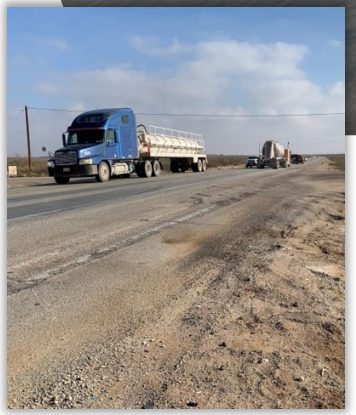


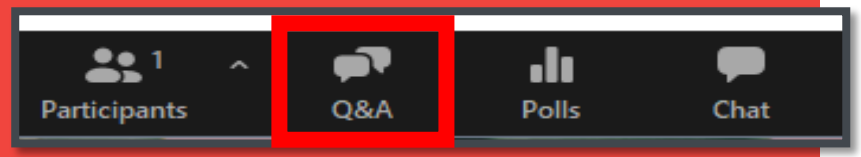
Virtual Public Information Meeting

NM 31-128 Alignment Study and Design-Build Project CN 2104330

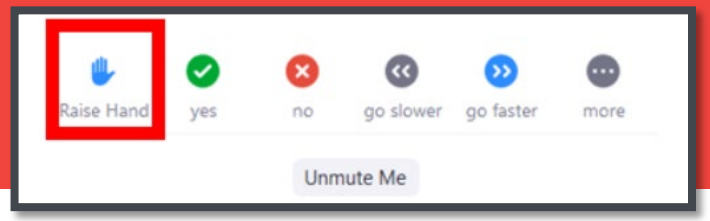
May 3, 2022

Meeting Platform: Zoom

- Zoom Webinar – only presenters will be on video
- <u>This meeting is being recorded</u>
- Questions & Answers – Please add project-related questions in the Q&A dialogue box



- During Q&A, if you would like to speak, raise your hand (*9 if you have dialed-in)



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Presenters

- **New Mexico Department of Transportation (NMDOT) Team Presenters:**
  - **Francisco Sanchez**, NMDOT District 2 District Engineer
  - **Michael Smelker**, NMDOT District 2 Assistant District Engineer
  - **Terry Ward**, WSP Project Manager
  - **Jennifer Hyre**, WSP Environmental Planner

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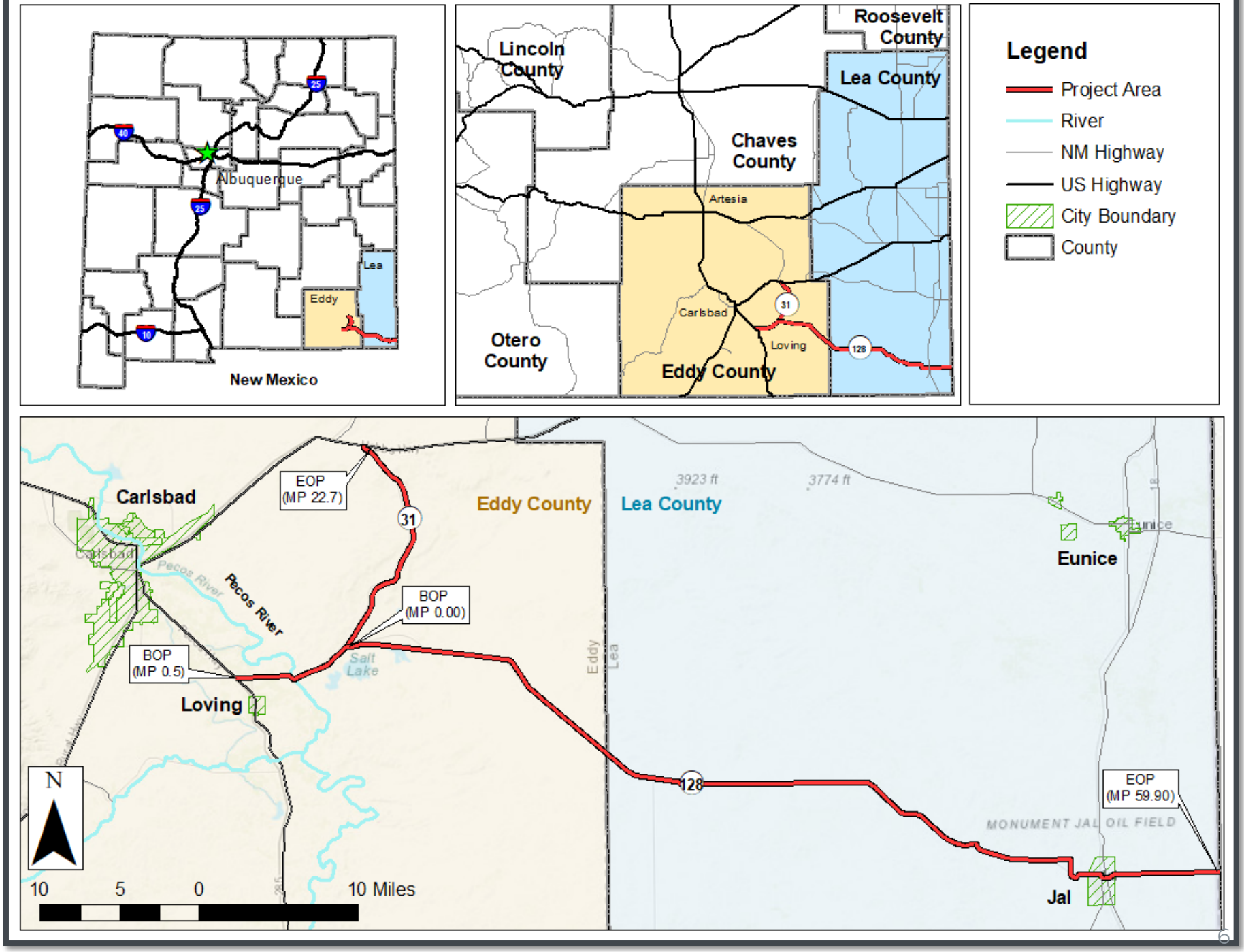
Agenda

- **Presentation Topics:**
  1. Brief Background
  2. NMDOT Project Development Process – *Where we are at*
  3. Previous Project Public Meetings and Stakeholder Outreach - *Recap*
  4. Preliminary Recommendations
  5. Detailed Analysis
  6. Environmental, Right-of-Way and Cost
  7. Design-Build Procurement – Phase I and Project Phasing
  8. Schedule and Next Steps
- **Questions**

Brief Background

Location Map

NM 31 – 22.2 miles
NM 128 – 59.9 miles



Project Website

- **Project Information: https://nm31-128project.nmdotprojects.org**
  - This presentation and recording of tonight's public event will be posted here, as well as previous public meetings and project documents

NMDOT
Project Development Process
Where we are at

Project Development Process

- Phase I
  - **Currently close to the end of Phase IA/B Study**
- Phase II
  - *Final Design*
- Phase III
  - *Construction*

Phase IA/B: Alignment Study

- *Establish Why Improvements are Needed and Preliminary Alternatives*
- *Evaluate Alternatives and Identify Preliminary Recommendations*

Phase IC: Environmental Processing

- *Environmental Investigations*
- *Obtain Authorization to Construct Improvements*

Phase ID: Preliminary Design

- *Preliminary Engineering*
- *Define Right-of-Way Needs*
- *Prepare Engineering Cost Estimate*

Stakeholder and Public Involvement
– Ongoing throughout Phase I




U.S. Department of Transportation
Federal Highway Administration

New Mexico Department of Transportation

DRAFT

NM 31/128

NM 31/NM 128 Phase I-A/B Alignment Study

NM 31: MP 0.5 to MP 22.67 | NM 128: MP 0.0 to MP 59.90

CN 2104330 | DECEMBER 2021

WSP Parametrix

IN ASSOCIATION WITH:

COLLIERS ENGINEERING AND DESIGN; SOUDER, MILLER, AND ASSOCIATES; SWCA; T2 UTILITY ENGINEERS; AND WOOD

NM 31 128

NM 31 128

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Previous Project Public Meetings and Stakeholder Outreach

Recap

Overall Project

August 31, 2021

Existing Conditions

Challenges

Alternative Identification

Screening

Preliminary Alternatives

Public Meeting #1

City of Jal

September 14, 2021

Existing Conditions

Challenges

Alternative Identification

Screening

Preliminary Alternatives

Public Meeting #2

Stakeholders

We've spoken with all of them

- Eddy and Lea County
- City of Jal
- City of Carlsbad
- Bureau of Land Management (BLM)
- State Land Office (SLO)
- Oil & Gas Industry
- Waste Isolation Pilot Plant (WIPP)
- Mosaic and Intrepid Potash
- United Salt Corporation
- Burlington Northern RR
- Texas New Mexico RR
- TxDOT
- FHWA

NM 31 128

EDDY COUNTY NEW MEXICO

CARLSBAD

JAL NEW MEXICO small town. big heart.

Lea COUNTY new mexico

PERMIAN STRATEGIC PARTNERSHIP

NMOGA NEW MEXICO OIL AND GAS ASSOCIATION

WIPP

INTREPID Essential Minerals for Success

Mosaic

USC UNITED SALT CORP.

BNSF RAILWAY

WATCO

TEXAS DEPARTMENT OF TRANSPORTATION

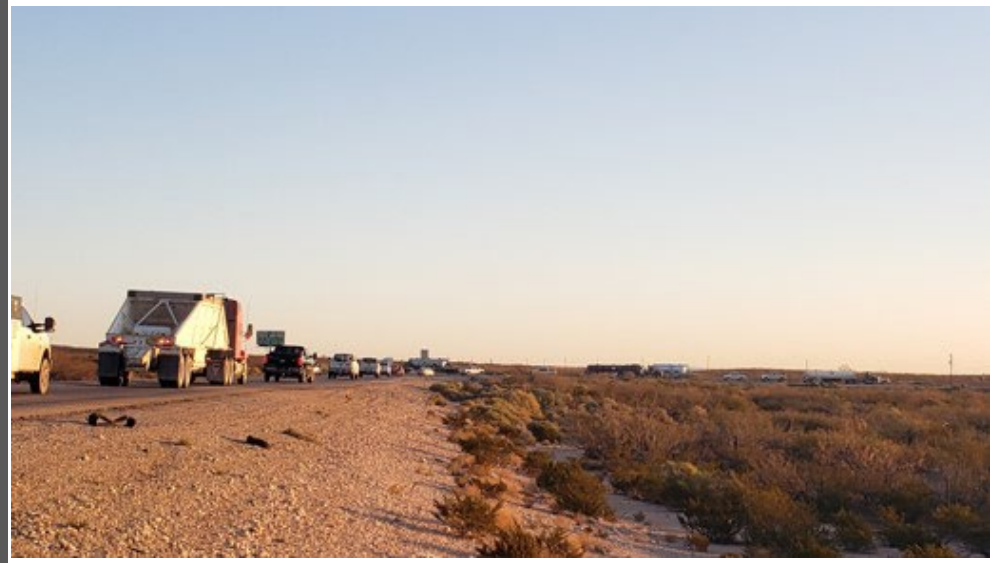
U.S. Department of Transportation Federal Highway Administration

PERMIAN ROAD SAFETY COALITION

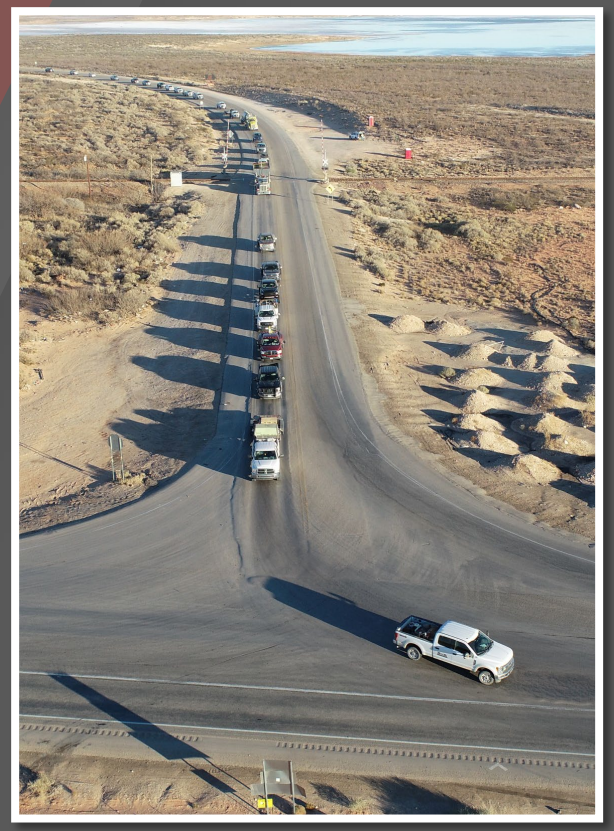
Preliminary Recommendations

Project Purpose

- The project's purpose is **to improve NM 31 and NM 128 to mitigate problems with highway safety, traffic capacity and congestion, and condition of the roadway and related infrastructure.**



