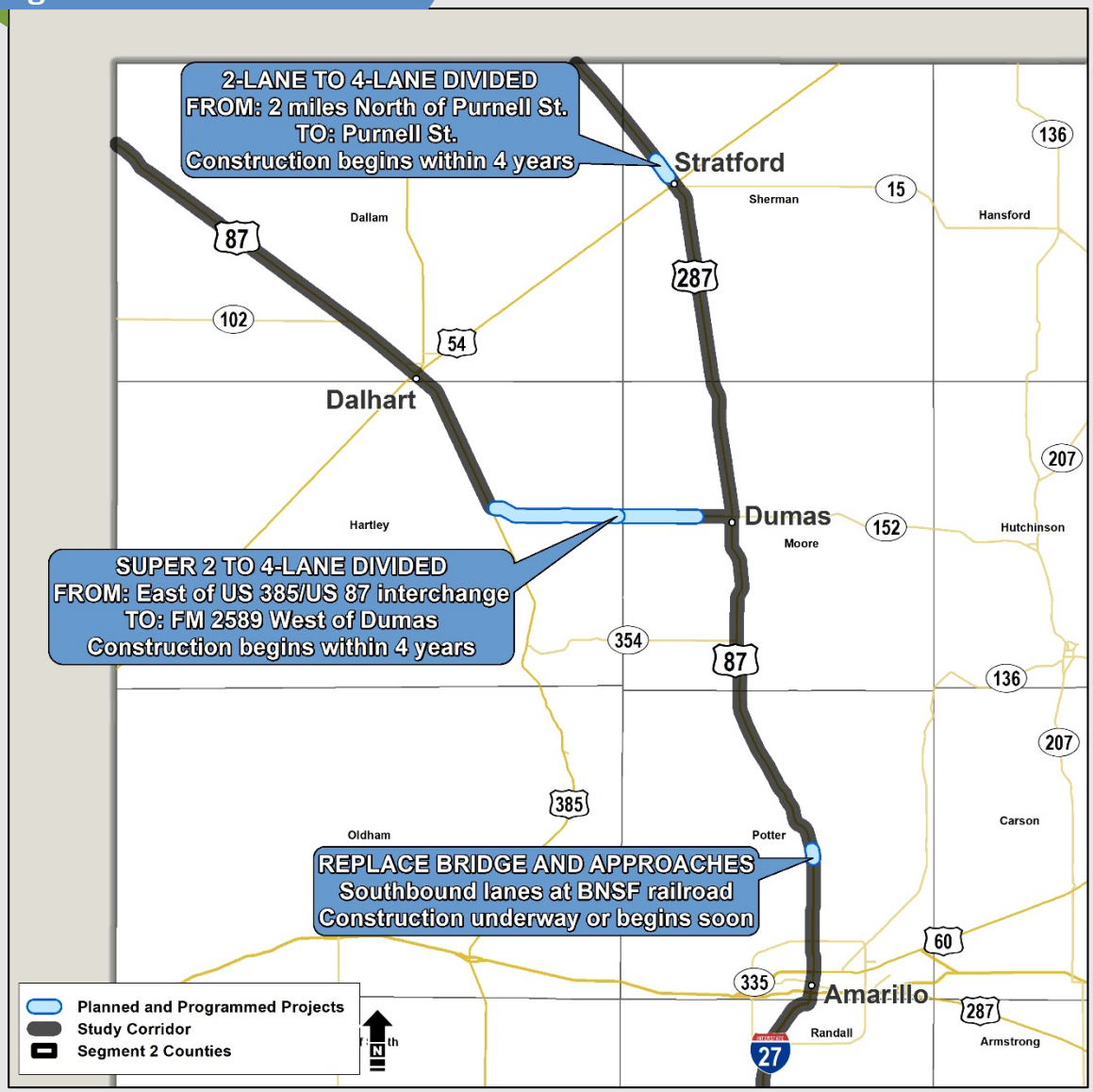
- **222** miles of 4-lane divided or controlled access roadway
- **21** miles of planned and programmed projects that will be upgraded to 4-lane divided or better
- Total Funded = $106,481,767

What are Planned and Programmed Projects?

- A planned project is a project identified in a TxDOT or Metropolitan Planning Organization Plan
- A programmed project has been completely or partially funded

Planned and Programmed Projects

Segment 1 - North



Segment 1 Other Planned and Programmed Projects

- **Other non-widening projects** along the corridor in Segment 1 include rehabilitation, operational, and safety projects.

- **Total planned and programmed amounts** for these projects include:
  - Rehabilitation Projects: $56,463,636
  - Safety Projects: $4,576,170
  - Operational Projects: $580,420

Source: TxDOT 2020 Unified Transportation Program and Project Tracker
Note: These planned and programmed amounts do not include projects on Interstate portions of the corridor.

Segment #1

Identification of Gaps

Akila Thamizharasan, TxDOT

Consultant Team

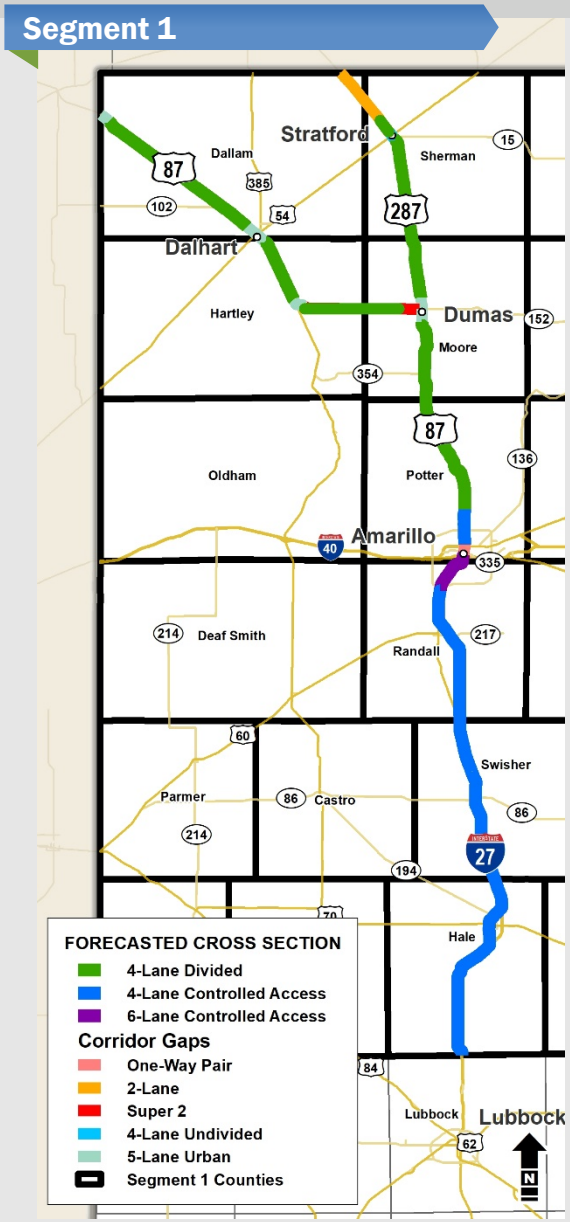
Corridor Gap Analysis

What is a Gap in the Corridor?

- Where the existing roadway IS NOT a 4-lane divided roadway or Interstate.
- Where there are no projects that will upgrade the existing roadway to a 4-lane divided roadway or Interstate.

