NMDOT

District 2 Routes Impacted by Southeast New Mexico Industries

Conditions and Future Projects

Francisco Sanchez, P.E. District 2 Engineer

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District 2:

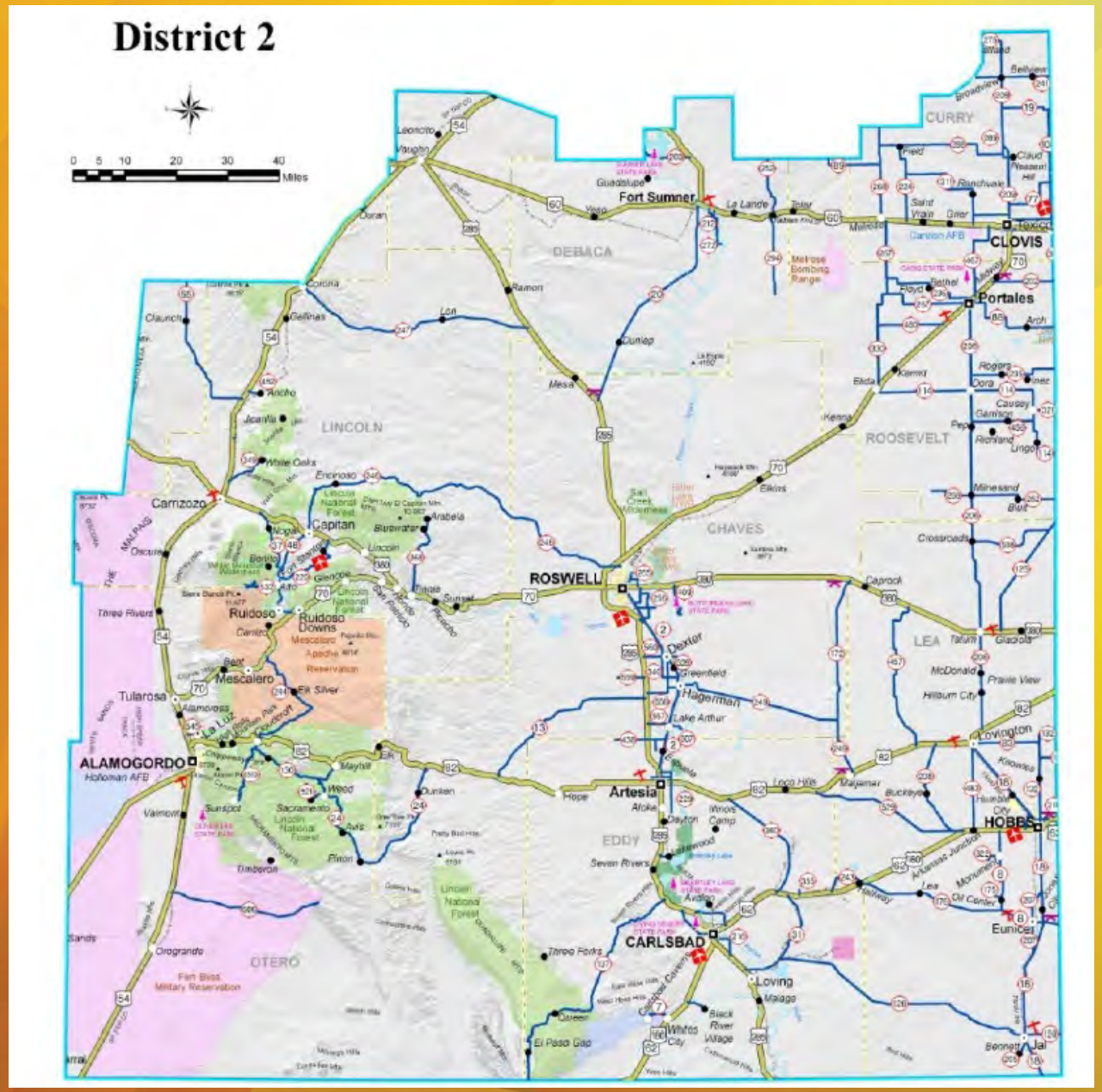
Chaves, Lincoln, Otero, Eddy, Lea, Roosevelt, Curry, De Baca, and parts of Guadalupe and Torrance Counties

7750 lane miles, with the most 4 lane non interstate miles in the State

137 communities served

16 maintenance patrol yards, 2 special crews, 6 project construction offices

329 FTE's, 185 maintenance, 76 construction, 47 business support and 21 engineering



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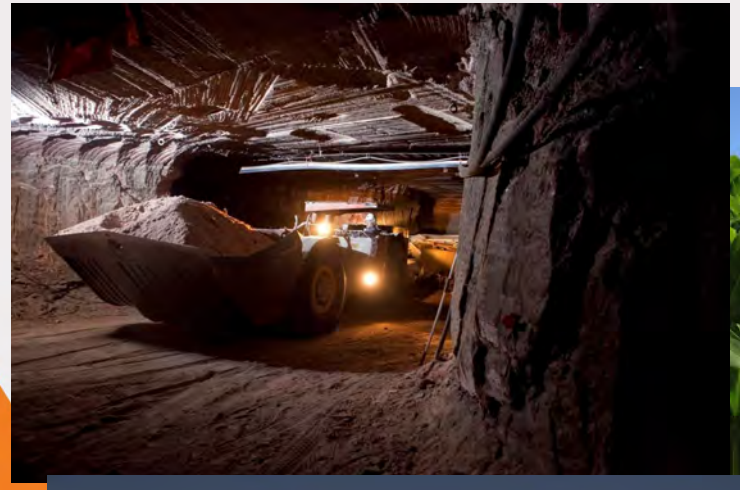
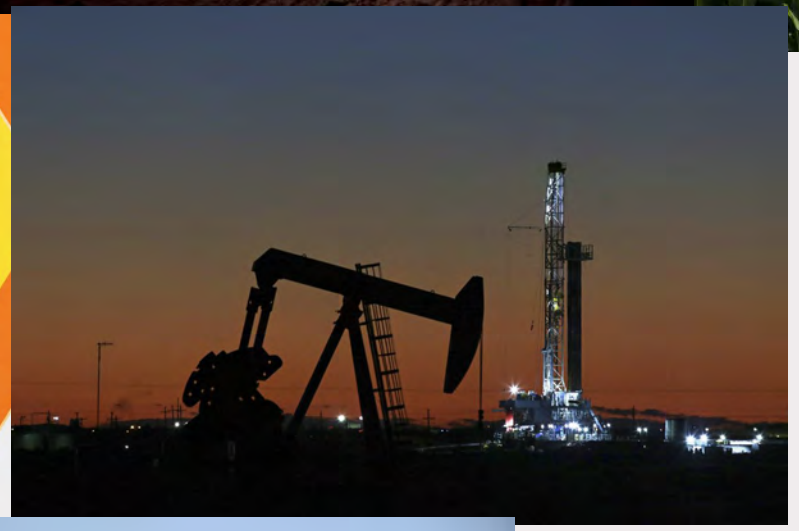
Regional and Local Context

SE New Mexico's economy is heavily tied to potash mining, farming, ranching, petroleum and natural gas extraction.

These industries require truck freight to haul industrial goods to sites and transport products out. The increased need for truck freight transport throughout SE NM in recent years has created growing concern around maintenance of the road infrastructure and public safety issues associated with heavy commercial truck crashes.





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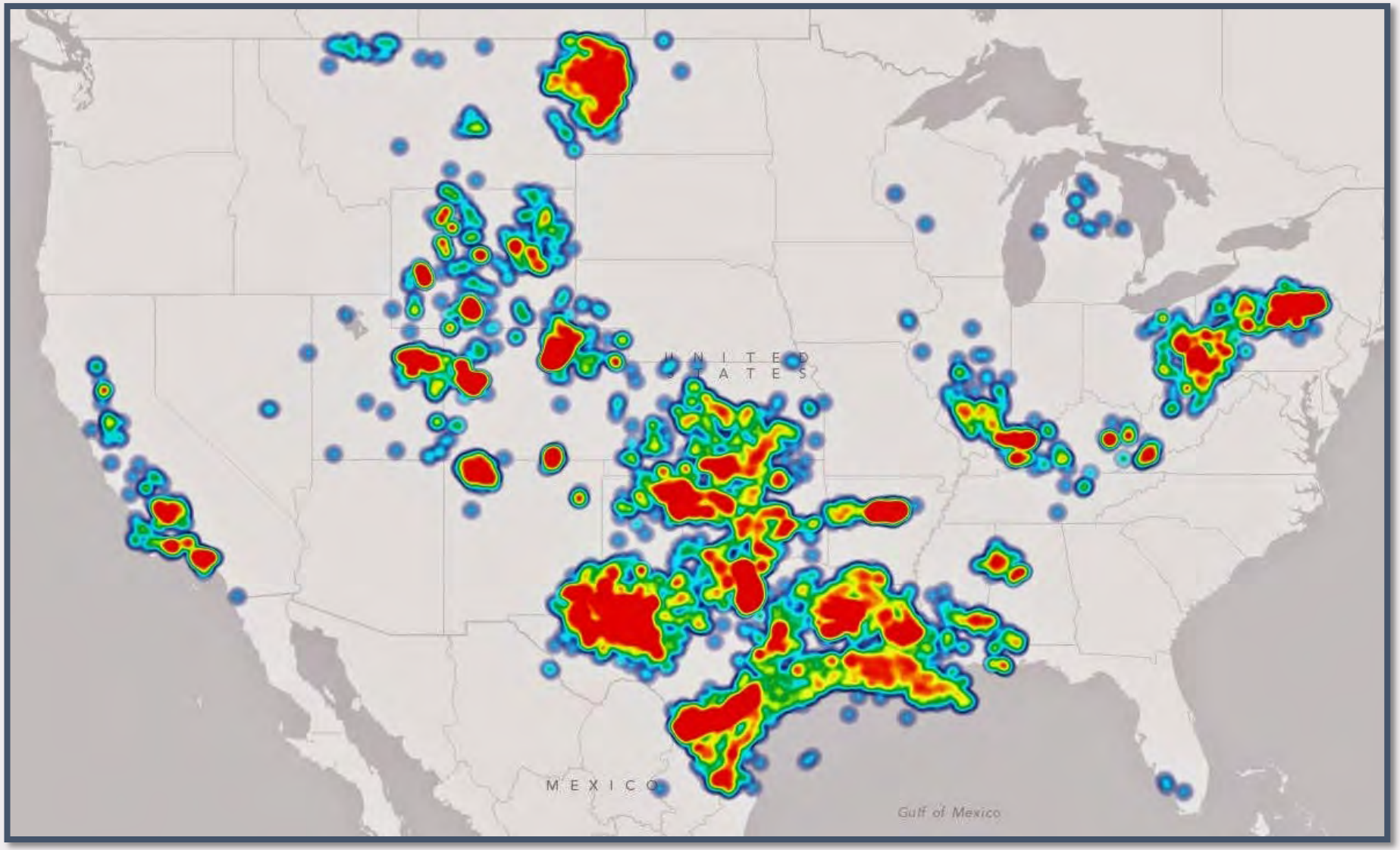
Permian Oil and Gas Basin



