



**OKLAHOMA**  
Transportation



# **FORWARD** 35

*I-35: Red River to the Oklahoma River*

**December 2023**

# **I-35 CORRIDOR REPORT – RED RIVER TO THE OKLAHOMA RIVER**

## **DRAFT REPORT**

Prepared for:

**Oklahoma Department of Transportation**

December 2024

Prepared by:

**FRESE AND NICHOLS, INC.**  
3600 NW 138th Street, Suite 202  
Oklahoma City, Oklahoma 73134  
405-607-7060

**Page Left Blank**

## ACKNOWLEDGMENTS



**OKLAHOMA**  
Transportation

CHIEF ENGINEER	Brian Taylor
DIRECTOR OF PROJECT DELIVERY & DESIGN	Rick Johnson
PROJECT MANAGEMENT DIVISION ENGINEER	Daniel Nguyen
STATE ROADWAY ENGINEER	Randy Woods
STATE TRAFFIC ENGINEER	Lauren January
STATE BRIDGE ENGINEER	Justin Hernandez
DISTRICT 3 ENGINEER	Ron Brown
DISTRICT 4 ENGINEER	Trenton January
DISTRICT 7 ENGINEER	Jay Earp
DISTRICT 3 PROJECT MANAGER	Jason Boomer
DISTRICT 4 PROJECT MANAGER	Emily Pehrson
DISTRICT 7 PROJECT MANAGER	Brian Nusbaum



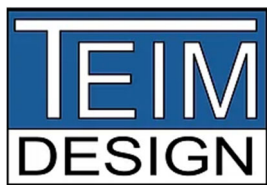
Freese and Nichols, Inc.



Poe & Associates



EST, Inc.



TEIM Design



OLSSON

## TABLE OF CONTENTS

1.0	INTRODUCTION .....	1
2.0	CORRIDOR PURPOSE AND NEED .....	1
3.0	CORRIDOR SEGMENT OVERVIEWS .....	5
3.1	Segment #1 – Red River to Ardmore .....	7
3.1.1	Lane Configuration and Existing Conditions .....	7
3.1.2	Bridges.....	8
3.1.3	Collision History and Trends .....	9
3.1.4	Capacity Needs.....	10
3.1.5	Current Projects and Corridor Expansion .....	11
3.1.6	Constructability and Programming.....	12
3.2	Segment #2 – City of Ardmore to City of Purcell .....	13
3.2.1	Lane Configuration and Existing Conditions .....	13
3.2.2	Bridges.....	14
3.2.3	Collision History and Trends .....	15
3.2.4	Capacity Needs.....	16
3.2.5	Current Projects and Corridor Expansion .....	17
3.2.6	Constructability and Programming.....	18
3.3	Segment #3 – City of Purcell to the Canadian River .....	19
3.3.1	Lane Configuration and Existing Conditions .....	19
3.3.2	Bridges.....	20
3.3.3	Collision History & Trends .....	21
3.3.4	Capacity Needs.....	22
3.3.5	Current Projects and Corridor Expansion .....	23
3.3.6	Corridor Expansion and Constructability .....	24
3.4	Segment #4 – Canadian River to the Oklahoma River .....	25
3.4.1	Lane Configuration and Existing Conditions .....	25
3.4.2	Bridges.....	26
3.4.3	Collision History and Trends .....	27
3.4.4	Capacity Needs.....	28
3.4.5	Current Projects and Corridor Expansion .....	29
3.4.6	Corridor Expansion and Constructability .....	30
4.0	MOVING OKLAHOMA FORWARD – RECOMMENDATIONS & NEXT STEPS .....	31
4.1.1	Additional Evaluations and Planning .....	31
4.1.2	Execution Strategy.....	32
4.1.3	Funding Strategies.....	33
4.1.4	Conclusion and Next Steps.....	34

## Table of Figures

Figure 1: I-35 Connectivity .....	3
Figure 2: Freight Flows by Highway (Source: USDOT) .....	4
Figure 3: Segment Locations .....	5
Figure 4: Current Lane Configurations – Segment #1.....	7
Figure 5: Bridges and their Current State – Segment #1 .....	8
Figure 6: Collisions in Heat Map Form – Segment #1.....	9
Figure 7: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #1.....	9
Figure 8: Capacity Needs – Segment #1 .....	10
Figure 9: Current Projects and Potential Widening Method – Segment #1.....	11
Figure 10: Cost Needs – Segment #1.....	12
Figure 11: Current Lane Configurations – Segment #2.....	13
Figure 12: Bridges and their Current State – Segment #2 .....	14
Figure 13: Collisions in Heat Map Form – Segment #2.....	15
Figure 14: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #2.....	15
Figure 15: Capacity Needs – Segment #2 .....	16
Figure 16: Current Projects and Potential Widening Method – Segment #2.....	17
Figure 17: Cost Needs – Segment #2.....	18
Figure 18: Current Lane Configurations – Segment #3.....	19
Figure 19: Bridges and their Current State – Segment #3 .....	20
Figure 20: Collisions in Heat Map Form – Segment #3.....	21
Figure 21: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #3.....	21
Figure 22: Capacity Needs – Segment #3 .....	22
Figure 23: Current Projects and Potential Widening Method – Segment #3.....	23
Figure 24: Cost Needs – Segment #3.....	24
Figure 25: Current Lane Configurations – Segment #4.....	25
Figure 26: Bridges and their Current State – Segment #4 .....	26
Figure 27: Collisions in Heat Map Form – Segment #4.....	27
Figure 28: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #4.....	27
Figure 29: Capacity Needs – Segment #4 .....	28
Figure 30: Current Projects and Potential Widening Method – Segment #4.....	29
Figure 31: Cost Needs – Segment #4.....	30

## 1.0 INTRODUCTION

This report provides a comprehensive analysis of the significance and impact of Interstate 35 (I-35) as it traverses the state of Oklahoma. Covering over 235 miles within the state, I-35 plays a pivotal role in connecting Oklahoma’s major cities as a state asset as well as the transportation of goods and people through the state. The Oklahoma Department of Transportation (ODOT) is working diligently to update existing programming for this vital corridor to plan for the future critical and functional needs. As the busiest interstate in the central region of the United States, I-35 acts as a catalyst for interstate mobility, economic development, and the movement of freight traffic. Through a detailed examination of the infrastructure, transportation trends, economic implications, and future outlook, this report will shed light on the multifaceted importance of I-35 to Oklahoma's continued growth and vitality.

**\$2.0 Billion investment needed to fund a safe and efficient I-35 corridor through Oklahoma over the next 20 years.**

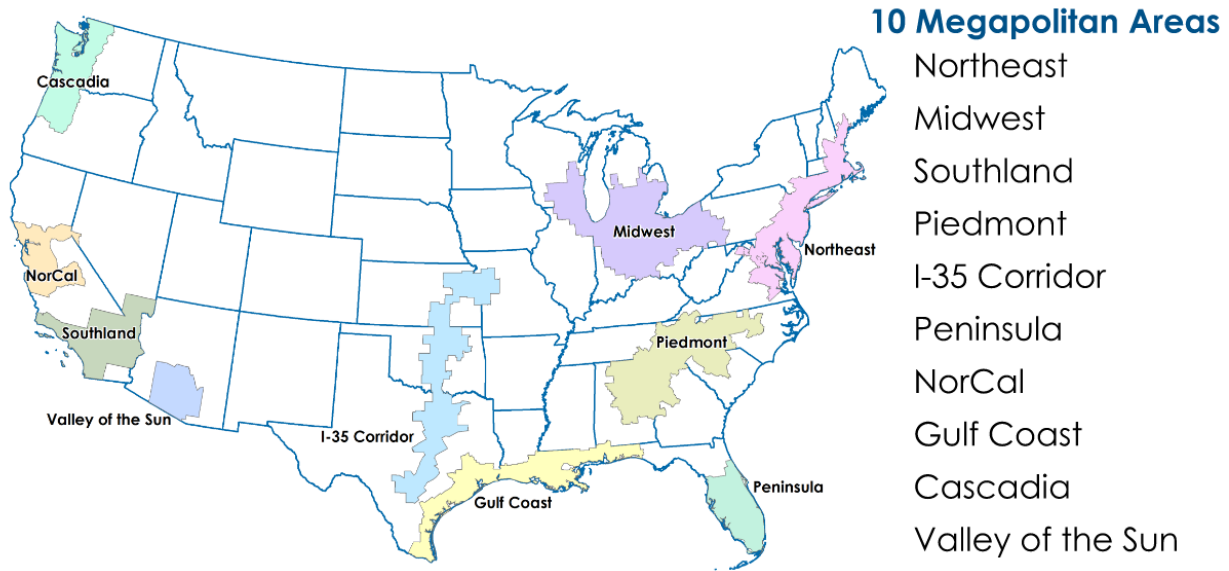
ODOT’s highway system made up of Interstate, US Routes and State Routes is Oklahoma’s largest physical asset, valued at \$60 Billion with a backlog of needs to bring it to a state of good repair valued at \$20 Billion.

ODOT's mission is to provide a transportation network that is safe, economical, and efficient for the people, commerce, and communities of Oklahoma. This mission remains at the heart of their efforts and drives all their actions and decisions.

## 2.0 CORRIDOR PURPOSE AND NEED

Interstate 35 is “THE” major north–south interstate highway that runs through Oklahoma from the Red River at the Texas border to the Kansas state line near Braman, OK. It is a major artery for interstate mobility, economic development, and freight traffic throughout Oklahoma. Interstate 35 through Oklahoma is arguably the most critical corridor within the state, especially when considering its connection and interactions with the other interstates traversing the state.

I-35 provides a direct link between Oklahoma City and major metropolitan areas in Texas, Kansas, and Minnesota, spanning nearly 1,600 miles and providing vital interconnectivity. This corridor also serves as one of ten identified Megapolitan areas in the United States and is the fastest growing Megapolitan area of the ten.



**Figure 1: Megapolitan Areas in the US**

Megapolitan Areas	2005-2022 Population Growth Rank	2005-2022 Population Growth Rate	2022 Population	2005-2022 Job Growth Rank	2005-2022 Job Growth Rate	2022 Jobs
<b>I-35 Corridor</b>	<b>1</b>	<b>31%</b>	<b>20,730,447</b>	<b>1</b>	<b>28%</b>	<b>10,574,670</b>
Valley of the Sun	2	25%	6,024,516	2	23%	2,992,517
Peninsula	3	24%	17,722,685	5	19%	8,243,472
Cascadia	4	23%	9,226,994	6	19%	4,862,537
Gulf Coast	5	22%	15,216,678	4	20%	7,191,612
Piedmont	6	22%	23,542,675	7	16%	11,508,429
NorCal	7	14%	13,947,387	3	21%	6,978,641
Northeast	8	9%	54,609,154	9	8%	28,207,674
Southland	9	9%	24,459,063	8	13%	12,886,612
Midwest	10	3%	41,369,451	10	0%	20,780,344
Megapolitan Total		14%	226,851,072		12%	114,228,530
United States		13%	334,161,482		12%	168,319,669

Source: Lightcast 2023.2; QCEW, non-QCEW, Self-Employed

**Figure 2: Megapolitan Population and Job Growth, 2005-2022**

Not only is this corridor critical for continued growth and US economic value, it also serves as the regional backbone connecting other major highways in Oklahoma, including I-40, I-44, I-235, and US 77, thus making it a vital transportation corridor for both passenger and freight traffic.

This symbiotic relationship and interconnectivity are crucial not only among fellow interstates but also among entities collaborating and coordinating with sister organizations, such as the Oklahoma Turnpike

Authority, Kansas Turnpike Authority, and the Texas Department of Transportation (TxDOT). This coordination for increased mobility, travel time reliability and consistency is a shared responsibility reached through collaborative efforts with each entity serving their unique purposes of promoting safe mobility within and through the state of Oklahoma and across the southern United States. For instance, currently TxDOT is planning to widen I-35 to six lanes through Cook County (with expandability to eight lanes in 10-15 years), directly tying to the soon to be improved Red River crossing, providing vital capacity additions to promote safe and efficient travel between the two states.

I-35 has a significant impact on the economic development of Oklahoma by connecting businesses with access to markets and suppliers, while also facilitating workers' commutes to their jobs. This corridor supports various economic drivers including:

- Aerospace & Aviation: 43,300 jobs
- Manufacturing: 40,600 jobs
- Government: 134,000 jobs
- Prof. Scientific, and Tech: 40,800 jobs
- Health Care & Social Asst: 88,300 jobs

Given its utility, this mobility promotes the generation of tax revenue that can be used to fund schools, roads, and other public services, serving as the economic engine through the region.

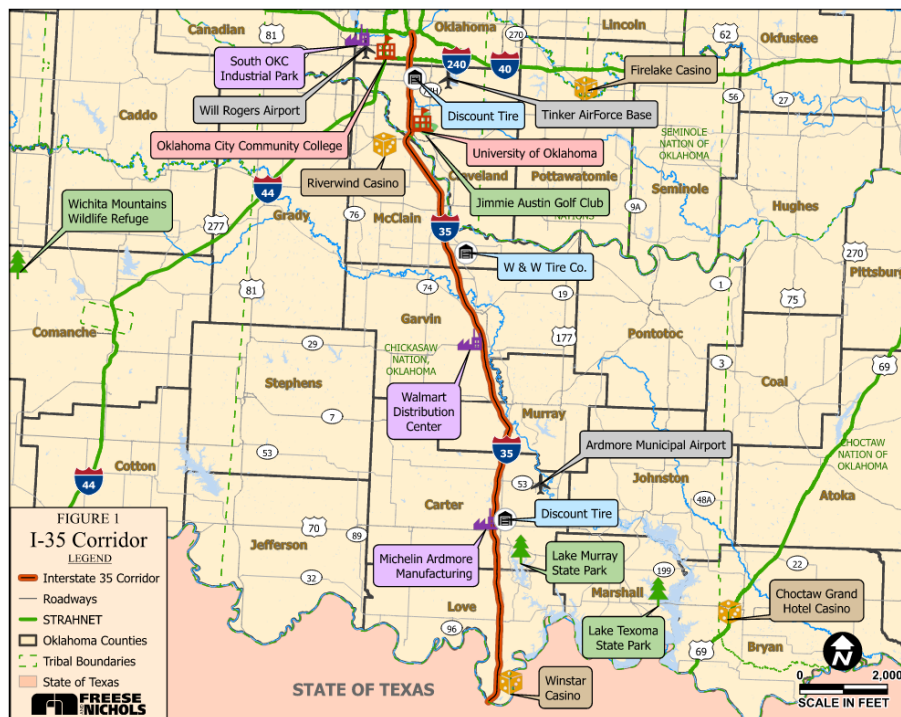
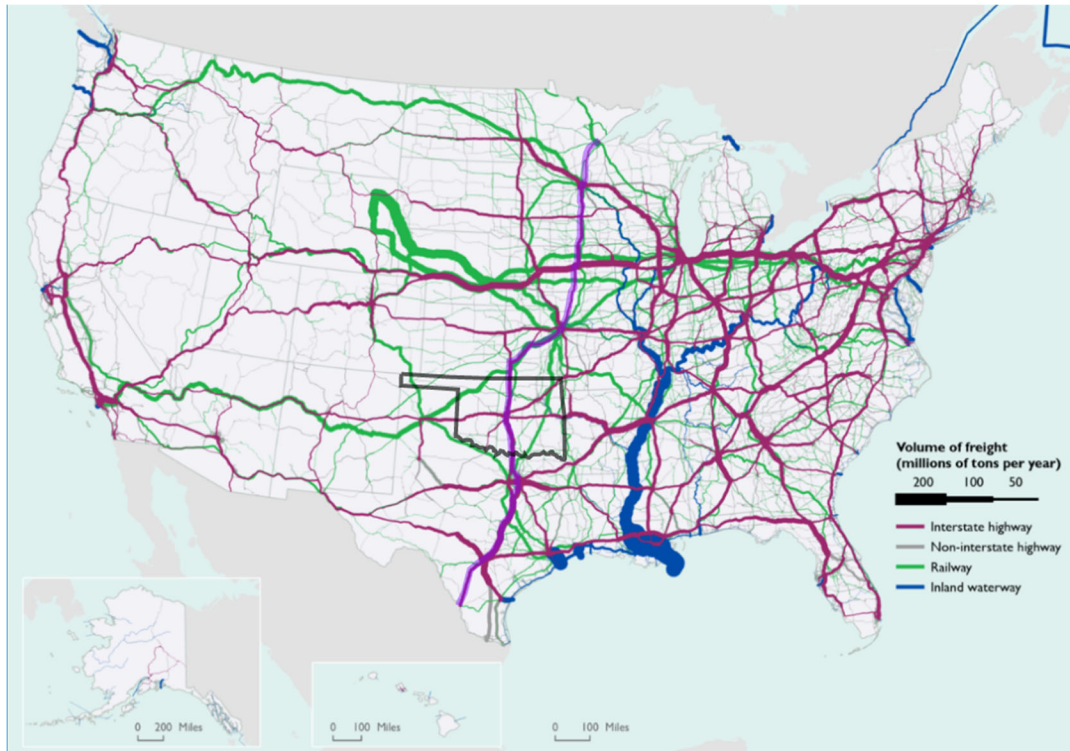


Figure 3: I-35 Connectivity

Freight traffic on I-35 is also significant given that the highway carries a large volume of goods between Mexico, the United States, and Canada with I-35 serving as one of only two major north/south interstates west of the Mississippi. This trade route provides vital support to jobs and businesses in Oklahoma and across the region as well as military and emergency responder connectivity.