- **480** miles of corridor gaps
- **455** miles 4-lane divided or controlled access roadway
- **27** miles of programmed projects that will be upgraded to 4-lane divided or better

Corridor Gap Analysis



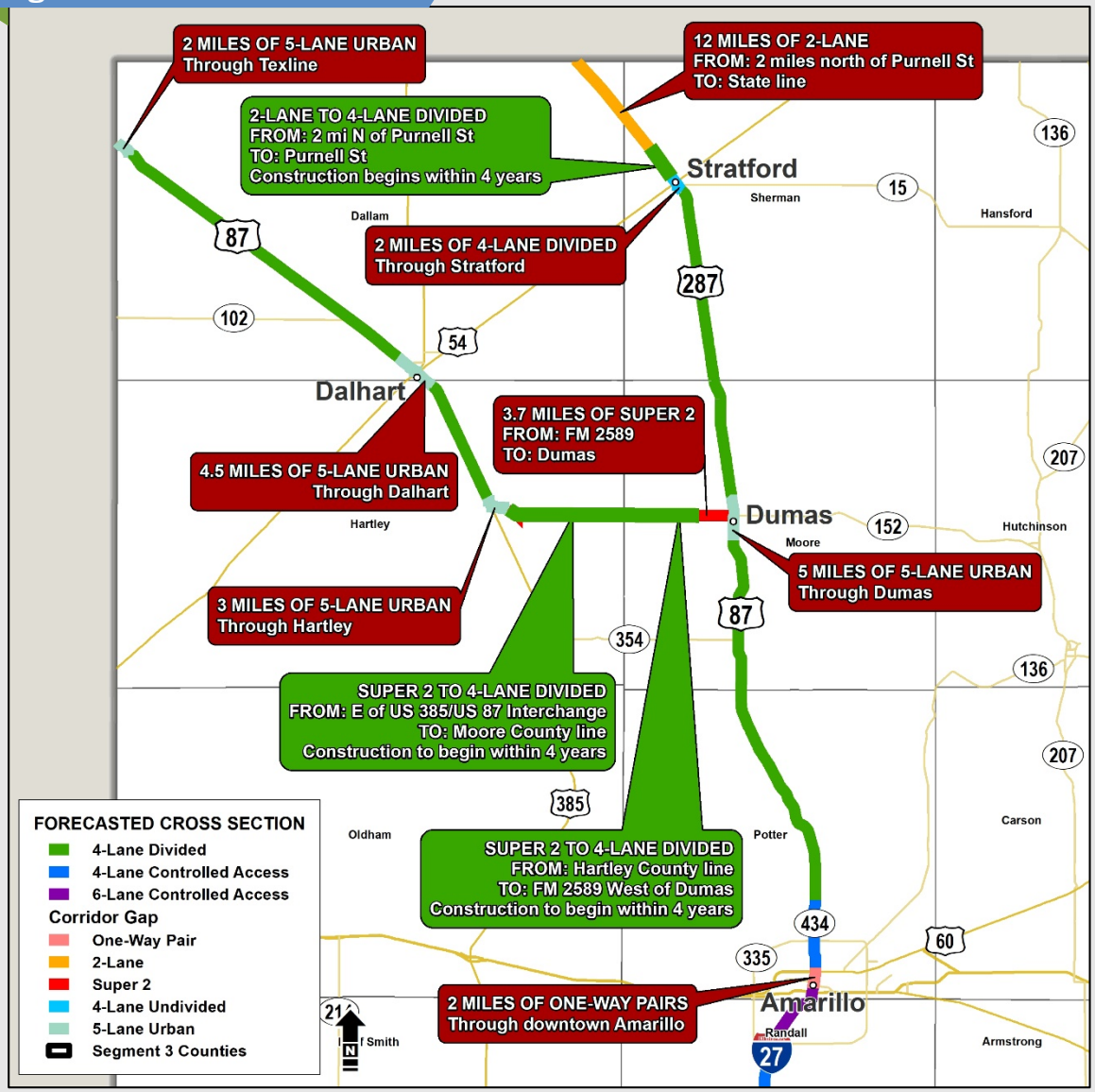
What is a Gap in the Corridor?

- Where the existing roadway IS NOT a 4-lane divided roadway or Interstate.
- Where there are no projects that will upgrade the existing roadway to a 4-lane divided roadway or Interstate.

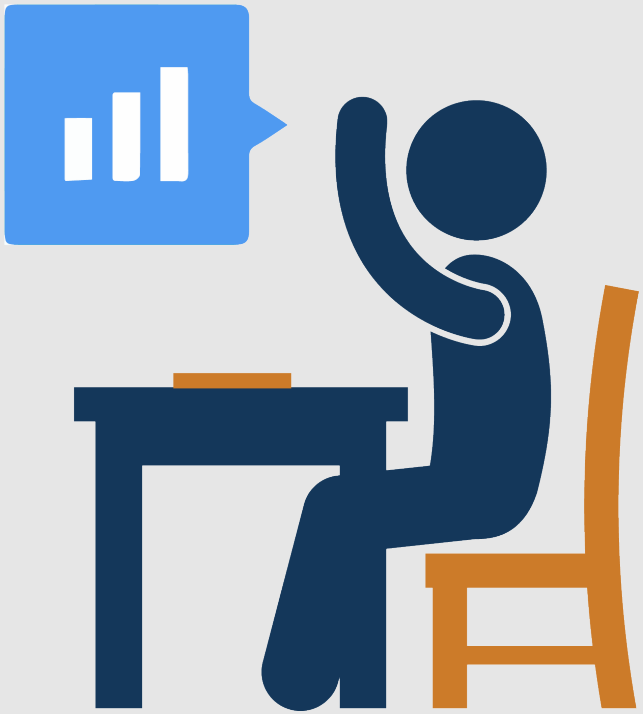
- **32** miles of corridor gaps
- **222** miles 4-lane divided or controlled access roadway
- **21** miles of programmed projects that will be upgraded to 4-lane divided or better

Corridor Gaps

Segment 1 - North



Committee Corridor Gap Analysis Work Session



Segment #1

Preliminary Corridor Feasibility Analysis

Caroline Mays, TxDOT

Consultant Team

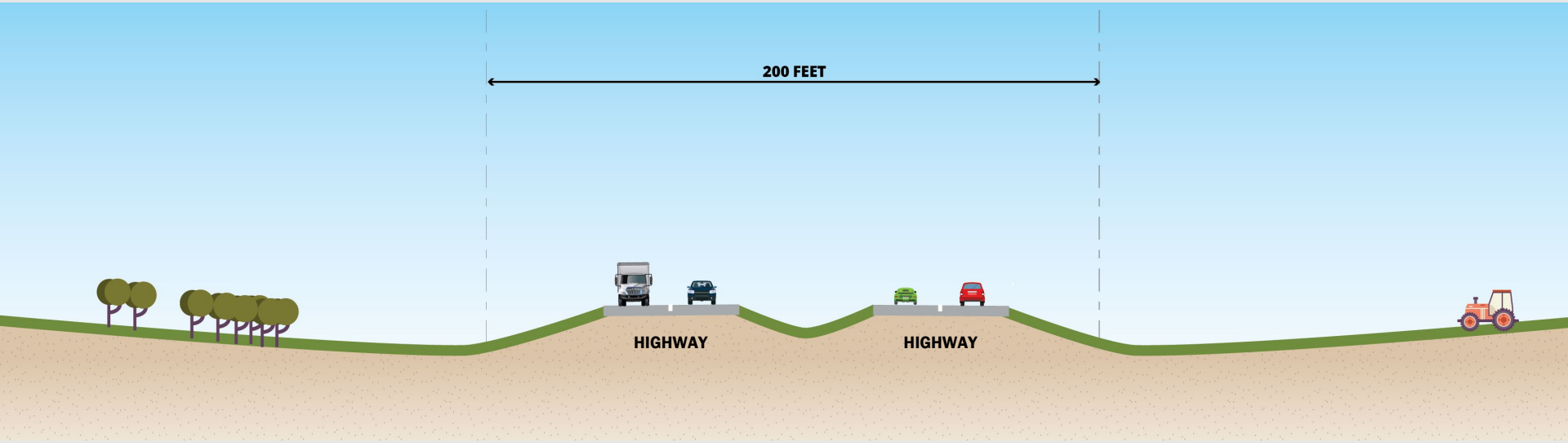
What is a Feasibility Analysis?

A **determination if improvements** of the Ports-to-Plains corridor **to a four-lane divided highway, or interstate**, where feasible, **will achieve the goals set out in House Bill 1079.**

How is a Feasibility Analysis Performed?

By **evaluating** how each alternative meets each goal and **comparing the results** to determine whether No Action, the four-lane divided highway, or an Interstate facility is feasible for the corridor.