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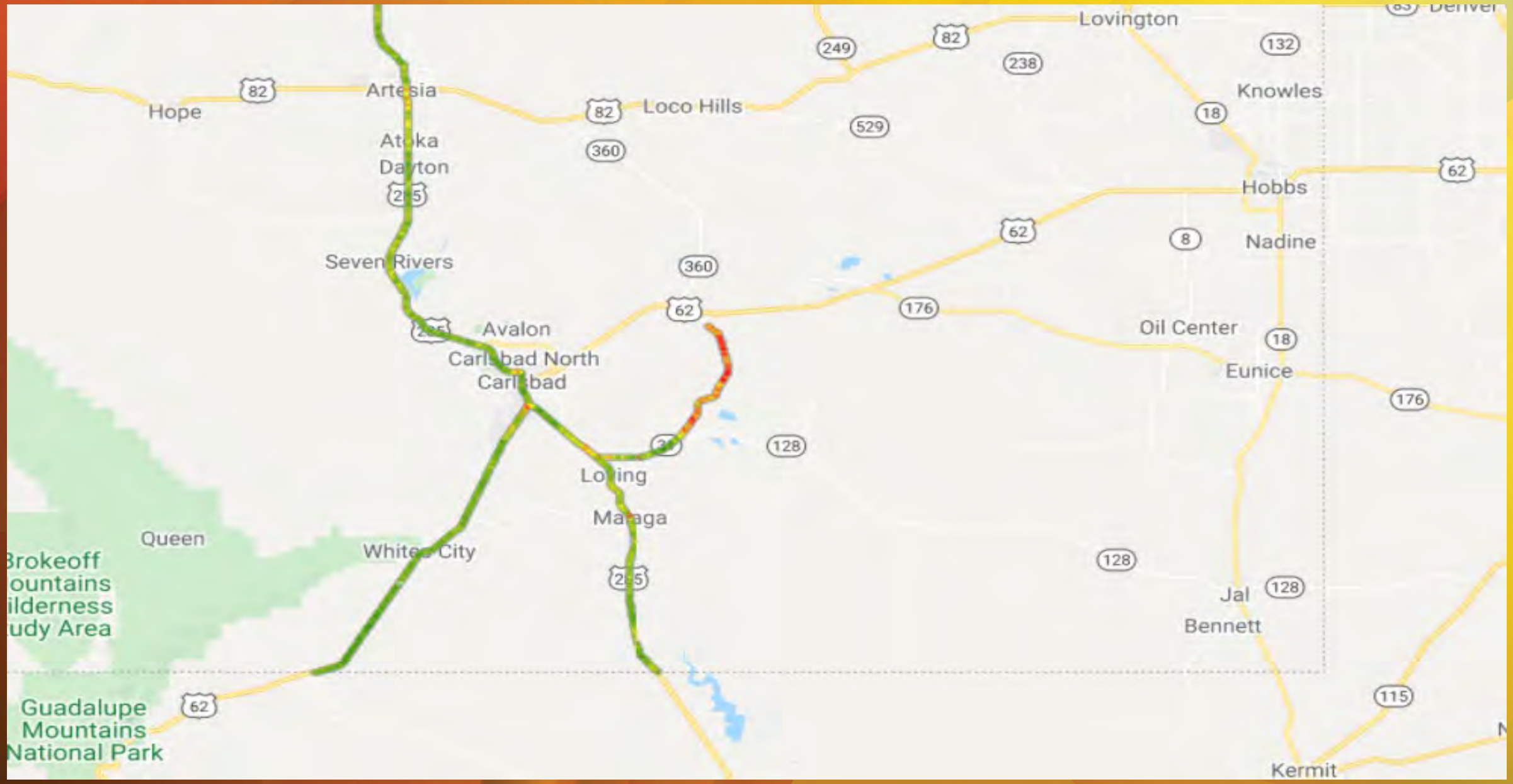
Rural Route Network



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Pavement Condition Rating (PCR)

The Pavement Condition Rating (PCR) is an index developed specifically by NMDOT. It is a composite measure of the overall distress and roughness related health of the pavement section. PCR is described using a 0-100 scale, where 0 is the worst condition and 100 is the best condition, to determine the roadway condition.

PCR Range	Condition	Suggested Treatment
86-100	Very Good	Monitor – none to minor preservation, fog seals or other surface coats.
66-85	Good	Major preservation, overlays – to minor rehabilitation, thin mill and inlay.
51-65	Fair	Minor to major rehabilitation – mill and inlay between 2.5 and 5 inches
46-50	At Risk	Minor to major rehabilitation
26-45	Poor	Major rehabilitation 5 inches deep to PPC, FDR
0-25	Very Poor	Reconstruction

FHWA Guidelines

Pavement Condition	Roughness (IRI)* (inches/mile)	Rutting** (inches)	Cracking Percent *** (%)
Good	<95	<0.20	<5
Fair	95 - 170	0.20 - 0.40	5 - 20
Poor	> 170	> 0.40	> 20

*IRI is a statistic used to estimate the amount of roughness in a measured longitudinal profile measured in inched per mile.

**Rutting is the average rut depth of both wheel paths.

***Cracking percent is the percent area with fatigue type cracking of all severity levels in the wheel paths within the total section area.

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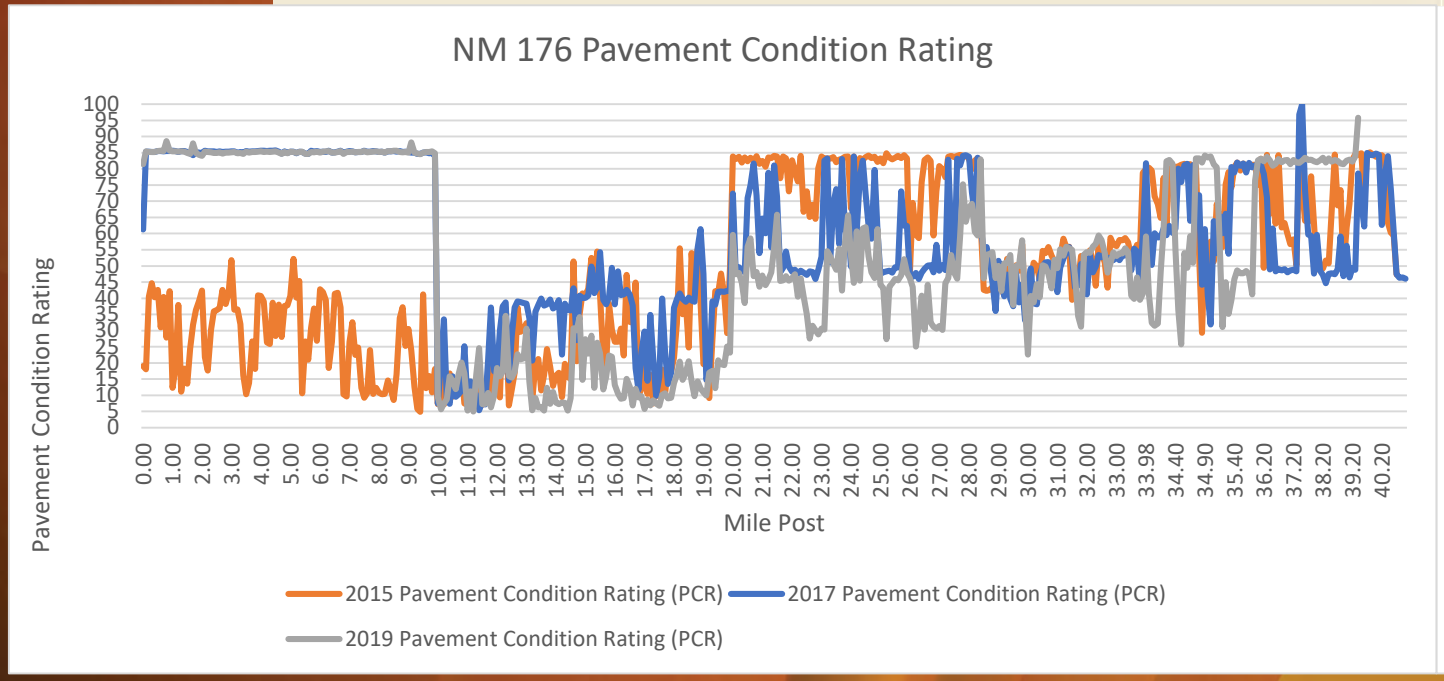
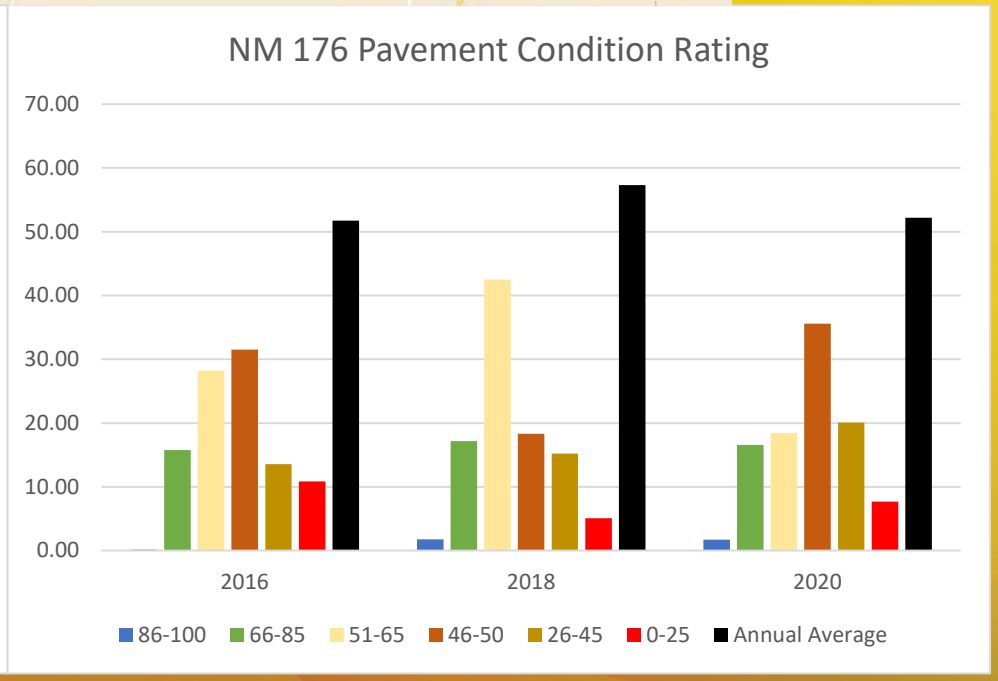
NM 176 Pavement Conditions