**Figure 4: Freight Flows by Highway (Source: USDOT)**

I-35 is a vital transportation asset for Oklahoma and a major economic driver for the state and nation. It is essential for the continued prosperity of Oklahoma that the infrastructure be properly maintained, and that necessary expansions and improvements are planned to keep ahead of the state’s strong regional growth.

**I-35 BY THE NUMBERS**

**30k–150k**



In 2023, I-35 carries on average from 30k to 150k vehicles per day.

**30%**

The interstate system in Oklahoma carries 30% Vehicle Miles Traveled (VMT) of the total Statewide VMT

**5.98**

Oklahoma City to the Red River averaged 5.98 collisions/day from 2017-2021

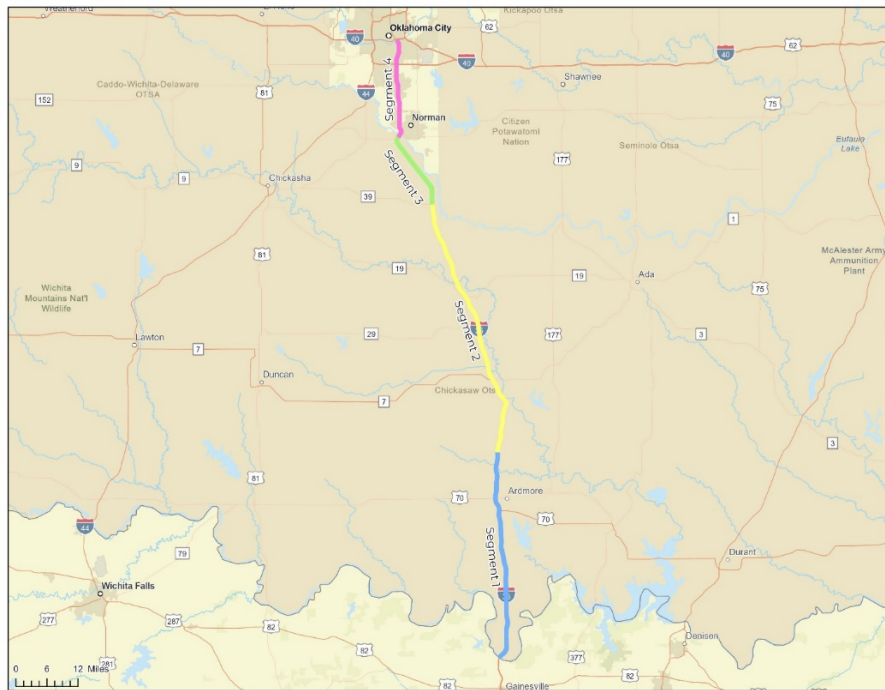
**1.4 million**

Vehicular traffic is anticipated to grow by as much as 1.4M vehicles per day over 20 years

### 3.0 CORRIDOR SEGMENT OVERVIEWS

Given the unique nature of the I-35 corridor in Oklahoma which captures both rolling plains and mountains, dense urban development and rural countryside, the corridor has been broken down into four segments that have different characteristics and challenges from each other to better define their current conditions and considerations for future needs (20+ years).

- Segment #1: Red River to City of Ardmore
- Segment #2: City of Ardmore to City of Purcell
- Segment #3: City of Purcell to Canadian River
- Segment #4: Canadian River to Oklahoma River



**Figure 2: Segment Locations**

Each report section covers the segment's:

- Lane Configuration and Existing Conditions
  - Detailing the type of material, current condition and number of lanes in each direction and whether there is an active project or recently awarded project
- Bridges – Quantity and Status
  - Bridge infrastructure was evaluated relative to its ability to be widened both along I-35 or for I-35 to be widened under it. Each bridge was classified as:
    - needing major modification/replacement

- minor modification/design exception
- readily accepting of additional widening
- Collision History and Trends
  - Collision data is represented by type of collision and aggregated into a heatmap style representation to show high frequency locations. Additionally, it was compared to Annual Daily Traffic (AADT) per segment to show correlation between volumes and collisions.
- Capacity Deficiency
  - Each segment was evaluated based on its current provided capacity (how many vehicles it can serve) and its current level of service (ability to serve those vehicles at speed) and classified as needing improvements in three different time frames in order to maintain that quality of service:
    - Immediate – experience driver delay in less than 10 years
    - Near Term – experience driver delay in 11-20 years
    - Out Years – experience driver delay in over 20 years
  - Capacity Deficiency is when traffic is operating at a level less than desirable and is susceptible to breakdown due to known and unknown events. This is typically identified by areas approaching capacity. Typical characteristics include reduced speed and limited maneuverability.
- Current Projects and Corridor Expansion
  - Defines projects that are actively in construction or that have recently been bid and awarded, about to start construction. Conceptual evaluation was also performed to determine capacity feasibility for both outside widening (adding pavements for a wider footprint) or inside widening (adding pavement within an existing median)
- Constructability and Programming
  - Identify's possible challenges with adding capacity given a segments alternate route availability, construction challenges, and other ancillary considerations. Additionally, this section summarizes programming and funding considerations and deficiencies relative to current available funding.

### 3.1 SEGMENT #1 – RED RIVER TO ARDMORE

Spanning approximately 39 miles, I-35 from the Red River to the City of Ardmore is one of only three major river crossings of the Red River along the border of Texas, providing critical linkage from the ports of Texas to the northern United States.

#### 3.1.1 Lane Configuration and Existing Conditions

This segment of I-35 is comprised of primarily four lanes with inside and outside shoulders and a newly completed segment of a six-lane facility starting at the border, traveling 2 miles north. Pavement within this segment consists of concrete main lanes with concrete shoulders – predominantly replaced within the last 20 years. The figure below represents the current lane configurations through this segment.

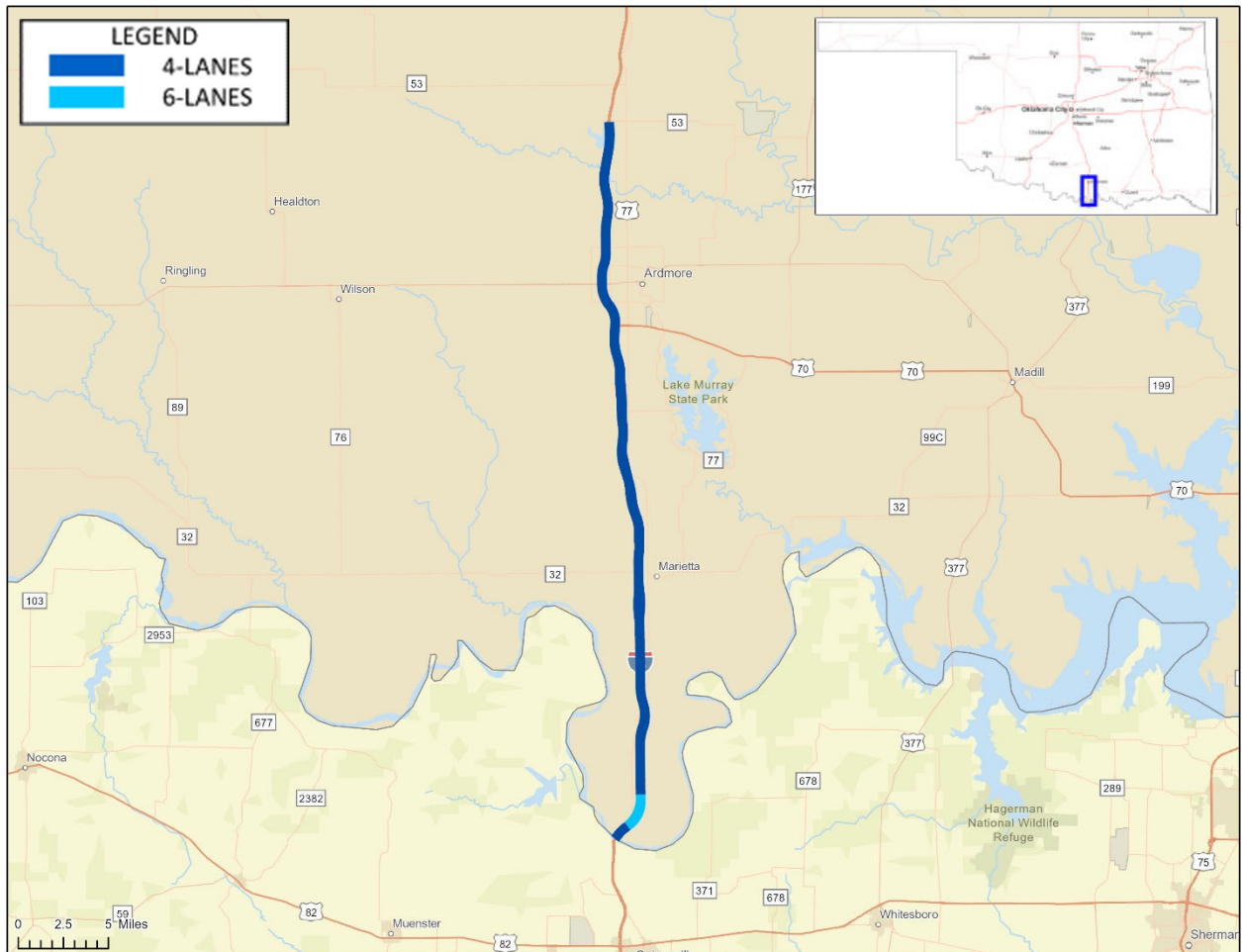


Figure 3: Current Lane Configurations – Segment #1

### 3.1.2 Bridges

Over this segment’s 39-mile length, there are 53 bridges, including those over and along I-35. The figure below shows each bridge’s current condition and its ability to accommodate I-35 widening relative to their location. Each structure was conceptually evaluated and classified as:

- **RED** – Bridges that need major modification/replacement to allow for additional widening
- **YELLOW** – Bridges that need minor modification/design exceptions for additional widening
- **GREEN** – Bridges that can readily accept additional widening

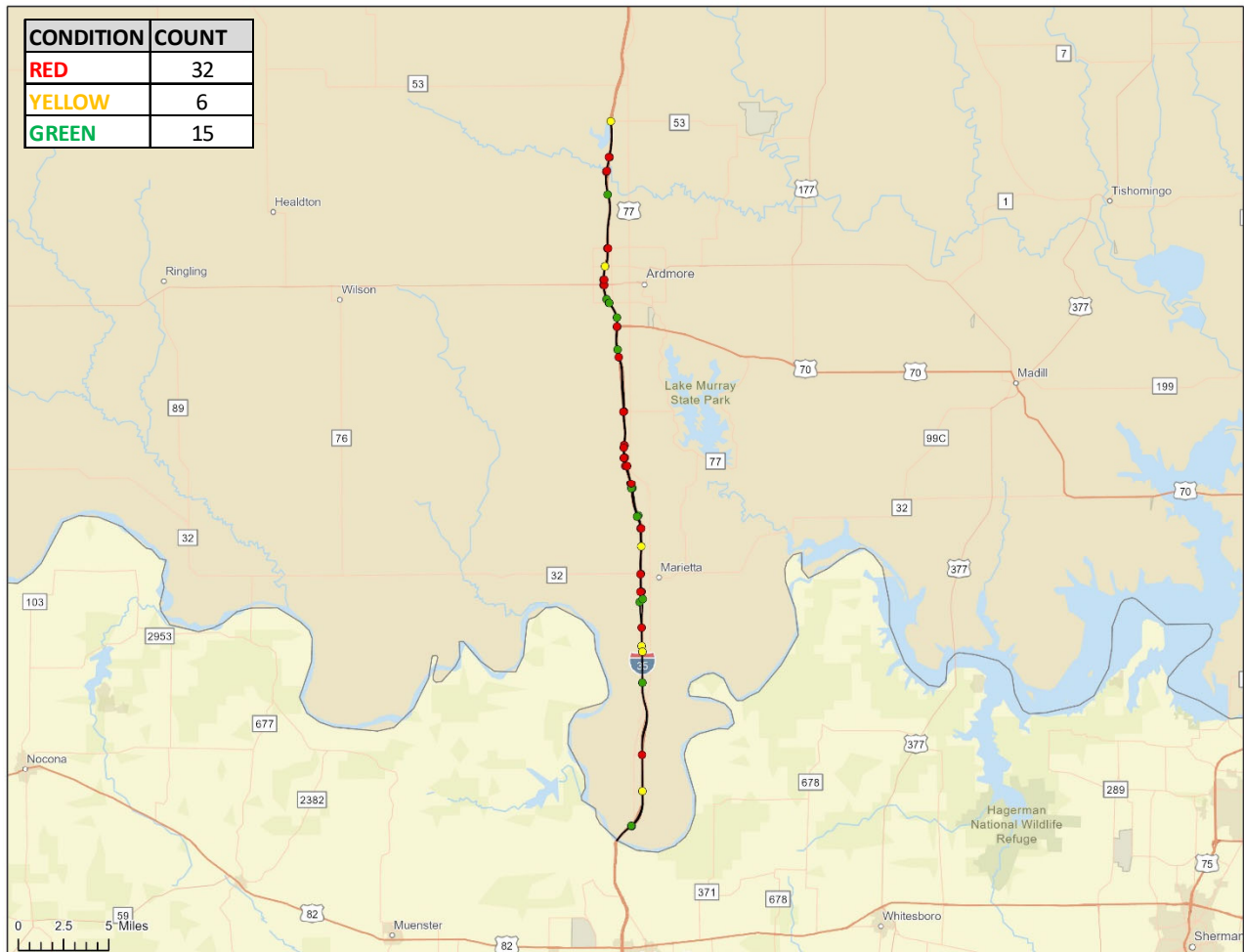
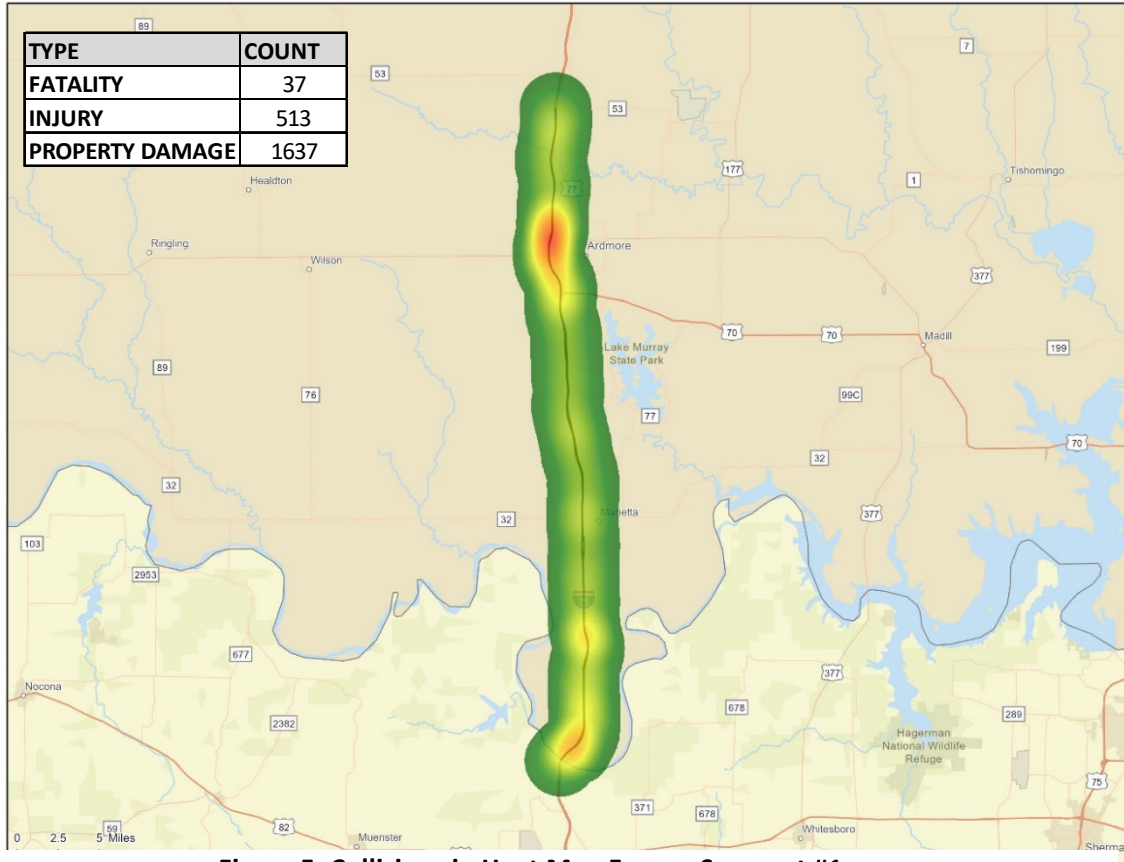