Four-Lane Divided Highway Cross Section



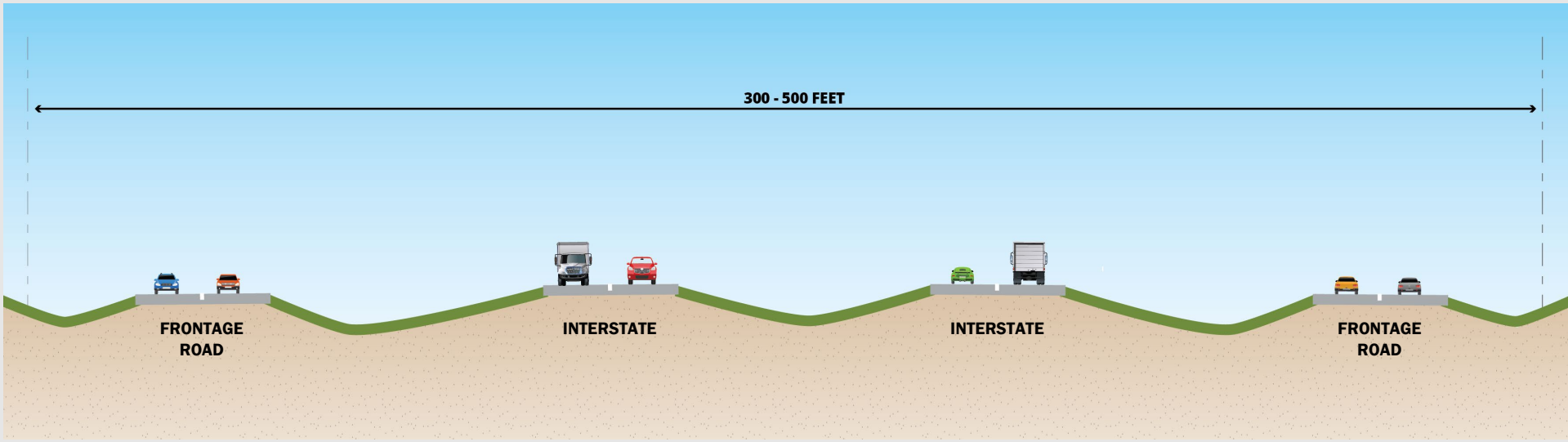
Driveway access to local businesses and residences

Lower design **speeds**

Smaller right-of-way **widths**

At-grade intersections with other roadways

Interstate with Frontage Roads Cross Section



No driveways connecting to main lanes.

No stop signs or traffic signals on main lanes.

SPEED LIMIT 75

Higher design **speeds**

Traffic will flow uninterrupted from one end of the facility to the other. To accomplish this, **overpasses are necessary**.

Larger right-of-way **widths**

HB 1079 Corridor Feasibility Analysis Criteria

A determination of whether improvements or expansion of the Ports-to-Plains Corridor would **relieve traffic congestion** in the segment

Summary of Analysis:

Four-Lane Divided

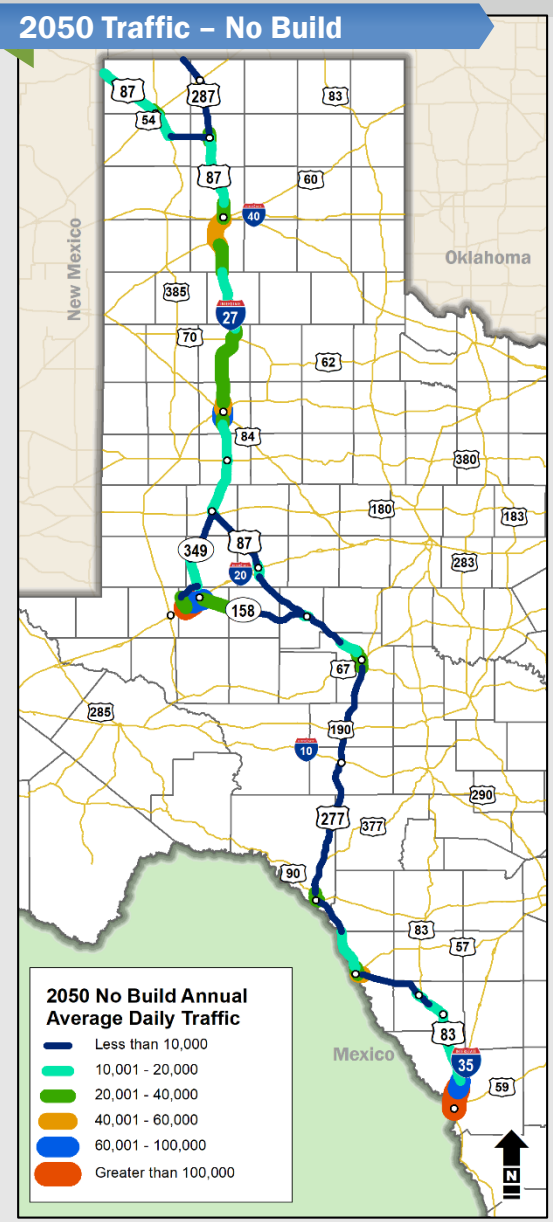
- Similar to No Build - does not attract more traffic
- Urban mobility/reliability an issue - without access control urban areas are subject to slower travel speeds and stops

Interstate

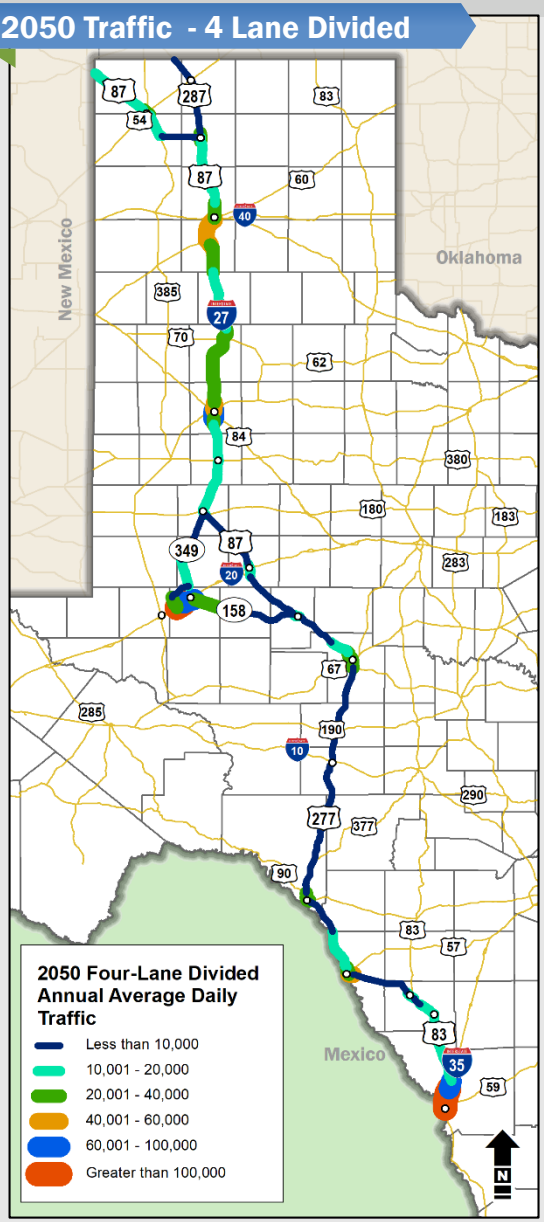
- Urban congestion on route would be alleviated through controlled access
- Establishment of a continuous regional/national corridor would improve reliability and route attractiveness

Forecasted Traffic Conditions

2050 Traffic – No Build



2050 Traffic - 4 Lane Divided



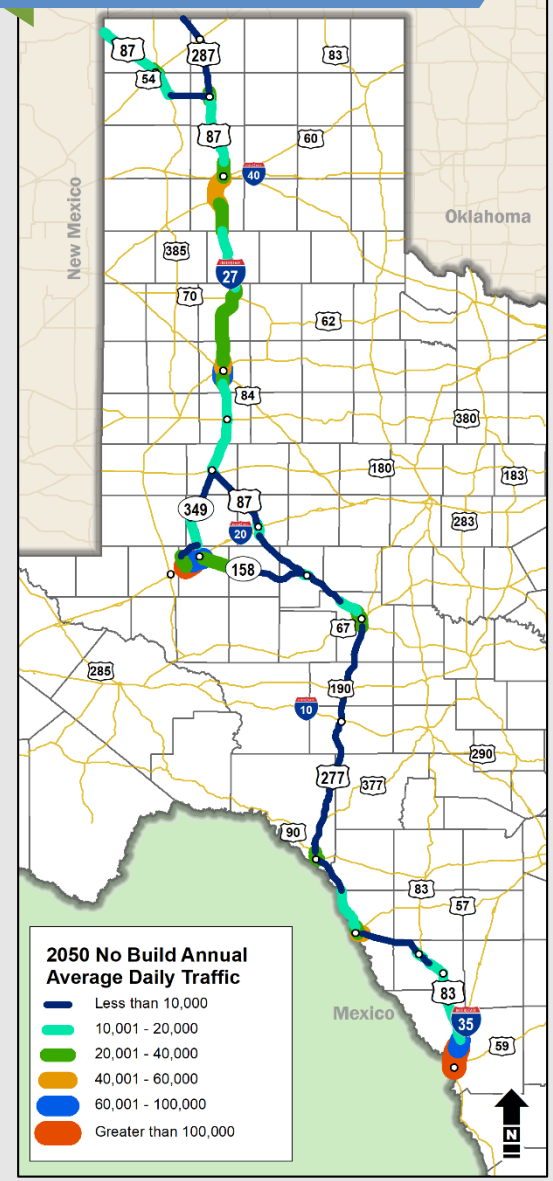
Overview of Findings

- **No Build Growth**
  - Solid corridor growth
  - High growth on US 83 north of Laredo (163%), SH 158 near Midland (124%)
  - Low Growth on US 287 near Oklahoma border (10%), US 87 near Big Spring (10%)
- **4-Lane Divided Growth**
  - Very similar to No Build
  - Doesn't attract more traffic – urban mobility/reliability still an issue