Project Need



- Traffic Safety
  - » **722 crashes** occurred on NM 31 and NM 128 for the six-year period **between 2014 and 2019**
    - —**28%** of all crashes resulted in fatalities and injuries
    - —**27** fatal crashes occurred
    - —Primary crash types include **rear-end, head-on, over-turn, and right-angle crashes**
  - » Crash types are indicative of **inadequate safe passing areas**, **conflicts at intersections**, **lack of turn lanes**, and **narrow shoulders**

NM 31 128

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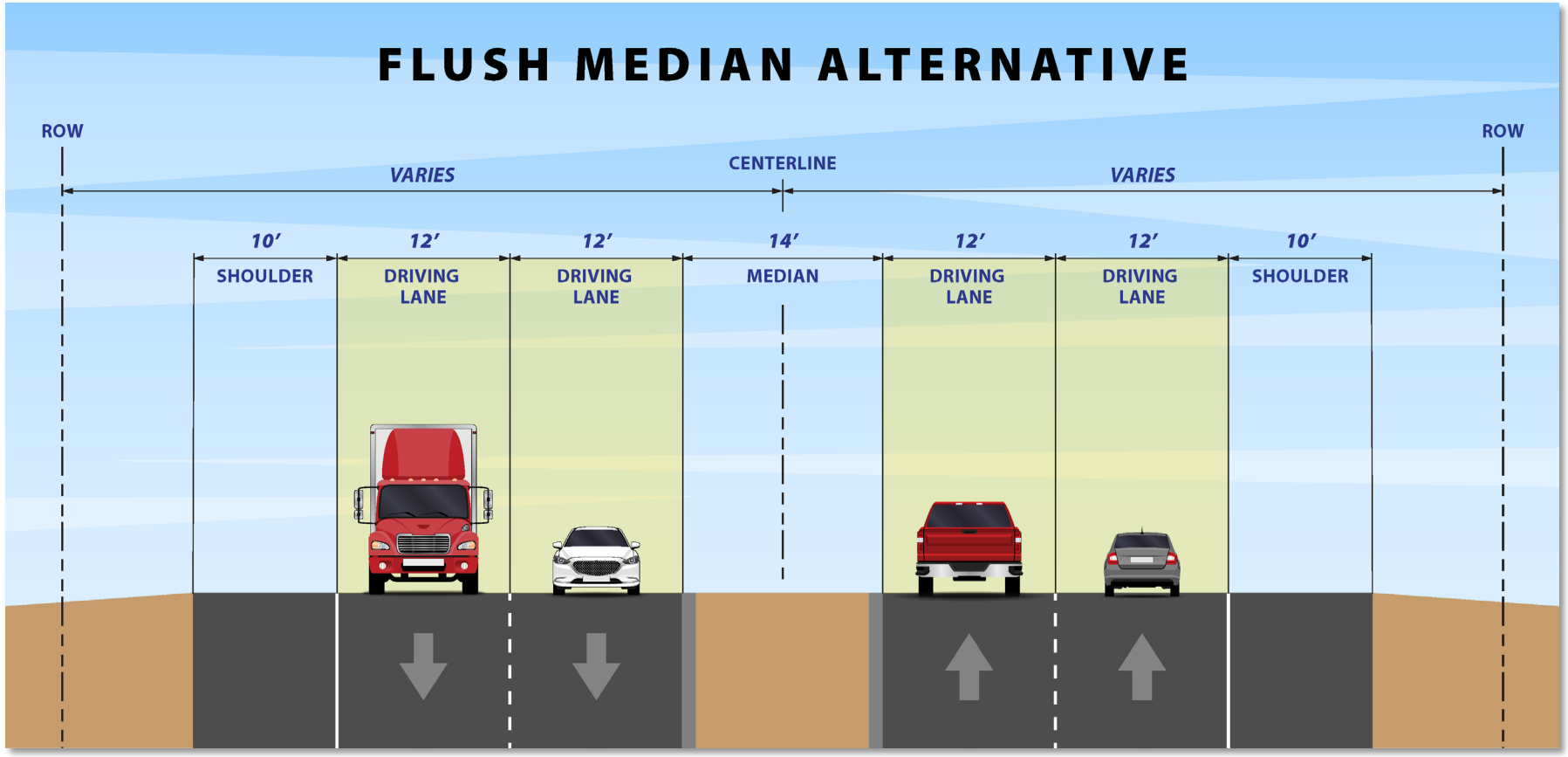
Preliminary Recommendations Mainline Alternatives