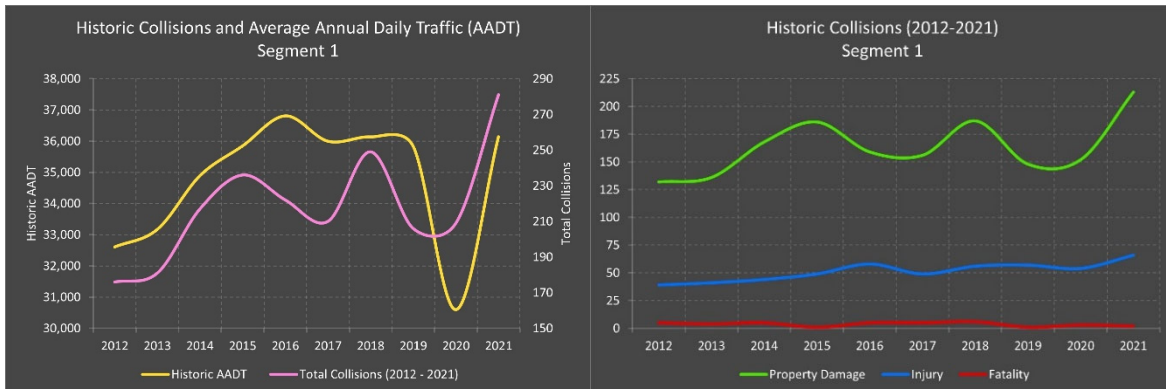
Figure 4: Bridges and their Current State – Segment #1

### 3.1.3 Collision History and Trends

The southern segment of I-35 experienced 1,149 collisions from 2017-2021, averaging 5.64 collisions per mile per year within its extents. The below figure represents the collisions along this segment in heat map form, with **RED** being the highest density and **GREEN** being the lowest density. The table at the bottom of the page shows the trend in collisions when compared to traffic volumes and for each individual collision type. Data is from 2012-2021.



**Figure 5: Collisions in Heat Map Form – Segment #1**

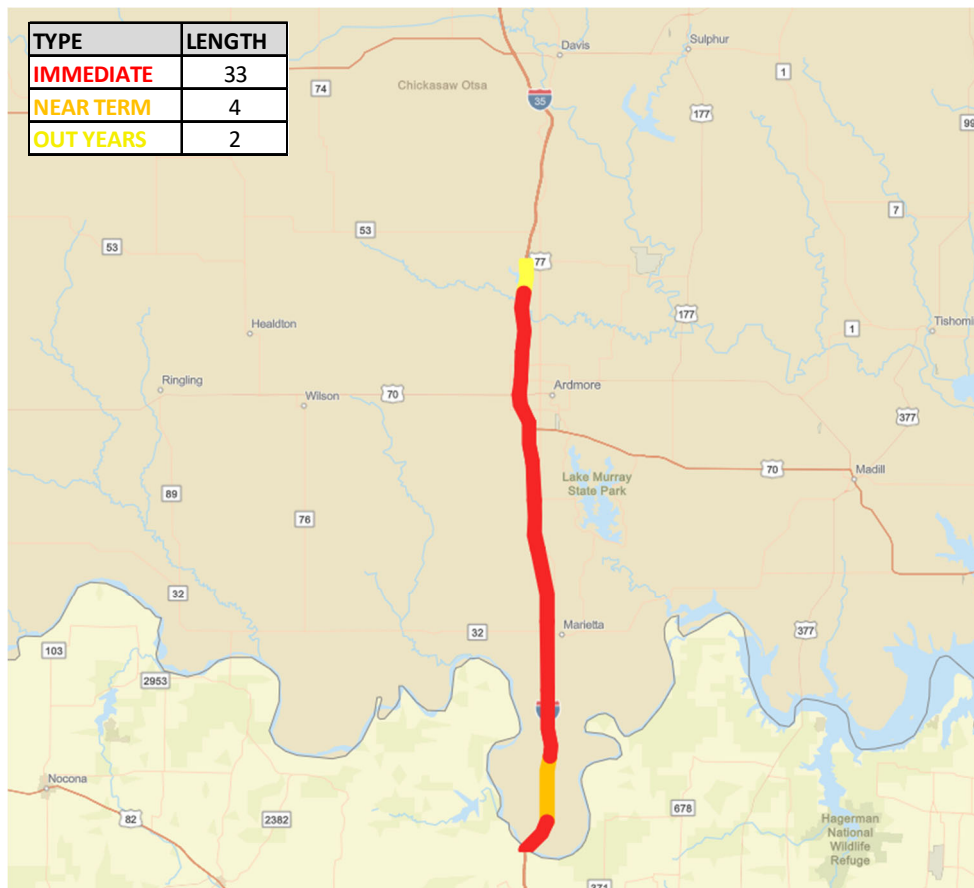


**Figure 6: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #1**

### 3.1.4 Capacity Deficiency

Given the nature of the I-35 corridor and the continued growth in Texas, traffic along the corridor has experienced consistently steep growth over the past 20 years. To help manage that growth, TxDOT is planning to invest approximately \$2.0 billion over the next decade to facilitate corridor expansion from the I-35 split in Denton, TX. Evaluating the priority of needs along the corridor will be paramount for the continued function of the corridor and to maintain travel time reliability. The corridor has been separated into three categories to further illustrate the future needs (all without weather or incident impacts):

- **Immediate** – areas that will need capacity improvements within 10 years
- **Near Term** – areas that will need capacity improvements within 20 years
- **Out Years** – areas that will not need additional capacity for 20+ years

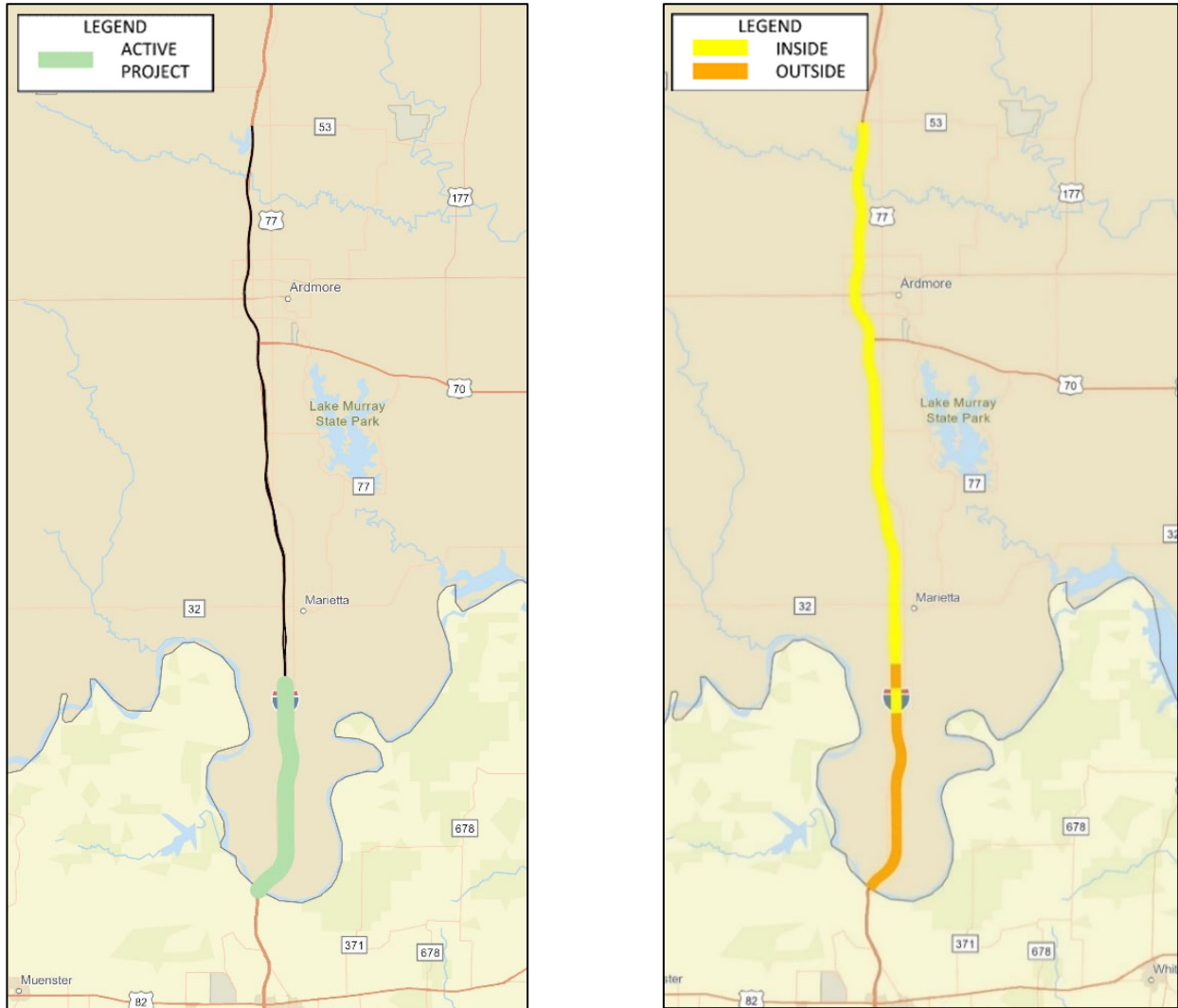


**Figure 7: Capacity Deficiency – Segment #1**

The areas denoted as having “immediate need” are those in which could be operating acceptably several hours a day but an at or nearing a point of traffic volumes that driver comfort is impacted and any event that occurs would impact travel time reliability.

### 3.1.5 Current Projects and Corridor Expansion

The figure below shows the current, or recently awarded, projects in this segment from ODOT’s published *Eight-Year Construction Workplan* that add capacity to I-35. Knowing that there are various areas in need of widening, the ability and ease of widening the corridor to six lanes has been evaluated. The figure on the right shows how/where the corridor could be widened, inside or outside of the current pavement, with the typical sections providing detail.



**Figure 8: Current Projects and Potential Widening Method – Segment #1**

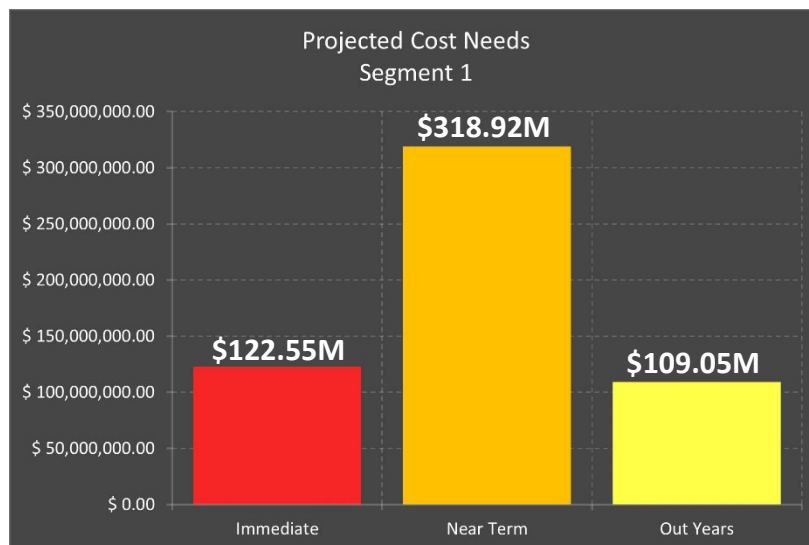
### 3.1.6 Constructability and Programming

As Texas and southern Oklahoma continue to see persistent growth, the I-35 corridor will require constant/continued improvements to stay on track with capacity needs through Segment #1. With volumes continuing to increase, so will the propensity for collisions along the corridor. As ODOT works to continue improving this segment to maintain as much efficiency in a safe manner as possible, that can only be achieved through further investment.

Additionally, this segment is currently in need of additional capacity with the remaining mileage fast approaching the need for capacity improvements in the near term and could be widened once funding is available. Of those needs, **ODOT has 10.85 miles of projects programmed** within this segment, leaving approximately **29.89 miles of unplanned projects at an estimate of \$427.98 million**.

When looking at constructability, this segment has the added benefit of local reliever routes to provide critical capacity during high volume times such as daily peak hours and holiday travel. This segment also benefits from ultra-wide median sections, scattered within these 39 miles, providing much needed space to construct the needed additional capacity.

Currently TxDOT is planning to construct six lanes up to the Red River with plans to preserve right-of-way for the possible ultimate build-out of eight lanes in the future, as part of a \$2.0 billion investment along I-35. ODOT has been in coordination with TxDOT as both entities work to keep one of the most traveled sections of I-35 functional and safe.



