McKinley County

MAY 25, 2025
FINAL

Transportation
MASTER PLAN



McKinley County

www.co.mckinley.nm.us

Produced by Bohannan Huston, Inc.

Resolution Number May-25-039

A Resolution Adopting the
2025 McKinley County Transportation Master Plan

WHEREAS, the Board of County Commissioners of McKinley County commissioned the preparation of the McKinley County Transportation Master Plan, herein referred to as the "transportation master plan", by Bohannon Huston Inc., to establish a comprehensive, multimodal approach to analyze and improve traffic and circulation within McKinley County; and

WHEREAS, the "transportation master plan" was made with the general purpose of providing alternative options to allow the county to capitalize on the connection between transportation and economic development opportunities, and would lead to the improved quality of life for county residents; and

WHEREAS, the "transportation master plan" includes descriptive and explanatory matter concerning the existing conditions, demographic overview, transportation network, transit, safety, technical analysis, identified improvements, safety, general recommendations; and

WHEREAS, the "transportation master plan" includes within, a complete comprehensive safety action plan that meets the Federal Highway Administration's definition and will be used to target safety improvements along various corridors within the county, owned by various agencies; and

WHEREAS, the "transportation master plan" will be amended to include additional analysis of priority safety corridors, inclusion of I-40 preferred alternatives, and other important transportation information and decisions pending approval by other agencies.

NOW, THEREFORE, BE IT RESOLVED that the Board of County Commissioners of McKinley County deems it in the best interest of the public that the plan, prepared by Bohannon Huston Inc., titled the 2025 McKinley County Transportation Master Plan, be approved and adopted as the official "transportation master plan" of McKinley County and shall be contingent on inclusion of recommended final changes by the County Manager.

PASSED, APPROVED, and ADOPTED by the Board of County Commissioners of McKinley County, this 27th day of May 2025.

McKINLEY COUNTY BOARD OF COMMISSIONERS:

Robert Baca, Chairperson

Danielle Notah, Commissioner

Walt Eddy, Commissioner

ATTEST:

Jacqueline K. Sloan, County Clerk

DOC# 411242

05/27/2025 11:03 AM Page: 1 of 1
RES R:$0.00 J. K. Sloan, Mckinley County

ACKNOWLEDGEMENTS

Project Team

Brandon Howe, NWNMCOG, Planner

Robert Kuipers, NWNMCOG, RTPO Program Manager

Anthony Dimas, McKinley County, Manager

Rodney Skersick, McKinley County, Road Superintendent

Lynea Thompson, McKinley County, Administrative Assistant

Board of County Commissioners

Danielle Notah, District I

Walt Eddy, District II

Robert Baca, District III, Chair

Stakeholders

McKinley County Staff

New Mexico Department of Transportation

City of Gallup

Navajo Department of Transportation

Bureau of Indian Affairs

Pueblo of Zuni

Northwest New Mexico Regional Transportation Planning Organization

Northwest New Mexico Council of Governments

Gallup Land Partners

CONTENTS

1. Introduction **4**

Plan Overview / Purpose and Need 4
Study Area and Regional Context 5
Coordinating Agencies and Jurisdictions 7
Previous Planning Efforts 8

2. Community and Stakeholder Engagement **14**

Project Website 14
Interactive Map 15
Overview Flyer 16
Social Media Toolkit 16
Engagement Meetings 16
Engagement Timeline 17

3. Existing Conditions **25**

Demographic Overview 25
Vehicle Ownership, Workers, and Commuting Patterns 34
Population and Household Forecasts 40
Methodology 40
Mathematical Projections 40
Transportation Network 45

4. Safety Action Plan **74**

Executive Summary 74
Introduction 75
Vision 85
Goals 85
Community Engagement 87
Data Summary and Analysis 88
Severity Network 97
Emphasis Areas and Countermeasures 115
Implementation and Evaluation 118

5. Regional Planning and Coordination Considerations **136**

Introduction 136
Navajo Nation 136
I-40 143
Roadway Network 154
Rail (BNSF Southern Transcon Corridor – Gallup Subdivision) 155
Other Figures 157

6. Emerging and Advanced Technology Considerations **166**

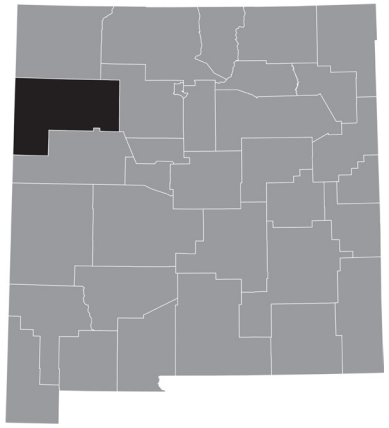
Introduction 166
Prior Plans and Studies 167
Alternative Fueling 169
Autonomous Vehicle and Mobility Testing Center 175
Super Truck Center 178
Inland Port 182
introduction 183

7. Recommendations **183**

Community Engagement 183
Overarching Objectives and Strategies 184
Priority Corridors 188
Identified Project and Program Details 190
Regional Coordination 194
Statewide Transportation Improvement Program (STIP) 196
Safety 197
Bridges 197
Emerging Technologies 198
Project Prioritization 210
Identified Transportation Projects 211
Regional Transportation Improvement Program Recommendations (RTIPR) 221
Funding Sources 223

Appendix A: Road Names **226**
Appendix B: Community Engagement **240**
Appendix C: Right-of-Way Mapping Workflow **276**
Appendix D: Prioritization Process **282**
Appendix E: Countermeasures **288**
Appendix F: NM 602 Countermeasure Detail **304**
Appendix G: NM 118 (Route 66) Countermeasure Detail **308**
Appendix H: NM 491 Countermeasure Detail **321**
Appendix I: I-40 East/West Interchanges: Preferred Alternatives **326**

1. INTRODUCTION



PLAN OVERVIEW / PURPOSE AND NEED

The McKinley County Transportation Master Plan (TMP) analyzes transportation, land use, and socio-economic data to provide a comprehensive understanding of the county's planning issues and develop a prioritized assessment of transportation needs. It takes into the account the complex multi-jurisdictional issues in the area, connects and advances previous regional efforts such as the City of Gallup and Navajo Nation transportation plans, fosters consistency between different agency planning processes, identifies opportunities for connectivity, and advances a framework to implement projects. It's a living document shaped by stakeholder and public input that establishes processes for further dialogue to address the evolving transportation needs and economic opportunities of the county and secure funding to implement priority projects.

Chapter Summaries

- **Chapter 1 Introduction** discusses Plan Overview/Purpose and Need, Study Area and Regional Context, Coordination Agencies and Jurisdictions, and Previous Planning Efforts.
- **Chapter 2 Community and Stakeholder Engagement** discusses the Project Website, Interactive Map, Social Media Toolkit, Stakeholder Meetings, and Public Engagement.
- **Chapter 3 Existing Conditions** provides a Demographic Overview, including Vehicle Ownership, Employment, Commuting Patterns, Population and Household Forecasts. Chapter 3 also provides an analysis of the Transportation Network, including Functional Classification, Major Roadway Connections, Traffic Volumes, Bridges, Crashes, Pedestrian and Bicycle Facilities, Transit, Rail and Freight, and Airports.

- **Chapter 4 Safety Action Plan** discusses Safe Streets for All, Equity, Existing Plan Review, Commitment to Vision Zero, Community Engagement, Data Analysis, Countermeasures, Implementation, and Evaluation.
- **Chapter 5 Regional Planning and Coordination Considerations** discusses Navajo Nation, I-40, and Regional Freight, and Rail.
- **Chapter 6 Emerging and Advanced Technology Considerations** discusses Prior Plans and Studies, Alternative Fueling, Autonomous Vehicle Testing Center, Super Truck Center, and Inland Port.
- **Chapter 7 Recommendations** discusses recommendations related to Community Engagement, Data Collection and Progress Monitoring, Regional Coordination, Alternative Modes of Transportation, Regional Development, Prioritization, Identified Transportation Projects, and Funding Sources.

STUDY AREA AND REGIONAL CONTEXT

Intersected by Interstate 40 and US 491 and host to BNSF rail infrastructure, McKinley County occupies a prominent place for the movement of goods and people within Northwest New Mexico and the Four Corners region and across the western United States.