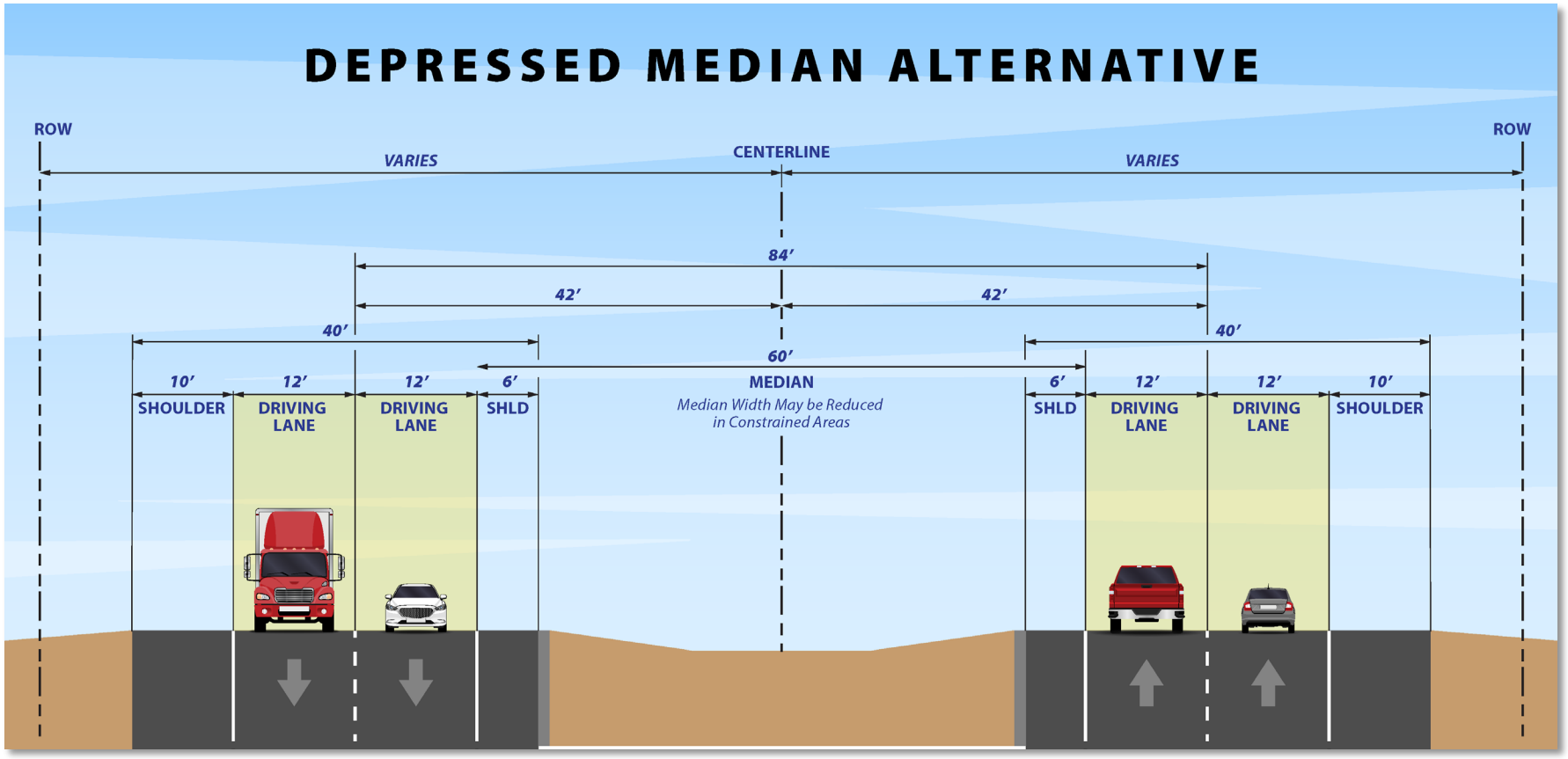
Proposed Mainline Alternatives

4-Lane Flush Median Alternative



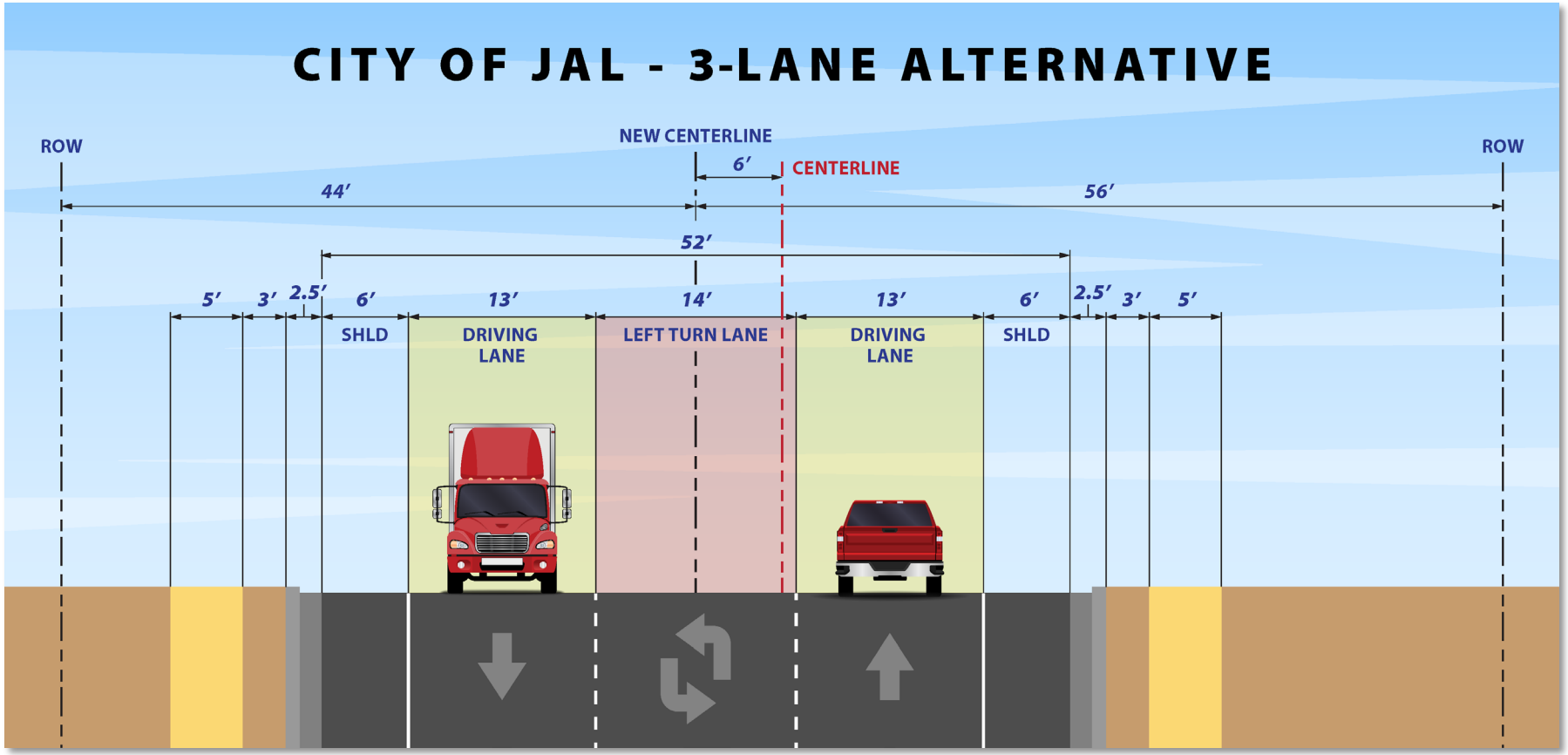
Proposed Mainline Alternatives

4-Lane Depressed Median Alternative



Proposed Mainline Alternatives

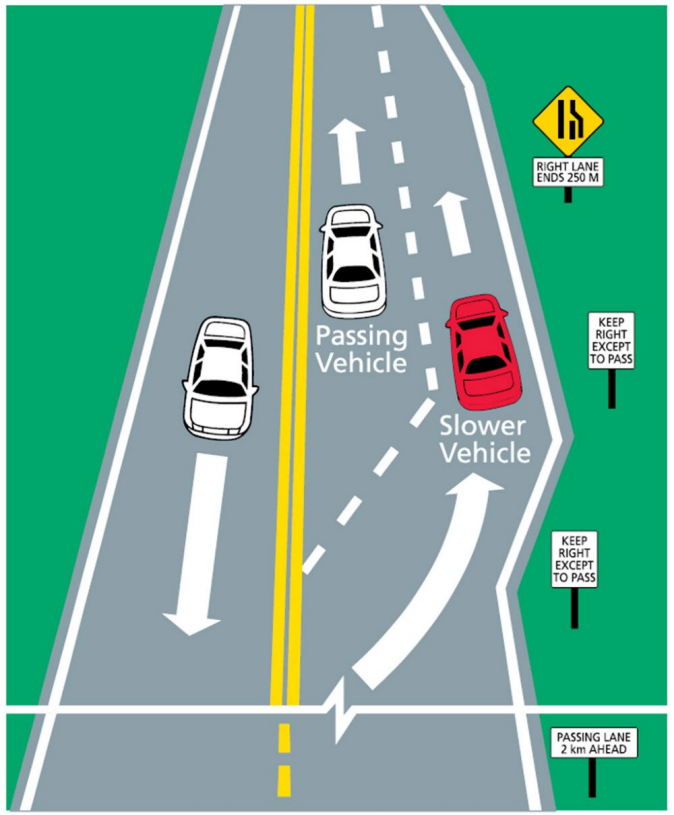
JAL 3-Lane
Two-Way Left Turn Lane Alternative



Proposed Mainline Alternatives

Enhanced 2-Lane Alternative

An Enhanced 2-Lane alternative consists of periodic passing lanes.



NM 31 128

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Preliminary Recommendations Intersections

Proposed Rural Intersection Alternatives

Restricted Crossing U-Turn (RCUT)

None Proposed

Oil & Gas Feedback

There would be median U-turns on NM 128 for the 4-lane Divided roadway segment from NM 31 to Jal

Proposed Rural Intersection Alternatives

High-T

Intersections

- NM 31 / US 62
- NM 128 / WIPP
- NM 128 Orla
- NM 128 / Buck Jackson

WIPP – Waste Isolation Pilot Plant

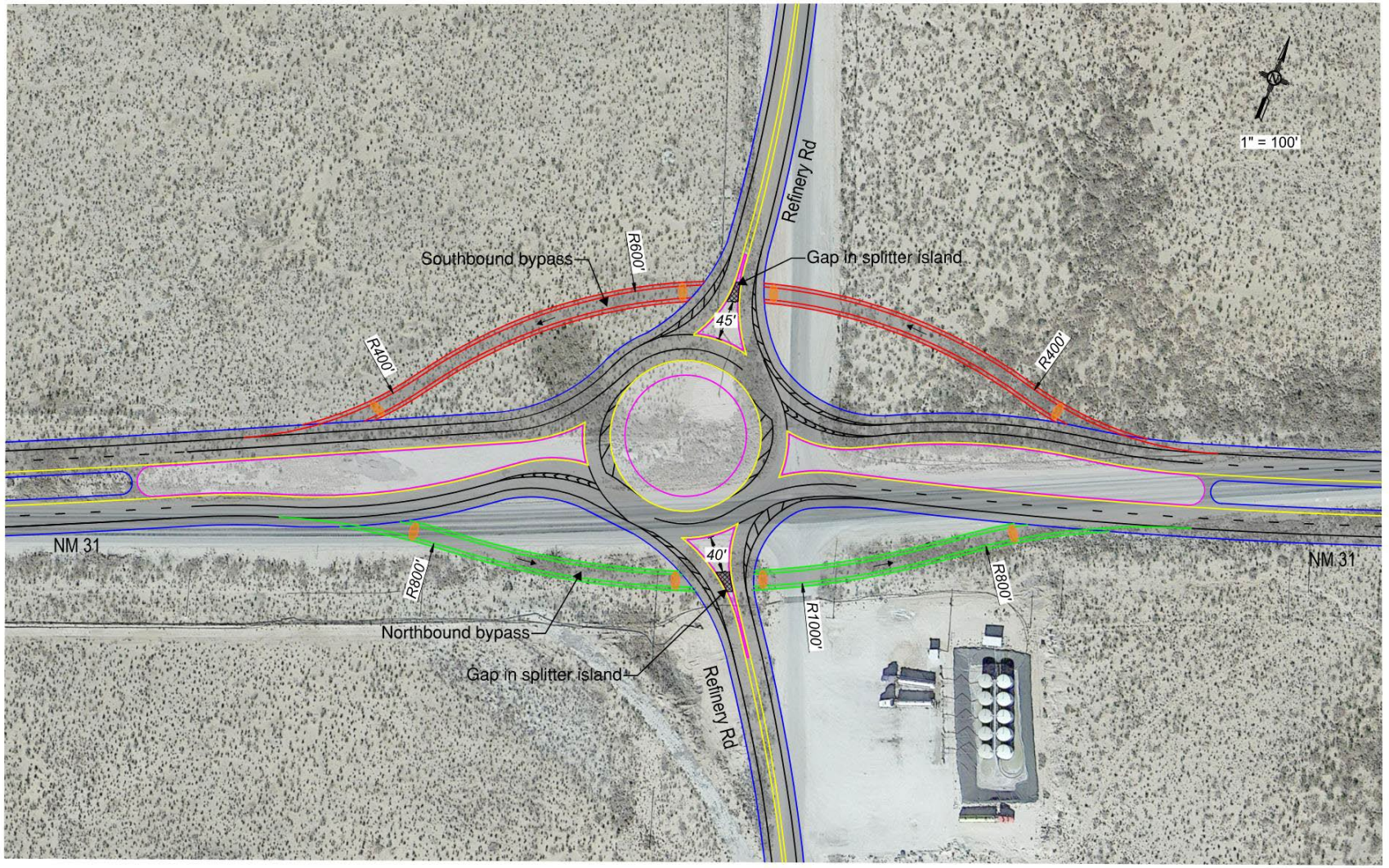
Proposed Rural Intersection Alternatives

Roundabout

- NM 31 – Refinery Road
- NM 31-128

Proposed Rural Intersection Alternatives

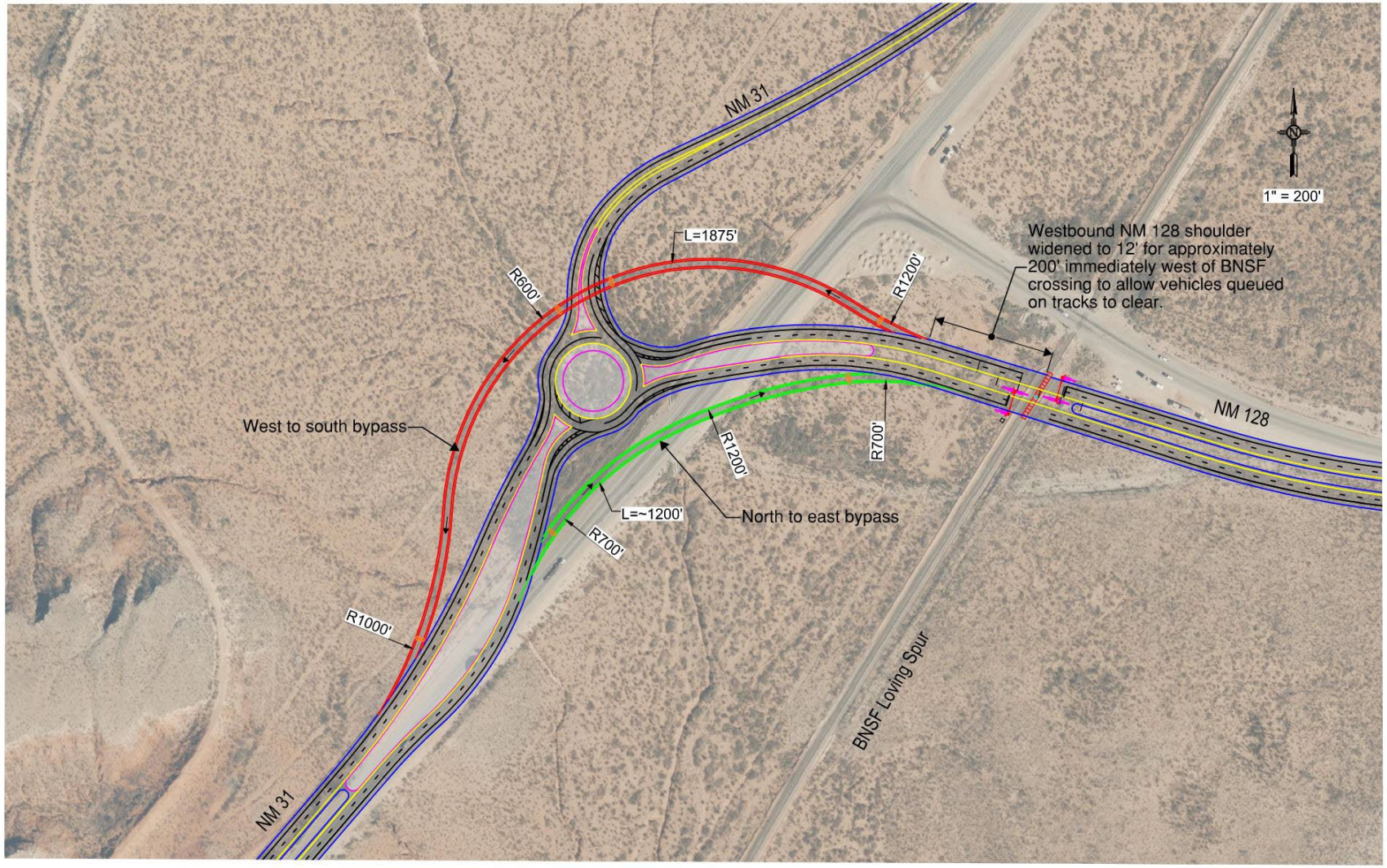
NM 31-Refinery Road Roundabout



Proposed Rural Intersection Alternatives

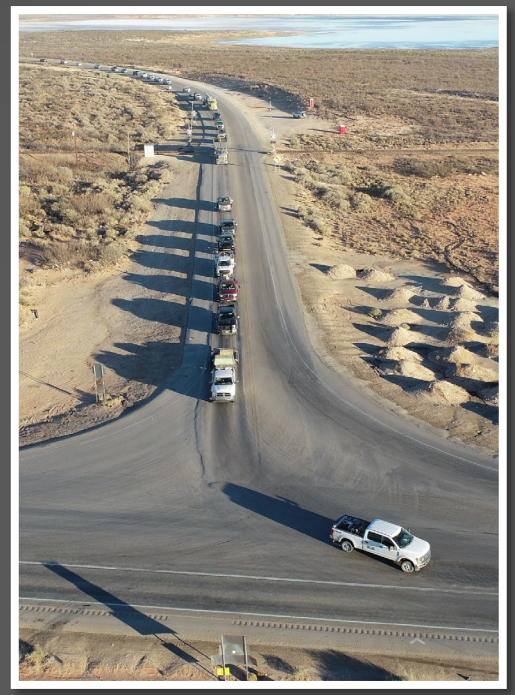
NM 31-128 Roundabout

A grade separated crossing of the BNSF railroad is also under consideration



Proposed Rural Intersection Alternatives

Roundabout



Each Roundabout adds between 15-20 seconds of delay for the mainline approaches as compared to free flow movements.

Consider corridor improvements in the overall assessment and that the delay at the NM 31-Refinery and NM 31-128 intersections will be vastly reduced.