**Figure 9: Cost Needs – Segment #1**

### 3.2 SEGMENT #2 – CITY OF ARDMORE TO CITY OF PURCELL

Approximately 53 miles in length, I-35 from the City of Ardmore to the City of Purcell provides mid-state linkage to the southern portion of Oklahoma, including future regional transit hubs such as the Ardmore Airpark, linking rural segments of Oklahoma to the Oklahoma City Metropolitan area and Texas. This segment also traverses some of the state’s most varied terrain, as it also passes through the Arbuckle Mountains.

#### 3.2.1 Lane Configuration and Existing Conditions

Segment #2 of I-35 is primarily comprised of four lanes with inside and outside shoulders. Pavement condition and material is a mixture of concrete main line with concrete shoulders and asphalt main line with asphalt shoulders with pavement needing maintenance or replacement in the near term. The figure below represents the current lane configurations through this segment.

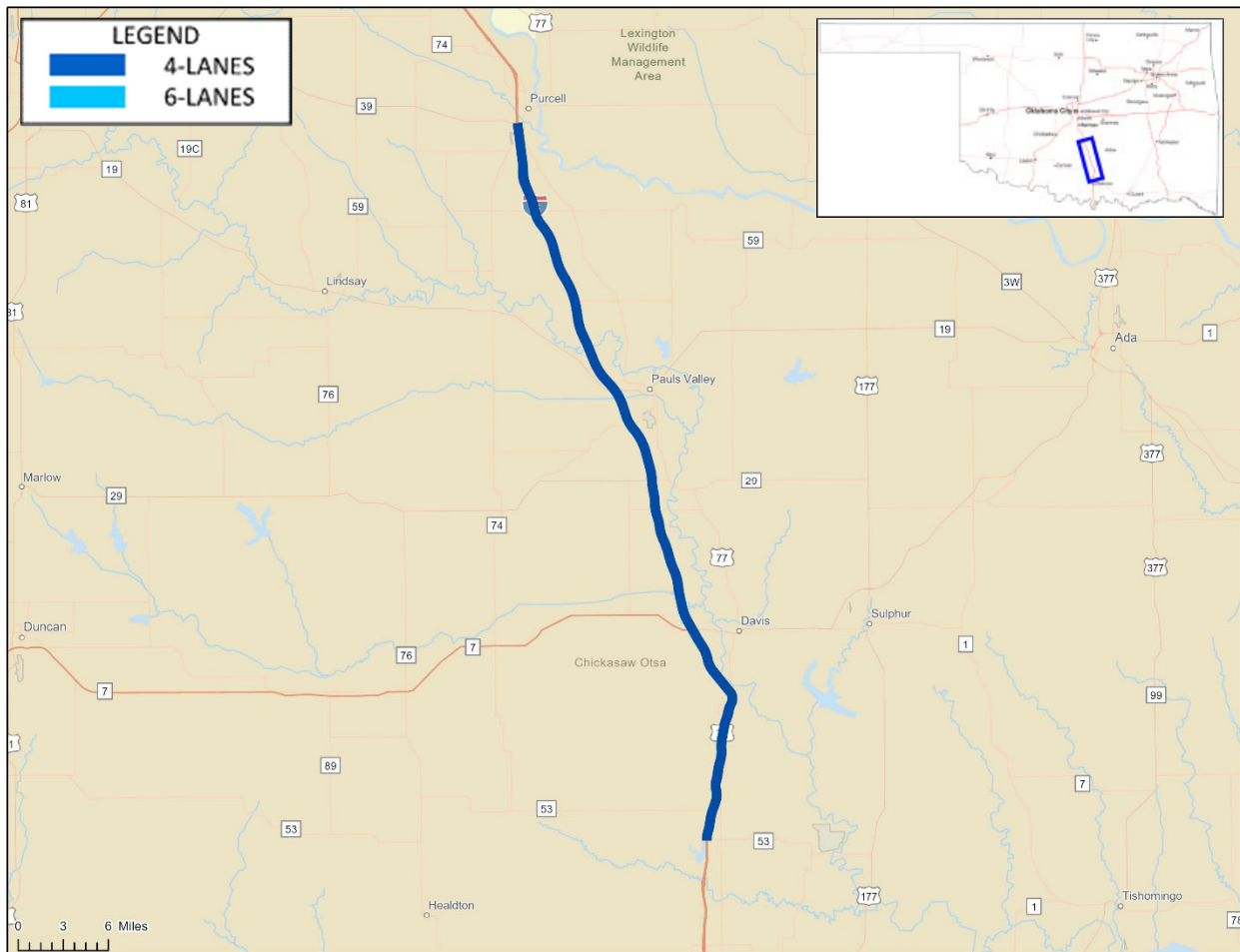


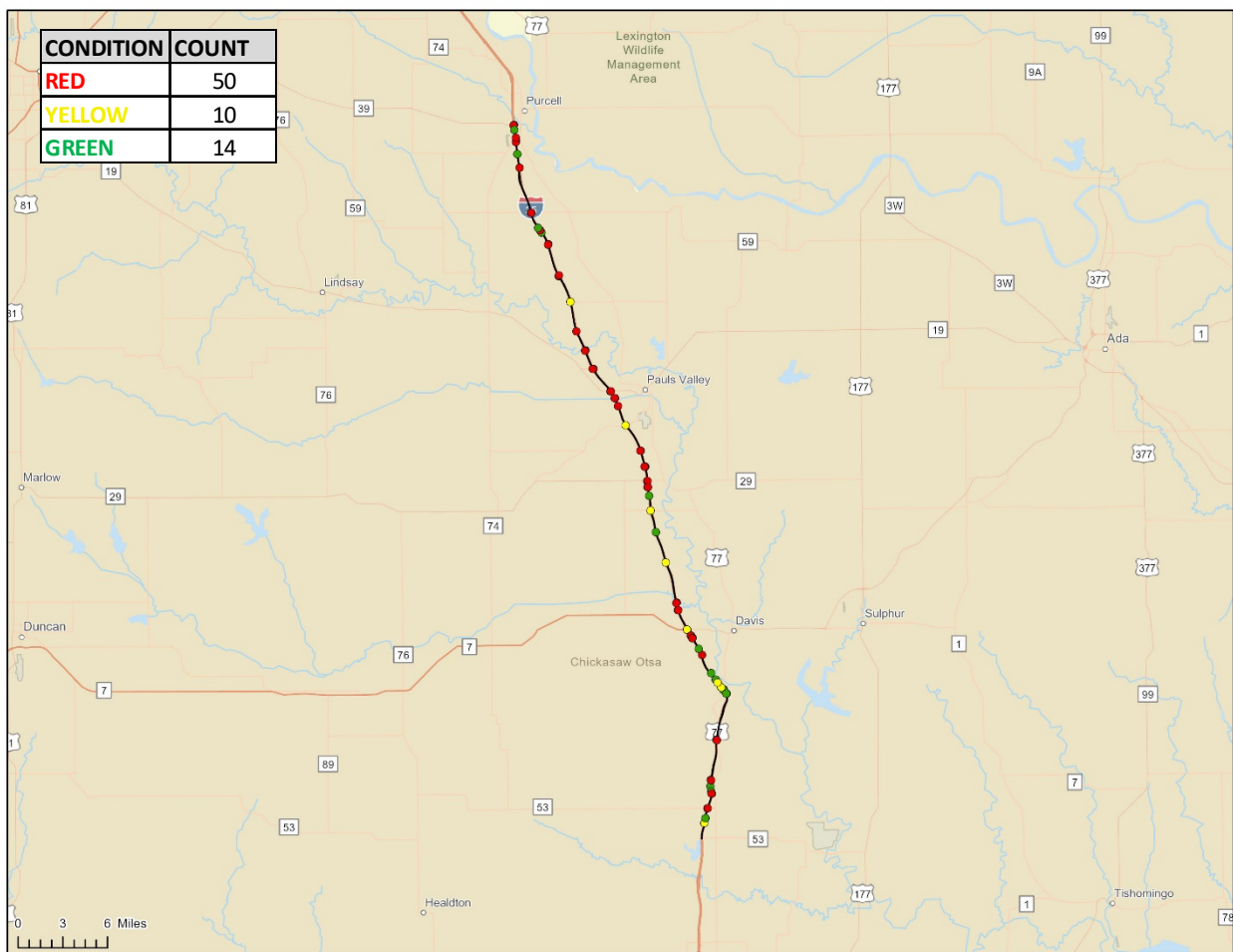
Figure 10: Current Lane Configurations – Segment #2

### 3.2.2 Bridges

Over Segment #2's 53-mile length, there are 74 bridges including those over and along I-35. The figure below shows each bridge's current condition and its ability to have I-35 widened relative to their location.

Each structure as conceptually evaluated and classified as:

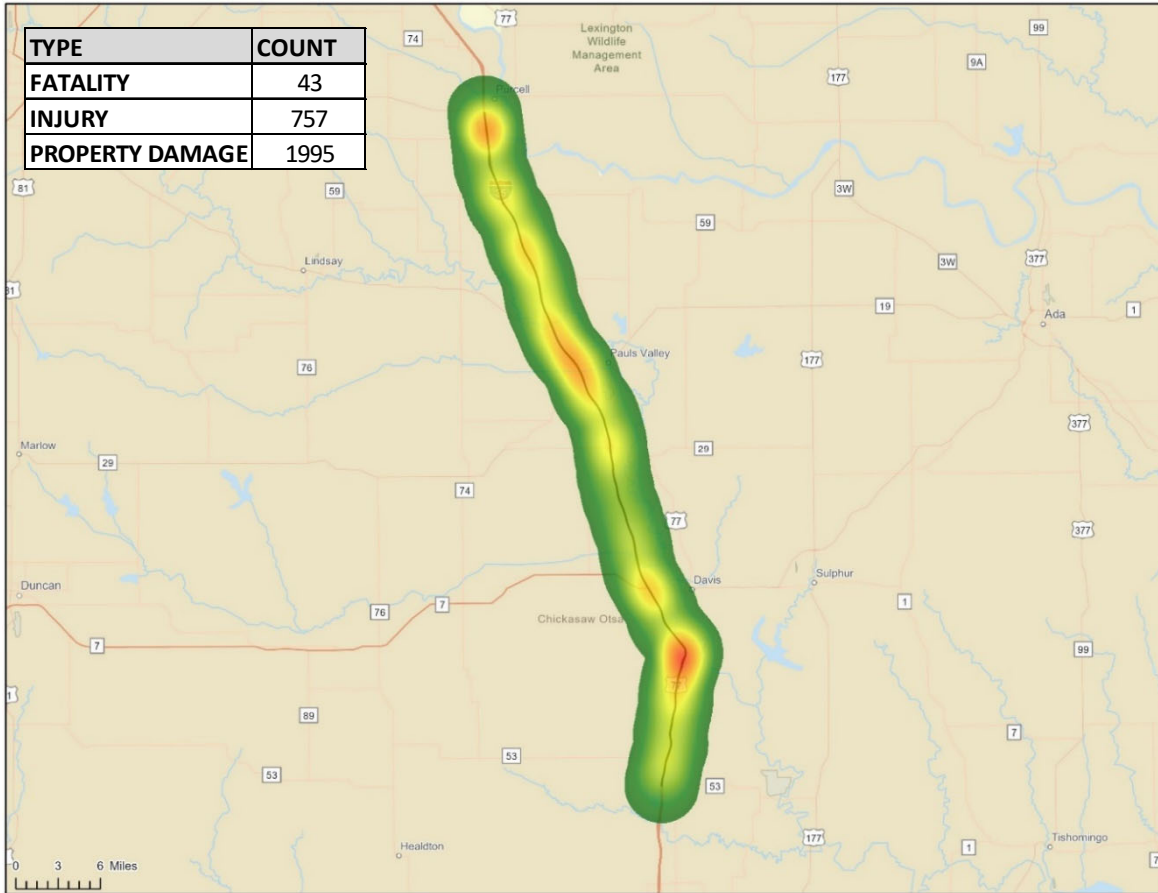
- **RED** – Bridges that need major modification/replacement to allow for additional widening
- **YELLOW** – Bridges that need minor modification/design exceptions for additional widening
- **GREEN** – Bridges that can readily accept additional widening



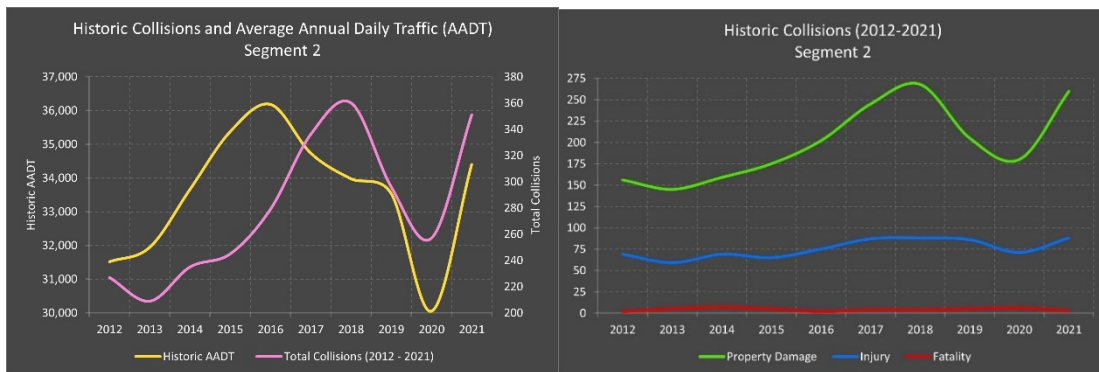
**Figure 11: Bridges and their Current State – Segment #2**

### 3.2.3 Collision History and Trends

Segment #2 along I-35 experienced 1,634 collisions from 2017-2021, averaging 6.37 collisions per mile per year within its extents. The below figure represents the collisions along this segment in heat map form, with **RED** being the highest density and **GREEN** being the lowest density. The tables at the bottom of the page show the trend in collisions when compared to traffic volumes and for each individual collision type. Data is from 2012-2021.