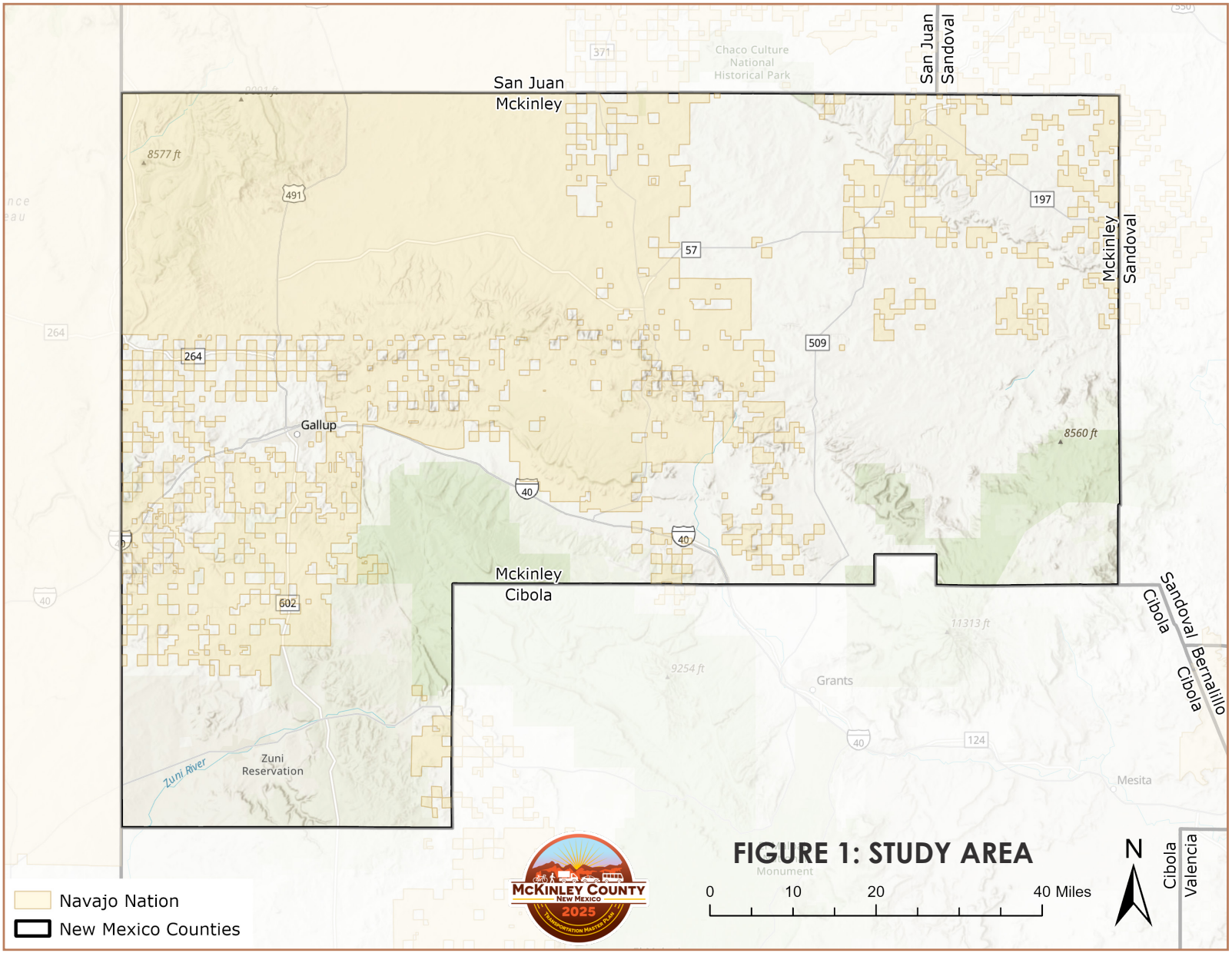


FIGURE 1: STUDY AREA



COORDINATING AGENCIES AND JURISDICTIONS

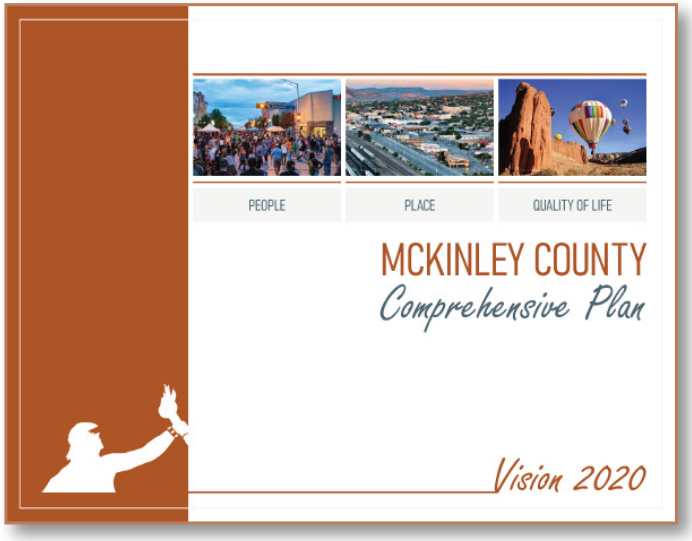
McKinley County is home to a variety of distinct governing entities, including several chapters of the Navajo Nation – the largest tribal reservation in the United States – as well as Zuni Pueblo. This plan also considers coordination with the City of Gallup, the City of Grants, and the Village of Milan. For this transportation plan, the project team coordinated with all of these jurisdictions, as well as several other entities, including the Northwest New Mexico Council of Governments (NWNMCOG), the Northwest Regional Transportation Planning Organization (NWRTPO), the New Mexico Department of Transportation (NMDOT), and the Navajo Nation Department of Transportation (Navajo DOT). In addition to holding meetings with these stakeholders, the project team reviewed transportation planning documents to which these agencies made substantial contributions, focusing specifically on these plans' priorities, recommendations, and insights related to roads under the jurisdiction of McKinley County.

PREVIOUS PLANNING EFFORTS

McKinley County Comprehensive Plan: Vision 2020 (2020)

Vision 2020 discusses several Transportation-related recommendations.

- The public need to be kept informed of the many dangers associated with public safety (i.e. seatbelt and car-seat safety).
- Driving While Intoxicated (DWI) and Driving Under the Influence (DUI) are major concerns.
- The plan recommends establishing public awareness for citizens and businesses, reporting systems, and to instate stricter penalties for offenders to help curb littering.
- Some roads in the county are dead end roads. Recommendation is to extend these roads to connect to other major or minor collector roads to improve accessibility.
- Substandard county roads that serve communities of significant populations should be prioritized. One example is an access road to the unincorporated community of White Cliffs, east Gallup, that passes through a narrow underpass corridor beneath the BNSF railway onto a narrow, deteriorating WWII-era bridge.



- It is recommended that the County organize and develop a comprehensive bridge replacement schedule, including identifying potential funding capacities.
- Develop policies for an intergovernmental/inter-agency collaborative framework that streamlines ROW processes through Memorandum of Understanding (MOUs), Intergovernmental Agreements (IGAs), etc.

Navajo Nation Long Range Transportation Plan (2021)

The Navajo Nation overlaps with 11 counties in Arizona, Utah, and New Mexico; McKinley County is one of these eleven. According to the LRTP, the Navajo Nation frequently works with county highway programs for road construction planning, funding and maintenance. While there are no specific mentions of McKinley County roadways or projects in this plan, the LRTP notes that 70% of roads in the Navajo Nation inventory are "in poor or failing condition." This is because, the plan notes, there are "not enough resources directed towards maintenance and reconstruction activities versus constructing new roads and upgrading roads to pavement without an increased budget for maintaining those roads once improved."

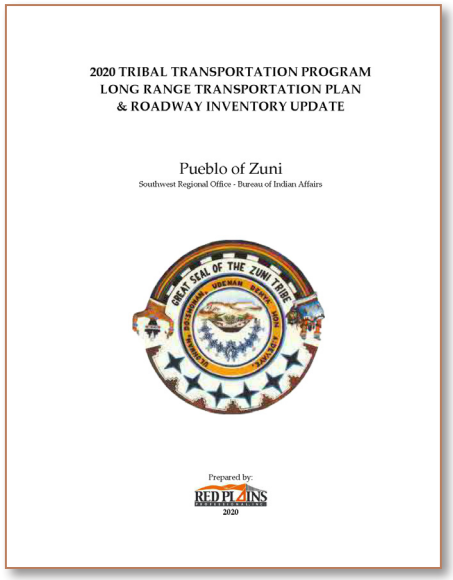
To maximize effectiveness of transportation investments, the plan recommends working with communities to share data and achieve a common understanding of travel demand on the network. Corridors identified and agreed upon as part of this process should be the highest priority for grade and drain improvements; then, a separate evaluation should be undertaken to determine if surface treatment is appropriate. According to the plan, every project should be evaluated to connect people from where they live to where they work, recreate, and conduct business – and every project should evaluate the need to accommodate pedestrians, bicycles, and bus stops (school and transit).



Projects should be subject to the following prioritization process (quoted from the LRTP, Section 9.4 Prioritization Process):

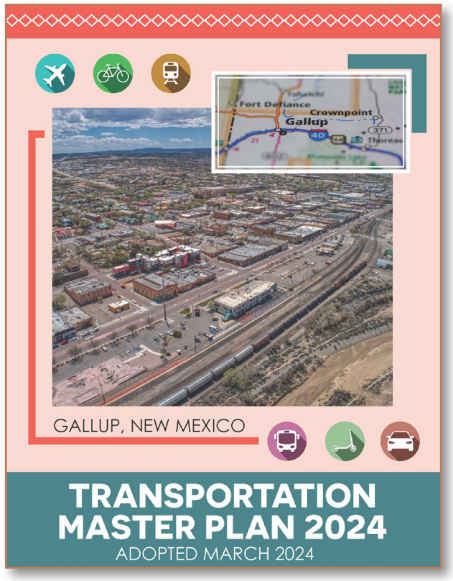
The priorities for all improvements must be performance-driven based on data. At a minimum, the following criteria will be used when applicable, to determine eligibility for a future road project:

- Surface condition (paved routes);
- Average Annual Daily Traffic;
- Drainage washout areas;
- Regional Route designation by Chapter;
- Bus route;
- Bridge condition (sufficiency rating and status);
- Fatal and serious injury crashes (when available); and
- Roadway Functional Classification.



Zuni Pueblo TTP LRTP & Roadway Inventory (2020)

Zuni Pueblo is located largely within McKinley County. The LRTP makes no mentions of specific McKinely County road projects or priorities but contains a prioritized project list which includes the need for planning studies such as a transportation plan, comprehensive pedestrian and bicycle plan, a tribal transportation facilities maintenance plan, and specific projects including upgrades to the following: Veteran's Memorial Road, Intersection of State Route 53 and BIA 301, Zuni Elementary School Access, Zuni Middle School Drive, Ruins Road, Sandy Springs Road, and M. Solomon. The priorities list also calls for system-wide Roadway Drainage Improvements.



City of Gallup Transportation Master Plan (2024)

The Gallup TMP identifies approaches to improve traffic and circulation within the City of Gallup and provide multimodal alternatives beyond the automobile. As the only incorporated city in McKinley County, the City of Gallup plan considers many of the same roads and corridors as the McKinley County TMP, including US 491, I-40, and Route 66, and addresses shared challenges related to bicycle and pedestrian safety and train crossing delays. The Gallup TMP contains extensive context-sensitive recommendations of traffic calming techniques to improve safety, some of which may inform the County's efforts.

Prewitt-Milan Transportation Master Plan (September 2022)

The Prewitt-Milan Plan looks at a planned industrial park to serve rail traffic on a 626-acre site north of Prewitt in McKinley County. It's next to the Escalante Generating Station, north of I-40 and west of County Road 19. While focused primarily on freight and rail analysis, the plan notes that the study area is "an excellent area to explore the installation of electric vehicle charging stations, specifically at the local truck stop locations. The demand for electric vehicle infrastructure, for both personal and freight vehicles, is poised to increase dramatically in the short to mid-term."

The plan also notes that to accommodate increased vehicle volume between the park and I-40, roadway improvements are necessary, including key intersection improvements such as signalization, addition of turn lates, and adding acceleration and deceleration lanes.

One specific recommended roadway improvement involves County Road 19 at the intersection of Route 66, which is an at-grade rail crossing. The plan notes: " The distance between the stop sign and the railroad tracks is roughly 280 feet, providing the possibility for low visibility or stopped traffic on the at-grade railroad tracks. A potential realignment of Pillowcrest Road and CR 19 as an overpass over the railroad would negate this safety and congestion hazard and combine the two intersections into one. Further north along CR 19 is the recently close Escalante Power Plant and considerations should be made for higher traffic volumes as the site has the potential to be reused as a clean energy plant."



Other County Road 19 projects listed in the recommended project matrix include improvements at the intersection of CR-19 and NM-122; widening the shoulder and installing turn lates of CR-19 for freight track entrance at the Escalante Generating Station; adding acceleration lanes for southbound CR-19 and northbound turn lanes at future entrance to Prefill Industrial Park and installing roadway lighting at the future entrance to Prewitt Industrial Park.

The plan also notes that there's an opportunity "to reconfigure the Solid Waste Authority Road Access to Prewitt Industrial Park in McKinley County. The new route would address concerns from the existing route by providing a more direct route for freight traffic, utilizing an existing grade separated railroad crossing, and allow longer queue lengths between NM-122 and the BNSF rail line."

Four Corners Intermodal Transloading Equinox – 4CITE (November 2016)

As part of the 4Cite Study, potential traffic impacts were considered for five scenarios for an ELP buildout. From this analysis came the following recommended improvements (along with Preliminary Cost Estimates--as of 2016). The first three improvements were recommended in all five scenarios.

- Pave Carbon Coal Road: $20,289,649.48
- Pave Rock Springs Road: $6,268,617.79
- Pave Unnamed Road (aligned with Rock Springs Road – south): $6,525,290.48

In 4 out of 5 scenarios, the recommendations were to:

- Widen US 491 – south of 9th Street/Chino Road to six lanes: $953,034.67
- Signal warrant Analysis/Signalize (NM 264 and County Road 9/ Rock Springs Road): $268,073.44

In addition to identifying specific road improvements, the 4CITE study noted that it would be important to consider the location of proposed residential uses relative to industrial uses ("for example, locating the residential on the west end of the ELP site would assist in separating truck traffic from US 491 and residential traffic on Mentmore Road"), design access to Carbon Coal Road to minimize crash points, and consider placing truck restrictions on Mentmore Road.



I-40 Corridor Study

The I-40 Corridor Study proposes that future unfunded improvements should be prioritzed if they are:

- Smaller-scale crash reduction measures such as ramp and geometric improvements
- Larger-scale improvements to maintain infrastructure and ensure that I-40 stays open (especially near Fort Wingate), as well as to address alternative routes
- Enhanced 2-lane configuration with added 3rd lane in Gallup and at various uphill locations

Northwest New Mexico Regional Transportation Plan (Jan 2022)

The Northwest New Mexico RTP provides recommendations for San Juan, Cibola, and McKinley Counties. The RTP lists the following three specific priority projects for McKinley County (quoted directly from appendix):

- County Road 19 road construction to chip seal or pavement, and safety improvements for the large – six chapter community population that depends on this corridor (supported by a 2012 safety award from NM-DOT HSIP Program).
- Safety improvements to County Road 1 (supported by a 2012 safety award from NM-DOT HSIP Program).
- County Road 77 improvements.

The RTP echoes the McKinley County Comprehensive Plan's strategy to minimize new costs by focusing improvements on roads that serve the most residents and by limiting growth of County road-miles. It also recommends discussing with the BIA the possibility of shared maintenance responsibilities or transferring road ownership, which could improve efficiency.

Further, it recommends collaborating with the BIA, Navajo Nation, NMDOT and the NWRTPO to come up with a regional maintenance plan "that assigns road maintenance responsibility, identifies locations of maintenance yards, and allots number of personnel." It would be especially beneficial to all parties to locate maintenance yards in places that strategically serve all agencies.