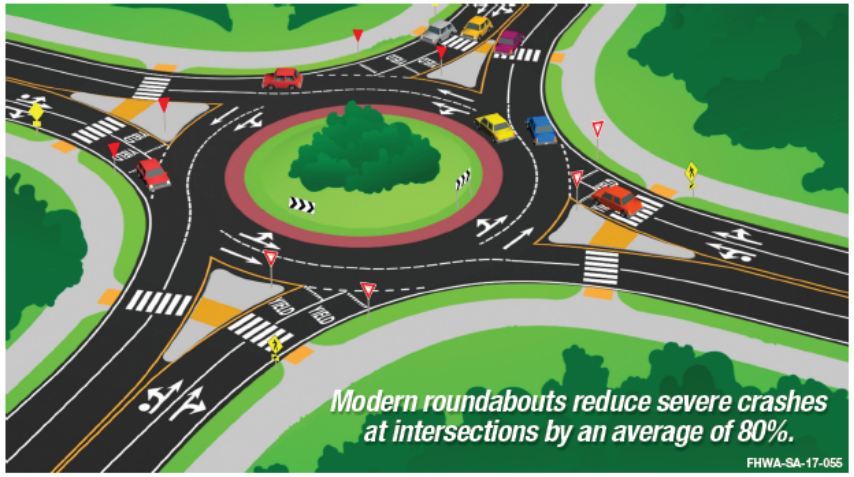
Proposed Rural Intersection Alternatives

Roundabout

Educational Materials

FHWA
Washington DOT
Wisconsin DOT
Ohio DOT

Do you know the rules of the roundabout?



1 Slow Down.

2 Look Around.

3 Be Ready to Yield.

A roundabout is a circular intersection design where traffic travels at low speed around a central island and entering traffic must yield to circulating traffic. Roundabouts are safer and more efficient than traditional intersections.

The geometry of a roundabout is key to controlling the speed at which traffic enters and maneuvers through the intersection, providing the following benefits:

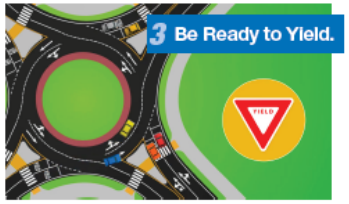
- *Lower severity of collisions that may occur, resulting in significantly fewer severe injuries.*
- *Increased likelihood of drivers yielding to pedestrians at crosswalks.*
- *Time for drivers to judge and enter a comfortable gap in circulating traffic.*

U.S. Department of Transportation
Federal Highway Administration

Modern Roundabouts... *as easy as 1, 2, 3.*

- *Going slower provides more time to make decisions and be better prepared to yield to other road users.*
- *By entering the roundabout at a slower speed, crashes that do happen are much less severe.*
- *Slowing down helps drivers do a better job seeing pedestrians and bicycles and sharing the road with them.*

- *Drivers should choose the lane for where they want to go after the roundabout. Signs and markings help them select a lane.*
- *Like most other intersections, drivers use the left lane to go left, the right lane to go right, and either lane to go straight through, unless otherwise indicated.*
- *Drivers should keep looking around and check the crosswalks to see if anyone is waiting to cross or is already crossing. Drivers should be ready to stop and let them safely finish.*



- *Drivers must yield to traffic in all lanes of the roundabout, not just in the lane closest to them.*
- *If large vehicles like trucks or buses are in the roundabout, drivers should give them space and avoid driving next to them inside the roundabout.*
- *Drivers should follow the pavement markings to stay in the correct lane as they leave the roundabout. They should look around one more time for anyone in the crosswalk and be ready to yield as the drivers exit.*

For more information contact

Name _____
Agency _____
eMail _____
Phone _____
Website _____

U.S. Department of Transportation
Federal Highway Administration

FHWA-SA-020-058

Proposed Intersection Alternatives

Two-way stop-sign control (TWSC) is the base intersection except as noted:

- High T – NM 31/US 62, WIPP, Orla, Buck Jackson
- Roundabout – Refinery Road, NM 31-128
- Traffic Signals – NM 18 and 3rd St in Jal

WIPP – Waste Isolation Pilot Plant

NM 31 128

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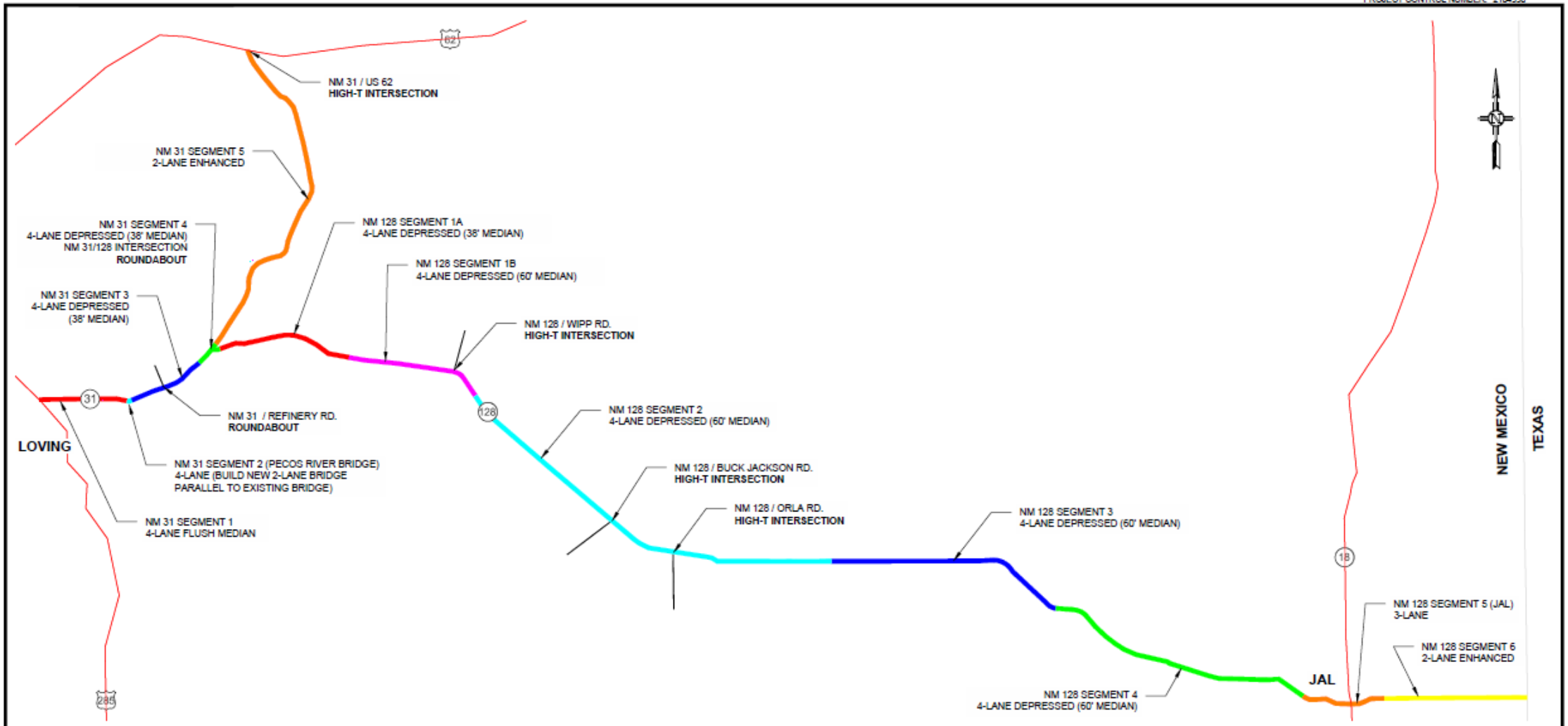
Preliminary Recommendations Overview

Preliminary Recommendations Overview Map



NM 31 CORRIDOR

SEGMENT		MILEPOST	TYPICAL SECTION	KEY FEATURES
	1	0.5 TO 3.7	4-LANE FLUSH MEDIAN	
	2	3.7	4-LANE	PECOS RIVER BRIDGE: BUILD NEW 2-LANE BRIDGE PARALLEL TO EXISTING BRIDGE
	3	3.7 TO 7.0	4-LANE DEPRESSED (38' MEDIAN)	NM 31/REFINERY RD. INTERSECTION: **ROUNDABOUT**
	4	7.0 TO 8.0	4-LANE DEPRESSED (38' MEDIAN)	NM 31/NM 128 INTERSECTION: **ROUNDABOUT**
	5	8.0 TO 22.7	2-LANE ENHANCED	2-LANE ENHANCED NORTH OF NM 128 INTERSECTION. NM 31/US 62 INTERSECTION: **HIGH-T**

NM 128 CORRIDOR

SEGMENT		MILEPOST	TYPICAL SECTION	KEY FEATURES
	1A	0.5 TO 6.4	4-LANE DEPRESSED (38' MEDIAN)	
	1B	6.4 TO 11.8	4-LANE DEPRESSED (60' MEDIAN)	NM 128/WIPP RD. INTERSECTION: **HIGH-T**
	2	11.8 TO 28.8	4-LANE DEPRESSED (60' MEDIAN)	NM 128/BUCK JACKSON & NM 128/ORLA RD. INTERSECTIONS: **HIGH-T**
	3	28.8 TO 38.8	4-LANE DEPRESSED (60' MEDIAN)	
	4	38.8 TO 50.5	4-LANE DEPRESSED (60' MEDIAN)	
	5	50.5 TO 53.5	3-LANE	
	6	53.5 TO 59.9	2-LANE ENHANCED	

PRELIMINARY ESTIMATED PROPOSED R/W IMPACTS (ACRES) *

	BLM	*SLO*	*PRIVATE*	**TOTAL**
NM 31	65	15	20	**100**
NM 128	80	25	60	**165**
TOTAL	**145**	**40**	**80**	**265**

* DOES NOT INCLUDE TCPs or CMEs

LEGEND
- N.M. HIGHWAY
- STATE BORDER

NO.	DESCRIPTION	DATE	BY
4			
3			
2			
1			

REVISIONS (OR CHANGE NOTICES)

NEW MEXICO DEPARTMENT OF TRANSPORTATION

NM 31-128
CN 2104330
PHASE 1AB STUDY
OVERVIEW MAP

NM 31 128

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Detailed Analysis

Preliminary Recommendations

Detailed Analysis

- Design Year 2041
- Focused on Traffic Operations and Traffic Safety from Purpose and Need as the predominate analysis criteria

Preliminary Recommendations

Detailed Analysis

Traffic Operations Level of Service (LOS)

» *From the NMDOT State Access Management Manual*

Roadway Characteristics	SAMM LOS Criteria
Rural, Two-Lane Highways	LOS B or Better
Rural, Multi-Lane Highways	LOS B or Better
Rural, Unsignalized Intersections	LOS C or Better for all Approaches and Movements

The LOS criteria for two-lane highways are based on the average travel speed (ATS) and the percent time spent following (PTSF). The PTSF indicates the inability to pass which can be due to congestion and lack of passing zones or passing lanes

The LOS criteria for multi-lane highways are based on density which is defined in passenger cars per mile per lane (pc/mi/ln).

Detailed Analysis
NM 31 Mainline

Detailed Analysis

Two-Lane Highway Traffic Operations Summary – 2041 Existing Conditions

Minor Rd. to Minor Rd.	Level of Service (LOS)			
	Eastbound	Westbound	Eastbound	Westbound
	AM PEAK		PM PEAK	
Kelly to Carter	C	A	B	C
Carter to Nymeyer	C	B	C	D
Nymeyer to Donaldson	C	B	C	C
Donaldson to Fishermans	D	C	C	C
Fishermans to Refinery	D (E)	C	C (D)	C
Refinery to NM 128	E	C	C (D)	D (E)
NM 128 to US 62	A	B	B	A

Note: The critical LOS is reported for each segment. When LOS D (E) is shown, the LOS D is for the passing zone and LOS E is for the passing constrained segment. Shaded values do not meet SAMM LOS criteria.