**Figure 12: Collisions in Heat Map Form – Segment #2**

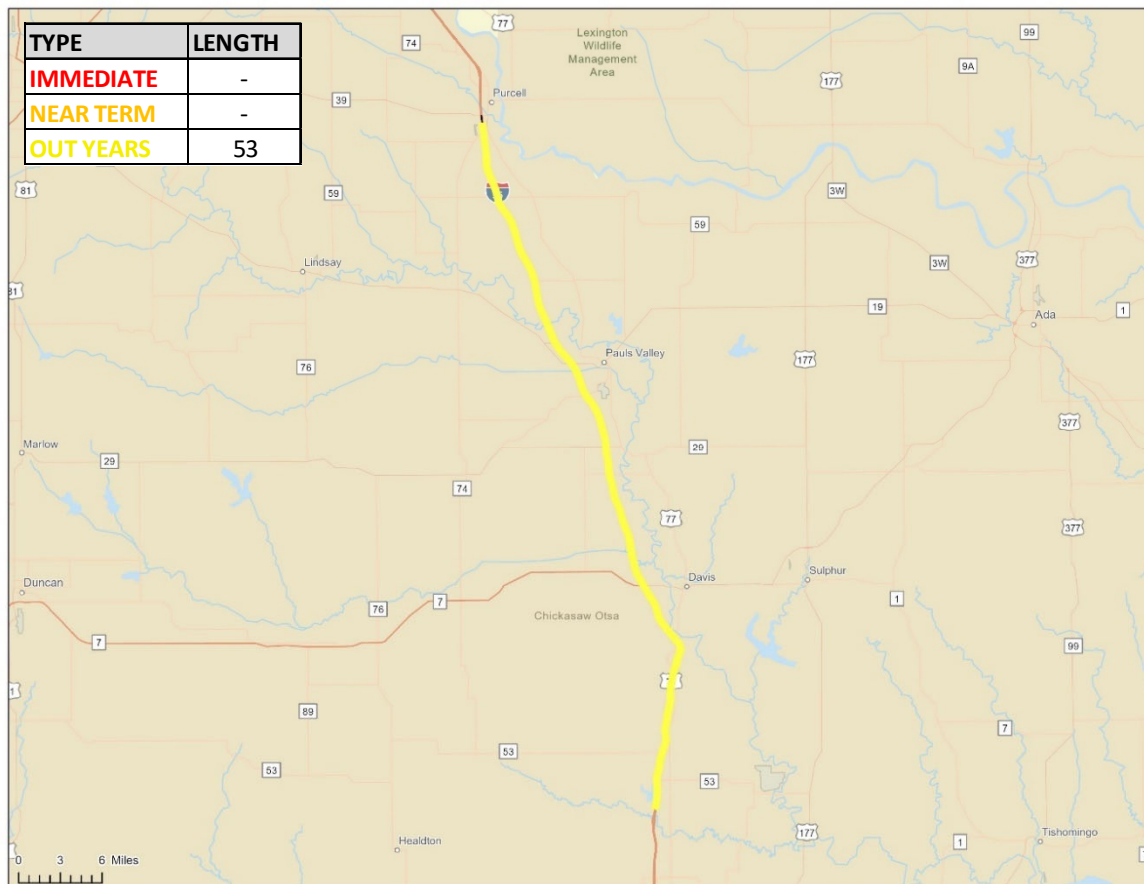


**Figure 13: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #2**

### 3.2.4 Capacity Needs

Given the nature of the I-35 corridor previously discussed traffic has experienced, and will continue to experience, consistently steep growth over the past 20 years and into the future. Evaluating the priority of needs along the corridor is paramount for the continued function of the corridor. The corridor has been separated into three categories to further illustrate the future need (all without weather or incident impacts):

- **Immediate** – areas that will need capacity improvements within 10 years
- **Near Term** – areas that will need capacity improvements within 20 years
- **Out years** – areas that won't need additional capacity for 20+ years



**Figure 14: Capacity Needs – Segment #2**

This map depicts the priority of needs along the corridor between those that are near failing conditions (**RED**) and those that need to be addressed in the near term (**ORANGE**) or in the outer years (**YELLOW**). These areas have been calculated using engineering standards based on capacity and traffic volumes in ideal conditions.

### 3.2.5 Current Projects and Corridor Expansion

The figure below shows the current, or recently awarded, projects in this segment from ODOT’s published *Eight-Year Construction Workplan* that add capacity. Knowing that there are various areas in need of widening, the ability and ease of widening the corridor to six lanes has been evaluated. The figure on the right shows how/where the corridor could be widened, inside or outside of the current pavement, with the typical sections providing detail.

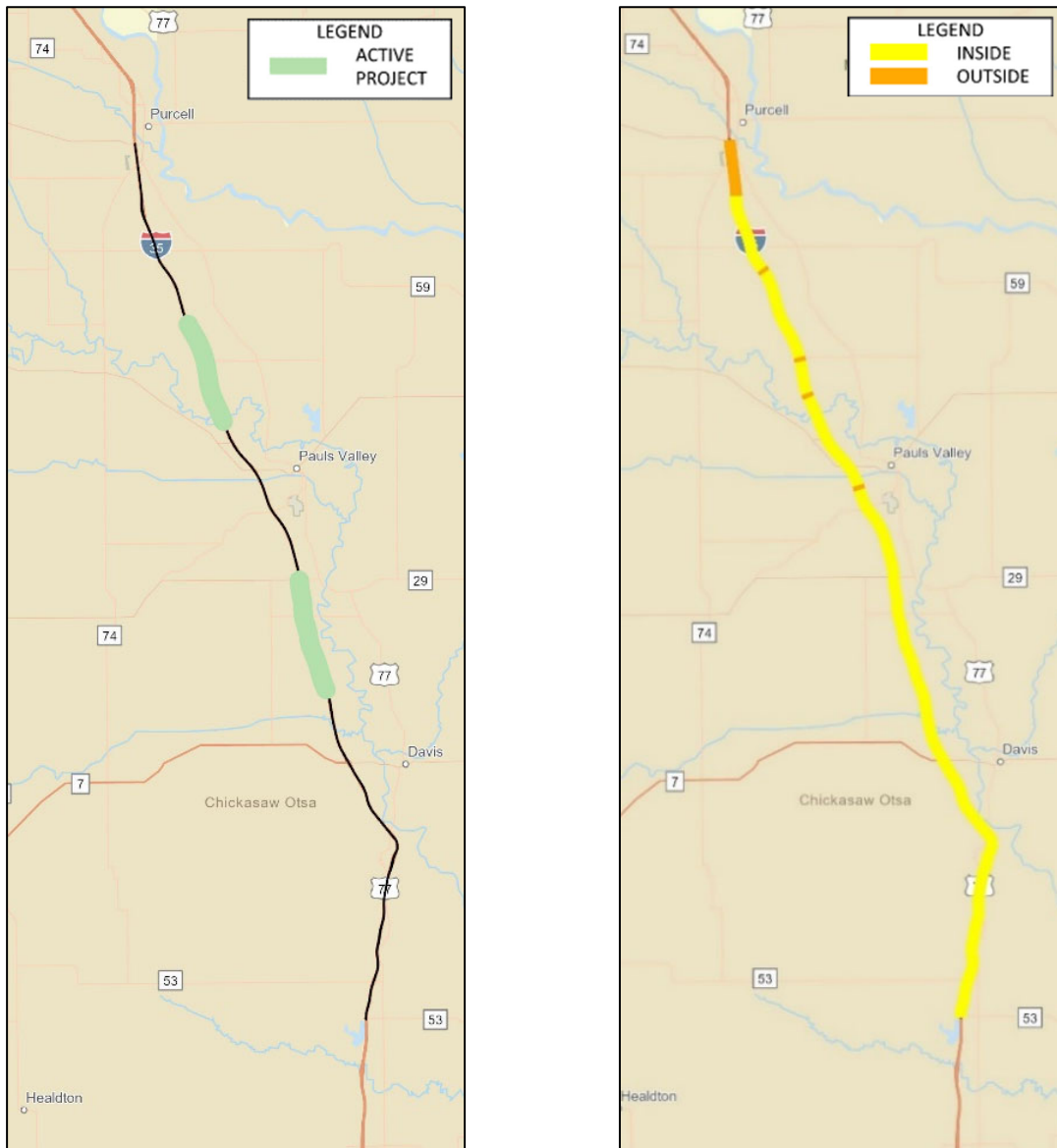


Figure 15: Current Projects and Potential Widening Method – Segment #2

### 3.2.6 Constructability and Programming

With the regional and continued growth in southern Oklahoma and Texas, maintaining this critical linkage within the I-35 corridor will be critical. Additionally, the establishment of the Ardmore Airpark will add another regional transit hub along an already busy area of I-35, bringing multiple forms of traffic and development to the region.

While most of this corridor segment’s capacity needs are in the out years, this portion of I-35 will need to be continually monitored for needed capacity improvements as growth and development occurs but should also be evaluated for operational enhancements at spot locations that could arise before the full expansion is needed. Currently **ODOT has 18.07 miles of projects programmed** within this segment, leaving approximately **39.45 miles of unplanned projects at an estimate of \$596.50 million** in the out years.

From a constructability perspective, this segment also benefits from several adjacent reliever route possibilities, as evidenced with the rockslides that shut down I-35 in 2015. Additionally, given the wide median captured within these limits, most of this segment could facilitate additional capacity by using an inside widening approach but would need temporary pavement to help facilitate the widening while maximizing corridor capacity during construction.

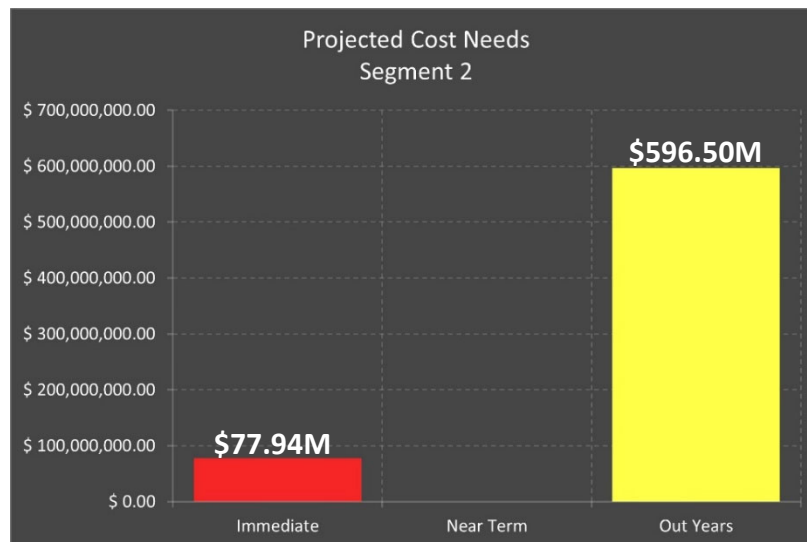


Figure 16: Cost Needs – Segment #2

### 3.3 SEGMENT #3 – CITY OF PURCELL TO THE CANADIAN RIVER

Covering approximately 17 miles, I-35 from the City of Purcell to the Canadian River provides vital linkage from south central Oklahoma to the Oklahoma City Metropolitan area and is one of only two primary crossings of the Canadian River in the southern portion of the metropolitan area.

#### 3.3.1 Lane Configuration and Existing Conditions

This segment of I-35 is comprised of primarily four lanes with inside and outside shoulders. Currently the paving consists of asphalt main line and asphalt shoulders with the pavement needing maintenance or replacement in the near term. The figure below represents the current lane configurations through this segment.



Figure 17: Current Lane Configurations – Segment #3

### 3.3.2 Bridges

Over Segment #3's 17-mile length, there are 19 bridges including bridges over and along I-35. The figure below shows each bridge's current condition and its ability to have I-35 widened relative to their location.

Each structure as conceptually evaluated and classified as:

- **RED** – Bridges that need major modification/replacement to allow for additional widening
- **YELLOW** – Bridges that need minor modification/design exceptions for additional widening
- **GREEN** – Bridges that can readily accept additional widening

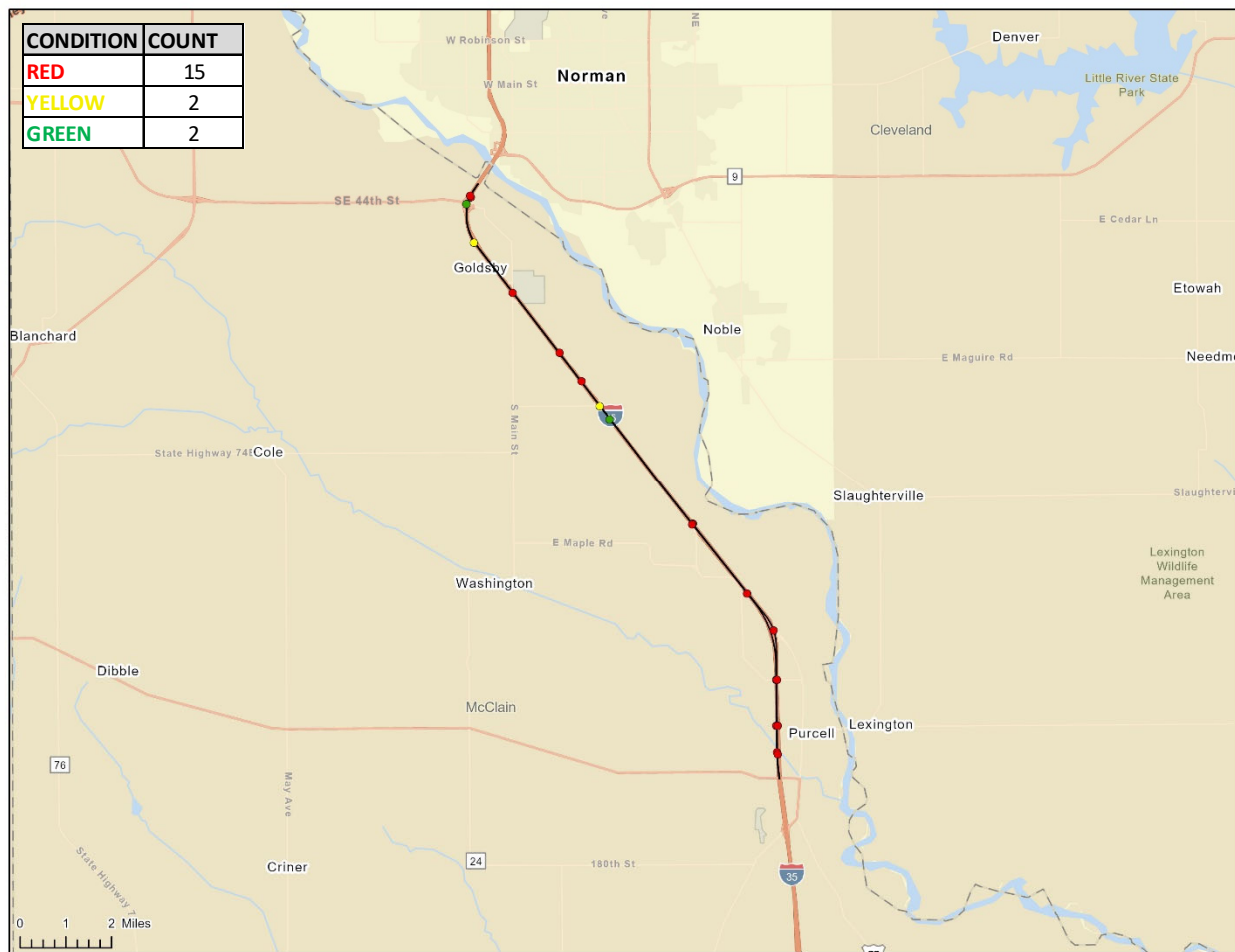


Figure 18: Bridges and their Current State – Segment #3

### 3.3.3 Collision History & Trends

Segment #3 along I-35 experienced 950 collisions from 2017-2021, averaging 12.38 collisions per mile per year within its extents. The below figure represents the collisions along this segment in heat map form, with **RED** being the highest density and **GREEN** being the lowest density. The table at the bottom of the page shows the trend in collisions when compared to traffic volumes. Data is from 2012-2021.