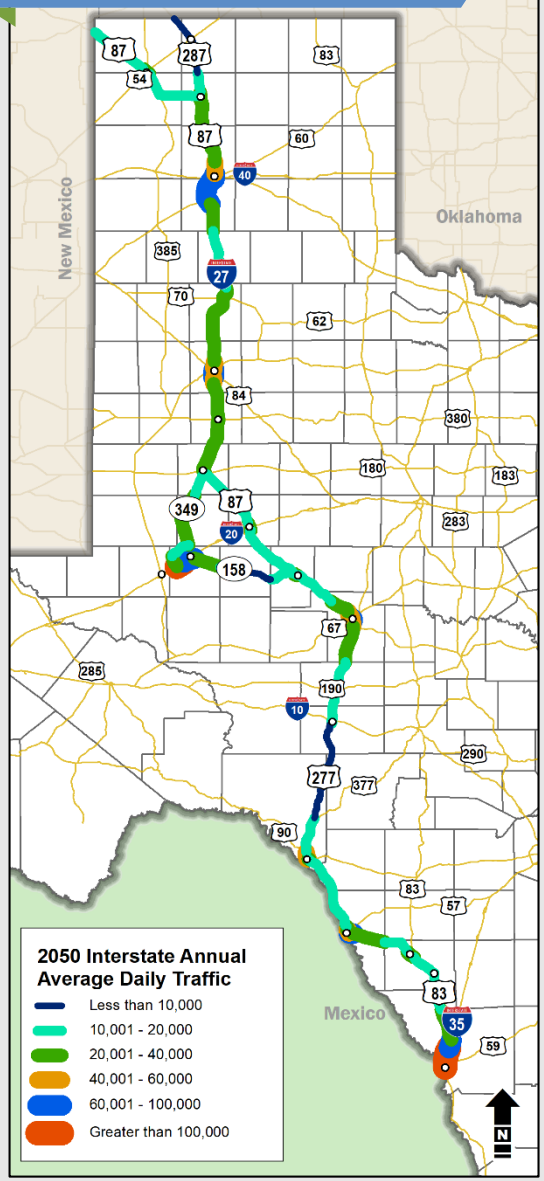
Source: TXDOT SAM and TxDOT 2018 RID

Forecasted Traffic Conditions

2050 Traffic – No Build



2050 Traffic – Interstate



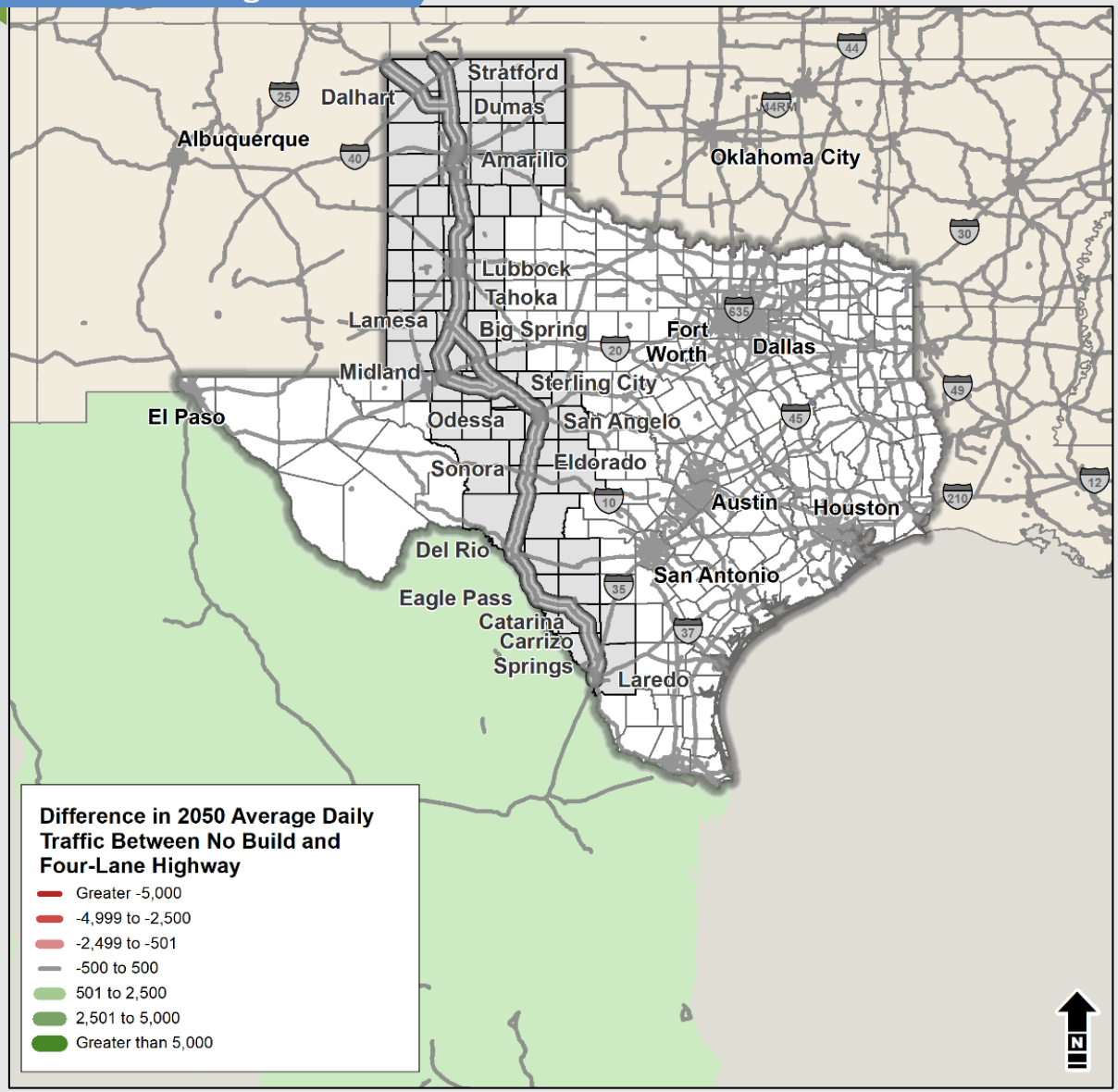
Overview of Findings

- **Interstate Highway Growth**
  - 100-200% growth over 2018 volumes found in all three segments on arterial sections
  - US-87 provides path to I-25
  - US-287 route unimproved in Oklahoma
- **Interstate Highway Diversions**
  - Fills in National Grid
  - Most diversions from within 100 miles
  - Diversions also traced on national and statewide basis