Detailed Analysis

Multi-Lane Highway Traffic Operations Summary – 2041 Build Recommendations

Minor Rd. to Minor Rd.	Level of Service (LOS)			
	Eastbound	Westbound	Eastbound	Westbound
	AM PEAK		PM PEAK	
Kelly to Carter	A	A	A	A
Carter to Nymeyer	A	A	A	A
Nymeyer to Donaldson	A	A	A	A
Donaldson to Fisherman	A	A	A	B
Fisherman to Refinery	A	A	A	A
Refinery to NM 128	B	A	A	B

Detailed Analysis
NM 31 Rural Intersections

Detailed Analysis

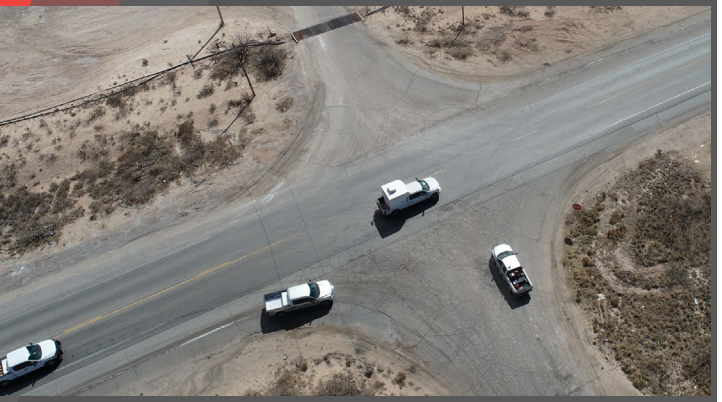
Two-Way Stop Control Traffic Performance – 2041 Existing Conditions

Intersection Along NM 31	Two-Lane Highway – Level of Service				
Two-Way Stop Control	**Peak Period**	**Eastbound NM 31**	**Westbound NM 31**	**Northbound**	**Southbound**
Kelly Road	AM	A	-	-	C
	PM	A	-	-	D
Carter Road	AM	-	A	C	-
	PM	-	A	C	-
Nymeyer Road	AM	-	A	B	-
	PM	-	A	C	-
Donaldson Farm Road	AM	A	B	D	D
	PM	A	A	D	E
Fishermans Lane	AM	-	A	C	-
	PM	-	A	D	-
Refinery Road	AM	A	A	F	F
	PM	B	A	F	F
Two-Way Stop Control	**Peak Period**	**Eastbound**	**Westbound**	**Northbound NM 31**	**Southbound NM 31**
NM 128	AM	-	C	-	B
	PM	-	F	-	A
USC/Mosaic Site	AM	-	B	-	A
	PM	-	B	-	A
US 62	AM	-	B	C (D)*	-
	PM	-	B	D (E)*	-

Note: LOS C (D) = LOS C for the approach; LOS D for the critical movement on the approach. Shaded values do not meet SAMM LOS criteria.

The LOS criteria for unsignalized intersections are based on control delay which is defined in seconds per vehicle (s/veh).

Detailed Analysis



Two-Way Stop Control Traffic Performance – 2041 Build Recommendations using TWSC

			Level of Service			
NM 31 Intersection	**Peak Period**	**Configuration**	**Eastbound NM 31**	**Westbound NM 31**	**Northbound**	**Southbound**
Kelly Road	AM	4-Lane	A	-	-	B
	PM	TWSC	A	-	-	C
Carter Road	AM	4-Lane	-	A	B	-
	PM	TWSC	-	A	B	-
Nymeyer Road	AM	4-Lane	-	A	B	-
	PM	TWSC	-	A	B	-
Donaldson Farm Road	AM	4-Lane	A	B	C	B
	PM	TWSC	A	A	B	C
Fishermans Lane	AM	4-Lane	-	A	C	-
	PM	TWSC	-	A	B	-
Refinery Road	AM	4-Lane	A	B	D	F
	PM	TWSC	B	A	D	E (F)*
NM 31 Intersection	**Peak Period**	**Build Scenario**	**Eastbound**	**Westbound**	**Northbound NM 31**	**Southbound NM 31**
NM 128	AM	4-Lane	-	B	-	B
	PM	TWSC	-	F	-	A
USC/Mosaic Site	AM	2-Lane	-	B	-	A
	PM	TWSC	-	B	-	A
US 62	AM	4-Lane	-	B	C (D)*	A
	PM	TWSC	-	B	D (E)*	A

*Note: *LOS C(D) = LOS C for the approach; LOS D for the critical movement on the approach.*
Shaded values do not meet SAMM LOS criteria.

Alternative Intersection Configurations Traffic Performance – 2041 Build Recommendations

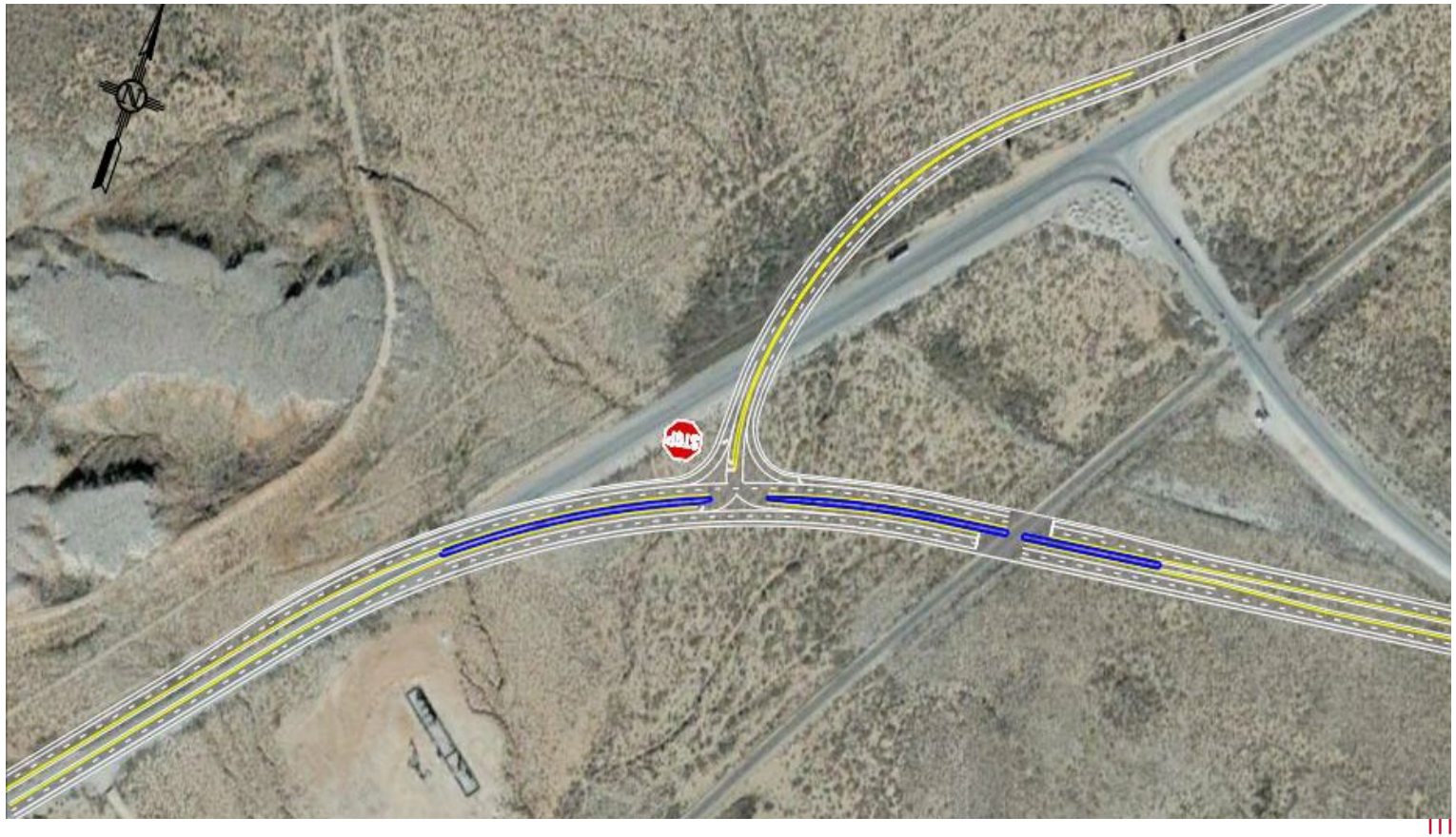
Intersection	Peak Period	Configuration	Eastbound NM 31	Westbound NM 31	Northbound	Southbound
NM 31 @ Refinery Road	AM	Roundabout	B	A	C	B
	PM		A	A	B	B
	AM	RCUT	A	B	D	D
	PM		A	A	C	C (D)*
Intersection	**Peak Period**	**Configuration**	**Eastbound**	**Westbound**	**Northbound NM 31**	**Southbound NM 31**
US 62 @ NM 31	AM	RCUT	-	A	C (D)*	-
	PM		-	B	C (D)*	-
	AM	High-T	-	B	C	-
	PM		-	B	C	-
NM 31 / NM 128 Existing Configuration	AM	Roundabout	-	A	A	A
	PM		-	A	A	A
	AM	RCUT	-	C (D)*	-	B
	PM		-	F	-	B
	AM	High-T	-	B	-	B
	PM		-	F	-	A
	Peak Period	**Configuration**	**Eastbound NM 31**	**Westbound NM 128**	**Northbound**	**Southbound NM 31**
NM 31 / NM 128 Realigned Configuration	AM	TWSC	A	-	-	B
	PM		B	-	-	C (D)*
	AM	High-T	A	-	-	B
	PM		B	-	-	B
	AM	Roundabout	A	A	-	A
	PM		A	A	-	B

*Note: *LOS C(D) = LOS C for the approach; LOS D for the critical movement on the approach. Pink shaded values do not meet SAMM LOS criteria.*

The Realigned High-T introduces BNRF RR crossing skew angle challenges.

Alternative Intersection Configurations Traffic Performance – 2041 Build Recommendations

NM 31-128 Intersection - High-T



Detailed Analysis

Traffic Safety

Based on a crash history review, improvements are needed to address safety concerns along NM 31 from Kelly Road to NM 128. Crash occurrence north of the NM 128 intersection does not indicate specific safety concerns.

The types of improvements may include:

- The addition of left-turn and right-turn speed change lanes at the major cross-roads to NM 31 with proper deceleration and storage lengths.
- Providing a median to provide positive separation of the opposing travel directions.
- Providing additional traffic capacity at intersections and along highway segments.
- Adding rumble strips along the outside edges of the travel lanes and along the centerline where applicable.

Detailed Analysis
NM 128 Mainline

Detailed Analysis

Two-Lane Highway Traffic Operations Summary – 2041 Existing Conditions

Minor Rd. to Minor Rd.	Level of Service			
	Eastbound	Westbound	Eastbound	Westbound
	AM PEAK		PM PEAK	
NM 31 to MP 0.85	D	B	B	D
MP 0.85 to WIPP Road	C	B	B	C
WIPP Road to Red Road	C	A	A	D
Red Road to Buck Jackson Road	C	B	A	D
Buck Jackson Road to Orla Road	C	C	B	C
Orla Road to Delaware Basin Road	B	C	C	B
Delaware Basin Road to Battle Axe Road	A	C	B	B
Battle Axe Road to MP 48.0	A	D	C	B
MP 48.0 to Wyoming Road	B	D	D	B
Wyoming Road to MP 54.4	N/A in City of Jal			
MP 54.4 to Willis Road	A	B	B	B
Willis Road to Texas Border	A	B	B	A

Note: Shaded values do not meet SAMM LOS criteria.