PASS
WITH
CARE

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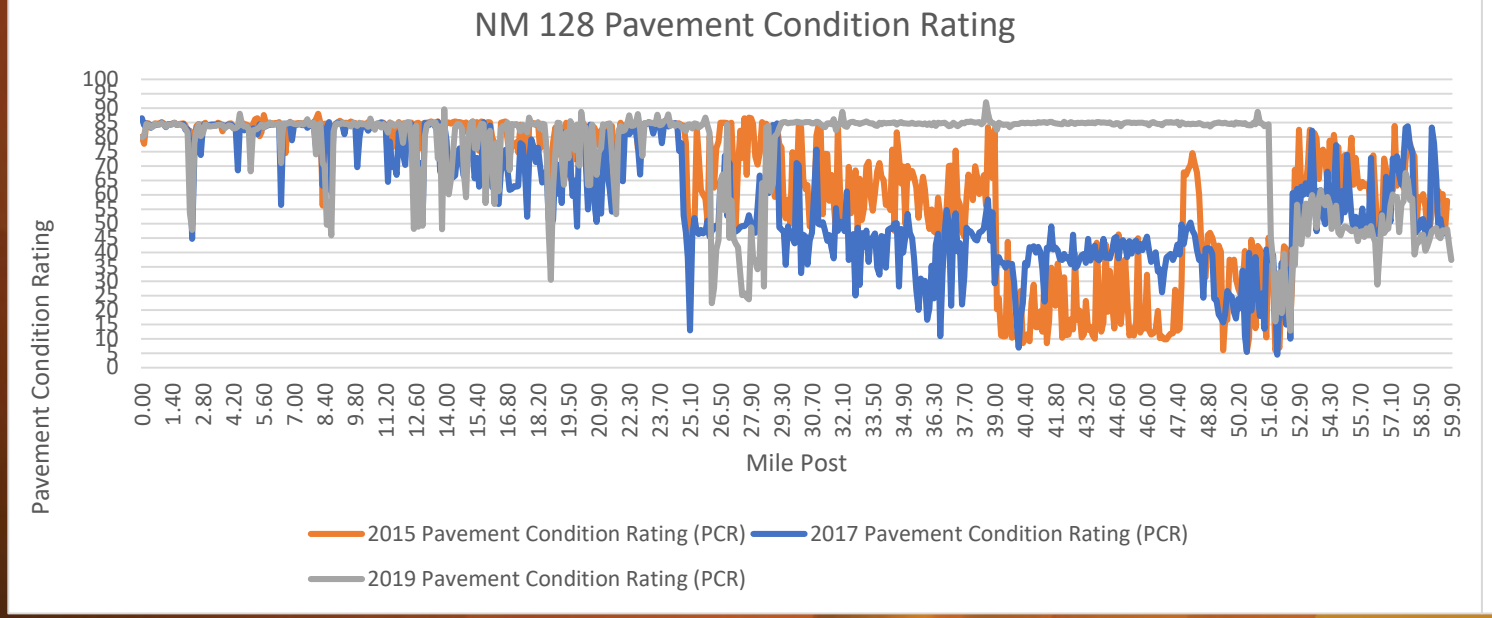
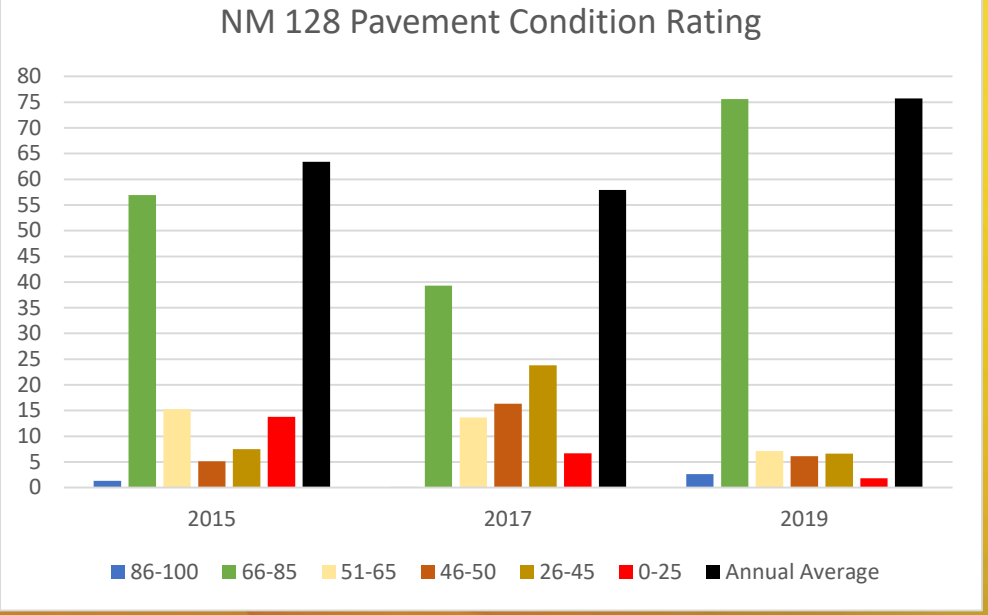
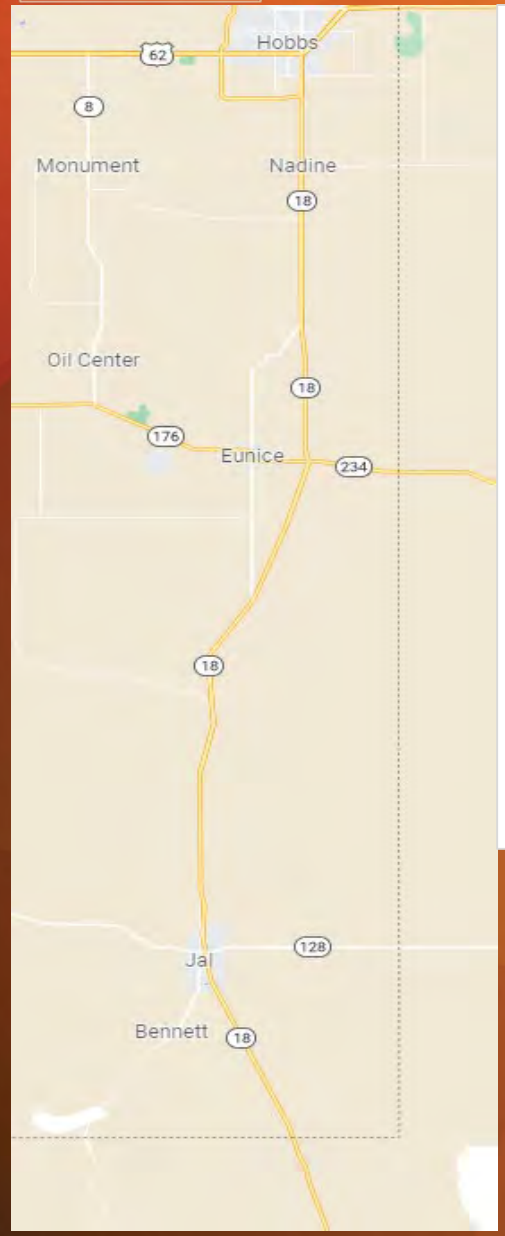
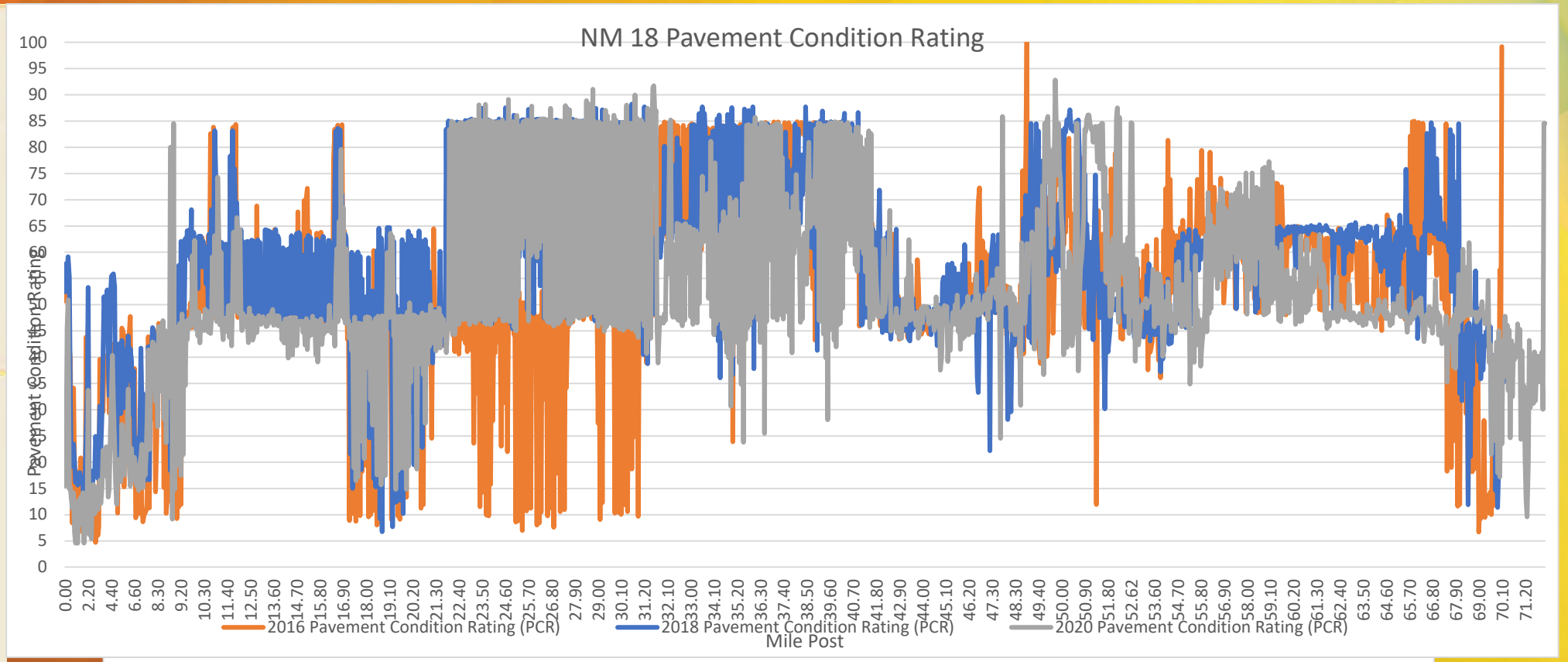
NM 128 Pavement Conditions