Other recommendations related to intergovernmental cooperation include coordinating with Zuni Pueblo on roadway needs and possibly contracting to build or maintain roads on the Zuni Reservation and to work with Navajo DOT to install signage warning of livestock on roadways.

General regional transportation priorities from the RTP applicable to McKinley County include reducing fossil fuel use, efficiently moving freight, promoting tourism, Complete Streets planning, and encouraging alternative intersection designs, such as roundabouts and diverging diamonds.

2. COMMUNITY AND STAKEHOLDER ENGAGEMENT



Throughout the development of the McKinley County Transportation Master Plan, a variety of meetings were coordinated in several settings to engage local stakeholders and community residents. The details and key outcomes of these meetings are summarized below.

At the start of the project, the project team developed a multi-faceted community engagement effort that took a comprehensive approach to public and stakeholder engagement. An engagement plan was established to outline the function of the Stakeholder Committee, proposed tentative agendas for stakeholder and public meetings over the course of the project, committed to developing a project logo, website and interactive map, and outlined marketing materials and social media coordination.

PROJECT WEBSITE

As part of the engagement process, BHI developed a project website to allow stakeholders and County residents to contribute to the planning process without the need to attend public meetings. Through the use of the website, visitors were able view an overview of the project, a timeline of the planning process, as well as additional resources such as links to previous planning efforts, notes from each public meeting and initial draft sections of this plan for public review. The project website also allowed for direct feedback through project contacts and an interactive map (detailed below).



INTERACTIVE MAP

To encourage informal input from stakeholders and County residents, an interactive map was made available on the project website. This map allowed users to place various pins on the map to identify transportation-related issues and potential improvements. In total, 7 different icons were able to be placed on the map, which were:

- Traffic Issue
- Safety Concern
- Bicycle Improvement
- Major Destination
- Pedestrian Improvement
- Project Coordination
- Other Comment

Upon placing an icon, users could then describe the particular concern, improvement needed, destination, or other comment, which could then be liked or disliked by other users. By the completion of the project, roughly 40 comments were left utilizing the map (Figure 2). A table of all the comments made for each category is available in Appendix B.

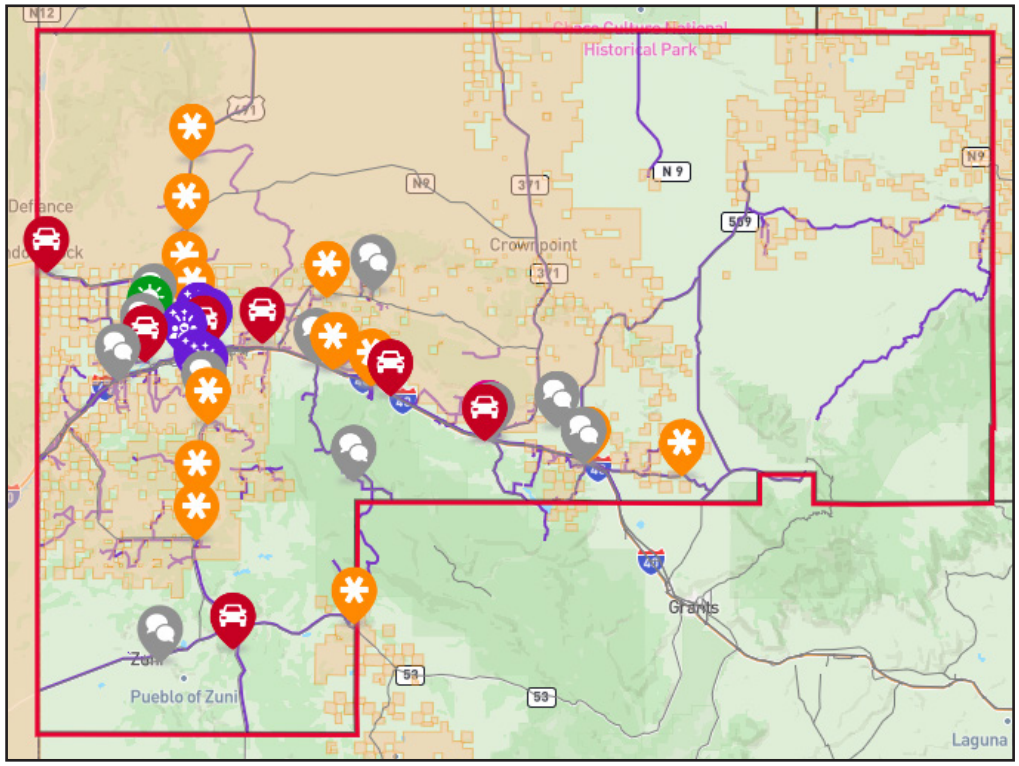


FIGURE 2: INTERACTIVE MAP OF MCKINLEY COUNTY TRANSPORTATION NETWORK

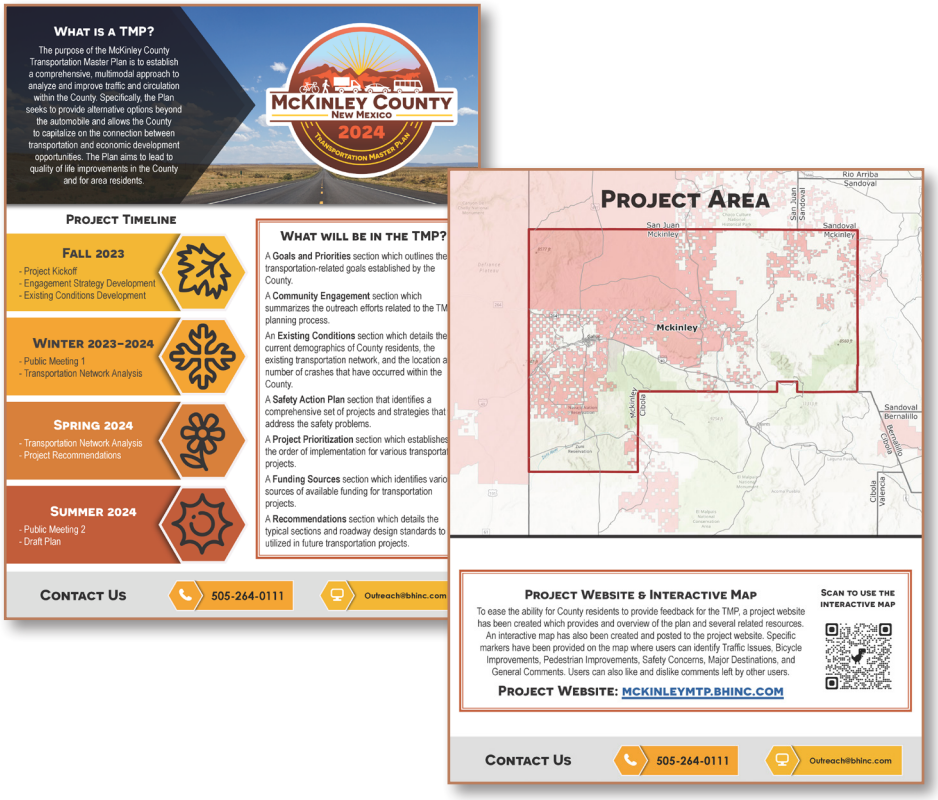


FIGURE 3: TMP OVERVIEW FLYER

OVERVIEW FLYER

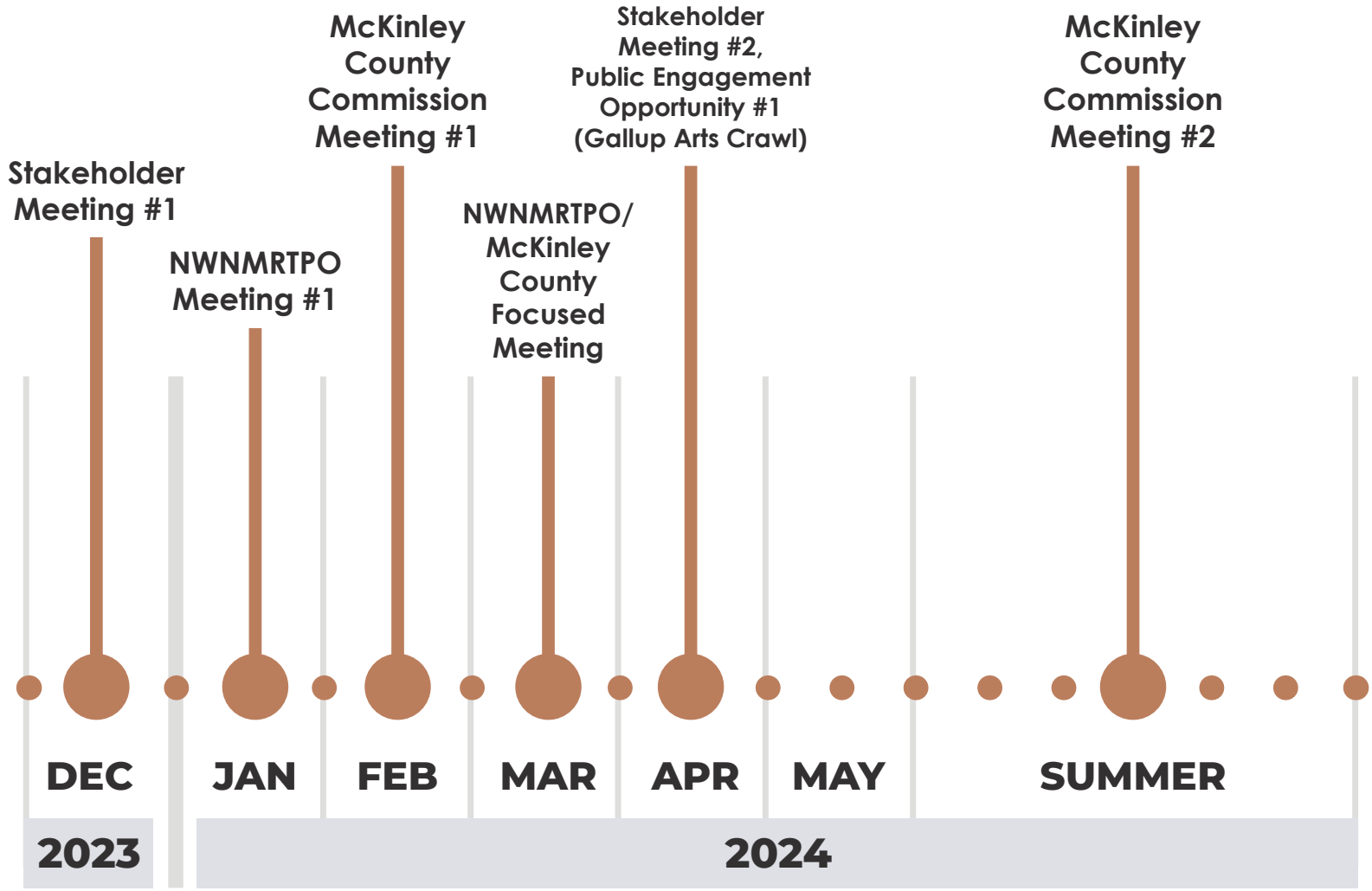
To introduce stakeholder and the public to the project, the project team created a double-sided Overview Flyer (Figure 3). The flyer shared details about the purpose of the TMP, the typical components of a TMP, the project timeline, the project area, and links to the project website and interactive map. The flyer was emailed to stakeholders, posted on the McKinley County and NWNMCOG websites, and the McKinley County Facebook page.

SOCIAL MEDIA TOOLKIT

A social media toolkit was also created for the County to utilize to communicate information to the public. The toolkit offered a variety of posts to create a messaging campaign for the project. The posts were meant to introduce the project, share the project website and interactive, provide updates on plan development, and inform the public of engagement opportunities.

ENGAGEMENT MEETINGS

During the development of the McKinley County TMP, several meetings were coordinated to engage local stakeholders and community residents. Details on these meetings are provided on the following page.