Source: TXDOT SAM and TxDOT 2018 RID

4-Lane Option – Anticipated Total Traffic Diversions

Texas & Surrounding States

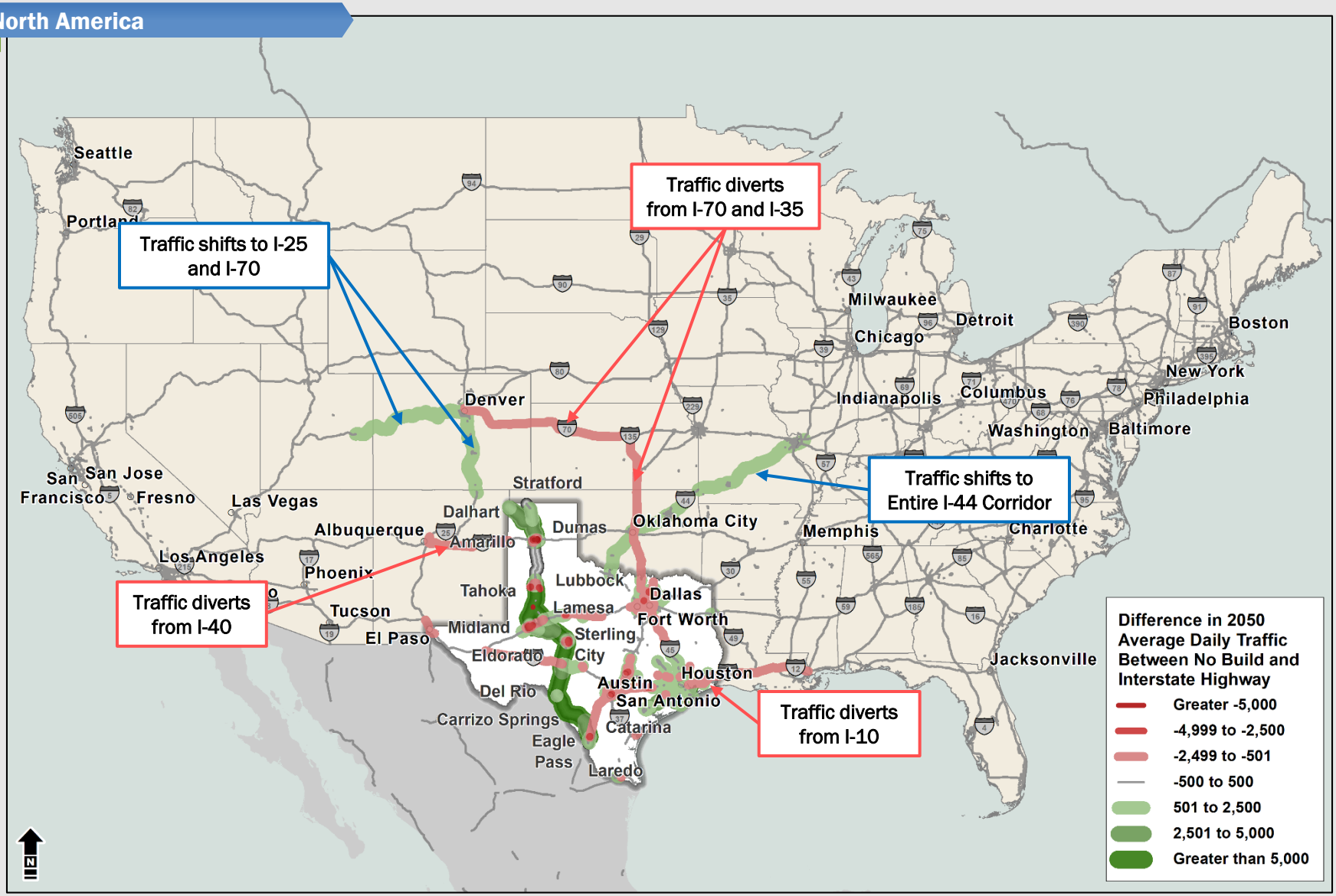


Diversions - Statewide

- Modeling did not show any significant diversion from other routes with 4-Lane Option versus 2050 No Build