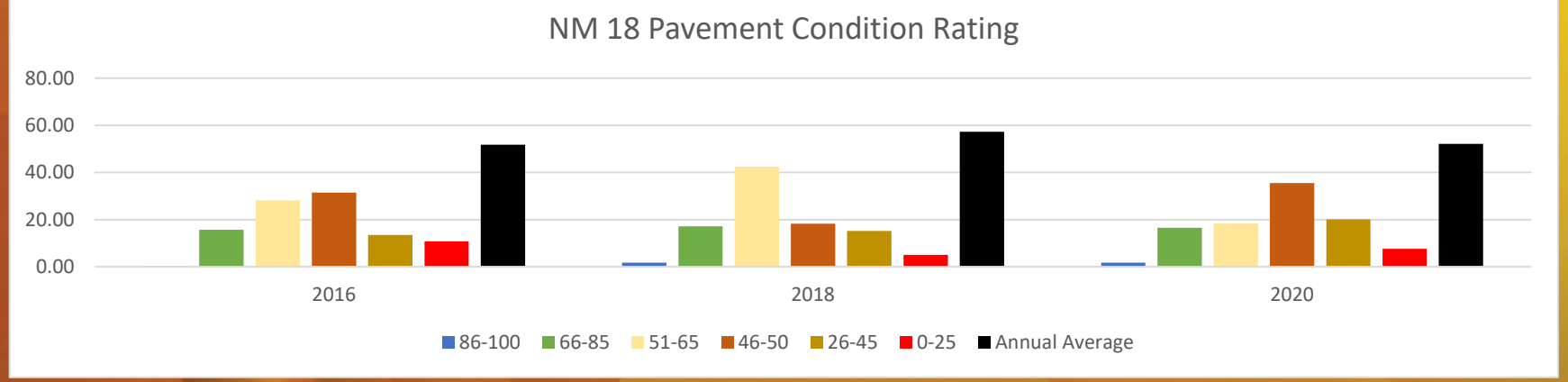




NM 18 Pavement Conditions







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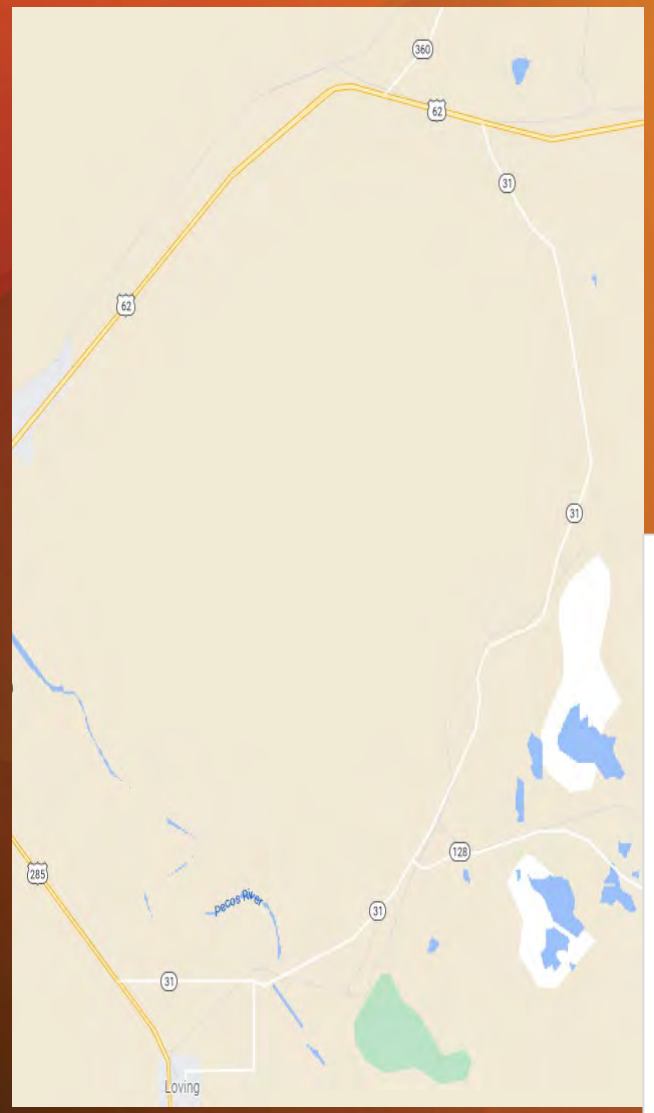
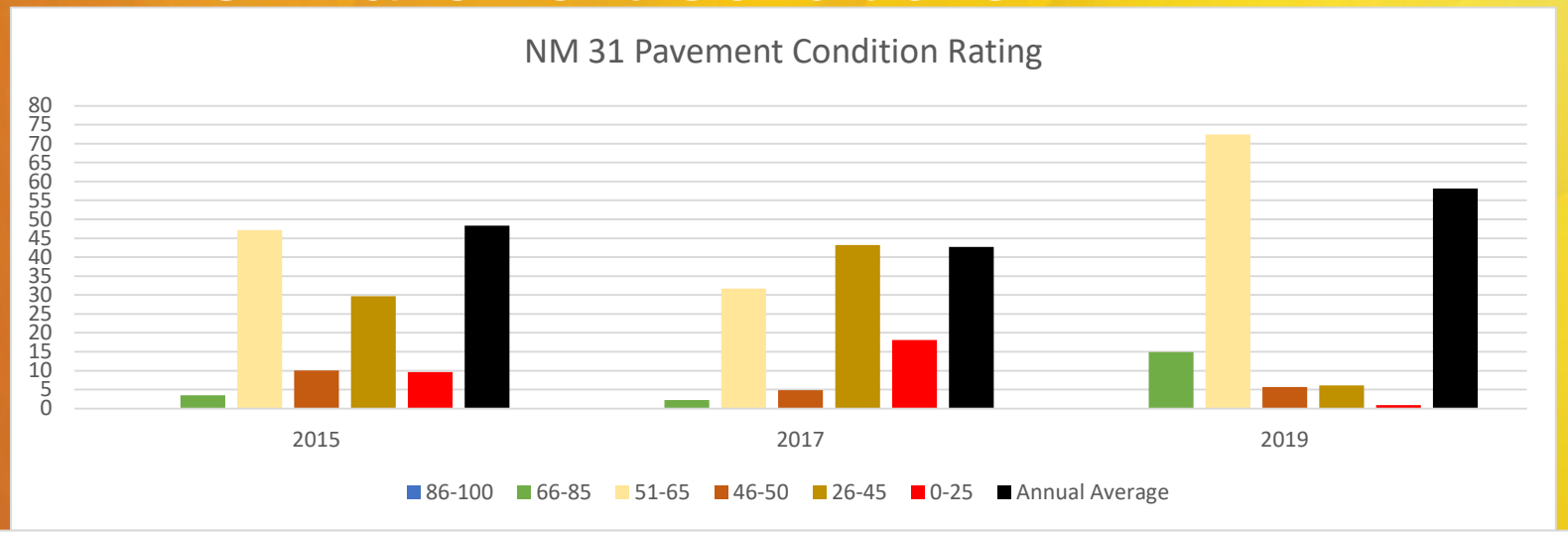
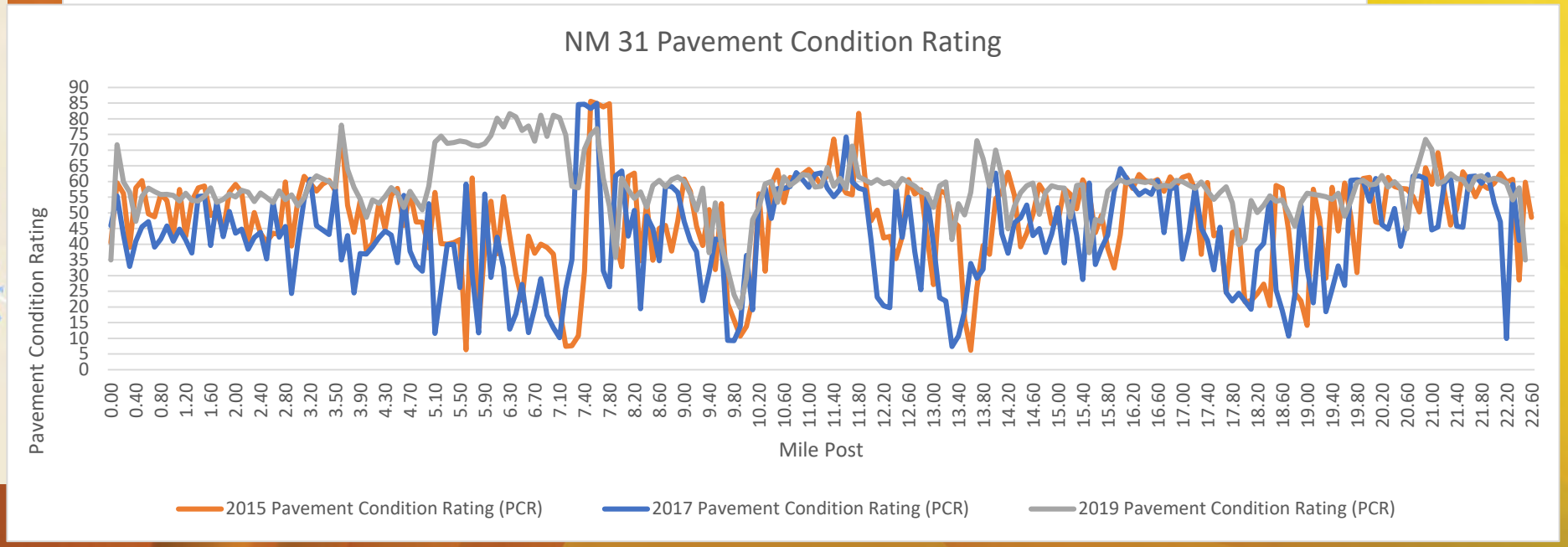
NM 31 Pavement Conditions







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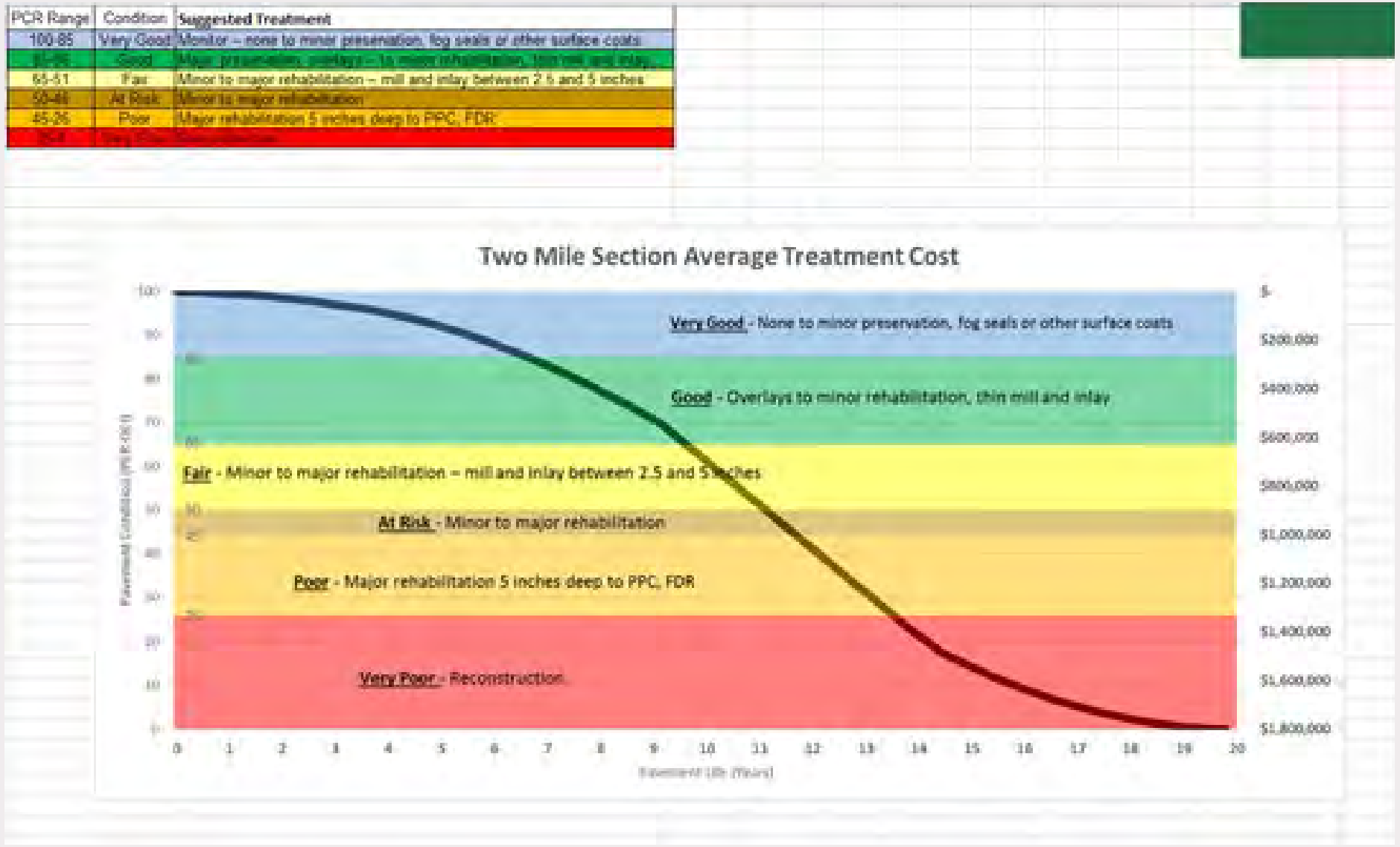
Pavement Deterioration Curve

PCR Range	Condition	Suggested Treatment
100-85	Very Good	Monitor – none to minor preservation, fog seals or other surface coats
84-66	Good	Major preservation, overlays – to minor rehabilitation, thin mill and inlay
65-51	Fair	Minor to major rehabilitation – mill and inlay between 2 ½ and 5 inches
50-46	At Risk	Minor to major rehabilitation
45-26	Poor	Major rehabilitation 5 inches deep to PPC, FDR
25-0	Very Poor	Reconstruction



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Critical Oil and Gas Routes: Completed and Current Pavement Projects Last 5 years

NM 18 MP 22 – 31.8
- South of Eunice
- STIP District Target Funded
- Contract Amount: $11.8M

NM 128 MP 38.8 – 51.6
- Northwest of Jal
- STIP District Target Funded
- Contract Amount: $6.4M

NM 18 MP 0 – 7.6
- Texas Stateline to Jal City Limits
- STIP District Target Funded
- Contract Amount: $2M

NM 176 MP 10 – 26.3
- Pavement Rehab., Widening, Addition of Shoulders and Drainage Improvements
- Ongoing Construction
- STIP District Target Funded
- Contract: $19.1M

NM 128 MP 11.8 – 28.8
- Pavement Rehab
- HB 6 Funded
- Contract: $12.5M

NM 128 MP 28.8 – 38.8
- Pavement Rehab
- State Maintenance Bureau Funded
- Contract Amount:$6M

NM 176 MP 0 – 10
- Pavement Rehab., Addition of Shoulders
- Ongoing Construction
- STIP District Target Funded
- Contract: $8M