ENGAGEMENT TIMELINE

Stakeholder Meeting 1 – December 11, 2023

The first stakeholder meeting for the McKinley County TMP was held virtually on December 11th, 2023. During the meeting, a presentation was given which detailed the planned contents and the purpose of the TMP and allowed for local stakeholders to shape and influence the direction of the plan. Attendees of the meeting included representatives from McKinley County, NMDOT, Gallup, NDOT, and BIA. Mentimeter polling was used to allow for stakeholder input. The prompts and responses are included below.

1. *Help us prioritize the following elements (Safety, Connectivity, Efficiency, Maintenance, Multimodal/complete streets)*

See Figure 4.

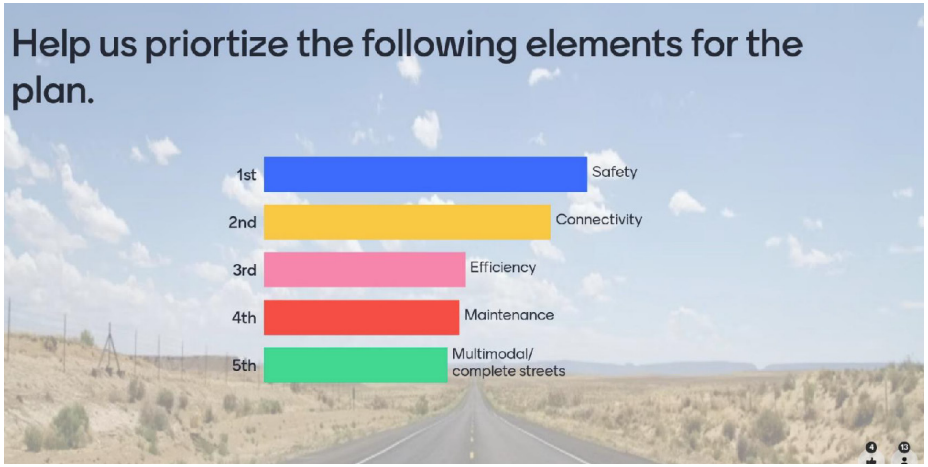
2. *What are your biggest frustrations with the current transportation network in McKinley County?*

Many participants identified issues having to do with lack of communication and coordination between the different entities that own land and roads in the County. Other issues identified were accessibility, connectivity, erosion, train delays, planning and safety. Figure 5 shows a word cloud of the responses received during this poll.

3. *What improvements would you like to see for the future transportation network in the County?*

Many stakeholders provided comments about congestion on I-40 and alternative routes and about the different road owners coordinating and being accountable for road maintenance. Stakeholders identified several different improvements, including rail connectivity to Farmington, connection to Gallup for services, bridge replacement county-wide, right of way waivers to quickly implement projects, transportation that supports and encourages economic development, and various other projects. The full list of responses is available in Figure 6.

FIGURE 4: STAKEHOLDER MEETING 1 - PLAN ELEMENT PRIORITIZATION RANKINGS



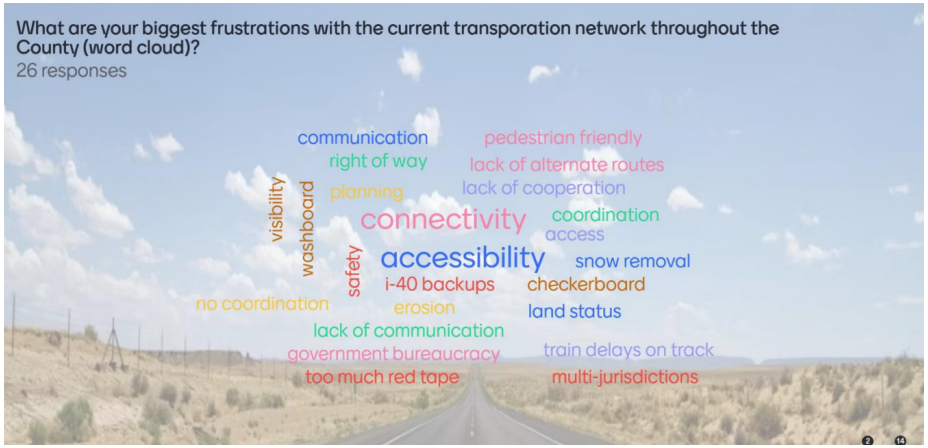
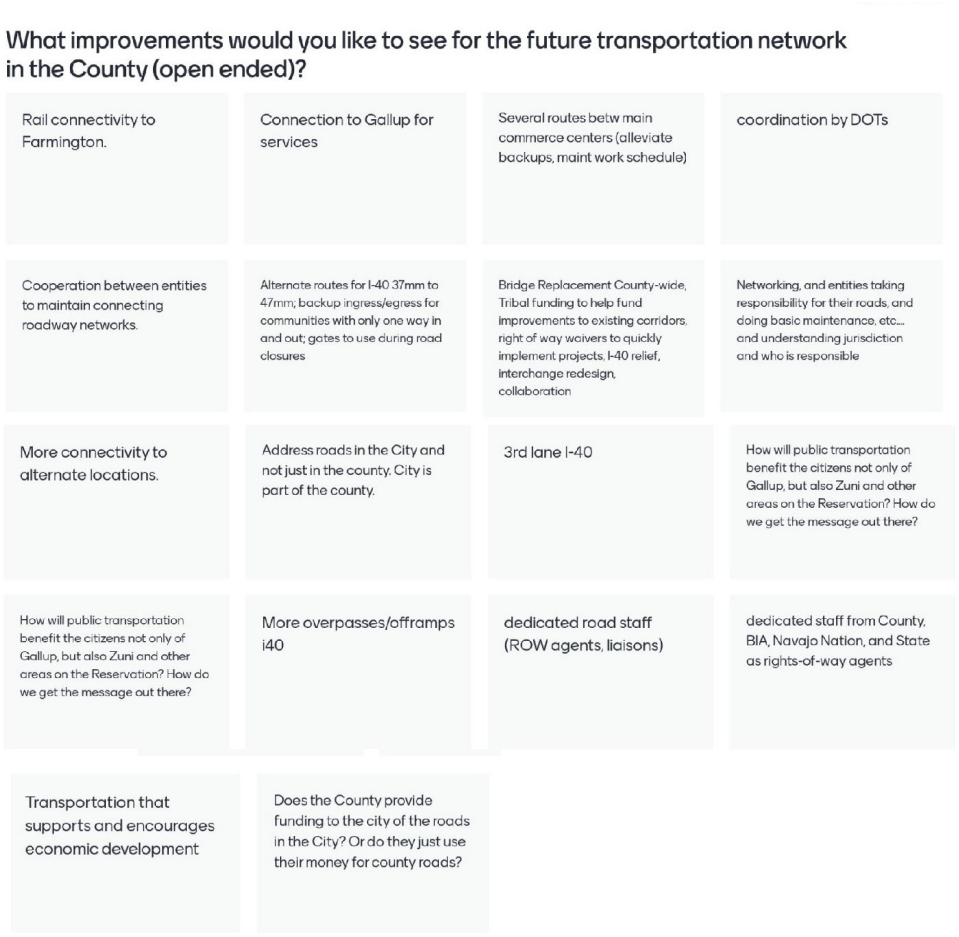


FIGURE 5: STAKEHOLDER MEETING 1 - CURRENT TRANSPORTATION FRUSTRATIONS WORD CLOUD

FIGURE 6: STAKEHOLDER MEETING 1 - DESIRED FUTURE TRANSPORTATION IMPROVEMENTS



Stakeholder Meeting 2 – April 9, 2024

The second stakeholder meeting for the McKinley County TMP was held virtually on April 9th, 2024. During the meeting, a presentation was given which provided a progress update, an overview of stakeholder and community engagement, and insight into the initial findings of the Safety Action Plan (Figure 9). In addition to project progress overview and outcome discussions, a project prioritization activity was conducted.

Several stakeholders had feedback on the initial findings of the Safety Action Plan and were curious about the incorporation of data related to intoxicated pedestrians. For example, the County Sheriff shared that many deputies are noting and have begun tracking the number of pedestrian involved crashes involving intoxicated people crossing I-40 at inappropriate locations (not using crosswalks). The Sherrif also noted that many crashes are due to the vehicle speed being too high for the weather conditions such as rain and may not be adequately captured when responding to a call. He requested that the project team not recommend a countermeasure that will inhibit the flow of traffic or law enforcement during a crash.

As part of the presentation, the project team described what a Project Prioritization Framework is and the different criteria that could be used to prioritize transportation projects in the County. Stakeholders were then asked, "how many points would you allow for each criteria?" The criteria given the most points was Public Comments, with 27%, the criteria coming in second was Funding Sources Available, with 24%, then Total Crashes, with 21%, then Roadway Type, Traffic Volume, Pavement Condition, Proposed Land Use, Bus Route, Roadway Design, Current Land Use, and lastly, Supporting Planning Efforts (Figures 7 and 8). County Manager, Anthony Dimas Jr. shared that the most important criteria when prioritizing a road project should be ownership of the right of way and the land status. Brandon Howe from the Council of Governments shared that connectivity should also be a criterion for prioritizing new corridors.

FIGURE 7: STAKEHOLDER MEETING 2 - RANKED PROJECT PRIORITIZATION CRITERIA





FIGURE 8: STAKEHOLDER MEETING 2 - ADDITIONAL RANKED PROJECT PRIORITIZATION CRITERIA

FIGURE 9: STAKEHOLDER MEETING 2 - SCREENSHOT OF PRESENTATION

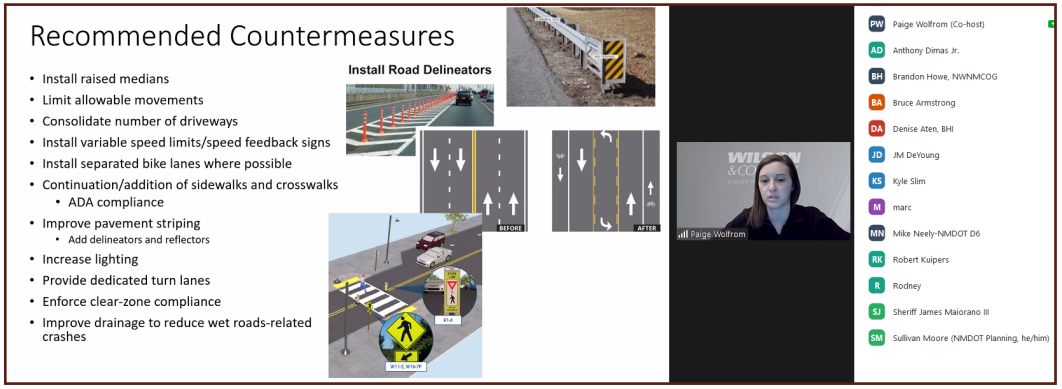




FIGURE 10: OUTREACH FLYER

Public Engagement Opportunity 1 – April 13th, 2024

On Saturday, April 13, 2024, the project team joined an in-person engagement opportunity at the Gallup Arts Crawl. A table was set up at the event with a large-scale map of the County's transportation network. The team also provided comment sheets and project handouts. To publicize the engagement opportunity, an outreach flyer was created and posted on the project website. Project stakeholders were also asked to share the flyer broadly through their contacts in the County.

At the event, the public was asked about their experiences with the transportation network in McKinley County. Below, comments are categorized by feedback on maintenance of roads and recommendations for the transportation network.

Maintenance Feedback Highlights

- Poor road conditions in Gallup, including complaints about potholes.
- Need for equity in general road maintenance for connections to schools throughout the County

Recommendation Highlights

- Incorporating roundabouts in key locations – such as schools
- Prioritize improvements based on roadway volume
- Accommodation of bicycle facilities on I-40
- Better/increased support for school busses



Northwest New Mexico Regional Transportation Planning Organization Meeting – January 10, 2024

The project team presented virtually at a Northwest New Mexico Regional Transportation Planning Organization (NWNMRTPO) meeting on January 10th, 2024. The purpose of the TMP was detailed, and initial input from stakeholders was shared to facilitate a regional conversation. RTPO members agreed with the prioritization of plan elements and provided further additional project-focused input associated with the need for an additional North/South option through Gallup, ongoing maintenance due to heavy truck use, and the need for better communication and coordination between agencies.