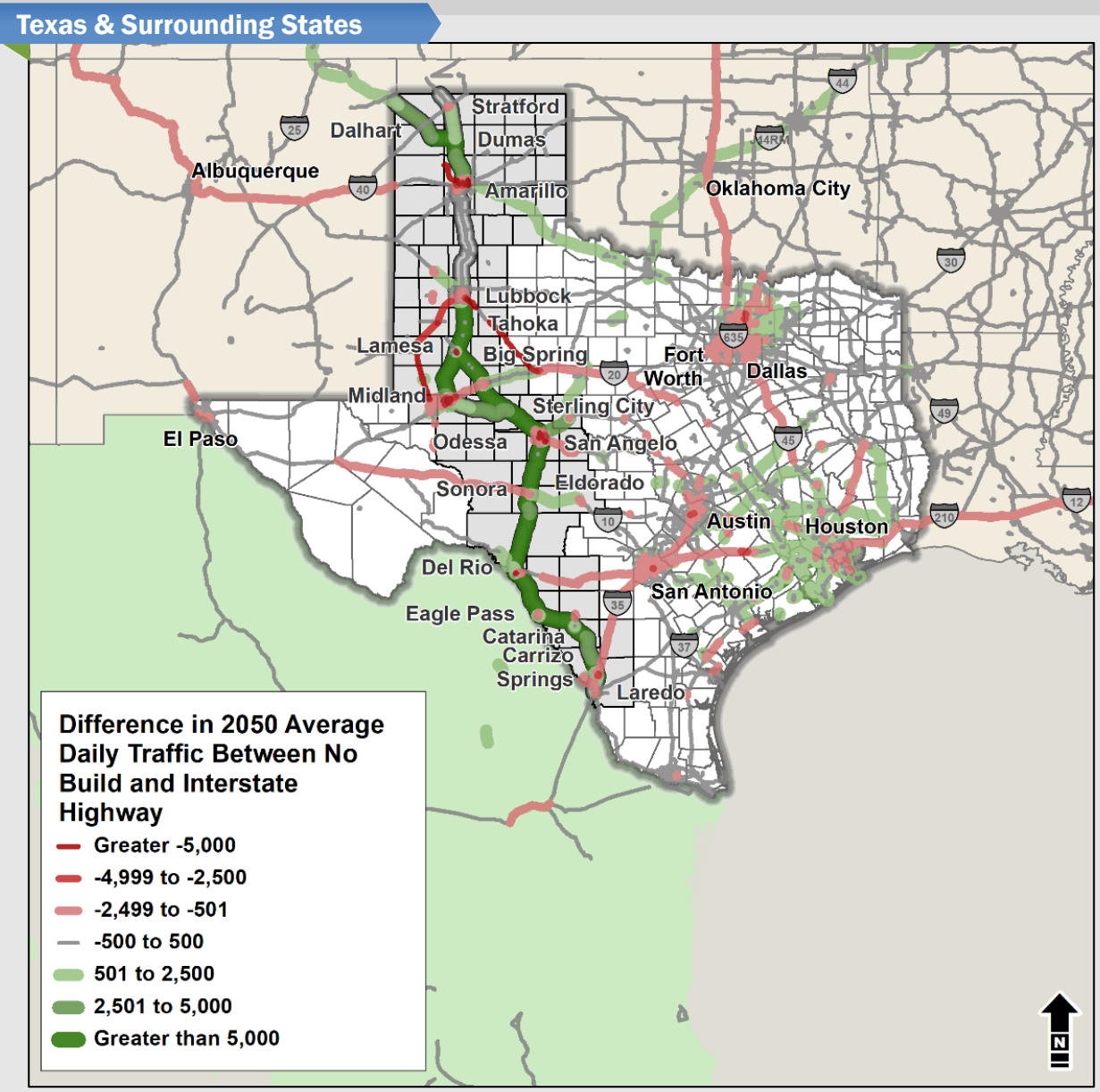
Source: TXDOT SAM and TxDOT 2018 RID

Interstate Option – Anticipated Total Traffic Diversions



Source: TXDOT SAM and TxDOT 2018 RID

Interstate Option – Anticipated Total Traffic Diversions

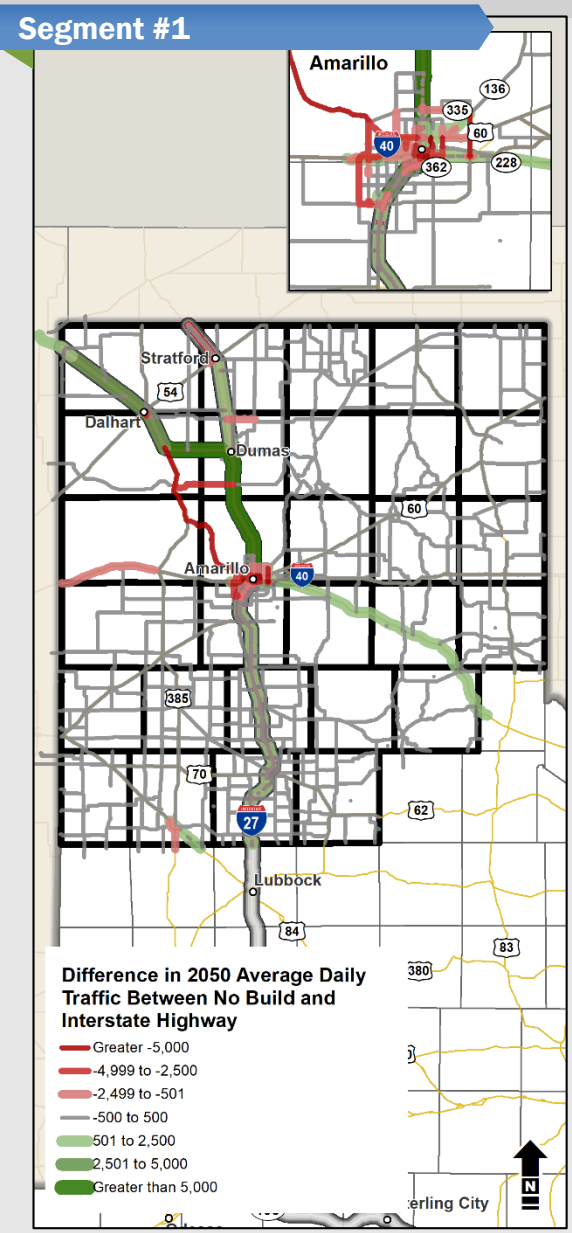


Diversions - Statewide

- Low to Moderate Diversion from I-35 and I-45
  - No significant change between Austin and Dallas
- Moderate Diversion from I-10 and portions of I-20
- Significant diversion (more than 5,000 vehicles per day) traced from
  - US 385 south of Hartley
  - US 385 to US 62 between Odessa and Lubbock
  - US 84 between Lubbock and I-20

Source: TXDOT SAM and TxDOT 2018 RID

Interstate Option – Anticipated Total Traffic Diversions



Diversions – Segment #1

- Existing I-27 only moderately increases from shifts versus No Build
- North of Amarillo, the corridor draws from SH 354, US 385, and FM 1061
- Corridor will attract trips to US 287 southeast of Amarillo and divert trips from I-40 west of Amarillo
- Corridor draws strong demand to US 87 towards New Mexico and I-25
  - US 287 to I-70 in Colorado not as attractive

Source: TXDOT SAM and TxDOT 2018 RID

HB 1079 Corridor Feasibility Analysis Criteria

A determination and prioritization of improvements and expansion of the Ports-to-Plains Corridor that are warranted in order **to promote safety and mobility**, while maximizing the use of existing highways to the greatest extent possible and striving to protect private property as much as possible

Summary of Analysis:

Four-Lane Divided

- Lower crash rates than two-lane roadway
- Mobility challenges in urban areas

Interstate

- Lowest crash rates of all route types
- Full access control offers the best mobility
- Expected travel time savings with 75 mph speed

Traffic Evaluation - Safety

By Highway System

Highway System	Traffic Crashes per 100 million vehicle miles	
	Rural	Urban
Interstate	62.08	144.32
US Highway	72.08	177.84
State Highway	94.10	217.69
Farm-to-Market	118.18	225.28

By Road Type

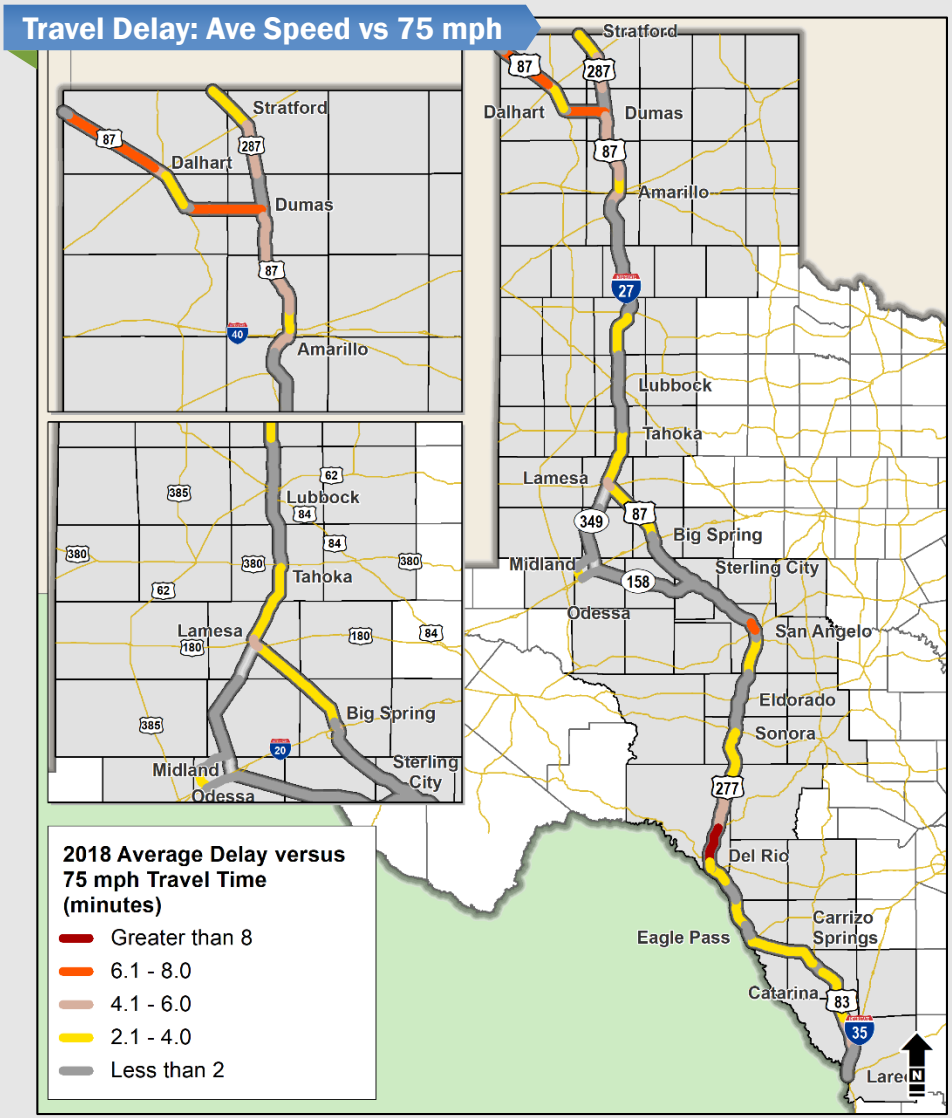
Road Type	Traffic Crashes per 100 million vehicle miles	
	Rural	Urban
2 lane, 2 way	102.13	213.77
4 or more lanes, divided	62.95	158.28
4 or more lanes, undivided	97.61	283.09

Source: TXDOT Crash Statistics, 2018

Evaluation

- Texas State Crash Rates
  - 4-Lane Divided
    - 25 to 40% fewer crashes than 2 Lane
    - 35 to 45% fewer crashes than 4 Lane Undivided
  - Interstate
    - 15 to 25% fewer crashes than any other roadway type

Traffic Evaluation - Mobility



Source: NPMRDS Data 2018

Evaluation

- Average Travel Time Versus 75 mph Travel Time
  - Segment #1 Savings: 64 minutes
  - Entire Corridor Savings : 213 minutes

HB 1079 Corridor Feasibility Analysis Criteria

An examination of **freight movement** along the Ports-to-Plains Corridor

An examination of the ability of the energy industry to **transport products** to market

Summary of Analysis:

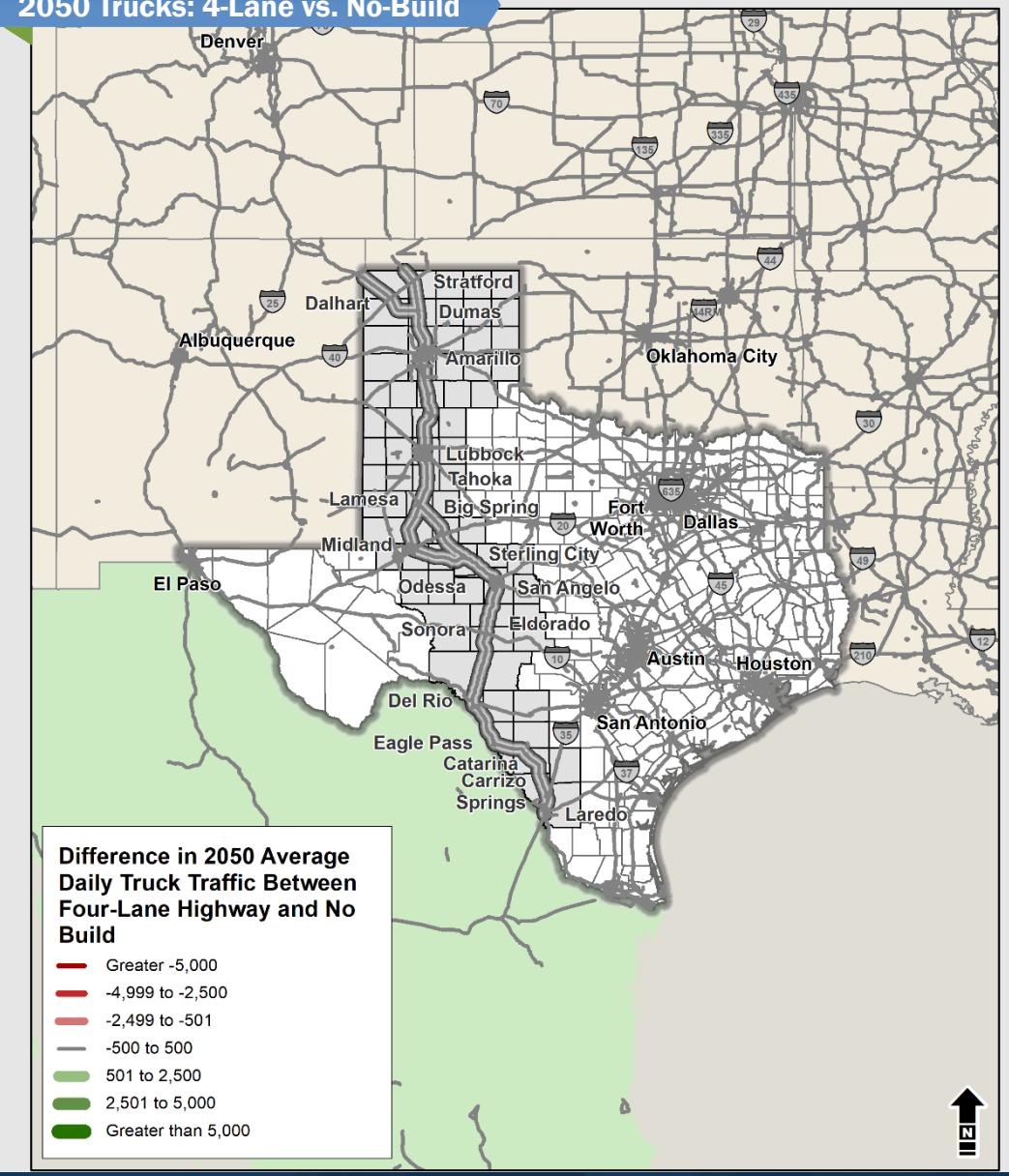
Four-Lane Divided

- Corridors without access control through urban areas are not ideal for freight transportation
- Traffic congestion from growth burdens non-freeway facilities and affects the ability to transport energy products to market

Interstate

- Truck tonnage grows by 125% with establishment of Interstate Corridor
- Interstate facility attracts trips from parallel routes
- Energy markets supported by improvements to safety and reliability

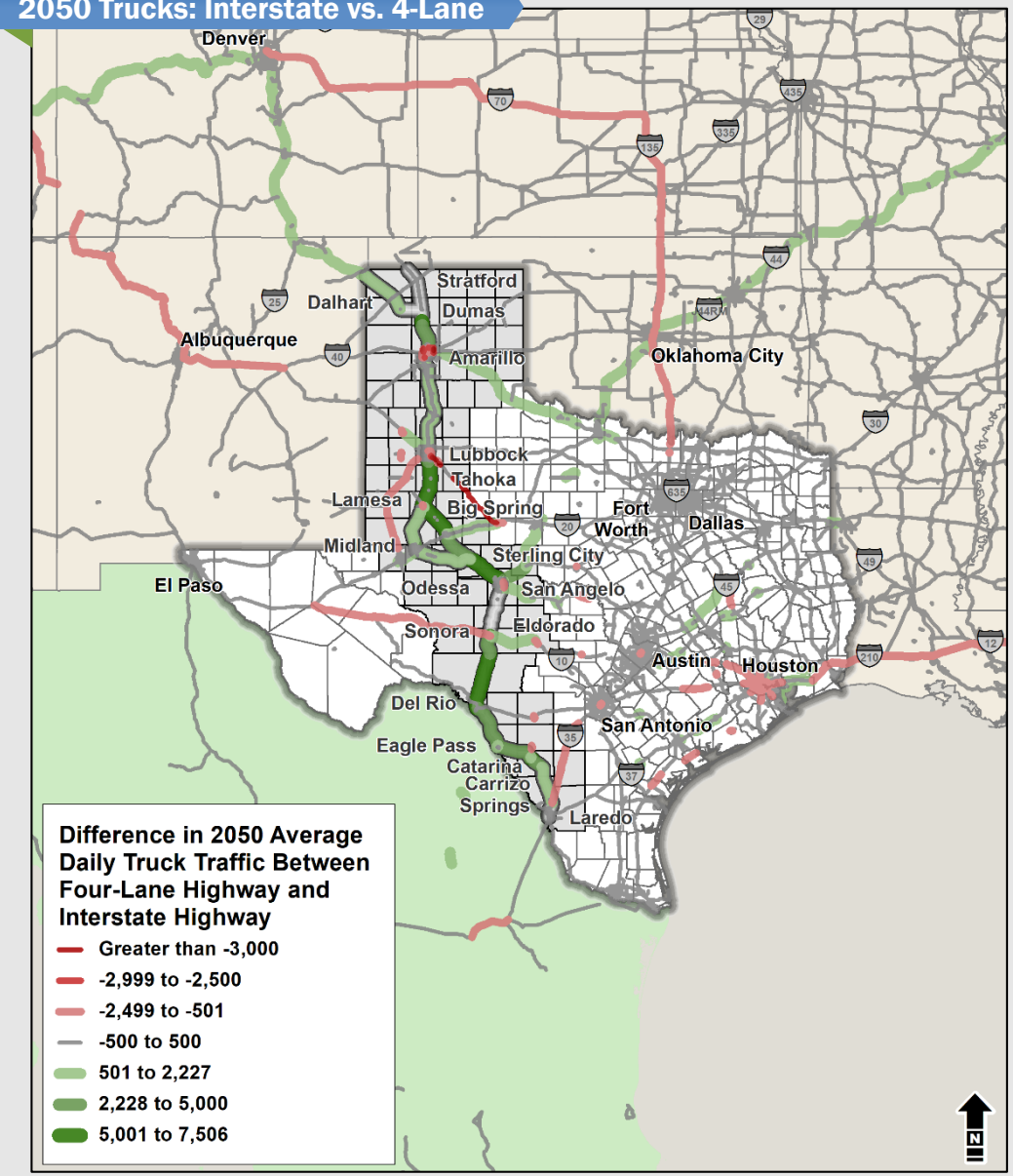
2050 Truck Traffic Not Diverted by 4-Lane Corridor



- **Upgrade to 4-Lane Highway has no material effect** on truck tons above the 2050 forecast
  - No increase in forecast tonnage
  - Performance gains are insufficient vs. no-build
- Traffic is not diverted from other routes

Source: TXDOT SAM

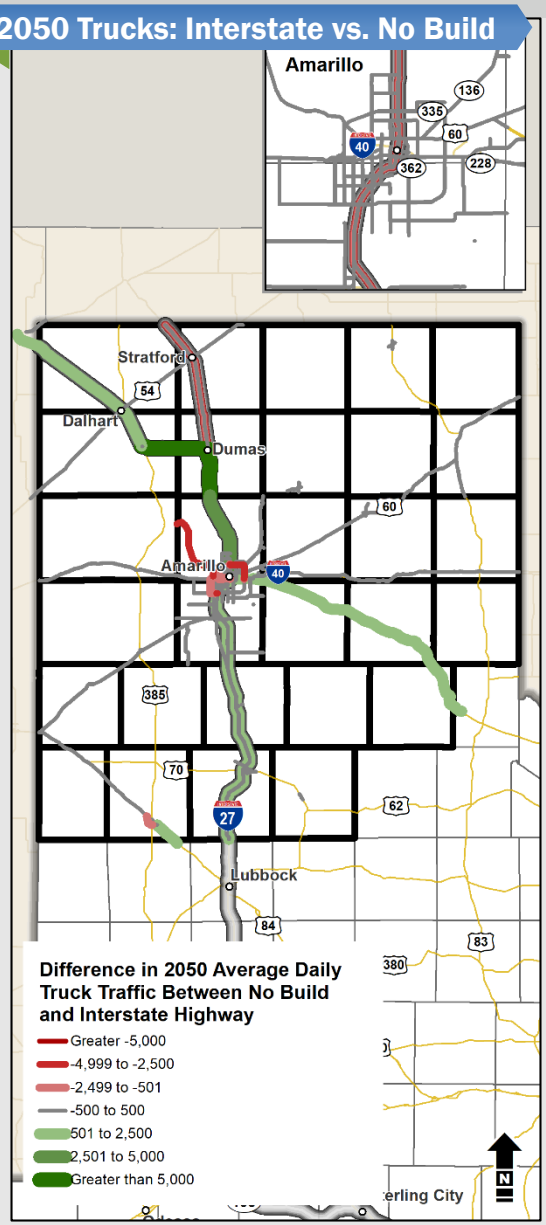
2050 Truck Traffic Diverted to Full Interstate Corridor