Total Investment = $65.8M

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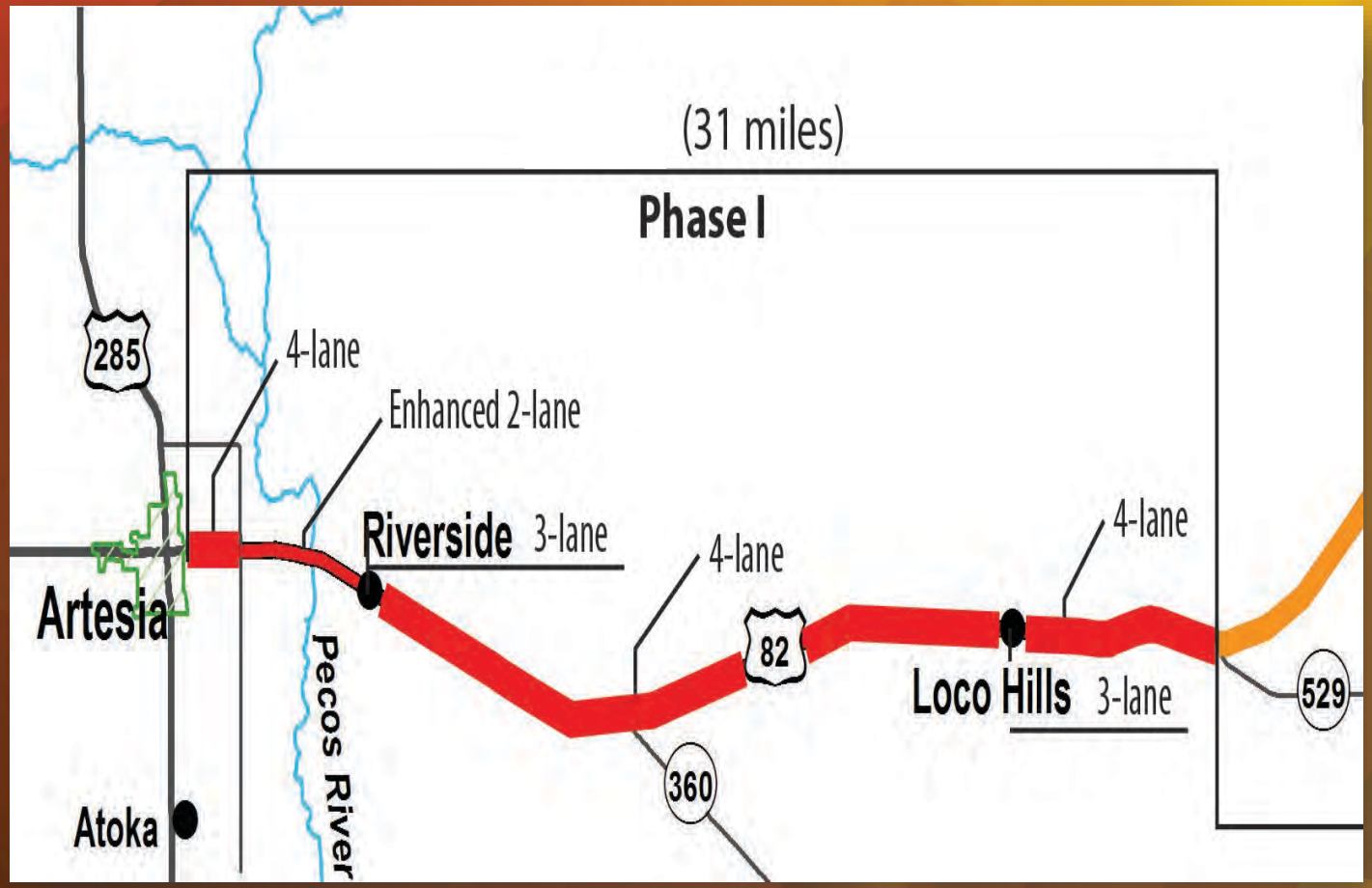
US 82 – CN 2101771 Major Infrastructure Project Completed



Total Investment = $62 M

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US 285 – Current Major Infrastructure Improvement Projects: CN 2102161 and CN 2102164

Mile Post 0 to 7.5 – Roadway Reconstruction and Bridge Replacement
$47.9 M
HB2 and HB6 Funds

Mile Post 16.2 to 17.9
Bridge Replacement
$17.5 M
HB6 and BUILD Grant Funds

NMDOT

Upcoming US 285 Major Infrastructure Improvement Projects

US 285 MP 7.7 – 17.2: CN 2102162

- Roadway Reconstruction, Bridge Replacement
- HB 6 Funds
- Estimated Project Cost - $48 M
- Letting Date – October 2021

US 285 MP 17.2 – 22

- Roadway Reconstruction, Bridge Replacement, Roadway Lighting and Traffic Signal
- STIP District Target Funds
- Estimated Project Cost $36M
- Letting Date – January 2022

Total Investment = $84 Million

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NM 31 and NM 128 Background

NM 31/128 Design-Build Project

NM 31, also known as the Potash Mines Road, is a rural two-lane north-south roadway connecting US 285, also known as the Pecos Highway, to US 62/180, also known as the Pecos Highway, just east of Carlsbad – a distance of approximately 22.7 miles.

NM 128, also known as the Jal Highway, is a rural two-lane east-west roadway connecting NM 31 to Texas with an urban section through Jal, also known as Kansas Avenue – a distance of approximately 59.9 miles.

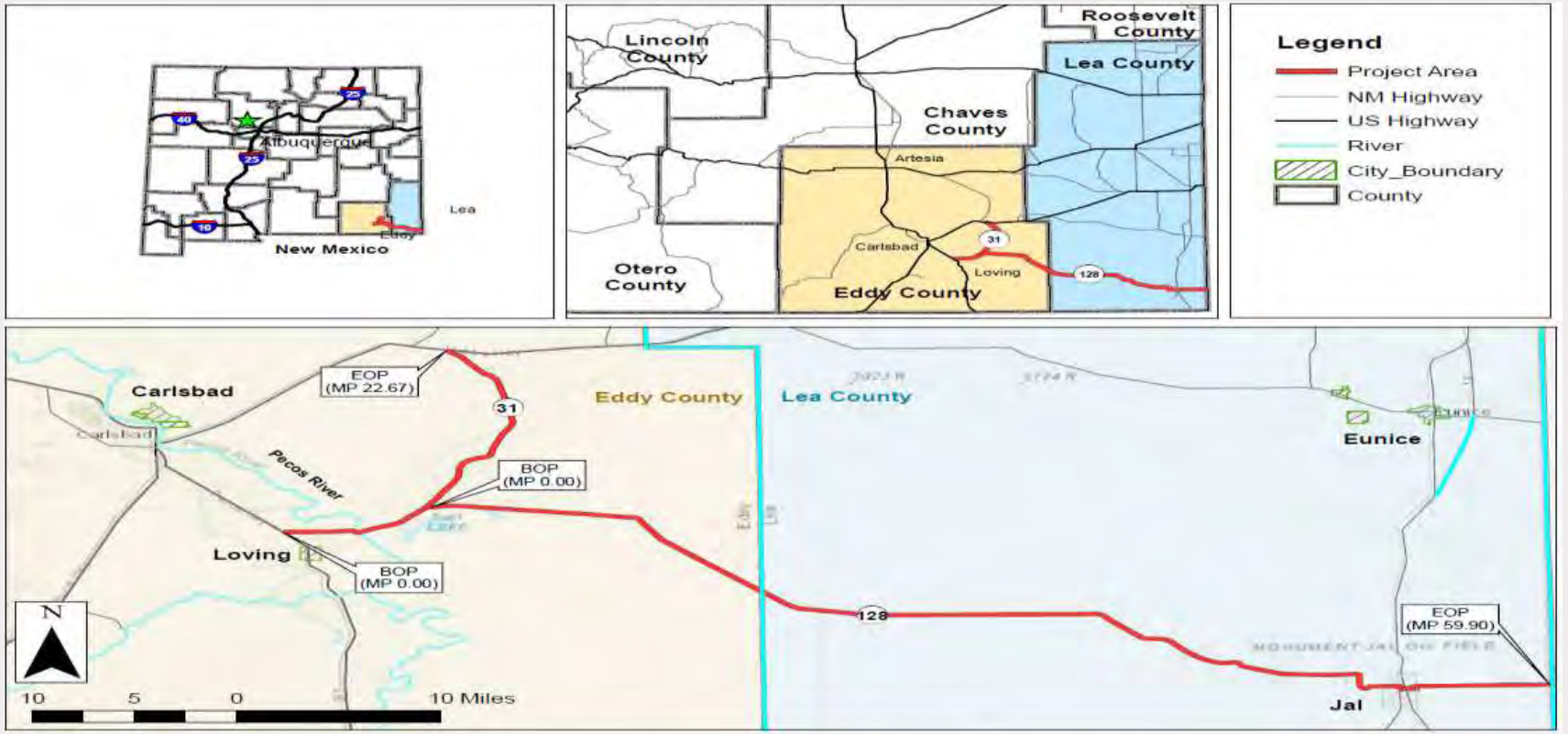
NMDOT

NM 31 and
NM 128
Background

NM 31/128 Design-Build Project

Both roadways pass through largely unpopulated semi-arid lands but are part of a major supply route network for local oil and gas production/exploration operations within southeastern New Mexico within Eddy and Lea counties.

Both roadways are classified as Major Collectors, which connect urban areas with populations over 5000, serve traffic generators typically of intra-county importance (ex. Consolidated schools, employment centers, mines, regional parks), but may also cross county boundaries and tend to collect traffic from local roads to rural minor arterials.



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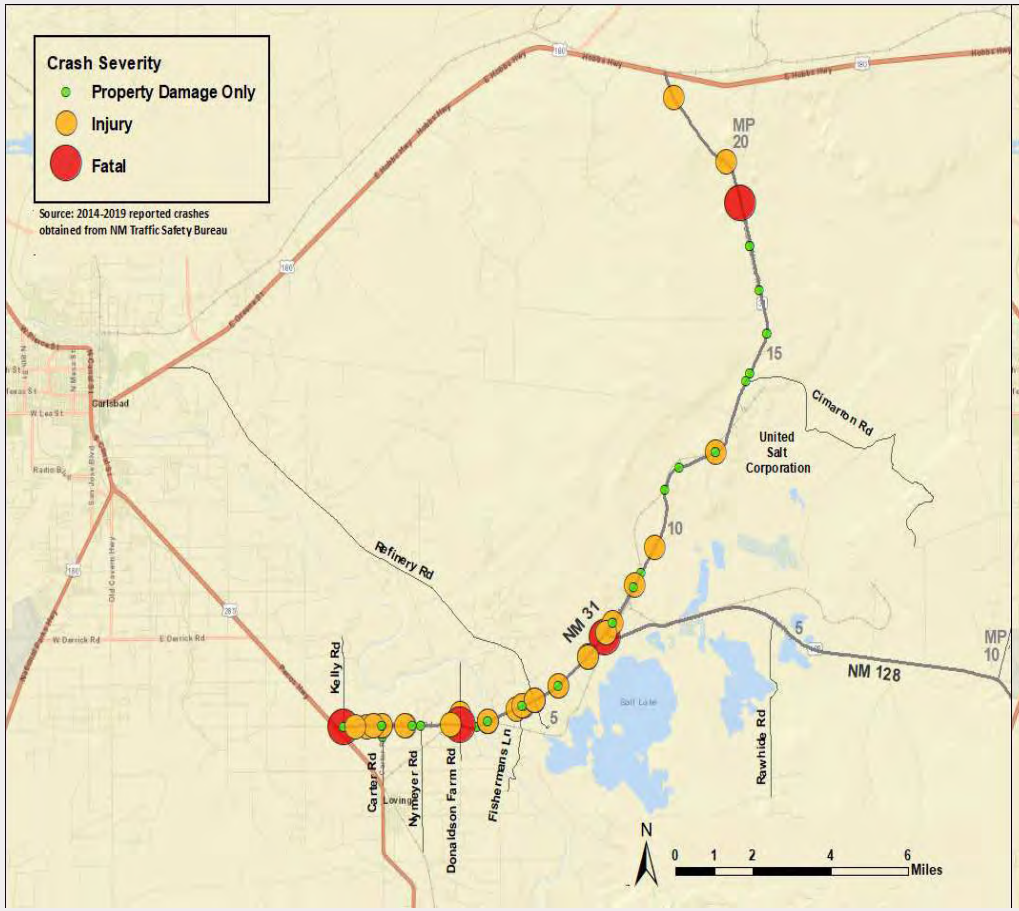
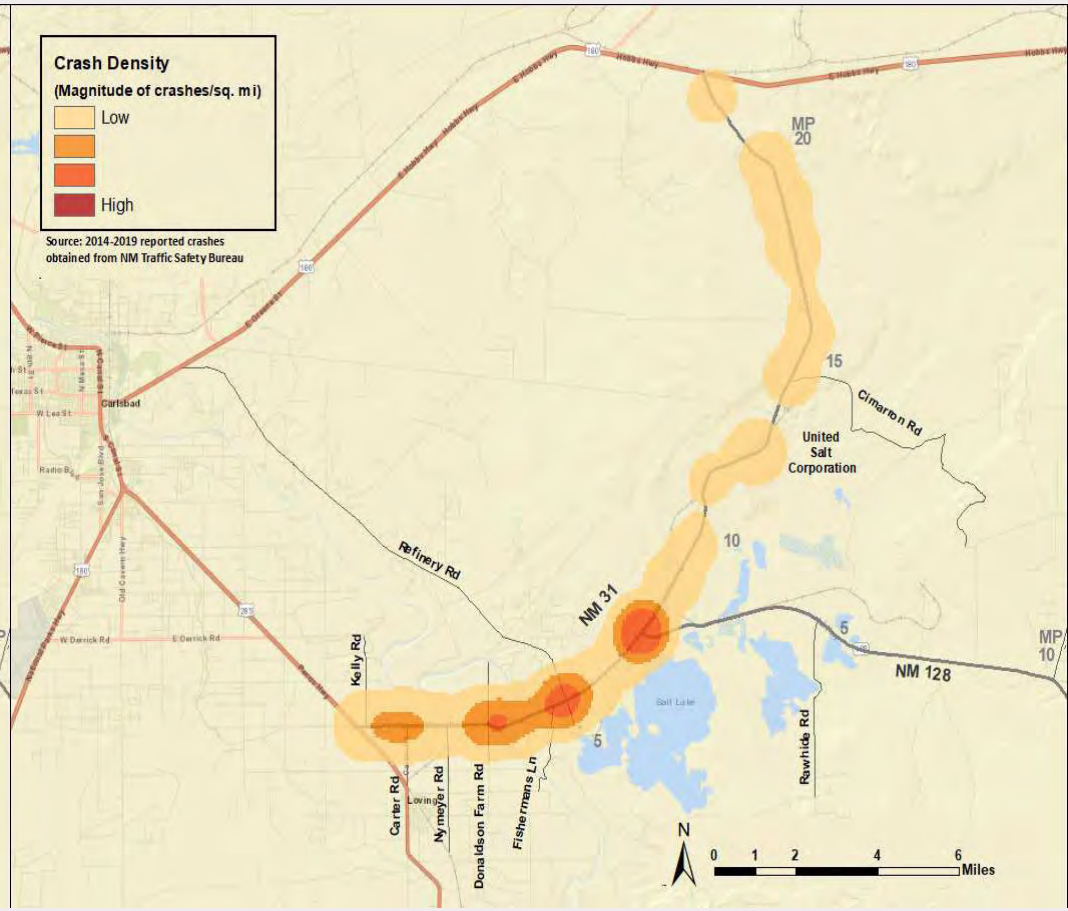
NM 31 and NM 128 Traffic and Safety