McKinley County Commission Meeting – February 27, 2024

The project team presented virtually to the McKinley County Commission on February 27th, 2024. The Commissioners were appreciative for the update and asked a couple of questions. A commissioner asked if this plan will take into account the new Gallup TMP (it does) and another commissioner asked how tribal entities are being engaged. Navajo DOT and Pueblo of Zuni Roads Department have been stakeholders involved in the planning process.

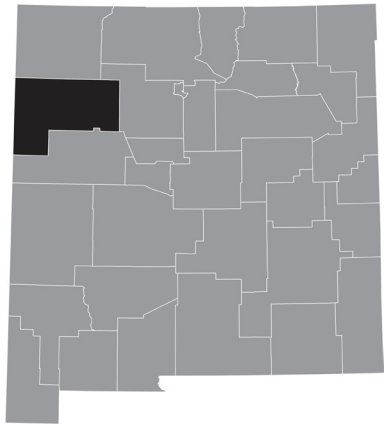
The project team plans to present an update to the McKinley County Commission in the summer of 2024.

McKinley County-Focused RTPO Discussion – March 14, 2024

The project team held a smaller virtual stakeholder meeting members of the NWNMRTPO in McKinley County on March 14th, 2024. The RTPO members gave more specific input transportation issues in the County, which were noted on the project interactive map.



3. EXISTING CONDITIONS



DEMOGRAPHIC OVERVIEW

The following section contains selected demographic information from the 1950 – 2020 Decennial Census and 2011 - 2022 American Community Survey 5-Year Estimates.

A Note about the American Community Survey and Small Communities

Following the 1990 census, the Census Bureau devised a new approach to gathering long-form data, combining monthly data collecting on an annual basis. This enabled annual data releases and the publication of "period" estimates for smaller areas. The American Community Survey (ACS) debuted in 2005, replacing the once-a-decade census long form. The ACS compiles individual responses into estimates at several geographic summary levels, such as legal and administrative entities, statistical entities, and census designated locations. ACS estimates are aggregated from responses received in the previous calendar year or previous five years.

All estimates derived from sample surveys are subject to uncertainty since they are based on a subset of the population rather than the entire population. This uncertainty, known as sampling error, means that estimates derived from the ACS will most likely differ from values obtained if the entire population had participated in the survey, as well as values obtained if a different set of sample units had been chosen for the survey. Because the ACS aggregates individual responses to generate period estimates, locations with smaller populations or rural areas with low survey response rates may have a large margin of error and confidence intervals which should be taken into account when using ACS data for small town and rural planning.

Census Designated Places (CDP) and Census County Divisions (CCD)

Gallup accounts for 30% of McKinley County's population, with 21,672 people living in the City as of 2022. The remaining County population is made up of a number of Census Designated Places (CDPs) and Census County Divisions (CCDs), with the remainder of Red Rock CCD accounting for 15% (11,047 residents), followed by the Zuni Pueblo CDP at 9% (6,789 residents) and the remainder of Navajo Nation CCD at 7% (55,279 residents). In 2022, the remaining 45 Census CDPs accounted for 38% (27,286 residents) of McKinley County's total population, with 13 CDPs ranging in size from 999 to 378 residents or one percent of McKinley County's total population, 20 CDPs ranging in size from 349 to 2 residents or less than one percent of McKinley County's total population, and three CDPs listed as having zero residents.

Table 1: McKinley County Community Populations

Community	2022 Total Pop.	Percent of 2022 Total Pop.
Gallup, City	21672	30%
Remainder of Red Rock CCD	11047	15%
Zuni Pueblo CDP	6789	9%
Remainder of Navajo Nation CCD	5279	7%
Remaining CCDs and CDPs	27,326	38%

Population Statistics

According to the American Community Survey (ACS), McKinley County's estimated total population in 2011 was 71,290, peaking at 74,346 in 2016, then falling to 72,849 in 2017, with the population remaining mostly consistent at this number through 2022. McKinley County's median age increased from 30.3 years to 33.6 between 2011 and 2022.



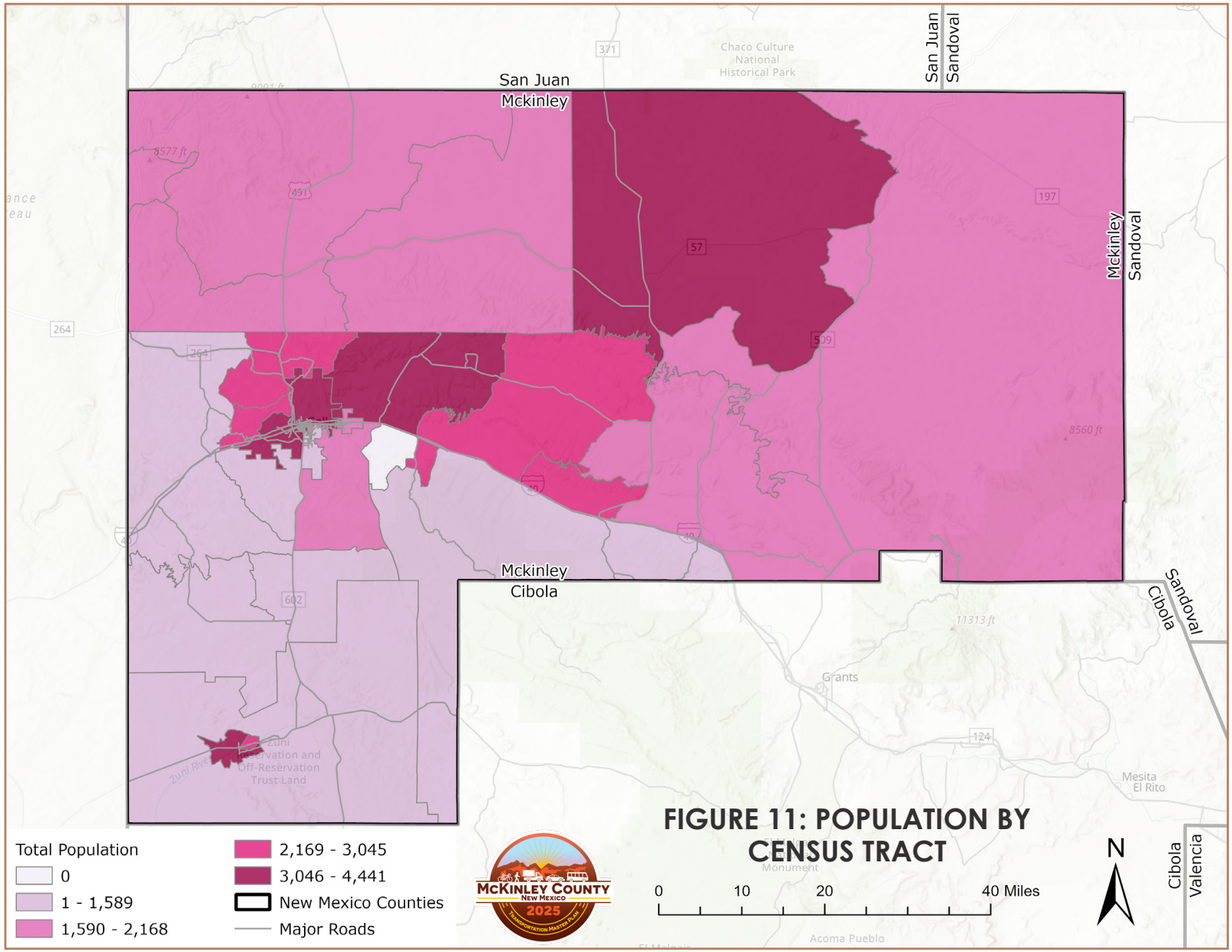
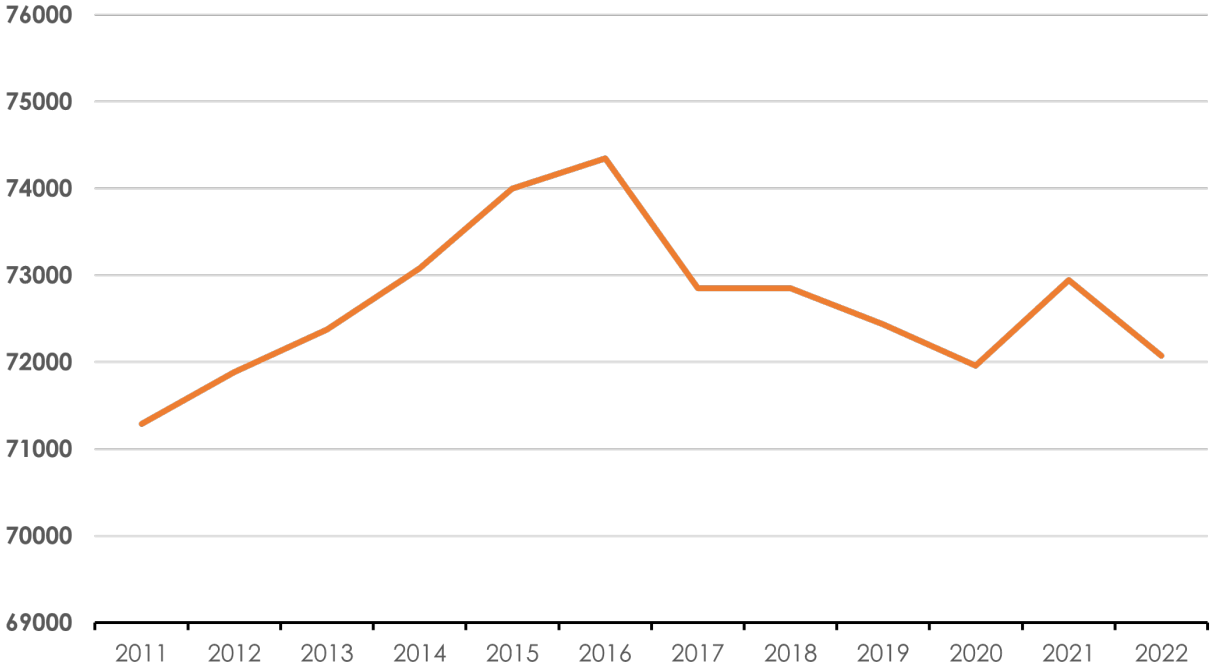


FIGURE 11: POPULATION BY CENSUS TRACT

FIGURE 12: MCKINLEY COUNTY TOTAL POPULATION 2011 - 2022



McKinley County/New Mexico Population 1950 - 2020

According to the Decennial Census, McKinley County's estimated total population in 1950 was 27,451, rising to 74,798 in 2000 before dropping to 71,498 in 2010, with the population remaining mostly stable at this level at 72,902 through 2020. Similarly, New Mexico's estimated total population grew from 681,187 in 1950 to 2,117,522 in 2020.

Table 2: Population by Race

Race	Count	% of whole
American Indian and Alaska Native Alone	55,049	76%
White Alone	7,477	10%
Two or More Races	4,077	6%
Some Other Race Alone	4,070	6%
Asian Alone	958	1%
Black or African American Alone	386	1%
Native Hawaiian and Other Pacific Islander Alone	56	0%
TOTAL	**72073**	**100%**

Race

In 2022, the four major groups that made up Mckinley County's overall racial mix were American Indian and Alaska Native at 76% (7,477), followed by White at 10% (7,477), Two or more races at 6% (4,077), and Some Other Race at 6% (4,070).

Table 3: Population by Employment Status

Employment Status	Estimate	Percent
Population 16 years and over	54,407	100%
In labor force	26,411	48.5%
In Armed Forces	146	0.3%
Civilian Labor Force	26,265	48.3%
Employed	23,731	43.6%
Unemployed	2,534	4.7%
Not in Labor Force	27,996	51.5%
Unemployment Rate	(x)	9.7%

Workforce and Employment Statistics

McKinley County maintains a labor force of 26,411 with a median household income of $44,029 in 2022, which is 33% below the state's median household income of $58,722. The per capita income rate of McKinley County residents was $19,188 in 2022. McKinley County also has a higher poverty and unemployment rates than the state average, with a 34% poverty rate and 9.7% unemployment rate compared to statewide rates of 18.3% and 6.2% respectively. McKinley County also has a lower workforce participation rate at 43.6% compared to the statewide rate of 53.2%.