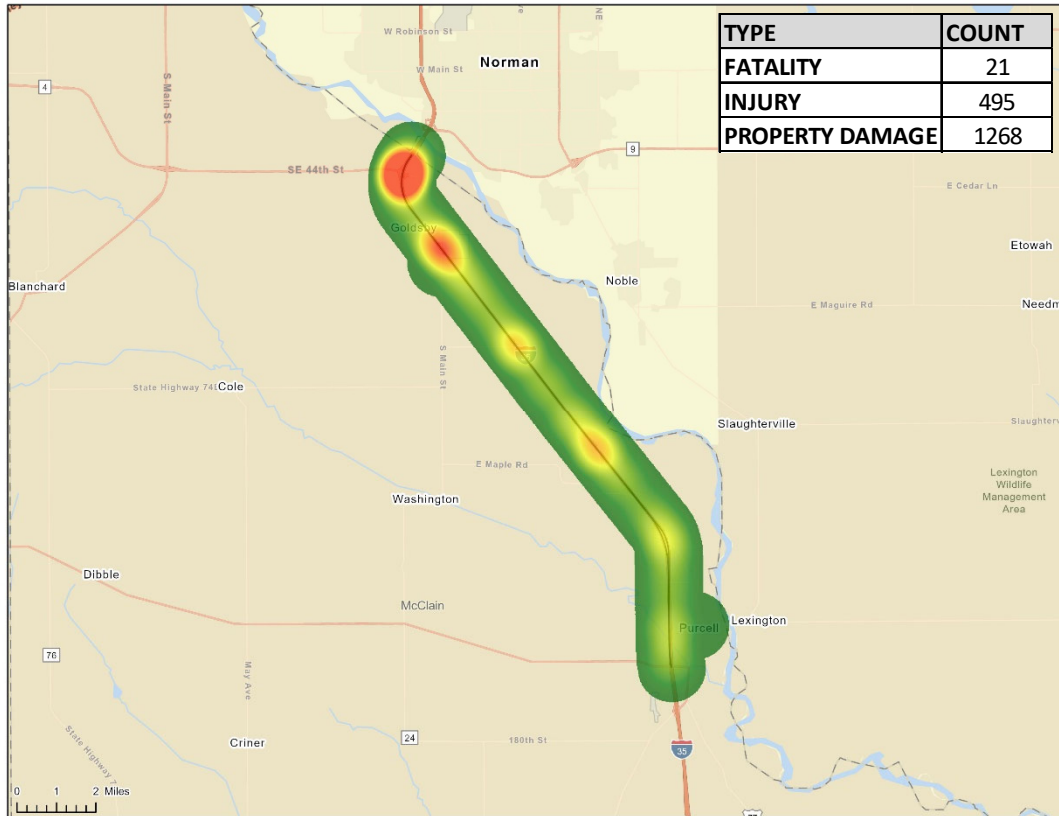


Figure 19: Collisions in Heat Map Form – Segment #3

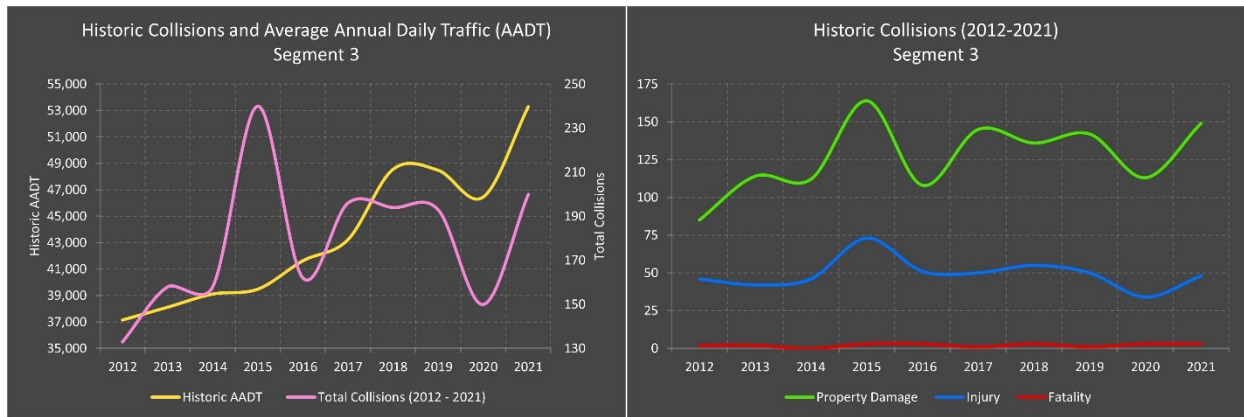
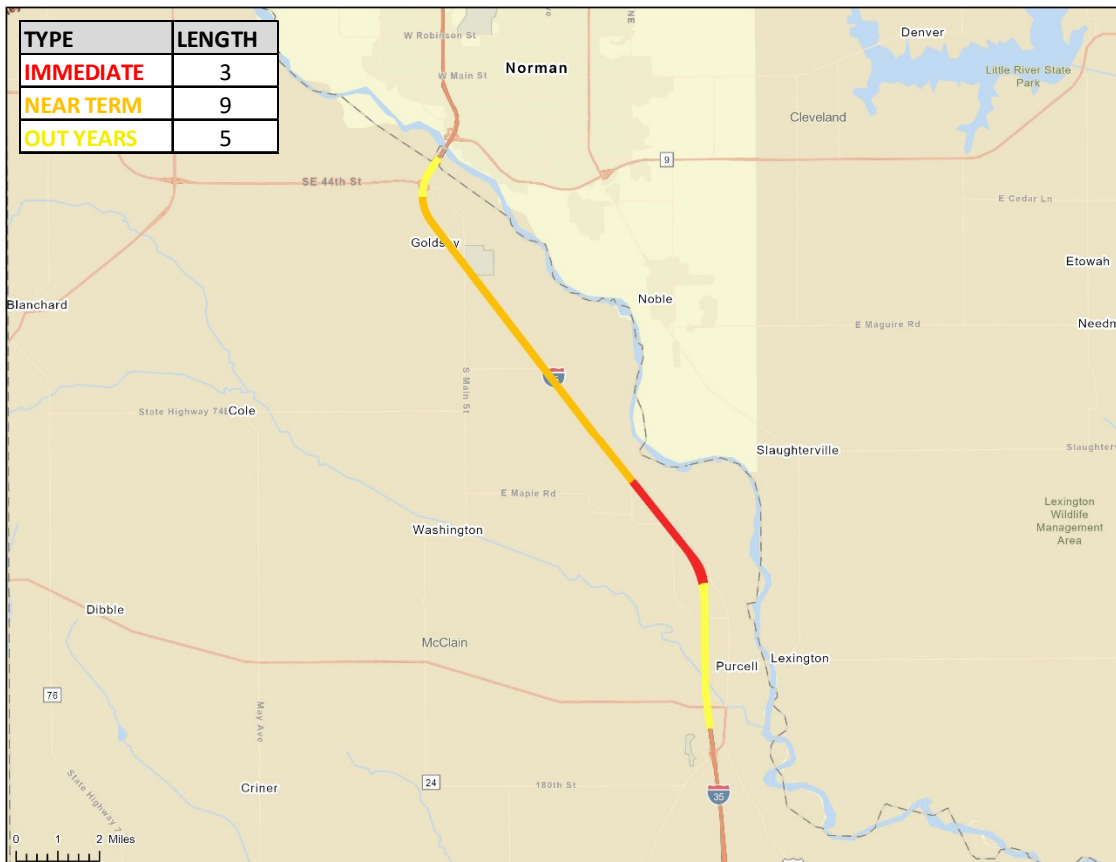


Figure 20: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #3

### 3.3.4 Capacity Needs

Given the nature of the I-35 corridor previously discussed, traffic has, and will continue to experience, consistently steep growth over the past 20 years and into the future. Evaluating the priority of needs along the corridor is paramount for the continued function of the corridor. The corridor has been separated into three categories to further illustrate the future need (all without weather or incident impacts):

- **Immediate** – areas that will need capacity improvements within 10 years
- **Near Term** – areas that will need capacity improvements within 20 years
- **Out years** – areas that will not need additional capacity for 20+ years



**Figure 21: Capacity Needs – Segment #3**

This map depicts the priority of needs along the corridor between those that are near failing conditions (**RED**) and those that need to be addressed in the near term (**ORANGE**) or in the outer years (**YELLOW**). These areas have been calculated using engineering standards based on capacity and traffic volumes in ideal conditions.

### 3.3.5 Current Projects and Corridor Expansion

The figure below shows the current, or recently awarded, projects in this segment from ODOT’s published *Eight-Year Construction Workplan* that add capacity. Knowing that there are various areas in need of widening, the ability and ease of widening the corridor to six lanes has been evaluated. The figure on the right shows how/where the corridor could be widened, inside or outside of the current pavement, with the typical sections providing detail.

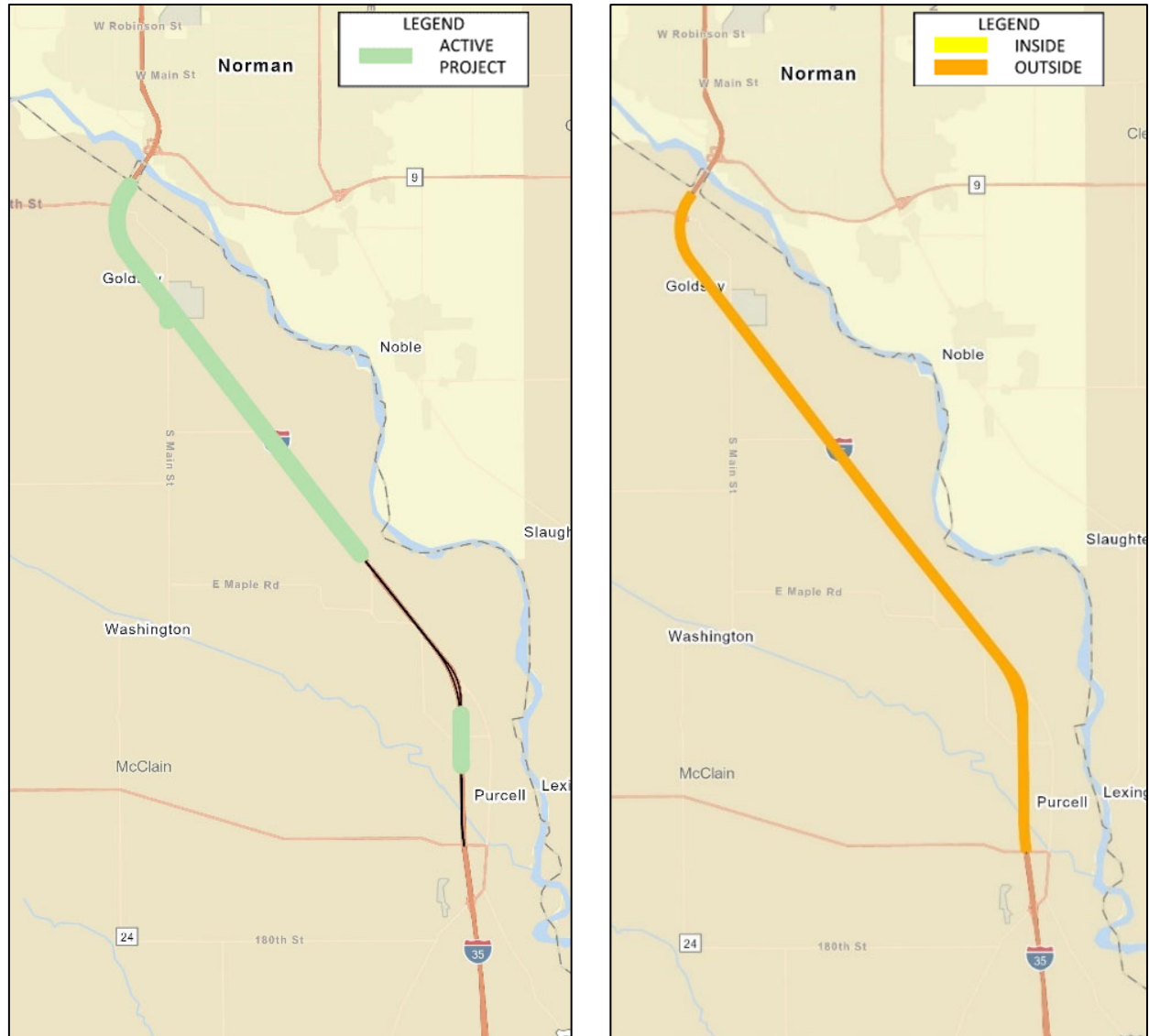


Figure 22: Current Projects and Potential Widening Method – Segment #3

### 3.3.6 Corridor Expansion and Constructability

As the south metropolitan area continues to grow south and the Texas Dallas/Fort Worth metropolitan area grows north, this linkage will continue to be a critical asset to the safe and effective travel of regional patrons. With the current capacity needs of Segment #3 being primarily in the near term, immediate needs should be evaluated from an operational enhancement side to deal with peak demand on an as-needed basis through smaller improvements. Of those near-term needs, currently **ODOT has 9.91 miles of projects programmed** within this segment, leaving approximately **5.41 miles of unplanned projects at an estimate of \$95.03 million**.

Additionally, this segment stands to gain substantial support from a regional connection through this area that would provide an additional reliever route for regional bypass traffic and freight, further changing the needs of the south Oklahoma City Metropolitan. The Oklahoma Turnpike Authority’s “ACCESS Oklahoma Long-Range Plan” references three additional routes in the area. Two of these routes referred to as the Tri-City connector and the East-West connector will complete the outer-loop around the Oklahoma City metro. The third route referred to as the “South Extension” will provide an alternate route for motorist currently traveling the I-35 corridor who are looking to continue east and north across the State without traveling through the Oklahoma City metro.

From a constructability perspective, the lack of adjacent reliever routes will necessitate additional construction phases and increased construction costs in order to maintain existing throughput during construction. The construction of these reliever routes will be a vital asset while constructing any future projects along the corridor.



Figure 23: Cost Needs – Segment #3

### 3.4 SEGMENT #4 – CANADIAN RIVER TO THE OKLAHOMA RIVER

Spanning approximately 19 miles, I-35 from the Canadian River to the Oklahoma River provides critical freight connection, commuter routes, and regional mobility through three of Oklahoma’s largest cities. Additionally, this segment of I-35 is one of the most densely developed and thriving areas in the Oklahoma City Metropolitan area, developed from right-of-way to right-of-way.

#### 3.4.1 Lane Configuration and Existing Conditions

This segment of I-35 is comprised of primarily three lanes in each direction and auxiliary lanes with inside and outside shoulders. The pavement material is mixed main line (asphalt and concrete) with asphalt shoulders. Various sections have been replaced/rehabbed within the last 20 years, but a majority of the pavement is nearing the need for maintenance or replacement in the near term. The figure below represents the current lane configurations through this segment.