NM 31/128 Existing Conditions Alignment Study





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NM 31 and NM 128 Traffic and Safety

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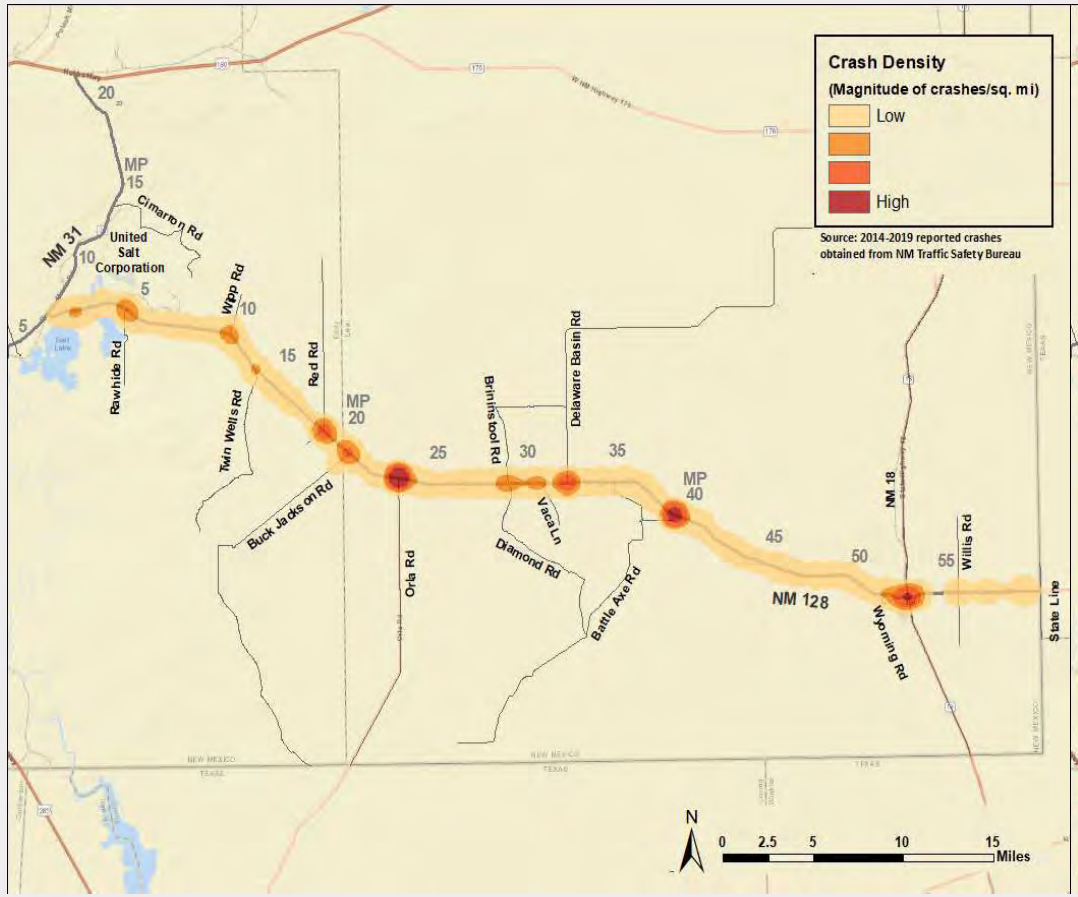

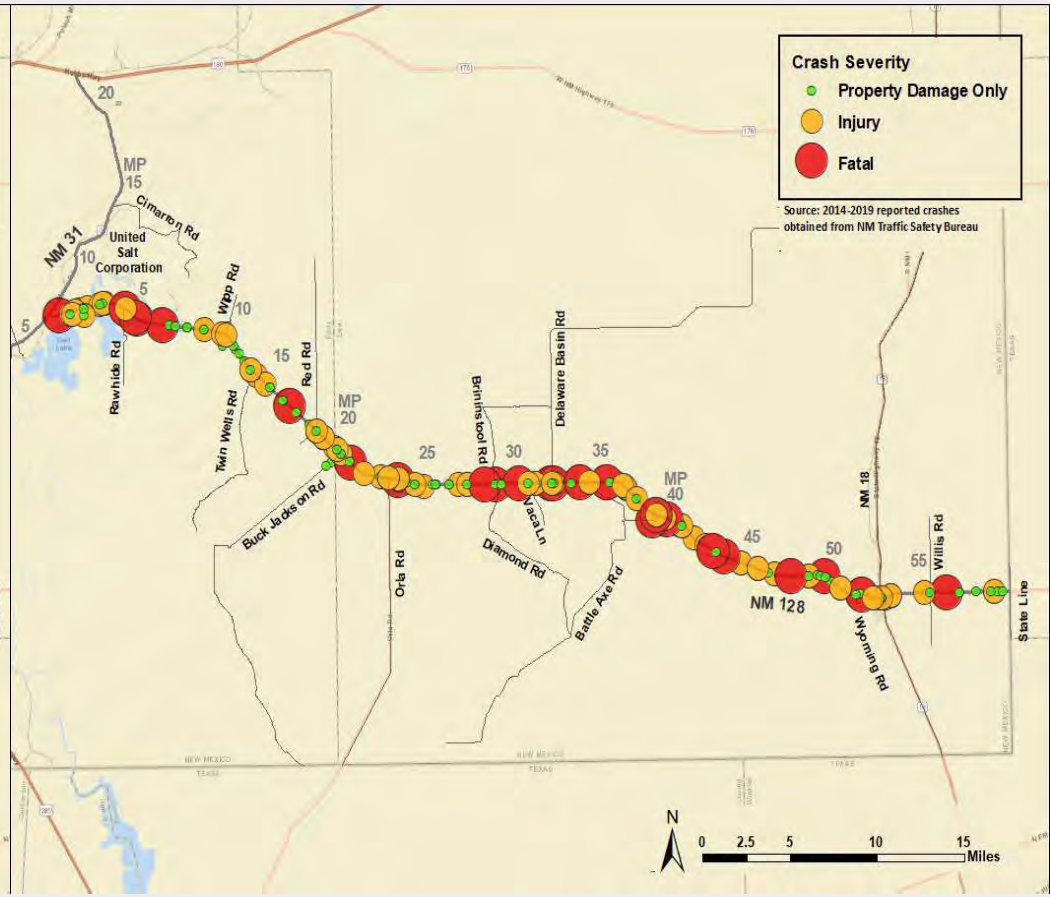

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NM 31 and NM 128 Project Traffic Analysis

NM 31/128 Existing Conditions Alignment Study

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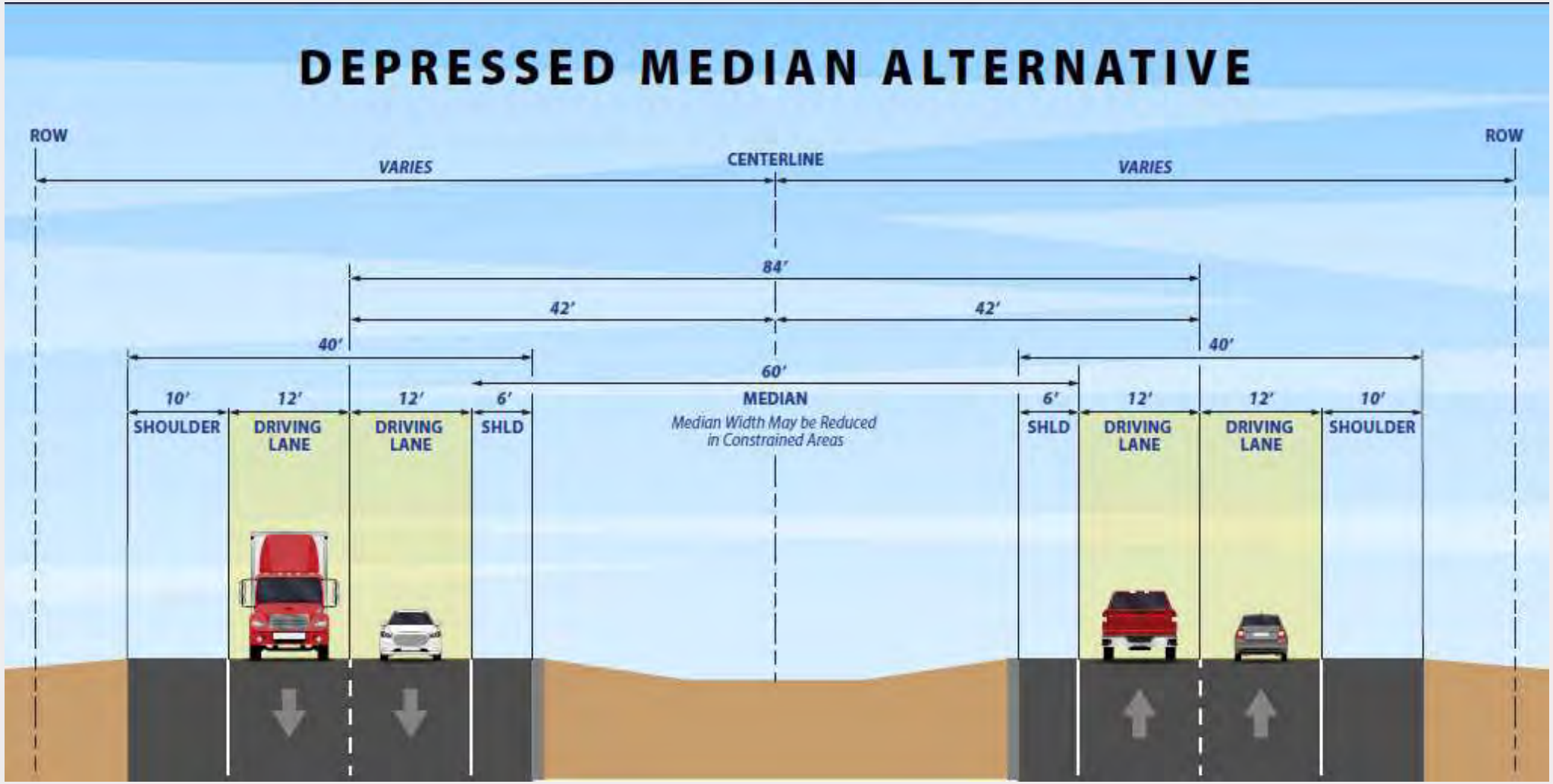
NM 31 and NM 128 Proposed Mainline Alternatives