McKinley County Economic Characteristics

McKinley County's total job count has fluctuated between 22,099 in 2011 and 18,901 in 2021 with the largest share of overall jobs in 2021 being in healthcare and social assistance making up 26.9% of total jobs with retail trade, educational services, and accommodation/food services each individually making up between 14% – 12% of total jobs. Workers aged 30 - 54 have historically made up the largest share of the overall jobs in McKinley County, but the overall count of workers aged 30 - 54 since 2021 has been steadily declining along with workers age 29 or younger, while workers age 55 or older has steadily increased since 2011.

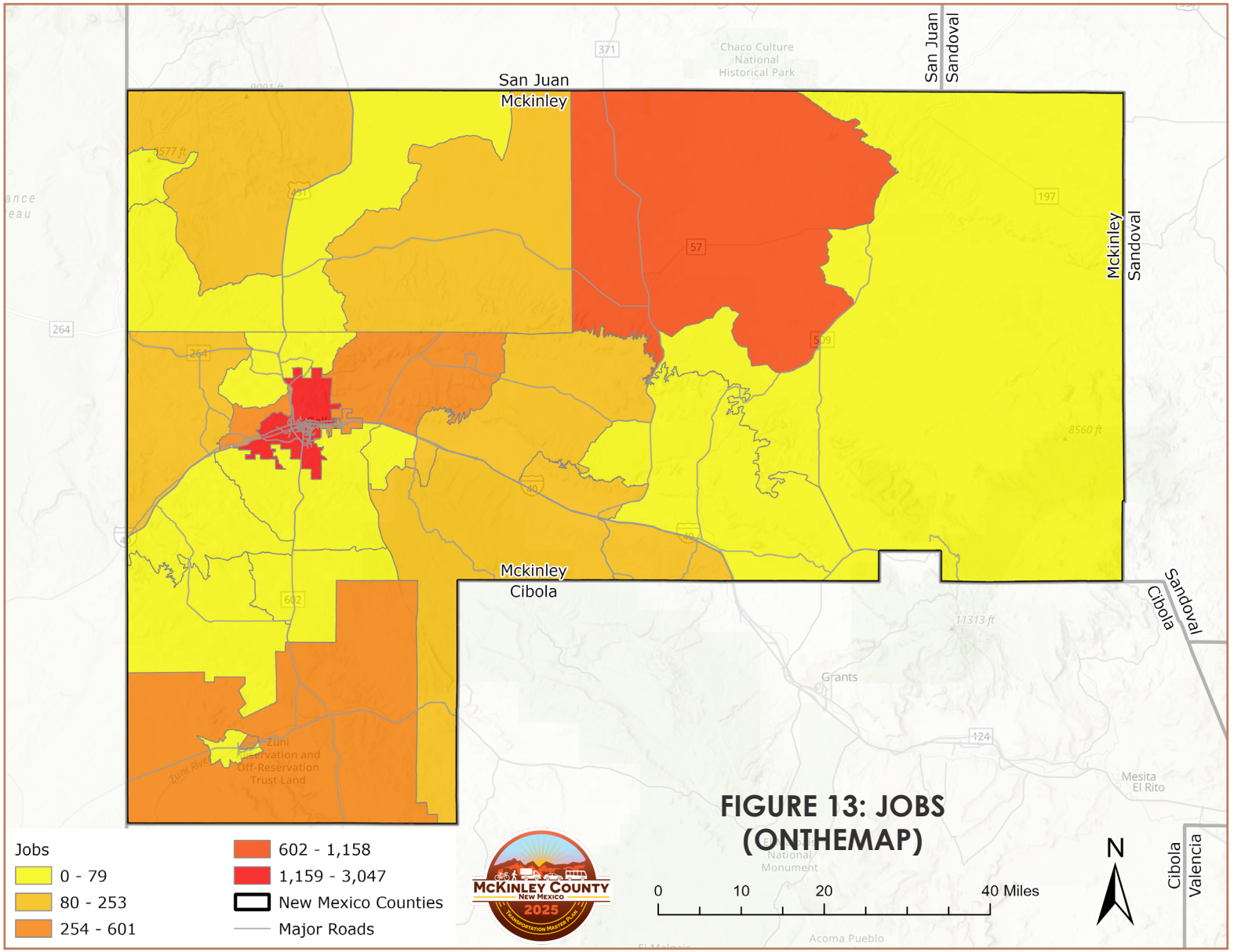


FIGURE 13: JOBS (ONTHEMAP)

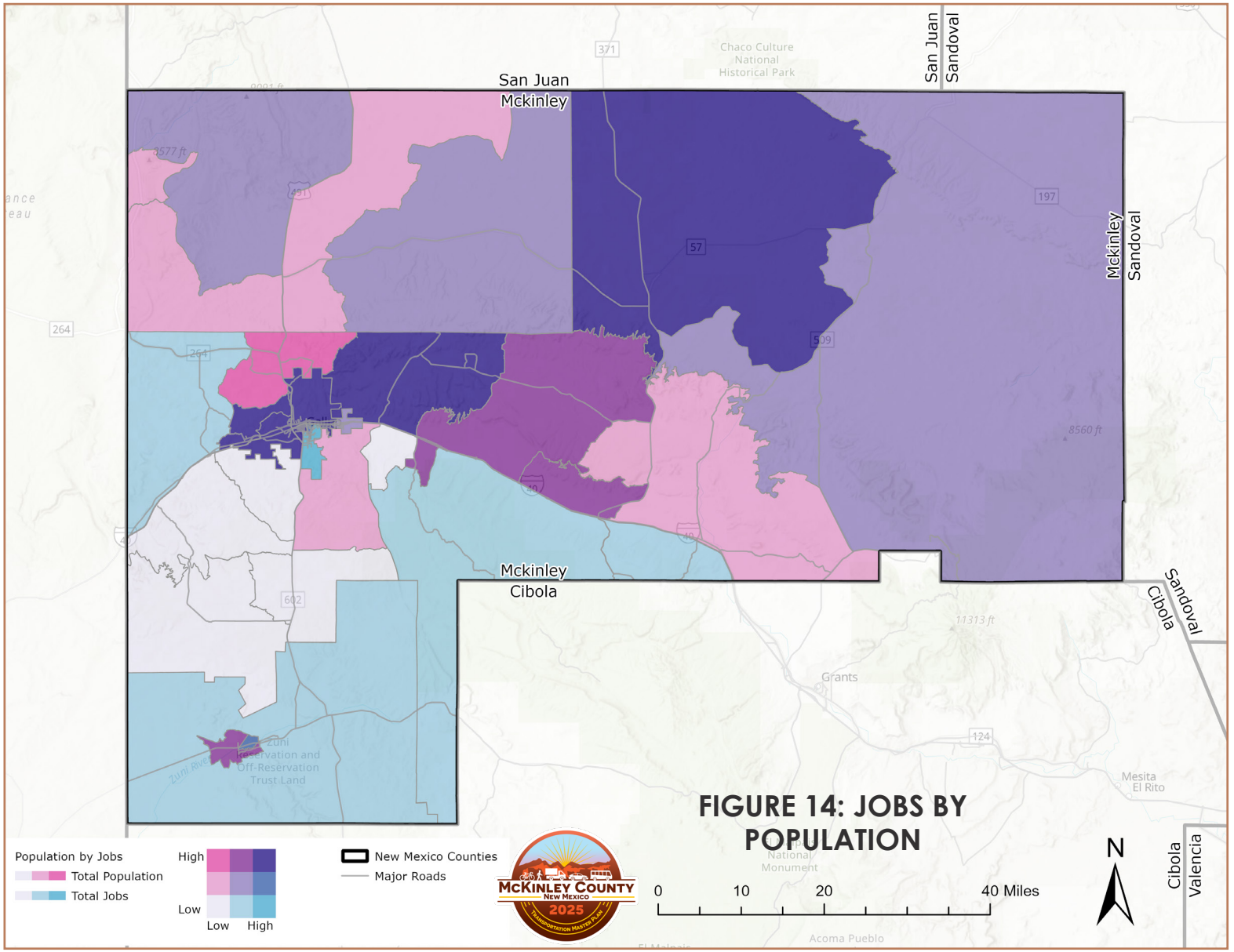


FIGURE 14: JOBS BY POPULATION

FIGURE 15: JOBS BY WORKER AGE

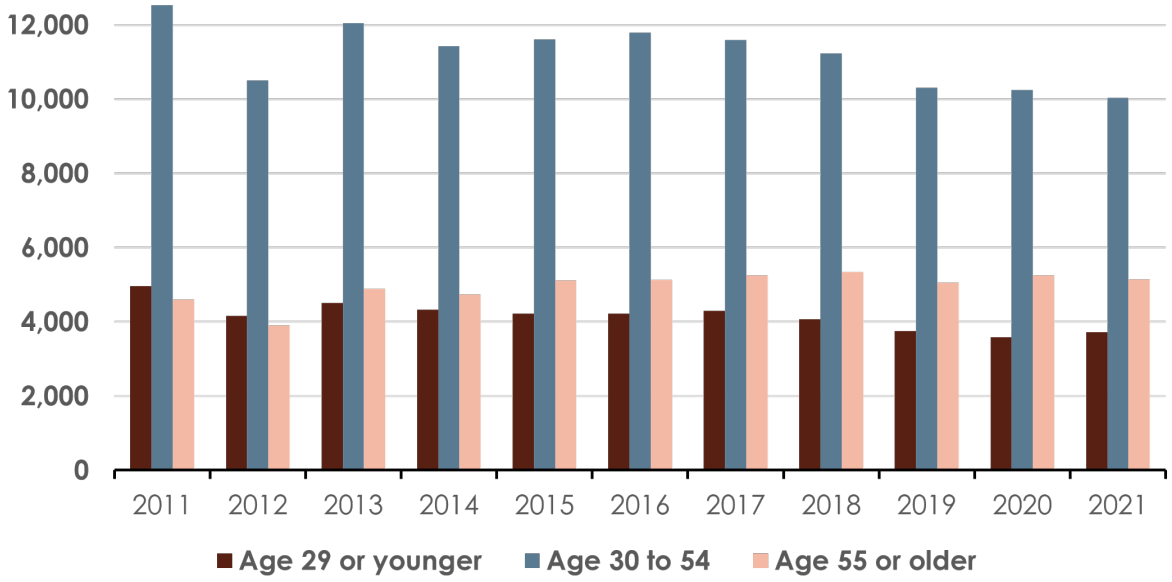
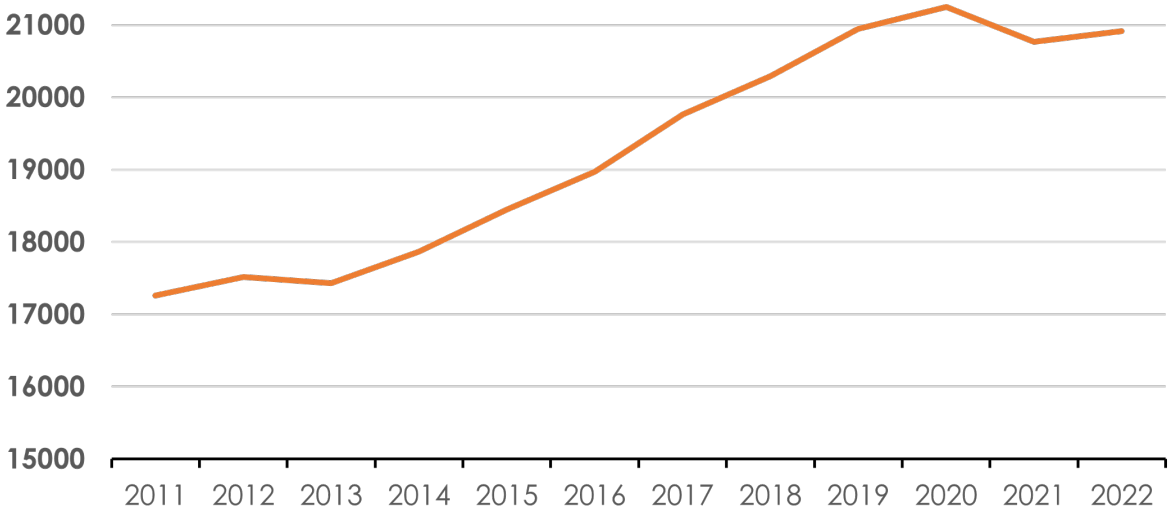


FIGURE 16: TOTAL HOUSEHOLDS



Household Statistics

Households in McKinley County have been gradually increasing from 17,263 in 2011 to an overall peak at 21,247 in 2020 and declining slightly to 20,913 in 2022 with family households making up most households. Interestingly, average household size has been steadily decreasing in McKinley County from 4.1 in 2011 to 3.4 in 2022, possibly explaining the increase in households despite an overall decrease in population from 2016 – 2022. Of these households, tenure has stayed mostly consistent with 72% of households being owner occupied and 28% being renter occupied with that number fluctuating slightly between 2011 and 2020. Median household income for McKinley County similarly has been gradually increasing from $31,947 in 2011 to $44,029 in 2022.