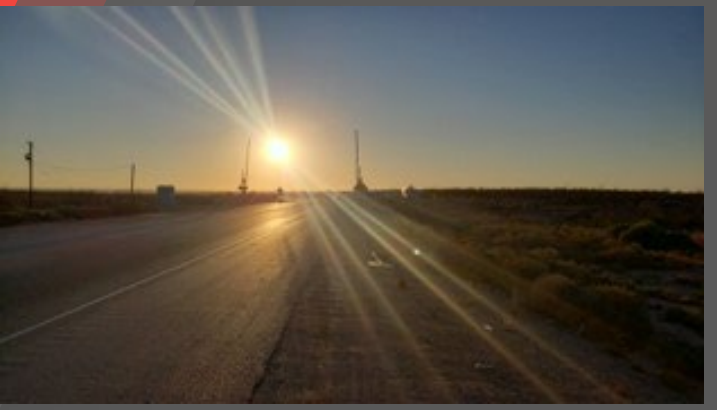
Detailed Analysis

Multi-Lane Highway Traffic Operations Summary – 2041 Build Recommendations

Minor Rd. to Minor Rd.	Level of Service (LOS)			
	Eastbound	Westbound	Eastbound	Westbound
	AM PEAK		PM PEAK	
NM 31 to MP 0.85	A	A	A	A
MP 0.85 to WIPP Road	A	A	A	A
WIPP Road to Red Road	A	A	A	A
Red Road to Buck Jackson Road	A	A	A	A
Buck Jackson Road to Orla Road	A	A	A	A
Orla Road to Delaware Basin Road	A	A	A	A
Delaware Basin Road to Battle Axe Road	A	A	A	A
Battle Axe Road to MP 48.0	A	A	A	A
MP 48.0 to Wyoming Road	A	A	A	A

Detailed Analysis
NM 128 Rural Intersections

Detailed Analysis

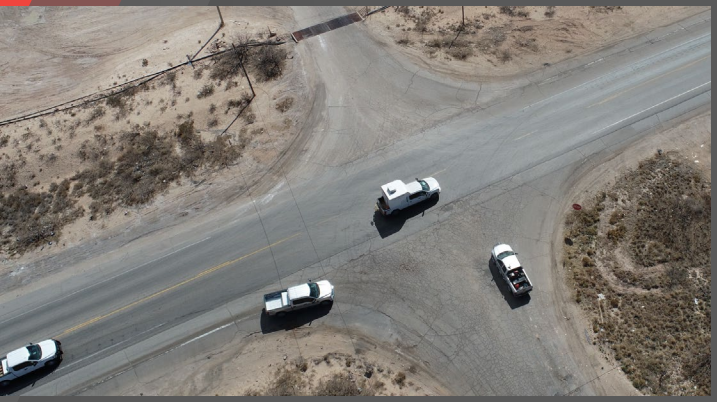


Two-Way Stop Control and All-Way Stop Control Traffic Performance – 2041 Existing Conditions

Intersection along NM 128	2041 No Build Unsignalized Intersection Level of Service				
Two-Way Stop Control	**Peak Period**	**Eastbound NM 128**	**Westbound NM 128**	**Northbound**	**Southbound**
WIPP Rd	AM	A	-	-	F
	PM	B	-	-	C
Red Road	AM	A	-	-	C
	PM	B	-	-	D
Buck Jackson Road	AM	-	B	C	-
	PM	-	A	F	-
Orla Road	AM	-	A	C	-
	PM	-	A	F	-
Delaware Basin Road	AM	A	-	-	D
	PM	A	-	-	C
Battle Axe Road	AM	-	A	C	-
	PM	-	A	D	-
All-Way Stop Control	**Peak Period**	**Eastbound NM 128**	**Westbound NM 128**	**Northbound**	**Southbound**
3rd Street	AM	F	B	F	D
	PM	F	B	F	D
NM 18	AM	E (F)*	E	D	D
	PM	E (F)*	E	E	D
Two-Way Stop Control	**Peak Period**	**Eastbound NM 128**	**Westbound NM 128**	**Northbound**	**Southbound**
Schooley Road	AM	A	A	B	B
	PM	A	A	C	C
Willis Road	AM	A	A	C	C
	PM	A	A	C	C

The LOS criteria for unsignalized intersections are based on control delay which is defined in seconds per vehicle (s/veh).

Detailed Analysis



Two-Way Stop Control Traffic Performance – 2041 Build Recommendations using TWSC

Unsignalized Intersection along NM 128	Peak Period	Configuration	Eastbound NM 128	Westbound NM 128	Northbound	Southbound
WIPP Road	AM	4-Lane	A	-	-	C (D)*
	PM	TWSC	B	-	-	B
Red Road / Twin Wells Road	AM	4-Lane	A	A	C	C
	PM	TWSC	B	A	B	C
Buck Jackson Road	AM	4-Lane	-	B	B	-
	PM	TWSC	-	A	C (D)*	-
Orla Road	AM	4-Lane	-	A	B	-
	PM	TWSC	-	A	C (D)*	-
Delaware Basin Road	AM	4-Lane	A	-	-	C
	PM	TWSC	A	-	-	C
Battle Axe Road	AM	4-Lane	-	A	B	-
	PM	TWSC	-	A	B	-
Schooley Road	AM	2-Lane TWSC	A	A	B	B
	PM	with Turn Lanes	A	A	C	B
Willis Road	AM	2-Lane TWSC	A	A	B	B
	PM	with Turn Lanes	A	A	B	C

*Note: *LOS C(D) = LOS C for the approach; LOS D for the critical movement on the approach. Shaded values do not meet SAMM LOS criteria.*

Detailed Analysis

Alternative Intersection Configurations Traffic Performance – 2041 Build Recommendations

Unsignalized Intersection along NM 128	Peak Period	Configuration	Eastbound NM 128	Westbound NM 128	Northbound	Southbound
WIPP Road	AM	Roundabout	A	A	-	A
	AM	RCUT	A	-	-	D (E)*
	AM	High-T	A	-	-	B
Buck Jackson Road	PM	Roundabout	A	A	B	-
	PM	RCUT	-	A	D (E)*	-
	PM	High-T	-	A	B	-
Orla Road	PM	Roundabout	A	A	C	-
	PM	RCUT	-	A	D (E)*	-
	PM	High-T	-	A	C	-

*Note: *LOS C(D) = LOS C for the approach; LOS D for the critical movement on the approach. Pink shaded values do not meet SAMM LOS criteria.*

Detailed Analysis

Traffic Safety

Based on the crash history review, improvements are needed to address safety concerns along NM 128.

The types of improvements may include:

- The addition of left-turn and right-turn speed change lanes at the major cross-roads to NM 128 with proper deceleration and storage lengths.
- Providing a median to provide positive separation of the opposing travel directions.
- Providing additional traffic capacity at intersections and along highway segments.
- Adding rumble strips along the outside edges of the travel lanes and along the centerline, where applicable.

NM 31 128

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Environmental, Right-of-Way and Cost

Environmental Resources

Communities and Land Use

- No residential or business relocations are expected
- Overall land use would not be impacted
- Additional analysis will be part of the environmental documentation phase

Natural Resources

- The Pecos River is the only perennial waterway in the study area and has wetlands
  - Proposed new bridge offset south to avoid impacts to the wetlands
- NM 128 corridor is situated in the Nash Draw watershed
  - Closed water basin with no connection to the Pecos River watershed
- No critical habitat for threatened and endangered species within the study area

Environmental Resources

Cultural Resources

- Build Alternative would impact at least nine archaeological sites with the roundabout option at the NM 31-128 intersection.
- A data recovery plan will be developed and implemented, in consultation with the SHPO, the State Land Office, and BLM in order to mitigate the impacts to these resources.
- The NM 31 project will cross or intersect with nine historic properties eligible for listing on the National Register of Historic Places (NRHP).
- NM 128 also has sensitive archaeological sites with few eligible for listing on the NRHP.

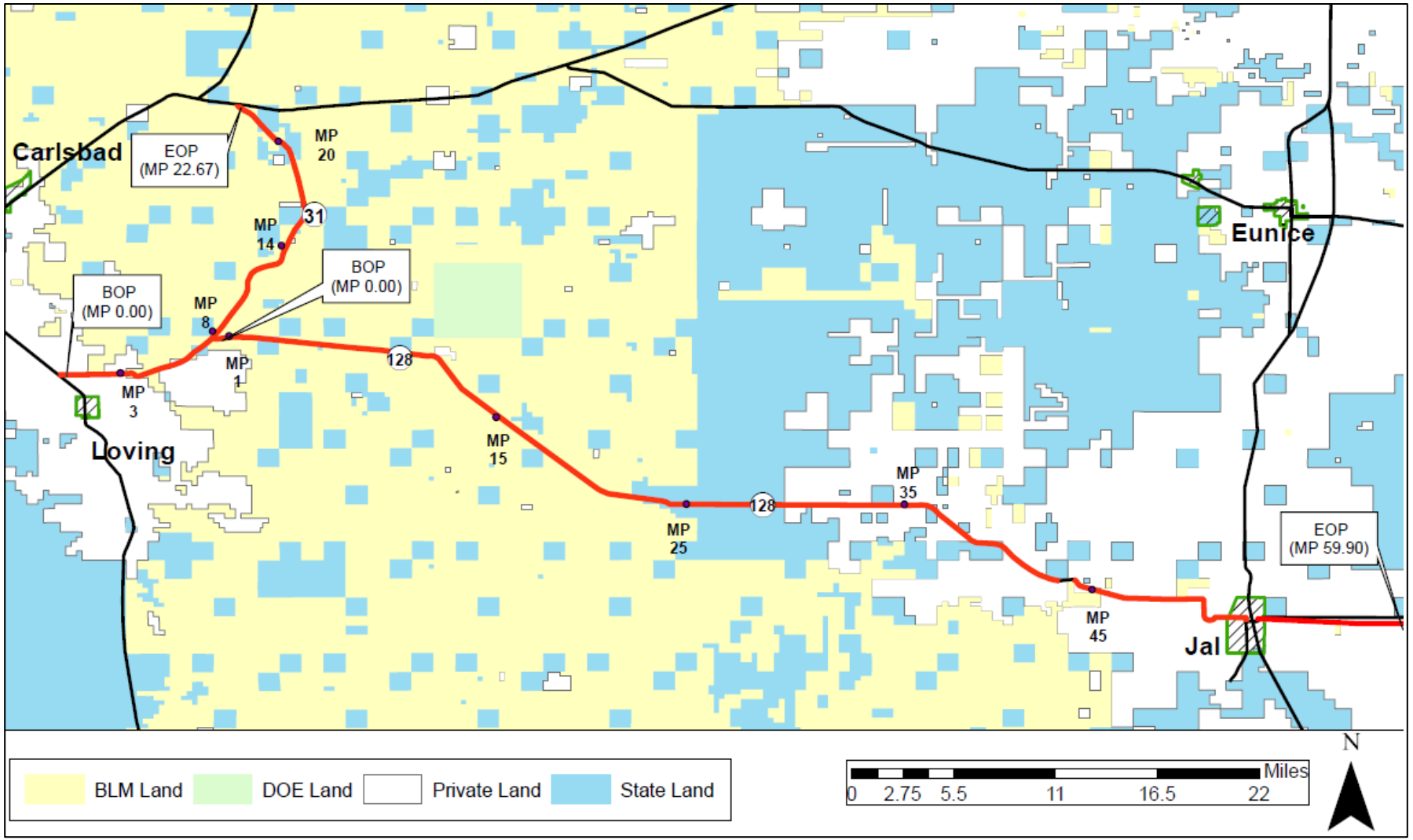
Geologic Hazards

- Caves, karst topography, and other subsurface geologic voids are common in SE New Mexico.
- Portions of the study area are composed of a gypsum-based geology where fissures, tubes, and caves are common.
  - —These features are often over 1,000 feet long and over 250 feet deep.
  - —Cave and karst field investigations are ongoing.

Right-of-Way

- **Property surrounding project corridors is a combination of:**
  - Bureau of Land Management (BLM)
  - State Land Office (SLO)
  - Private
- **An Enhanced Conceptual Engineering Design (30% level) has been developed**
  - Depicts anticipated construction limits and ROW
- **ROW Acquisition (and Environmental Permitting) will be based on the Enhanced Conceptual Engineering Design**

Right-of-Way



- NM 31 additional Right-of-Way needs – approx. 95 acres
- NM 128 additional Right-of-Way needs - approx. 195 acres

Estimated Cost

Estimated Construction Costs for NM 31

Description	Segment 1: MP 0.5 to MP 8.0	Segment 2: MP 8.0 to EOP at US 62
Roadway Elements (includes lighting and RR Crossings)	$ 51,691,000	$ 52,438,500
Drainage	$ 3,773,600	$ 6,869,400
Bridges	$ 9,434,000	-
Major Item Subtotal	$ 64,898,600	$ 59,307,900
Contingency and Cost escalation (6%)	$ 3,893,916	$ 3,558,474
Construction Subtotal	$ 69,792,516	$ 62,866,374
Engineering (8% of construction subtotal)	$ 5,503,401	$ 5,029,310
Construction Management (10%)	$ 6,879,252	$ 6,286,637
Construction Total	$ 81,175,169	$ 74,182,321
NMGRT	$ 4,836,660	$ 4,420,005
Project Total	**$ 86,011,829**	**$ 78,602,327**