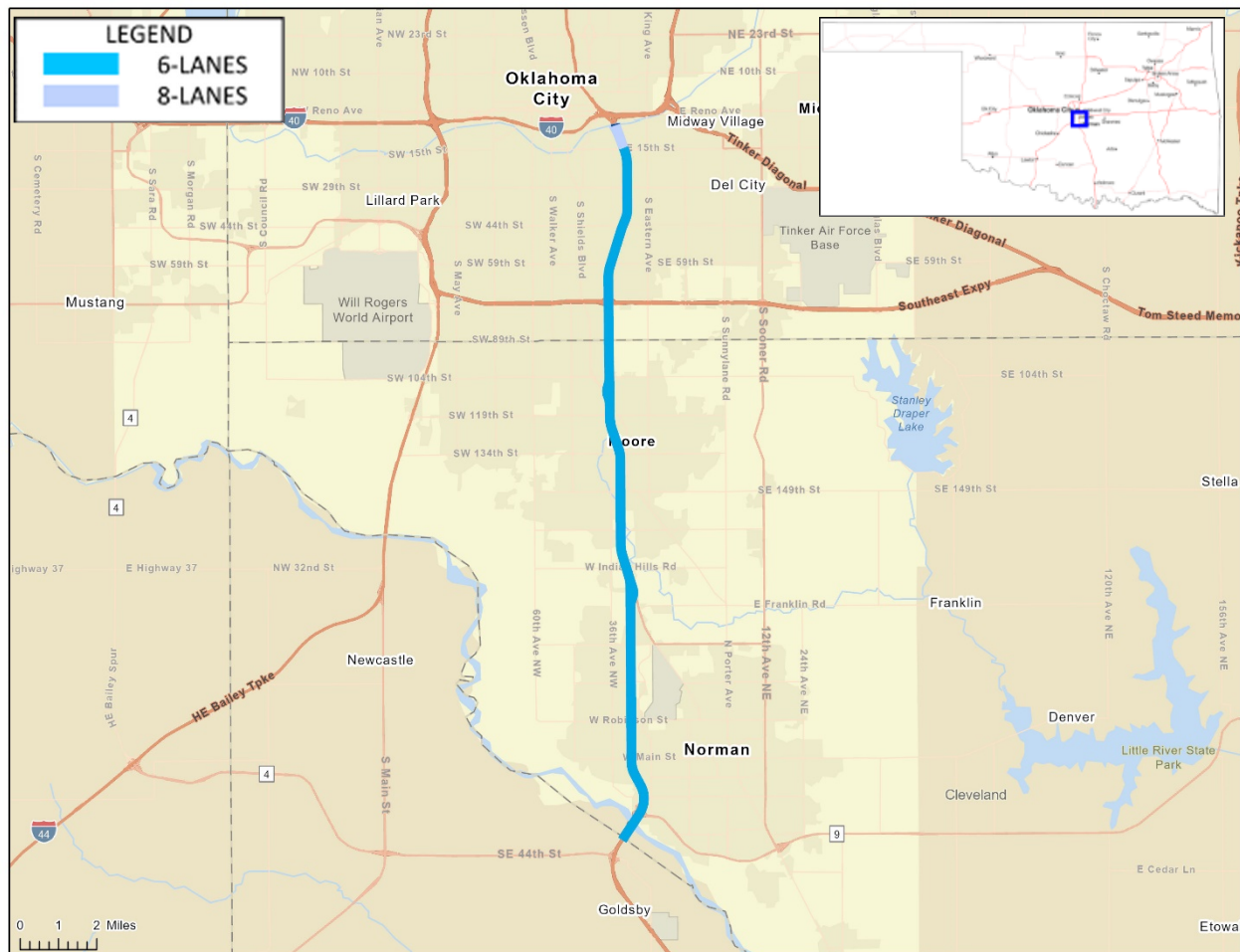
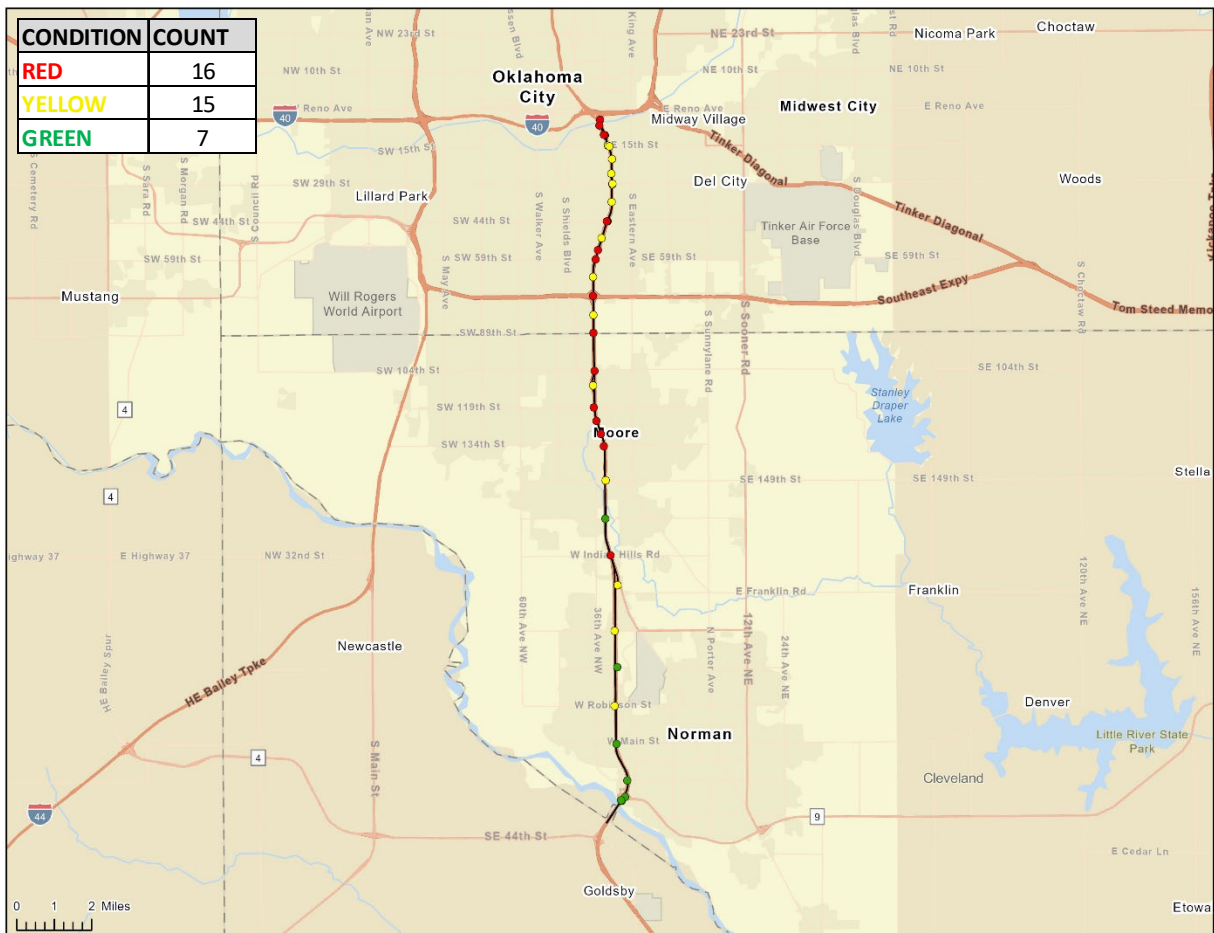


Figure 24: Current Lane Configurations – Segment #4

### 3.4.2 Bridges

Over this segment’s 19-mile length, there are 38 bridges, including bridges over and along I-35. The figure below shows each bridge’s current condition and its ability to have I-35 widened relative to their location. Each structure was conceptually evaluated and classified as:

- **RED** – Bridges that need major modification/replacement to allow for additional widening
- **YELLOW** – Bridges that need minor modification/design exceptions for additional widening
- **GREEN** – Bridges that can readily accept additional widening



**Figure 25: Bridges and their Current State – Segment #4**

### 3.4.3 Collision History and Trends

The northern segment of I-35 experienced 6,924 collisions from 2017-2021, averaging 70.94 collisions per mile per year within its extents. The below figure represents the collisions along this segment in heat map form, with **RED** being the highest density and **GREEN** being the lowest density. The table at the bottom of the page shows the trend in collisions when compared to traffic volumes. Data is from 2012-2021.

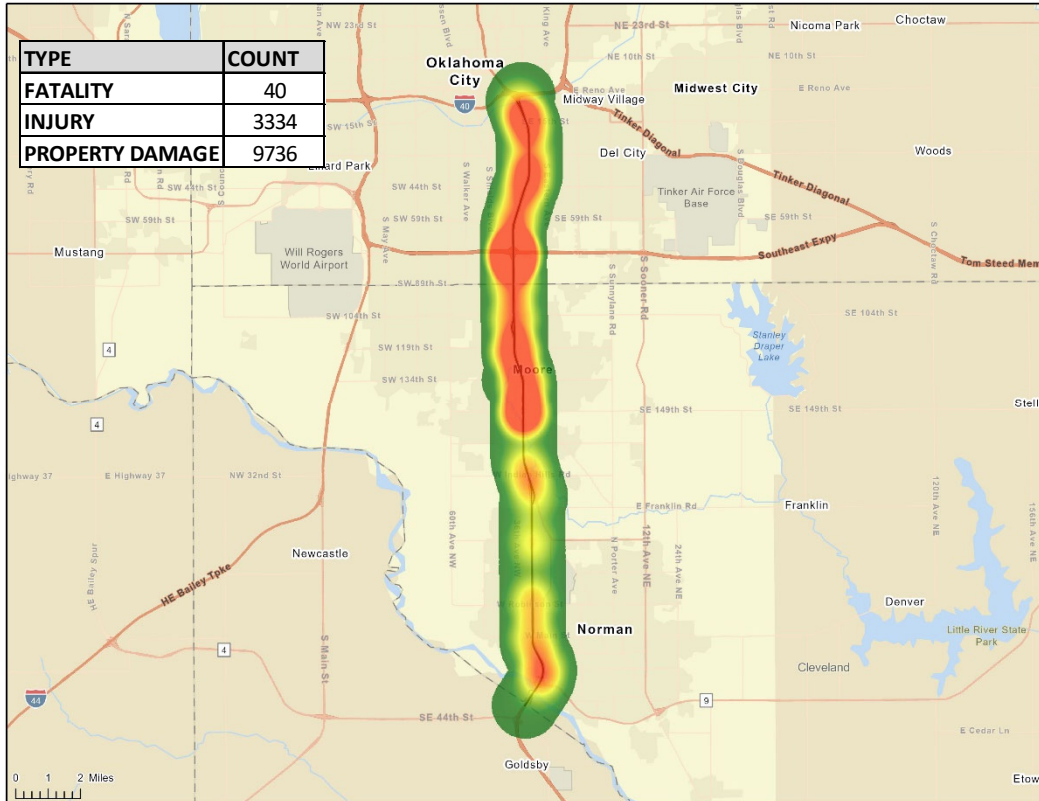


Figure 26: Collisions in Heat Map Form – Segment #4

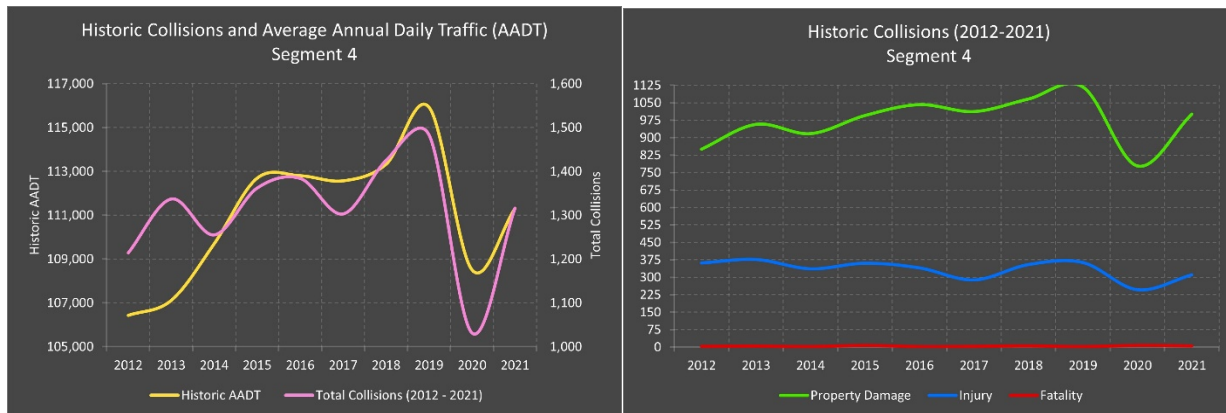
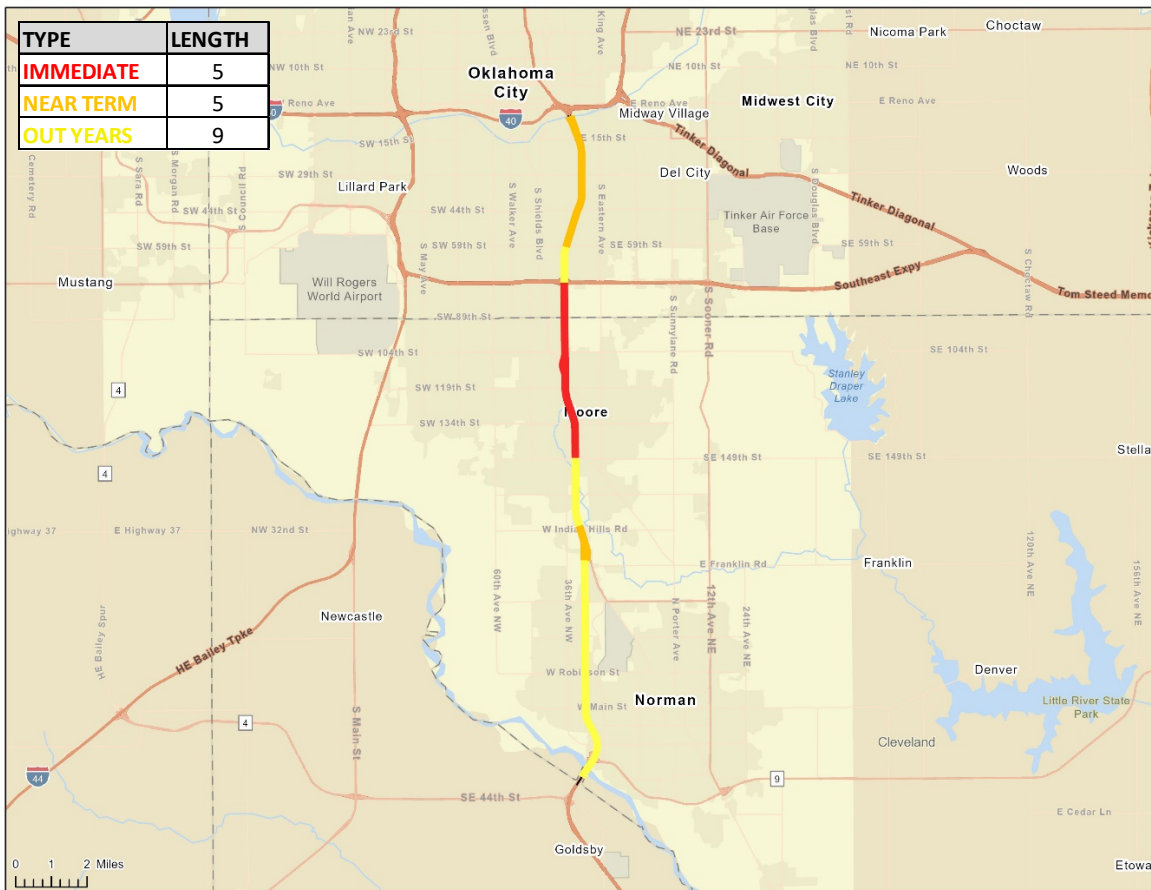


Figure 27: Historic Collisions vs. AADT and Collision Type Breakdown – Segment #4

### 3.4.4 Capacity Needs

Given the nature of the I-35 corridor, continued growth in Texas and Kansas, increased density in freight traffic and growth within the Oklahoma City Metropolitan area, traffic along the corridor has experienced consistently steep growth over the past 20 years and evaluating the priority of needs along the corridor will be paramount for the continued function of the corridor. The corridor has been separated into three categories to further illustrate the future need (all without weather or incident impacts):

- **Immediate** – areas that will need capacity improvements within 10 years
- **Near Term** – areas that will need capacity improvements within 20 years
- **Out years** – areas that will not need additional capacity for 20+ years