35%
ONE VEHICLE AVAILABLE

30%
TWO VEHICLES AVAILABLE

77%
COMMUTE DRIVING ALONE

49%
WORK IN GALLUP

25min.
AVERAGE COMMUTE TIME

VEHICLE OWNERSHIP, WORKERS, AND COMMUTING PATTERNS

Vehicle Ownership

According to the 2022 ACS the two largest categories of vehicle ownership for occupied housing units were one vehicle available at 7,425 (35%) and two vehicles available at 6,370 (30.5) with three vehicles available making up the third largest category at 2,834 (13.6%) and no vehicle available, four vehicles available, and five or more vehicles available comprising the remaining 4,284 (20%).

Commuting Patterns

According to 2021 OnTheMap inflow-outflow statistics, which track the movement of employed people across jurisdictional boundaries, 5,957 people are employed in McKinley County but live outside of it, 12,944 people are employed and live in McKinley County, and 7,144 people live in McKinley County but work elsewhere. The primary mode of transportation to work for all McKinley County workers was driving alone (77%), followed by carpooling (8%), walking (3%) and public transportation (1%) with an estimated 10% working from home. When looking at job counts by places Gallup has the largest share of jobs at 9,875 (49.2%) followed by Albuquerque at 1,647 (8.2) and Crownpoint CDP at 838 (4.2%) with All Other Locations having 4,508 jobs (22.5%). Of all workers, the average commute time was 25 minutes.

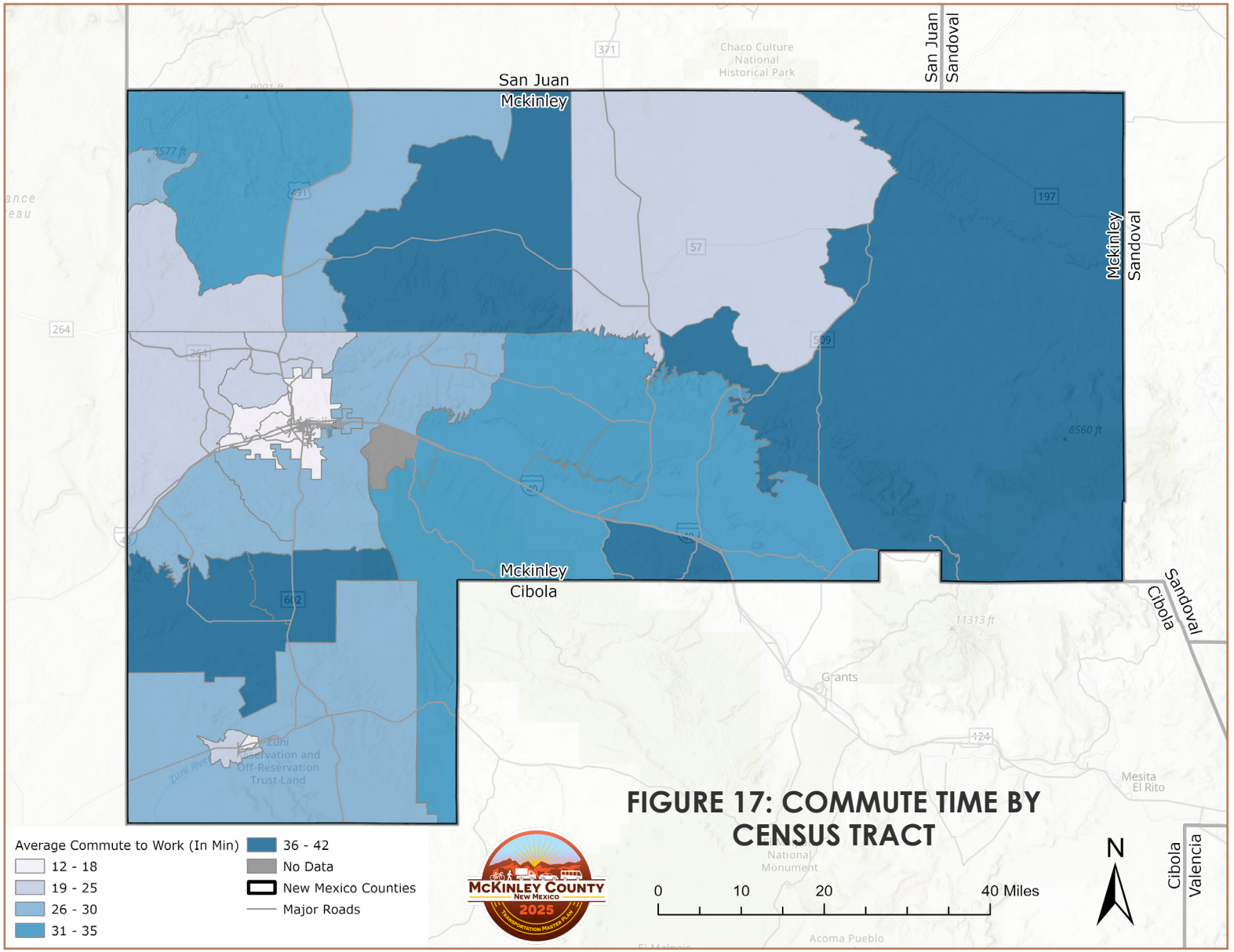


FIGURE 17: COMMUTE TIME BY CENSUS TRACT

FIGURE 18: INFLOW/OUTFOW OF JOBS (ONTHEMAP)



Community	Count	Share
Gallup city, NM	9,875	49.2%
Albuquerque city, NM	1,647	8.2%
Crownpoint CDP, NM	838	4.2%
Farmington city, NM	725	3.6%
St. Michaels CDP, AZ	703	3.5%
Zuni Pueblo CDP, NM	459	2.3%
Grants city, NM	363	1.8%
Black Rock CDP, NM	325	1.6%
Fort Defiance CDP, AZ	315	1.6%
Church Rock CDP, NM	300	1.5%
All Other Locations	4,508	22.5%

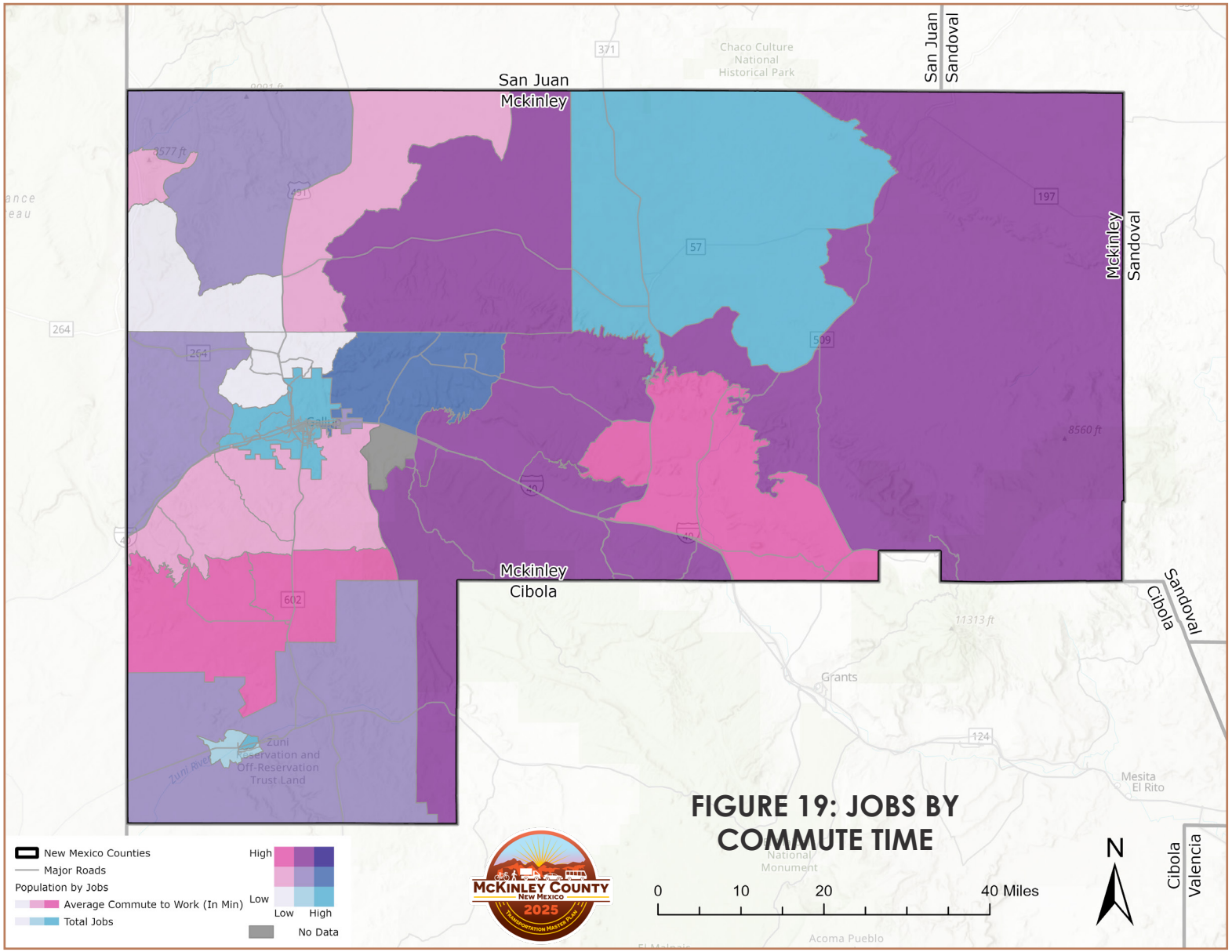


FIGURE 19: JOBS BY COMMUTE TIME



Housing and Transportation Affordability Index

The Housing and Transportation (H+T) Affordability Index is a tool that displays information about household expenses, as well as the costs associated with driving and owning a vehicle or taking public transportation. This information provides a clearer picture of how housing and transportation affect a community's overall affordability. The H+T Index defines affordability as housing and transportation costs that do not exceed 45 percent of household income.

McKinley County residents spend an average of 26 percent of their household income on housing and 41 percent on transportation. Compared to Gallup, McKinley County's largest metropolitan center, residents spend 6% less on housing but 6% more on transportation. The Center for Neighborhood Technology (CNT) currently defines affordability as no more than 45% of household income combined for housing and transportation costs, which means McKinley County's total H+T Index (67%) is 22% higher than what the CNT considers affordable. Owning a personal vehicle is the largest transportation cost factor for households in McKinley County with an estimated annual transportation cost of $13,940 which is $1,1991 more than Gallup residents.

Overall, McKinley County has low geographic access to jobs. This, combined with McKinley County's lack of public transportation, requires residents to own on average more vehicles and drive them farther distances to reach required destinations for employment and basic needs (grocery stores, vehicle maintenance, etc.), which drives up the percent of household income spent on transportation, likely explaining the six percent increase McKinley County residents spend on transportation.