Overall NM 31 Total: $165 million

Estimated Cost

Estimated Construction Costs for NM 128

Description	Segment 1: MP 0.5 to 11.8	Segment 2: MP 11.8 to 28.8	Segment 3: MP 28.8 to 38.8	Segment 4: MP 38.8 to 50.7	Segment 5: MP 50.7 to 53.9	Segment 6: MP 53.9 to 59.9
Roadway Elements (includes lighting and RR Crossings)	$51,451,589	$60,669,027	$44,887,723	$51,452,483	$18,684,076	$15,214,937
Drainage	$3,969,013	$3,476,339	$1,613,415	$4,563,476	$4,761,510	$569,415
Bridges	0	0	- 0	- 0	- 0	- 0
Major Items Subtotal	$55,420,601	$64,145,366	$46,501,138	$56,015,959	$23,445,586	$15,784,352
Contingency and Cost Escalation (6%)	$3,325,236	$3,848,722	$2,790,068	$3,360,958	$1,406,735	$947,061
Construction Subtotal	$58,745,837	$67,994,088	$49,291,207	$59,376,917	$24,852,321	$16,731,413
Engineering (8% of construction subtotal)	$4,699,667	$5,439,527	$3,943,297	$4,750,153	$1,988,186	$1,338,513
Construction Management (10%)	$5,874,584	$6,799,409	$4,929,121	$5,937,692	$2,485,232	$1,673,141
Construction Total	$69,320,088	$80,233,024	$58,163,624	$70,064,762	$29,325,738	$19,743,068
NMGRT	$4,086,600	$4,530,850	$3,161,946	$3,811,351	$1,886,646	$1,069,985
Project Totals	**$73,406,688**	**$84,793,874**	**$61,325,570**	**$73,876,113**	**$31,212,384**	**$20,813,052**

Overall NM 128 Total: $325 million

NM 31 128

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Project Delivery Method:

Design-Build Procurement Phase I and Project Phasing

Design-Build

The Design-Build phase (Phase I) 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 Construction Cost: **$70-$80 million**

Design-Build

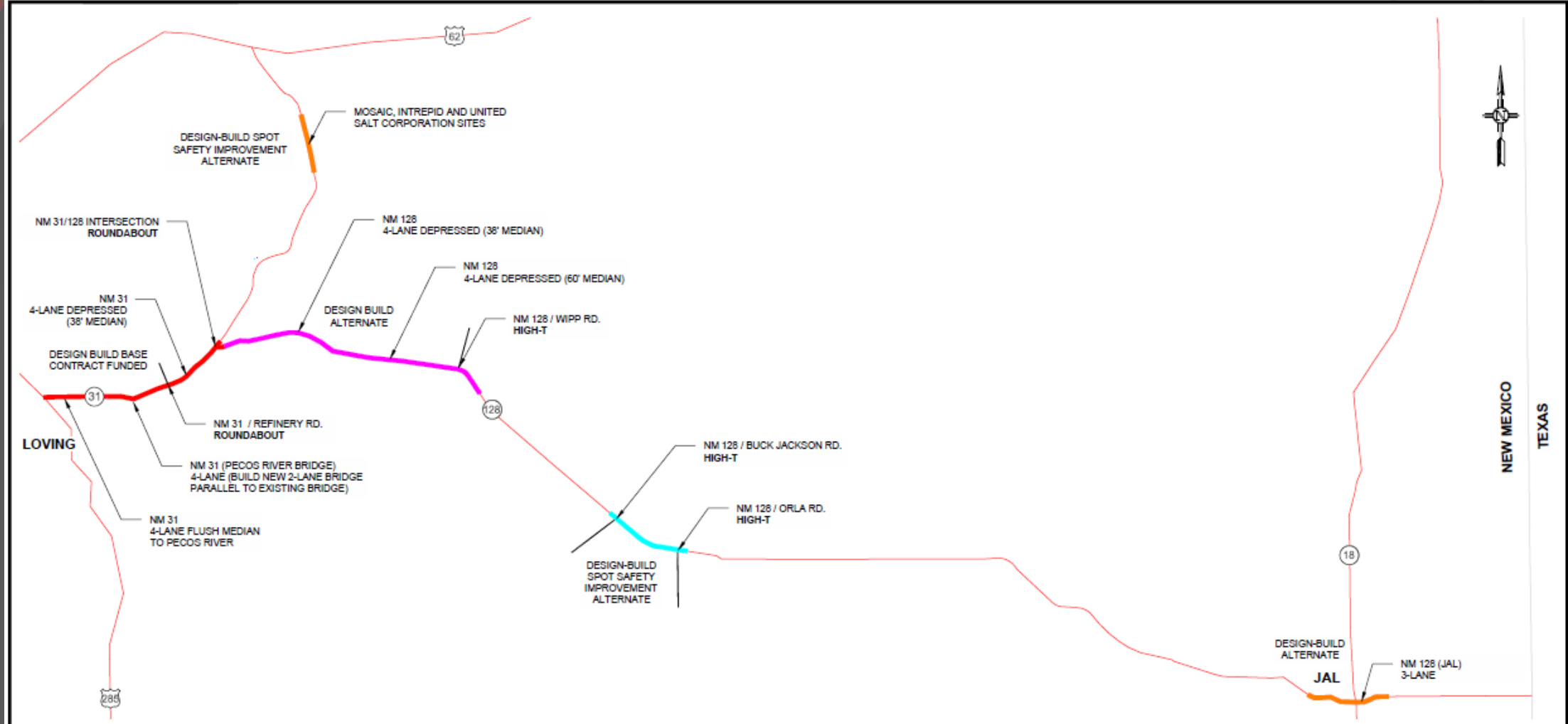
The Design-Build Phase (1st) will consist of the following add alternative elements:

- City of Jal Improvements
  - Estimated Construction Cost: **$23-$26 million**
- NM 128 from NM 31 to the WIPP Road
  - Estimated Construction Cost: **$50-$55 million**
- NM 31 and NM 128 Site Safety Improvements
  - Estimated Construction Cost: **$2-$20 million**
- Added into Design-Build Contract or as Deferred Work to the Design Build Agreement, if funding is secured.

Design-Build

- Spot Safety Improvement Preliminary Recommendations
  - NM 31
    - Mosaic / Intrepid / United Salt Corp. Industrial Areas
  - NM 128
    - Orla Road
    - Buck Jackson
    - Orla Through Buck Jackson Segment

Design-Build Overview Map



NM 31 CORRIDOR				
SEGMENT		MILEPOST	TYPICAL SECTION	KEY FEATURES
	1	0.5 TO 8.0	4-LANE FLUSH MEDIAN TO THE PECOS RIVER AND 38' DEPRESSED MEDIAN FROM THERE TO NM 31-128 INTERSECTION	PECOS RIVER BRIDGE NM 31/REFINERY RD. INTERSECTION: **ROUNDABOUT** NM 31/NM 128 INTERSECTION: **ROUNDABOUT**
	2	16.5 TO 19.0	2-LANE ENHANCED	MOSAIC, INTREPID AND UNITED SALT CORPORATION

NM 128 CORRIDOR				
SEGMENT		MILEPOST	TYPICAL SECTION	KEY FEATURES
	1	0.5 TO 11.8	4-LANE DEPRESSED (38' MEDIAN)	NM 128/WIPP RD. INTERSECTION: **HIGH-T**
	2	19.2 TO 23.0	4-LANE DEPRESSED (60' MEDIAN)	NM 128/BUCK JACKSON & NM 128/ORLA RD. INTERSECTIONS: **HIGH-T**
	3	50.5 TO 53.5	3-LANE	NEW TRAFFIC SIGNALS AT NM 18 AND 3RD STREET IN THE CITY OF JAL

LEGEND

N.M. HIGHWAY

STATE BORDER

NO.	DESCRIPTION	DATE	BY
4			
3			
2			
1			

REVISIONS (OR CHANGE NOTICES)

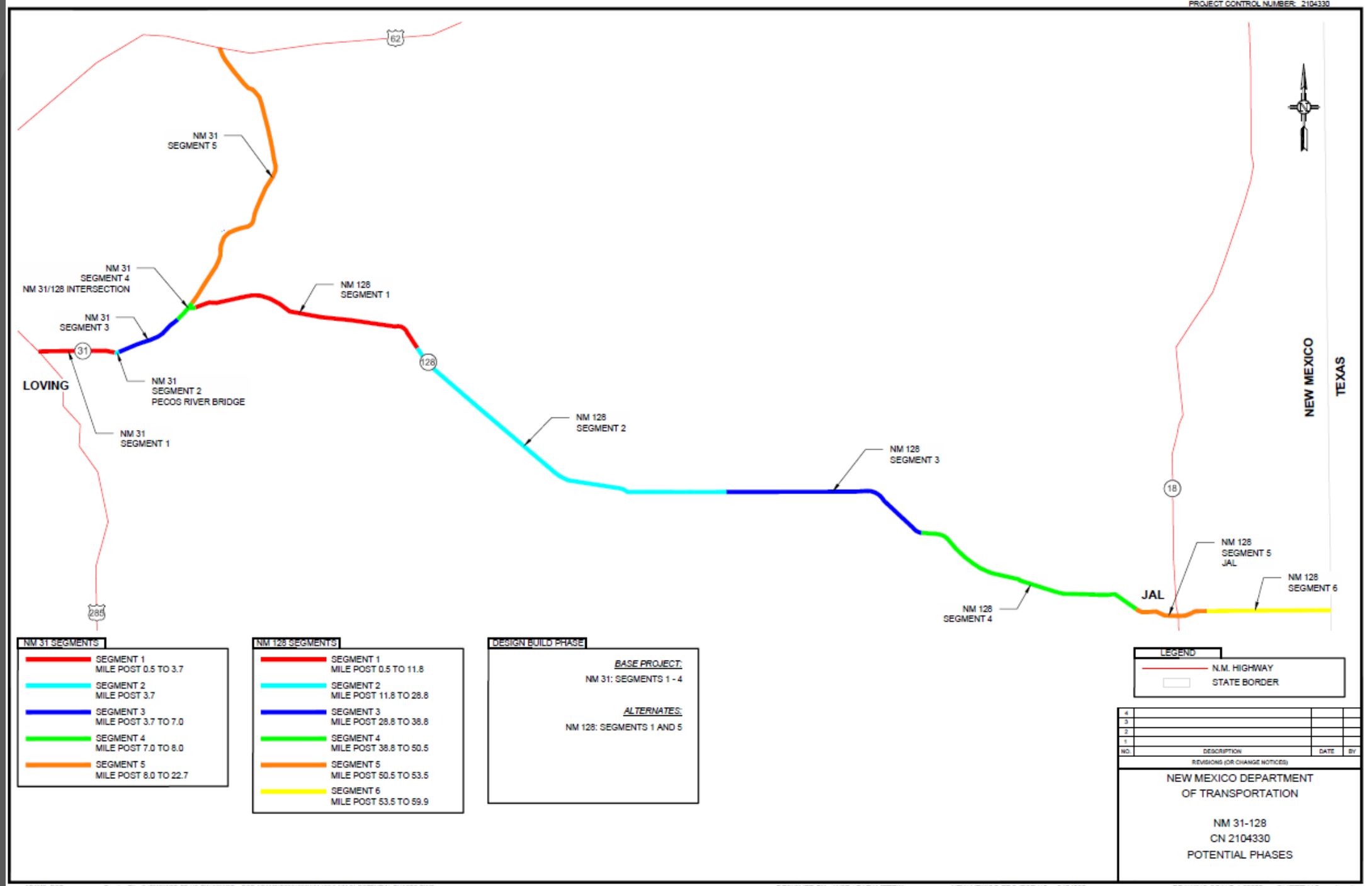
NEW MEXICO DEPARTMENT OF TRANSPORTATION

NM 31-128
CN 2104330
PHASE 1AB STUDY
DESIGN BUILD PHASES

ADAMS, ROD — Drawing File: C:\BIM\WSP-PB-US-PW-02\WSP__ROD.ADAMS\D0292515\NM 128 & NM 31_PHASE 1AB DESIGN BUILD PHASES.DWG

DESIGNED BY: WSP / PARAMETRIX — NEW MEXICO PROJECT NO. 2104330 — DRAWING SCALE: 1:22000 — SHEET NO. 1 - 1

Conceptual Project Phasing



Schedule and Next Steps

Project Schedule

- Start of study (Phase IA/B) – **Fall 2020**
  - *Public meeting – **August 2021***
  - *Public meeting for Jal - **September 2021***
  - *Public meeting – **May 8, 2022*** We are Here
  - *Public meeting – City of Jal – **May 24, 2022***
- Completion of study – **July-August 2022**
- Initial engineering design development – **Summer 2021 through Summer 2022**
- Environmental analysis & documentation – **Summer/Fall 2022**
- Anticipated construction start (Design-Build) – **Summer-Fall 2023**[1,2]
  - *Multiple Construction Phases Depending on Funding*

1. Estimated
2. Funding dependent

Next Steps

- Gather public input
- Complete the Phase I-A/B Study Report
- Complete Environmental Documentation
- Develop Design-Build Contract Documents (RFP) – **Now through Fall 2022**
- Identify ROW acquisition needs
- Select Design-Build Team – **Mid 2023**
- Start Construction of Phase I – **Summer-Fall 2023**

We Want to Hear from You…

Please provide us with comments by June 3, 2022

Electronic submittals preferred

How to Provide Comments?