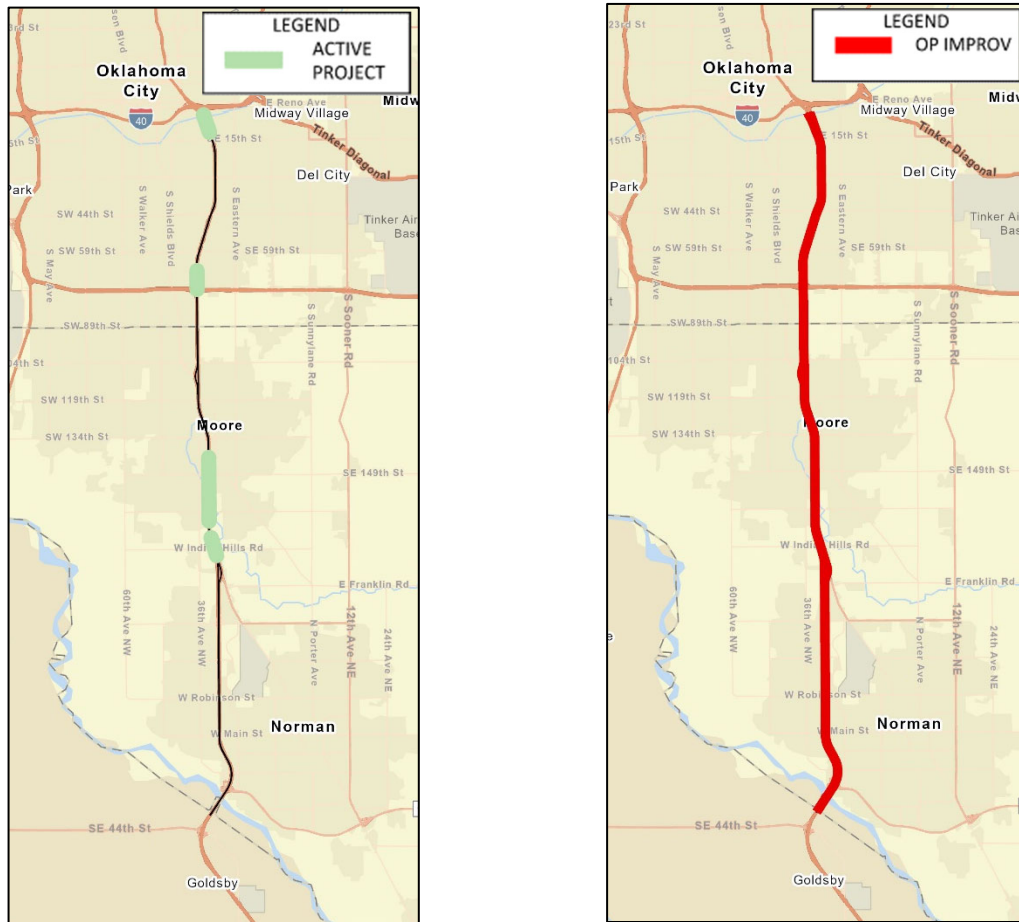


**Figure 28: Capacity Needs – Segment #4**

This map depicts the priority of needs along the corridor between those that are near failing conditions (**RED**) and those that need to be addressed in the near term (**ORANGE**) or in the outer years (**YELLOW**). These areas have been calculated using engineering standards based on capacity and traffic volumes in ideal conditions.

### 3.4.5 Current Projects and Corridor Expansion

The figure below shows the current, or recently awarded, projects in this segment from ODOT’s published *Eight-Year Construction Workplan* that add through capacity. Knowing that there are various areas in need of widening, the ability and ease of widening the corridor to six lanes has been evaluated. The figure on the right shows how/where the corridor could be widened, inside or outside of the current pavement, with the typical sections providing detail.



**Figure 29: Current Projects and Potential Widening Method – Segment #4**

Given the nature of this corridor segment and its inability to be substantially widened due to environmental, right-of-way, economic and fiscal limitations, freeway and frontage operational improvements (OP IMPROV in the figure) should be considered to include ramp configuration adjustments, additional auxiliary lanes, ramp metering, reversible lanes, and/or variable speed limits.

### 3.4.6 Corridor Expansion and Constructability

As the Central Plains Region of the country continues to show strong growth economically, the I-35 corridor will continue to be the primary north/south route to and from the coast, to the northern/central United States. ODOT works to continue evaluating and improving this segment to maintain efficiency in a safe manner, which can only be achieved through further investment and a build-out of supporting regional roadways that would aide in traffic distribution amongst the network, provide additional mobility in the event of incidents and aide in removing pass-through traffic from the network.

Additionally, the majority of this roadway segment is at or near the point of needing additional capacity to continue functioning at a safe and efficient level. Not only is safe travel for local and regional patrons needed but this corridor is critical for Oklahoma to do its part for the safe and reliable passage of commerce through the state. Currently **ODOT has 4.19 miles of projects programmed** within this segment, leaving approximately **15.99 miles of unplanned projects at an estimate of \$1.39 billion**.

This segment is faced with challenges that are not seen in other segments of I-35 due to its right-of-way constraints and dense development, pushing the region to rely on alternative route choices for normal regional travel, similar to that noted in Segment 3. This method of operation won't last indefinitely but can only serve as a band aid. Looking towards the near term, the improvements focused for I-35 will be forced toward heavy dependence on operational improvements to include ramp configuration adjustments, additional auxiliary lanes, ramp metering, reversable lanes, variable speed limits and various other operational enhancements in the absence of expandability or an adjacent reliever route.

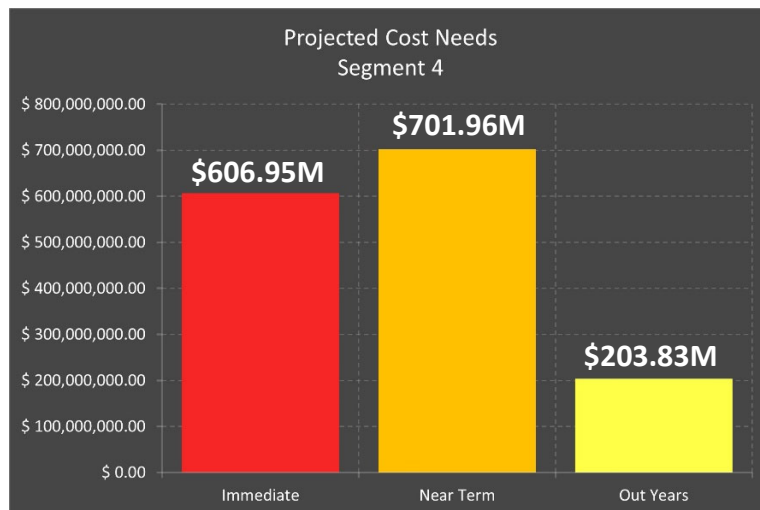


Figure 30: Cost Needs – Segment #4

## 4.0 MOVING OKLAHOMA FORWARD – RECOMMENDATIONS & NEXT STEPS

### 4.1.1 Additional Evaluations and Planning

The I-35 corridor between the Red River and the Oklahoma River is a major transportation artery in Oklahoma. With great prosperity comes great challenges as the corridor is heavily congested during peak travel times, and there are a number of areas that will need improvements in the near term in order to maintain travel time reliability.

Over the next ten years, ODOT will endeavor to make substantial progress towards this unified goal to create a safe and efficient I-35 corridor. Through these evaluations, there are various needs in the Immediate (less than 10 years), Near Term (less than 20 years) and Out Years (20 plus years) within each of the four corridor segments. Using these evaluations related to collision frequency, operational capacity, and programed versus unprogrammed projects allows for a head start on identification and prioritization of projects moving forward. Total need on the network is \$2.98 billion:



Currently **ODOT has 43.02 miles of projects programmed** within this southern portion of I-35, leaving approximately **90.74 miles of unplanned projects at an estimate of \$2.50 billion**.

To address these areas, there are various avenues available to ODOT that include evaluating/adjusting the *Eight-Year Construction Workplan* projects to align with the identified study priorities. This will ensure that the projects are focused on the areas of the corridor that are most in need of improvement. ODOT can review and evaluate life extending projects currently programmed in the *Eight-Year Construction*

*Workplan* for possible adjustment and inclusion of the ultimate segment need. This will provide the corridor with the most capacity and flexibility in the long term.

Additionally, ODOT can also identify low-hanging fruit through quick analysis for high-priority areas. This will help to make rapid progress on the most important projects. ODOT can also identify areas of constriction (i.e., overpasses that constrict/restrict widening) and assign that higher priority which will help to identify the projects that will have the biggest impact on improving the corridor but also help to remove early roadblocks to success. A primary example of this is through direct coordination with TxDOT as they plan to approach the border with six lanes and an ultimate build out of eight lanes. To maintain flow through Oklahoma, ODOT will need to match TxDOT's plans and depending on the rate of growth, if TxDOT expedites the eight-lane timeframe this will further push a sense of urgency towards expanding I-35 further north into Oklahoma. This further illustrates the criticality and need for adequate and reliable reliever routes adjacent to the I-35 corridor, such as additional turnpikes in the Metro area and sufficient US highways in the middle segments and a matching section and investment crossing the border.

By leveraging these steps, ODOT can systematically move towards evaluating and programming these improvements to create a more efficient and reliable transportation artery for Oklahoma.

#### 4.1.2 Execution Strategy

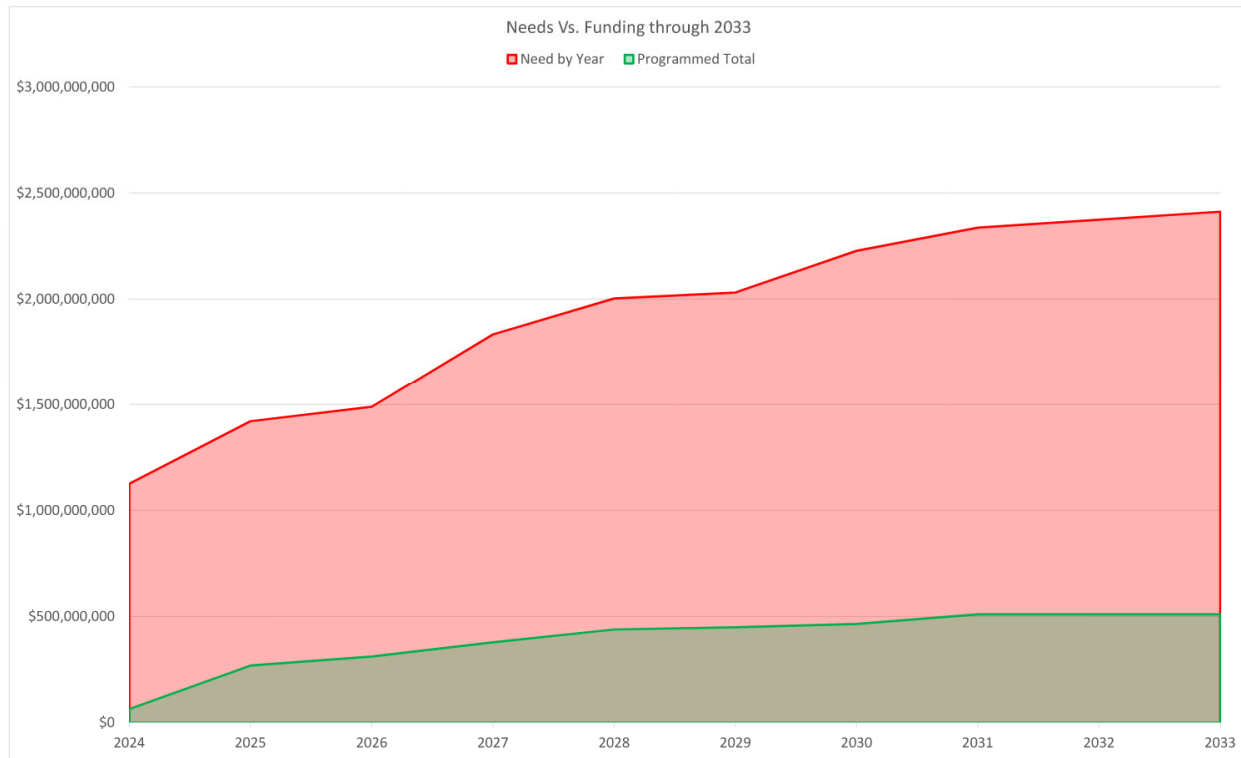
Projects entering the system will need to be strategically evaluated to assess priority and need based on the above defined criteria (safety, operations, impact). ODOT will focus on getting projects shovel ready through various means such as grouping priority segments that can be constructed concurrently with separation to avoid one project having an impact on another but maximizing impact and progress. ODOT's ultimate goal is to use a programmatic approach to prioritization of projects to have them "shelf ready" and prepared for funding opportunities under a goal of five years of projects.

Furthermore, ODOT is developing a programmatic approach to standard project development elements that have a longer lead time for execution, in an attempt to further remove proverbial roadblocks. This will help to reduce the overall timeline for the project.

By taking these steps, we can validate that the I-35 corridor will be improved in a timely, cost-effective, and environmentally sensitive manner through an effective execution strategy and "shelf-ready" projects.

### 4.1.3 Funding Strategies

A funding strategy for improvements along the I-35 corridor will need to be comprehensive and include a mix of local, state, and federal funding sources. This current difference in funding is a critical need along the corridor that will result in a funding gap, expanding over time that will further exacerbate the challenge of maintaining an acceptable level of service along the corridor.



**Figure 31: Corridor Funding Gap**

In the near term, it will be important to identify available funding and overlap from ODOT’s *Eight-Year Construction Workplan*. ODOT has already identified a number of projects along the I-35 corridor that are eligible for funding from this workplan, providing a strong starting position for the strategy.

Additionally, to ensure long term, sustained success, federal, state, local, tribal, industry, and other stakeholders must be identified. Support from and collaboration with these stakeholders, who may participate financially or offer other means of support, will be critical to the implementation of the strategy. A successful funding plan will include significant engagement with and support from local and tribal leaders as well as Oklahoma’s executive state leadership, the state legislature, and its congressional delegation.

New and creative funding solutions along with strategic stakeholder partnerships can help bridge the gap to provide non-federal matching dollars. Close coordination with the Oklahoma congressional delegation must focus on increasing formula allotments from USDOT, matching projects with available grant and loan programs the potential role of congressionally directed funding.

By following these steps, we can develop a funding strategy that will help to make the I-35 corridor a financial reality.

#### 4.1.4 Conclusion and Next Steps

The I-35 corridor is a critical transportation artery in Oklahoma and the Nation, and it is important to improve the corridor not only to handle the traffic capacity, but to restore it as the premier facility that provides safe, efficient travel for the public. I-35 currently serves as, and has the ability to remain with investment, a quality corridor that greatly impacts the central United States from border to border for many years to come. Having a coordinated, systematic approach to programming the I-35 corridor will allow for a more seamless transition to the investments being made by TxDOT to the south and to support the continued growth through the region. Failure to prepare for the future has the potential to have a lasting impact on the financial viability of those living near the corridor and the future vitality of Oklahoma. The primary corridor needs, now and into the future, are:

- North and South Ends, Texas border north and OKC metro south – growth is pushing the corridor to a critical point
- OKC metro is capacity limited – inability to efficiently/effectively add lanes to the OKC metro section of I-35 pushes the need for reliever routes
- Optimization of the existing system – adding operational enhancement at interchanges, auxiliary lanes, lane continuity among other things, would allow the corridor to operate more efficiently

In order to progress this plan forward, the identified next steps are:

- Go live with the I-35 dashboard
- Find our champions across all sectors of government, industry, Tribes and citizens.
- Develop a detailed, segment specific approach and best practices such as: maintain 2 lanes each direction at all times

- Establish a corridor team to oversee the plan's rollout and implementation. This team could be multiple people from ODOT leadership, Divisions and District representatives as well as state leaders, business leaders, municipalities and industry professionals. Should include a coordinator with transportation, business and political acuity.
- Re-evaluate the corridor on a yearly basis