NM 31/128 Existing Conditions Alignment Study



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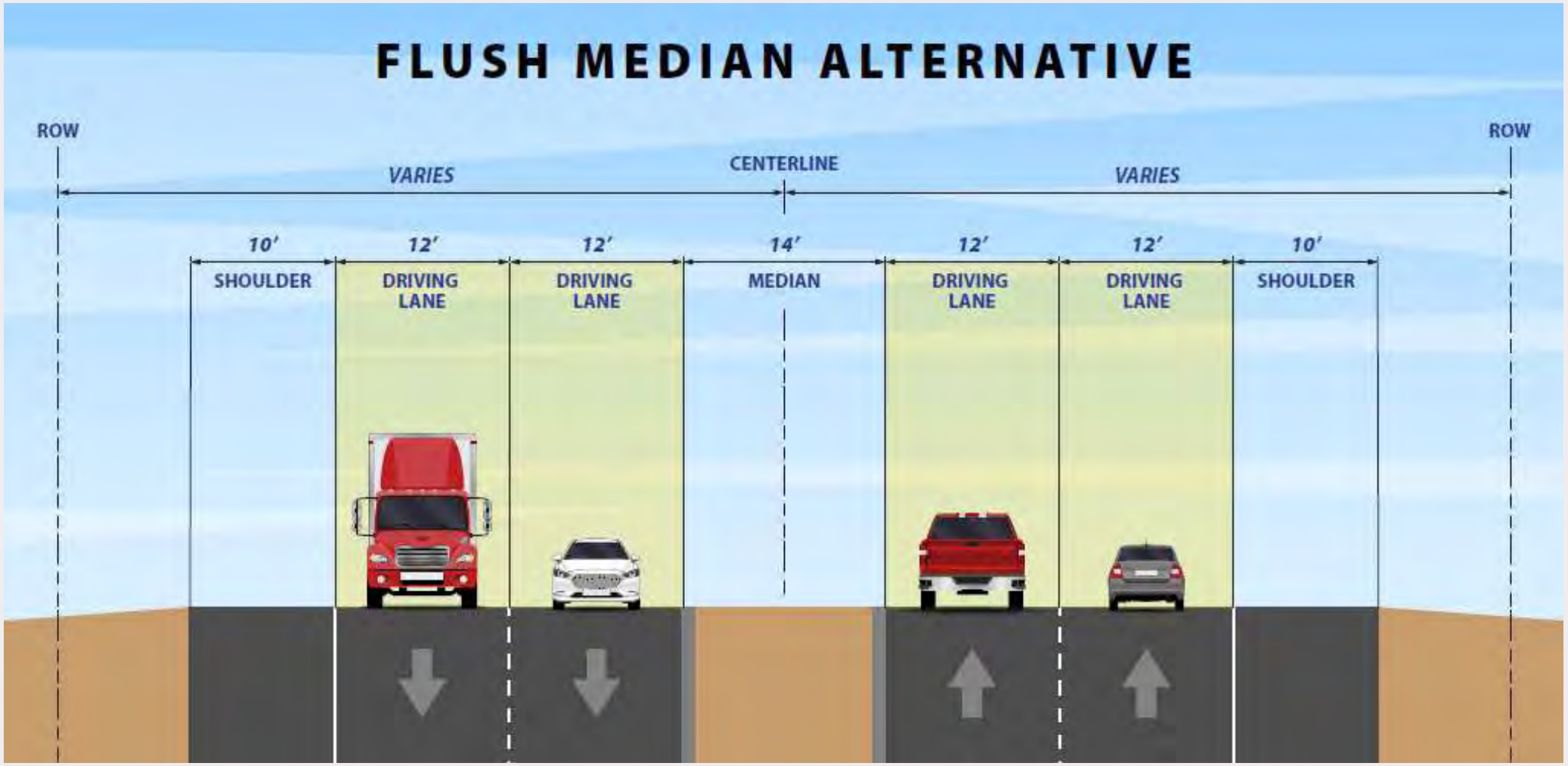
NM 31 and NM 128 Proposed Mainline Alternatives

NM 31/128 Existing Conditions Alignment Study



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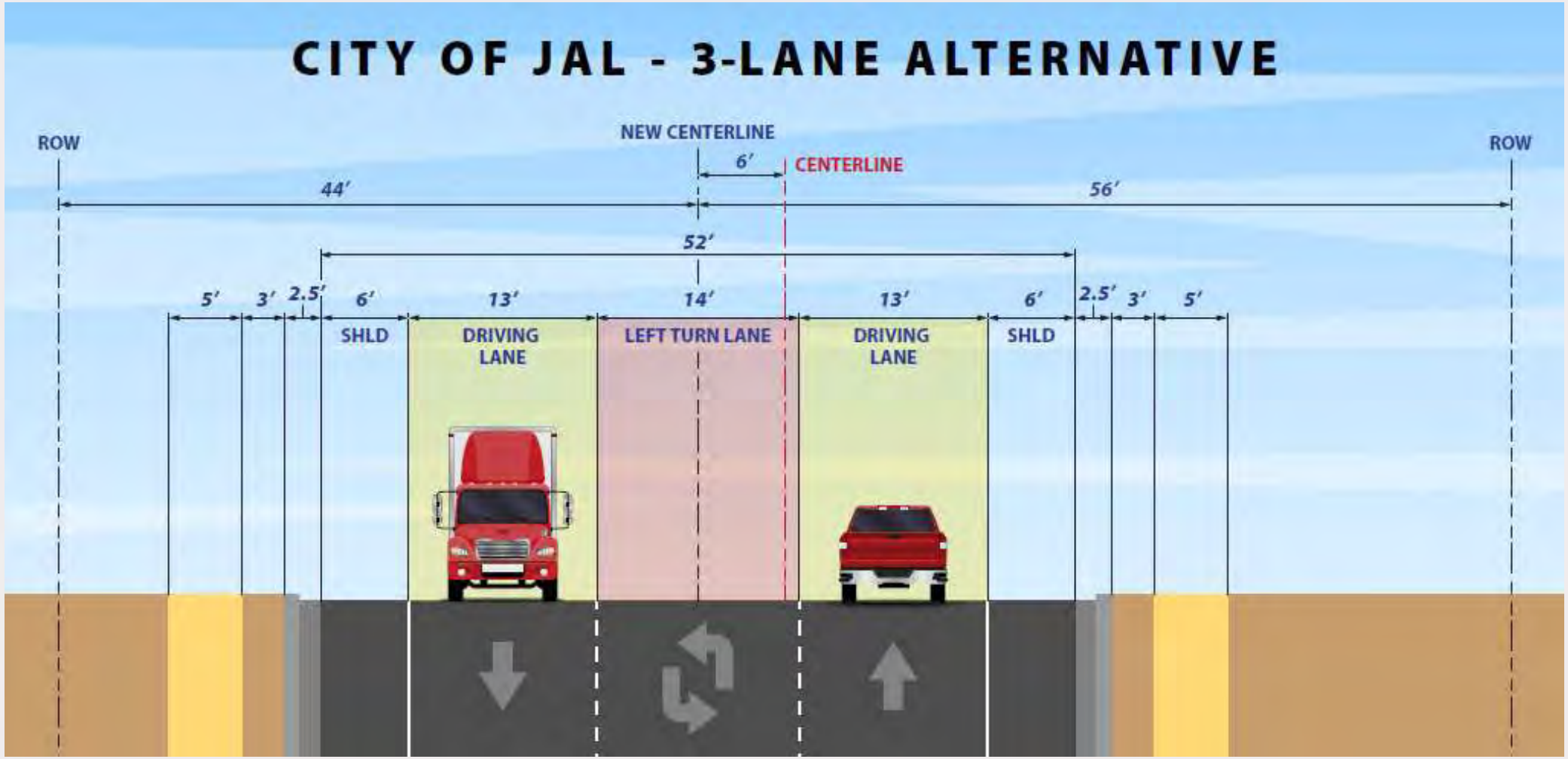
NM 31 and NM 128 Proposed Mainline Alternatives

NM 31/128 Existing Conditions Alignment Study



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NM 31 and NM 128 Proposed Mainline Alternatives

NM 31/128 Existing Conditions Alignment Study

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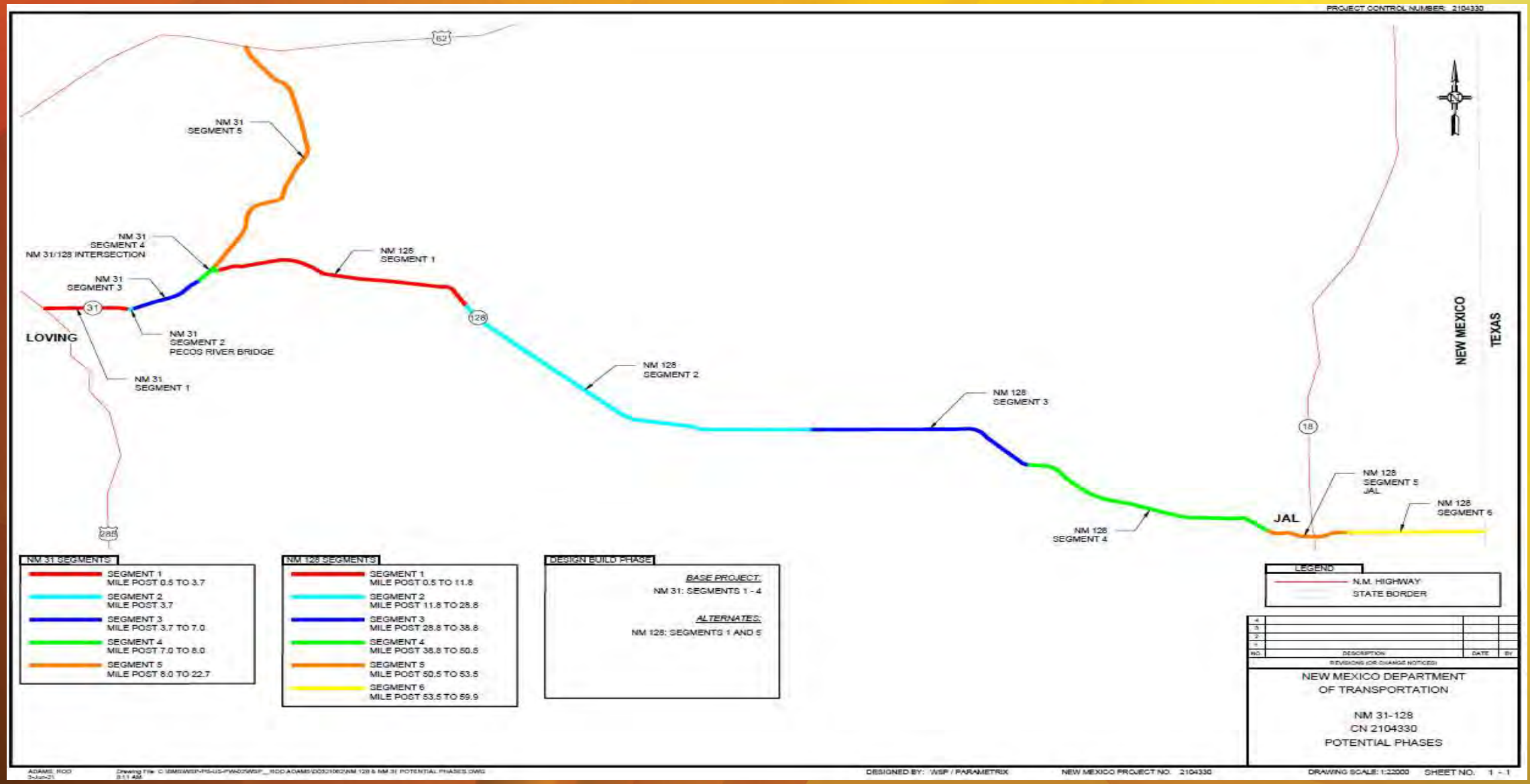
Conceptual Project Phasing – Total Project Cost: $350 M



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NM 31 and
NM 128
Design-Build

Design-Build Project Delivery Method

What is Design-Build?

A procurement method where NMDOT hires a team to complete the design and construct the project.

Why Does NMDOT want to use Design-Build for this project?

Construction can start sooner as compared to NMDOT finishing all design and Design-Build projects tend to move at a faster pace.

It will look like a traditional project with contractor more

involved in public outreach and key items such as environmental compliance and utility coordination.