- **Email:** jennifer.hyre@wsp.com
- **Call:** (505) 878-6577
- **Mail:** WSP | Jennifer Hyre | Attn: *NM 31-128*
  2440 Louisiana Blvd NE, Suite 400
  Albuquerque, NM 87110

Project website

https://nm31-128project.nmdotprojects.org

All Comments are welcome!!

NM 31 128

THANK YOU

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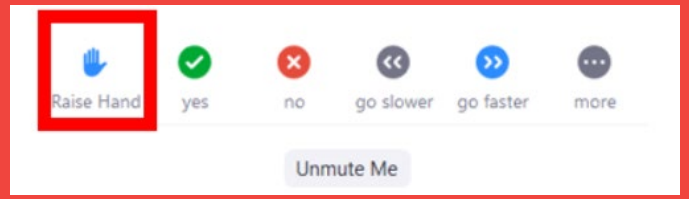
Questions

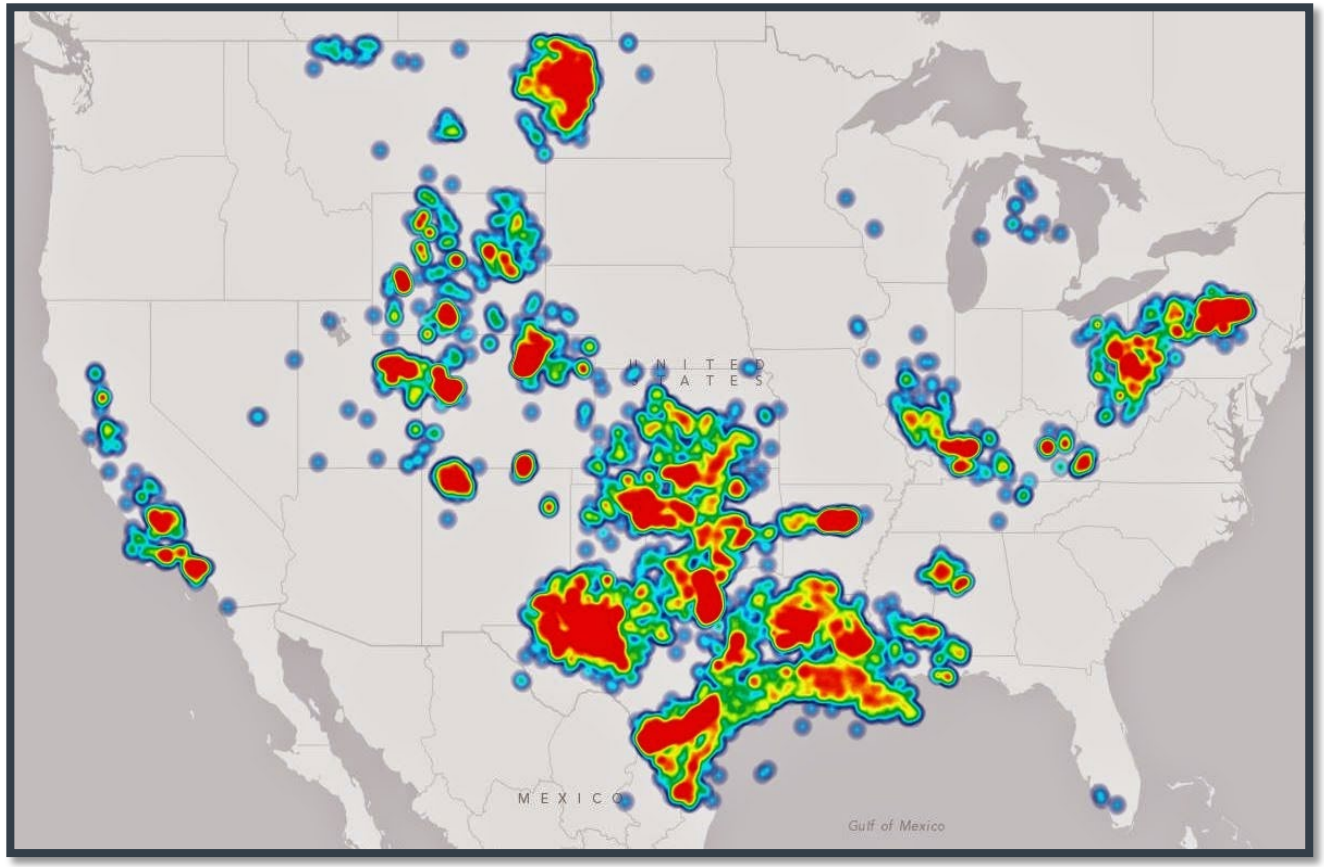
If you would like to speak,
raise your hand
Press *9 if you have dialed-in



Oil and Gas Activity

Some of the research we studied

- **Permian Basin Oil & Gas: A 20-mile corridor of NM 31 and NM 128**
  - Existing, 5 and 10-year projected activities (current)

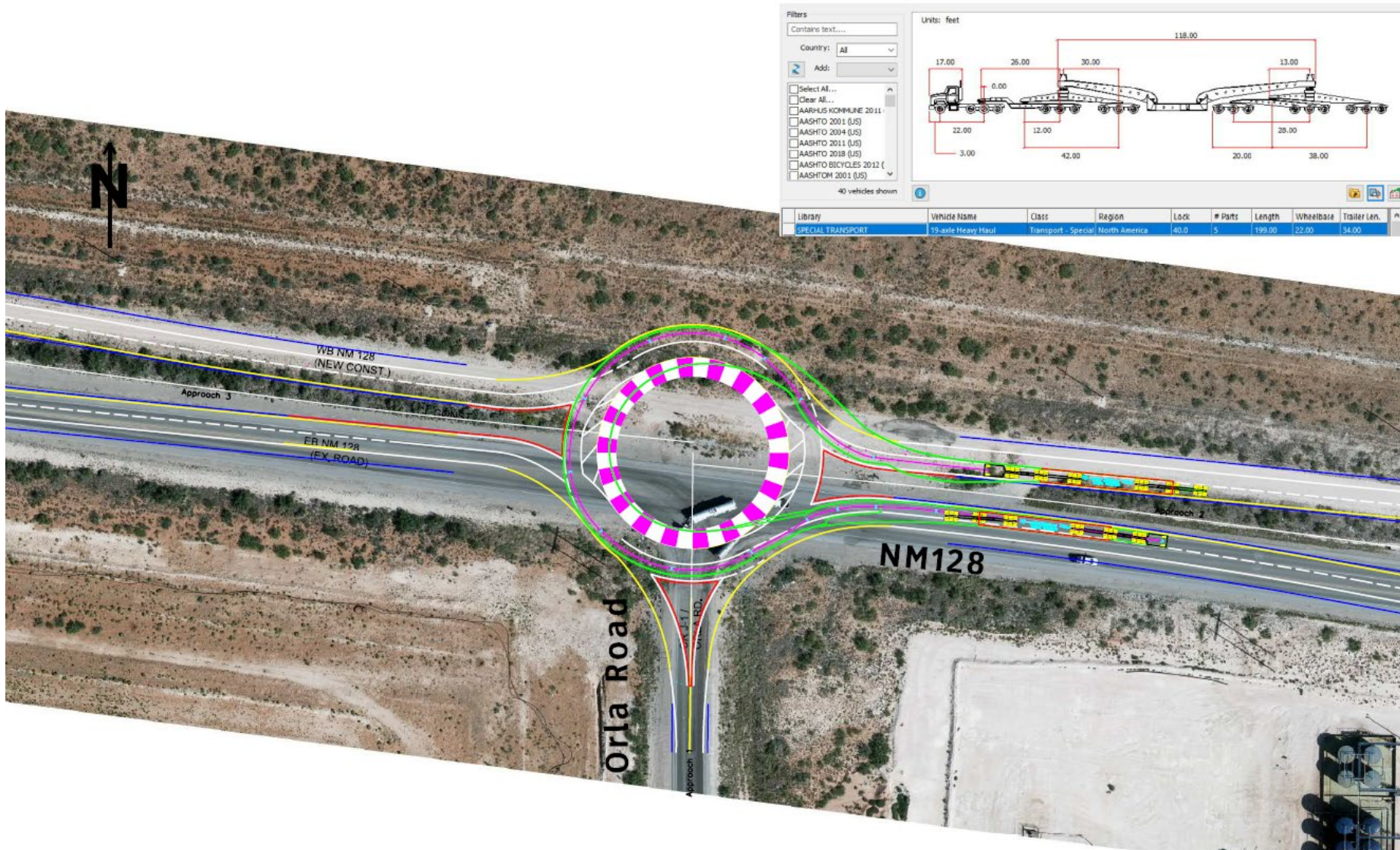


Heat Map of Oil & Gas Drilling in the U.S. (DrillingMaps.com, 2014)

Proposed Rural Intersection Alternatives

Roundabout

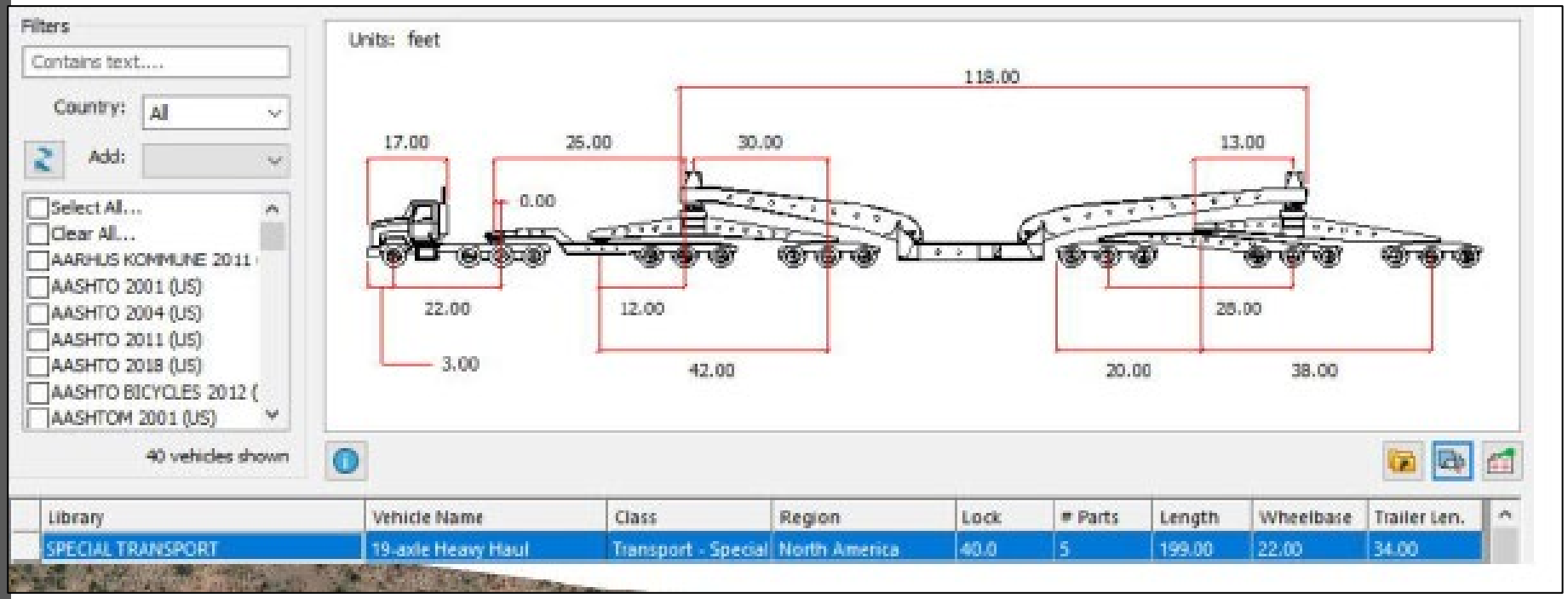
Inscribed Diameter: 230’
Lanes: 2@30’ Total
Truck Apron: 17’



Proposed Rural Intersection Alternatives

Roundabout

Design Vehicle: 19-Axle – 199’ long x 22’ wide
NMDOT Permits: 200’ long x 22’ wide
Wind Turbine Blades: 276’ long



Proposed Rural Intersection Alternatives

Roundabout