- **Upgrade to Interstate adds another 125%** in diverted truck tons above the 2050 forecast, compared to 4-Lane Highway
  - **Total volume 377 million tons**
- Corridor draws from:
  - Parallel routes
  - I-10 to west and east
  - I-35 from Laredo - San Antonio
  - I-35/I-70 from Dallas - Denver

Source: TXDOT SAM

2050 Segment #1 Truck Traffic Diverted to Interstate Corridor



- Upgrade to 4-Lane Highway diverts no tonnage to Segment #1 above the 2050 forecast
- **Upgrade to Interstate adds another 99%** in diverted truck tons above the 2050 forecast
  - **Total volume 153 million tons**
  - Corridor attracts trips to US 287 to southeast
  - Corridor diverts trips from I-40 west of Segment 1

Source: TXDOT SAM

HB 1079 Corridor Feasibility Analysis Criteria

Results of the analysis of the following evaluation criteria will be presented at Meeting #3 in April:

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

A determination of the areas that are preferable and suitable for **interstate designation**

An examination of **project costs** related to the improvement or expansion of the Ports-to-Plains Corridor

Committee: Begin Developing Recommendations

HB 1079 Corridor Feasibility Analysis Criteria

Results of the analysis of the following evaluation criteria will be presented at Meeting #4 in May:

An **assessment of federal, state, local, and private funding sources** for a project improving or expanding the Ports-to-Plains Corridor

Committee Discussion

Segment #1

Review and Discussion of Report Chapters 1 and 2

Caroline Mays, TxDOT

Jared Miller, Segment 1 Committee Chair

Segment Committee Report Outline

- Executive Summary
- Letter from the Segment Committee Chair

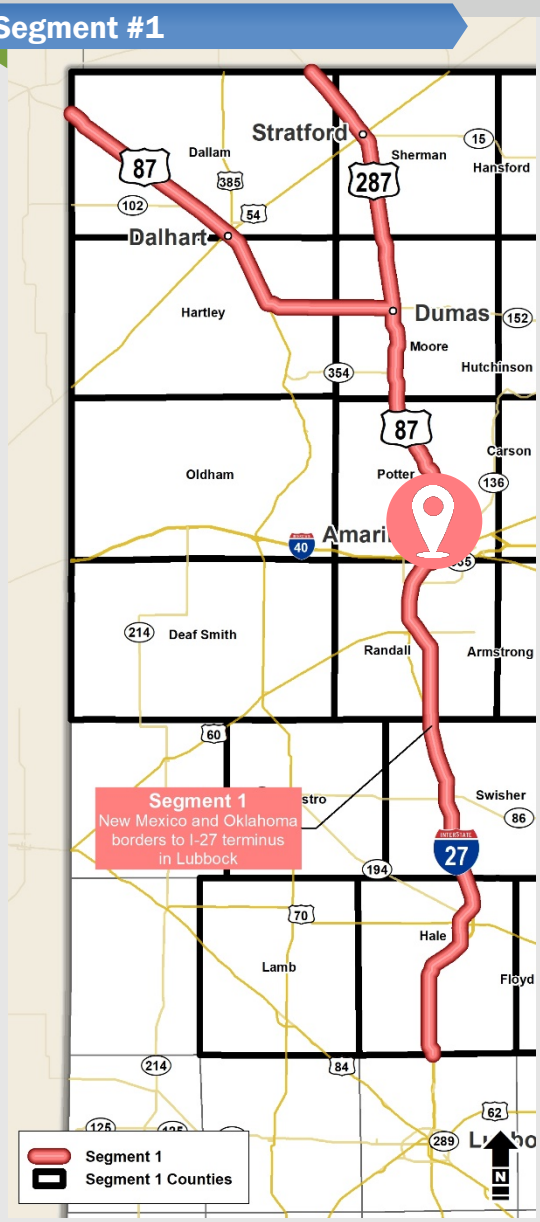
1. Introduction
2. Existing Conditions and Needs Assessment
3. Forecasting and Future Conditions
4. Segment Feasibility Analysis
5. Economic Development Impacts of the Segment
6. Segment Improvement Strategies
7. Public Involvement and Stakeholder Engagement
8. Segment Committee Findings and Recommendations
9. Financial Plan
10. Implementation Plan

- Figures, Tables, and Appendices

Open Discussion

Jared Miller, Segment 1 Committee Chair

Segment #1 Meetings – Round #3



Amarillo

- **Segment Committee Meeting**
  Wednesday April 1, 2020

- **Location**
  Civic Center, Amarillo, TX

Segment Committee Meeting Agendas

April 2020 Meeting #3

- Public Meetings Round 2 Summary
- Economic Development Impacts
- Corridor Improvement Strategies and Recommendations
- Report Chapters 3 & 4

May 2020 Meeting #4

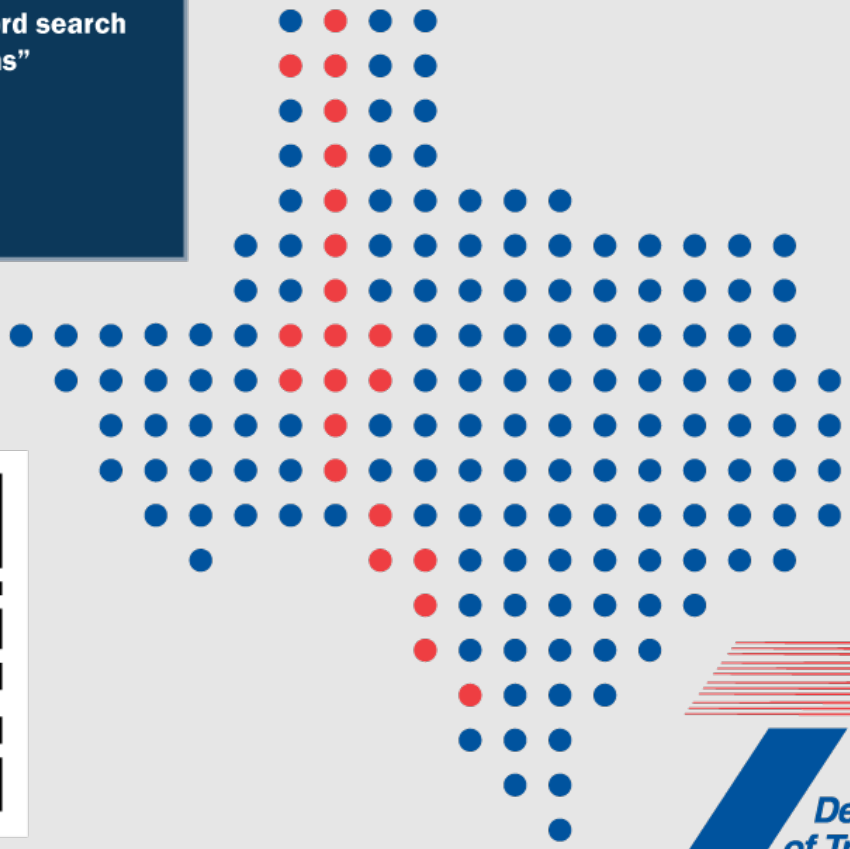
- Public Meetings Round 3 Summary
- Implementation Plan
- Financial Plan
- Report Chapters 5-10

June 2020 Meeting #5

- Finalize Segment Committee Reports and Executive Summaries

Questions

For more information visit
www.txdot.gov keyword search
"Ports to Plains"



Texas Department of Transportation