NMDOT

NM 31 and
NM 128
Design-Build

Design-Build Project Delivery Method

Project Goals:

A high quality, safe, environmentally responsible, durable, and maintainable Project;

Minimum disruption to the local industries and traveling public during construction;

Design-Build Agreement awarded and signed by Fall 2022;

Maximizing the value of the Design-Build delivery method.

NMDOT

NM 31 and
NM 128
Design-Build

Design-Build Project Delivery Method

The overall corridor improvements will be phased

NMDOT will procure a single design-builder to design and construct the initial Phase I Project

The Design-Build Project will have alternatives based on funding availability

NMDOT will use a “best value” approach to select the design-builder

The Design-Build Phase (1st) will be federally funded and consist of the following base elements:

Improvements to NM 31 from 0.5 miles east of U.S. 285 through the NM 128 intersection

The NM 31-128 Intersection

Estimated Cost: $70-$80 million

NMDOT

NM 31 and
NM 128
Design-Build

Design-Build Project Delivery Method

The Design-Build Phase (1st) will consist of the following add alternative elements:

City of Jal Improvements

Estimated Cost $16 - $19 million

NM 128 from NM 31 to the WIPP Road

Estimated Cost $40 - $45 million

NM 128 from NM 31 Site Safety Improvements

Estimated Cost $2 - $10 million

Added into Design-Build Contract or as Deferred Work to the Design Build Agreement, if funding is secured.

NMDOT

NM 31 and
NM 128
Design-Build

Design-Build Project Schedule

Completion of study – **November/December 2021**

Initial engineering design development – **Summer 2021 through Spring 2022**

Environmental analysis & documentation – **Spring/Summer 2022**

Public meeting – **January/February 2022**

Anticipated construction (Design-Build) – **Fall/Winter 2022**
Multiple Construction Phases Depending on Funding

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Unfunded Needs Supporting Oil and Gas Industry

NM 18 MP 0 to 48 Hobbs to Jal	Major Pavement Rehabilitation	$100,000,000
NM 18 MP 58 to 71 Lovington to Hobbs	Minor/Major Pavement Rehabilitation	$25,000,000
Remain Segments of NM 128 and NM 31	4-lane expansion, addition of shoulders and passing lanes, intersection and safety improvements	$270,000,000
62/180 Texas Stateline to Hobbs MM 0 - 102	Pavement Preservation	$40,000,000

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State Funded Projects

Laws of 2021 General Fund Appropriations		
Location	Scope of Work	**Cost**
US 60 MM 385-388.7	Reconstruction, Drainage and ADA Improvements Downtown Clovis	**$21,000,000.00**
US 54 MM 38.7 – 47.8	Pavement Rehabilitation – Completed	**$1,800,000.00**
US 70 MM 208 - 212	Pavement Preservation – Ongoing	**$1,7000,000.00**
US 285 MM 80 – 88	Pavement Preservation – Ongoing	**$2,5000,000.00**
NM 18 MM 68 – 71	Pavement Rehabilitation – Plan Spring 2022	**$1,000,000.00**
	TOTAL	**$28,000,000.00**

Laws of 2020 Chapter 83 Section 9 Item 1 General Fund Appropriations		
Location	Scope of Work	**Cost**
US 70 MM 264-275	Pavement Rehabilitation - Ongoing	**$12,000,000.00**
US 54 MM 88-97 & 107-118	Pavement Rehabilitation – Completed	**$6,000,000.00**
US 82 MM 43-53	Pavement Preservation – Completed	**$2,000,000.00**
	TOTAL	**$20,000,000.00**

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State Funded Projects

Laws of 2019 Chapter 271 Section 9 Item 1 (HB 2 and 3) General Fund Appropriations – Ongoing

PRIORITY PROJECTS

Priority	Location	Scope of Work	Cost
1	US285, Eddy County, MP 0-7 (CN2102161), HB2	Reconstruction, Bridge Replacements, & Congestion Mitigation	$43,000,000.00

Laws of 2019 Chapter 270 Section 45 (HB 6)

PRIORITY PROJECTS

Priority	Location	Scope of Work	Cost
2	US285, Eddy County, MP 7-17 (CN2102162), HB6	Reconstruction, Construction Mitigation, & Bridge Rehabilitation	$37,000,000.00
3	US285, Eddy County, MP 16-17 (CN2102164), HB6	Black Water Bridge Replacement, & Congestion Mitigation	$10,000,000.00
		Total	$47,000,000.00

Laws of 2019 Chapter 271 Section 9 Item 1 General Fund Appropriations

Location	Scope of Work	Cost
US 70, Between Clovis & Portales, Curry County	Pavement Rehabilitation - Completed	$7,330,000.00
US 54, Between Vaughn & Corona, Torrance County	Pavement Rehabilitation - Completed	$6,500,000.00
District Wide, Various Counties	Signing & Striping - Completed	$1,000,000.00
		Total $14,830,000.00

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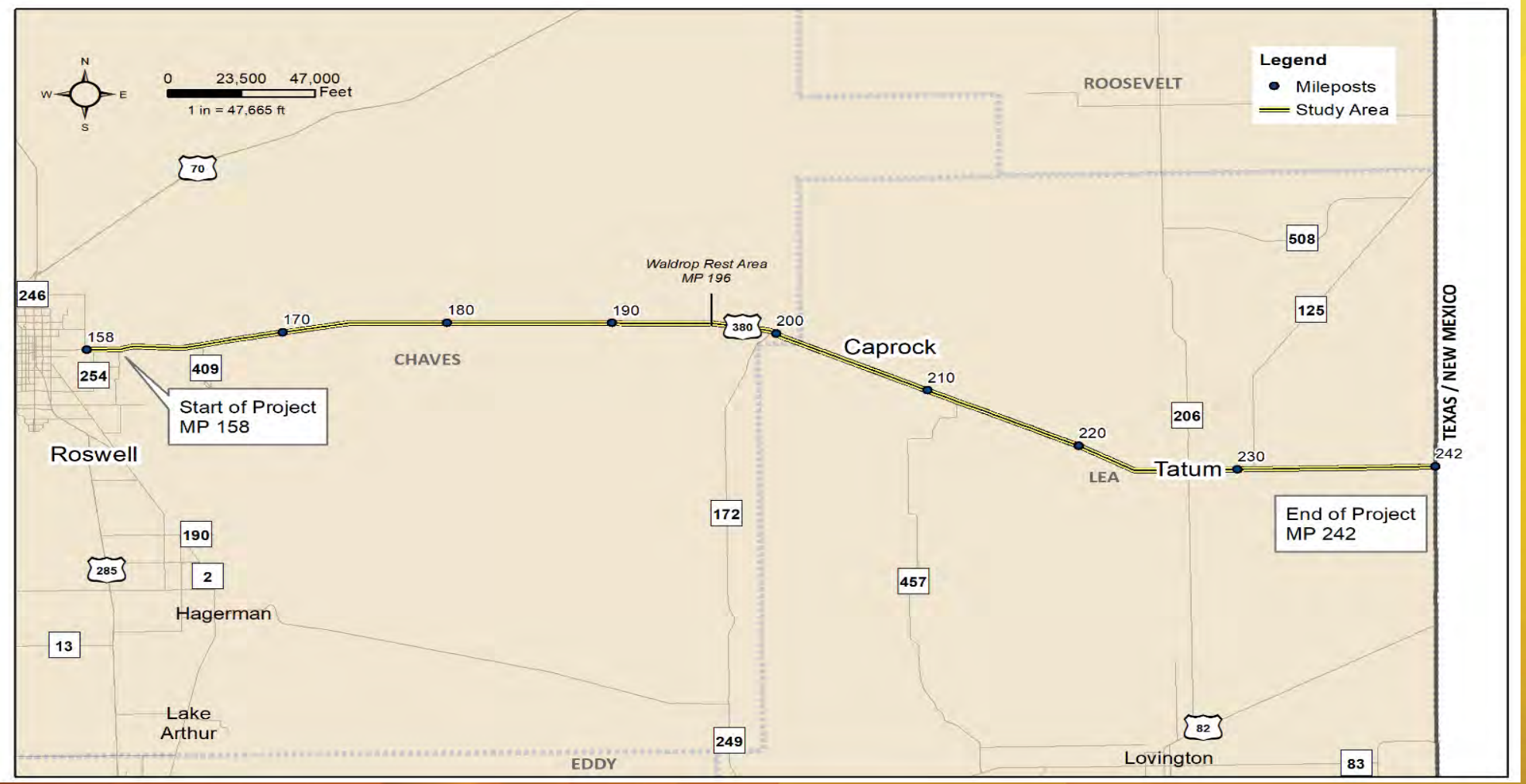
Future Major Infrastructure Projects in Development US 380 Passing Lane and Safety Improvement – STIP 2023/2024 Phase I



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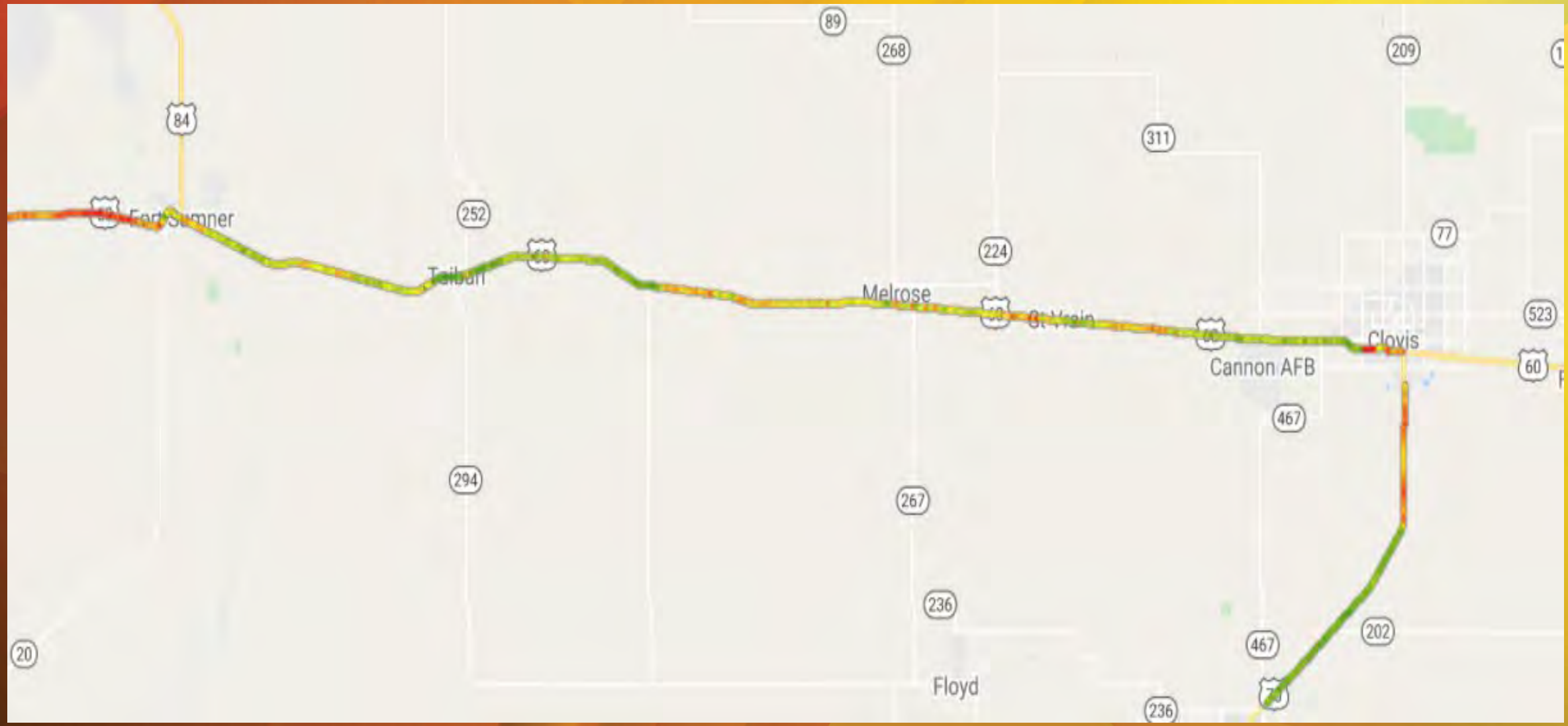
Future Major Infrastructure Projects in Development
US 60/84 Alignment Study Phase A/B



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Thank You!