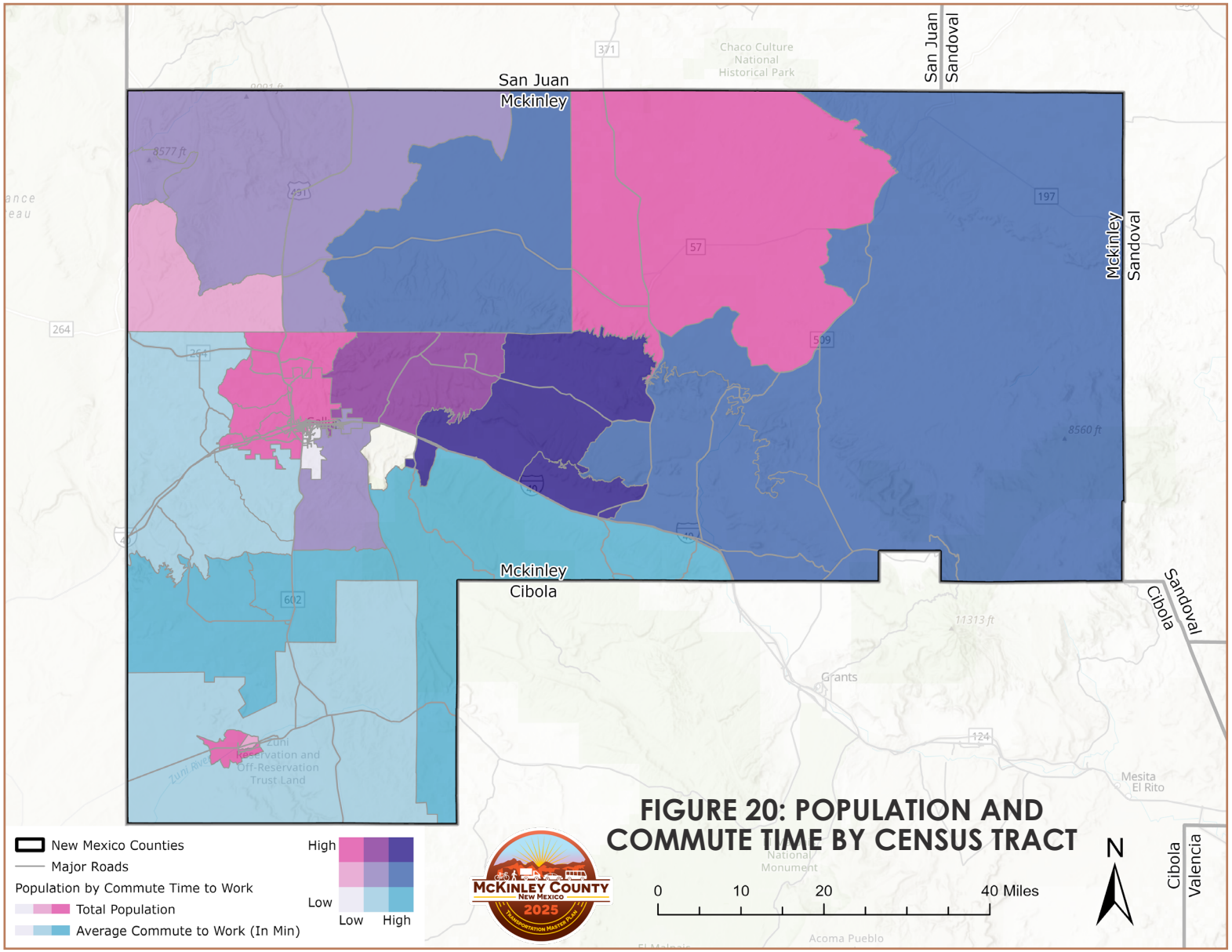


FIGURE 20: POPULATION AND COMMUTE TIME BY CENSUS TRACT

POPULATION AND HOUSEHOLD FORECASTS

Forecasting the size and characteristics of a future population is extremely difficult because the precise circumstances that can influence these trends are difficult to predict, and a set of assumptions must be made about what will affect population growth. Regardless of the difficulties involved in producing an accurate population forecast, population forecasts must be made in order to inform current and future planning efforts. Population growth, or decline, is an important factor in determining how a transportation network operates. Areas with a growing population can expect more people to use the transportation network, indicating a need for network improvements, whereas large-scale infrastructure projects designed to accommodate a greater number of vehicles than are ultimately realized can be expensive to not only build but also maintain.

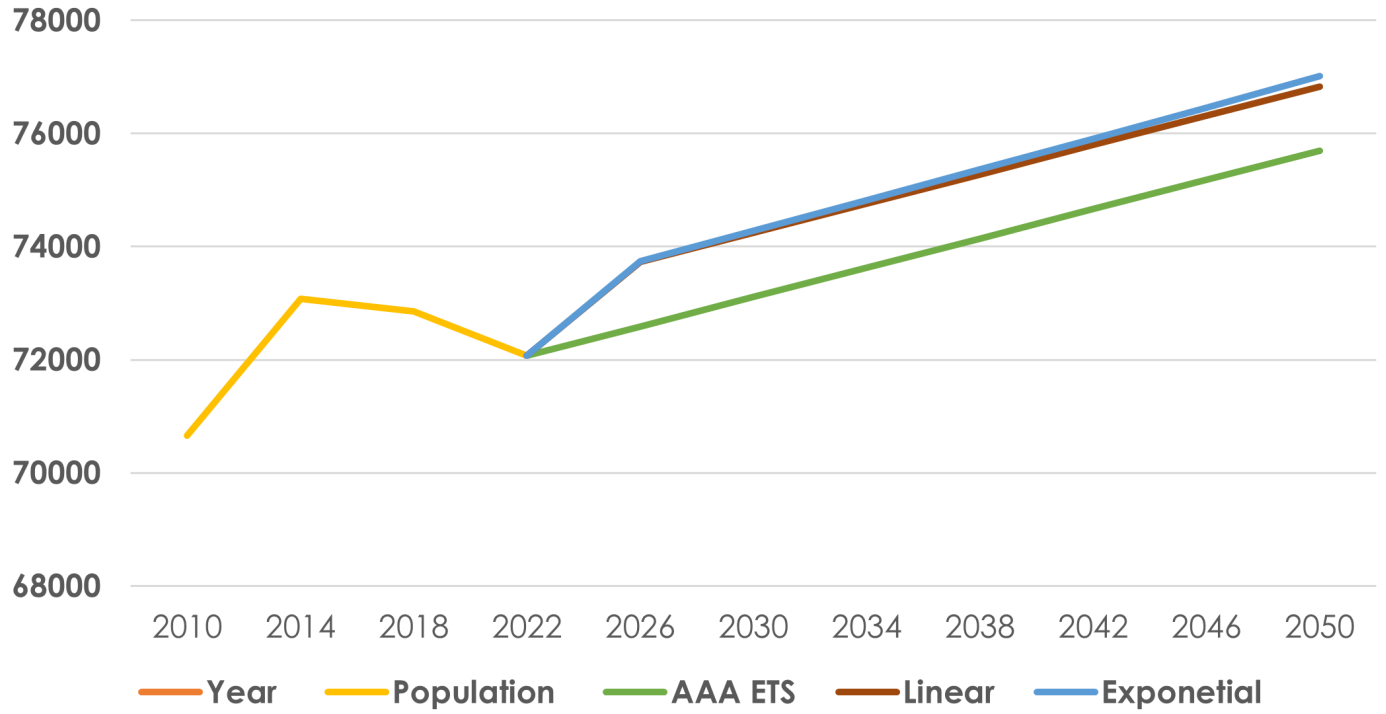
METHODOLOGY

There are two major projection methods for forecasting population growth: mathematical and analytic. The mathematical method attempts to forecast future populations by charting current and historical population growth, which is then used to identify a trend that is expected to persist into the future. The advantage of using a mathematical method is that they are simple to implement; however, they tend to overestimate the rate of population growth (or decline). The second major projection methodology, analytic, aims to focus more on why population numbers and characteristics are changing. This method, while generally more time-consuming, incorporates past and present factors such as fertility, mortality, and migration rates to produce a more accurate population forecast.

MATHEMATICAL PROJECTIONS

Mathematical population projections for McKinley County should be thoroughly examined and used as a starting point for future discussions about population growth, decline, and the prioritization of future transportation infrastructure improvement projects. Because McKinley County's population growth has fluctuated between a period of steady growth from 2009 to 2016 and, more recently, a period of decline from 2017 to 2022, it should not be assumed that a steady growth rate will continue in the future due to the nature of migration and economic conditions that either promote job growth or lead to a decline in overall jobs.

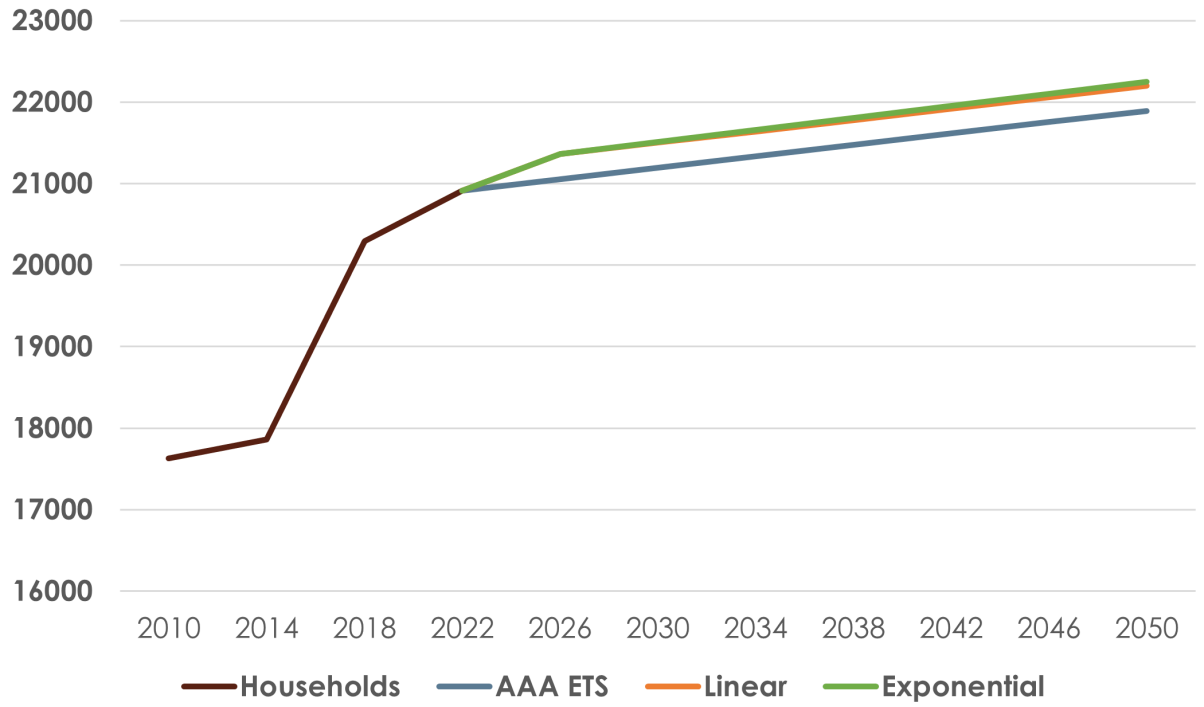
FIGURE 21: POPULATION PROJECTIONS



Population

Using a liner growth rate on McKinley County's population growth rate between 2009 and 2022 reveals a steady increase in population and household growth, with McKinley County's overall population exceeding the 2009 - 2022 population peak of 74,373 in 2031 and projected household growth rising sharply in 2023, which should be verified once 2023 ACS data becomes available. Similarly, applying an exponential growth rate to McKinley County's population growth rate from 2009 to 2022 results in a sharp increase in overall population beginning in 2023 and surpassing the 2009-2022 population peak in 2031. Finally, the AAA version of the Exponential Smoothing (ETS) algorithm can be used to forecast future population growth. This methodology smoothes out past data that does not follow a consistent growth or decline trend, resulting in a smaller overall population growth rate for McKinley County, with a less steep increase in overall population beginning in 2023 and not exceeding the 2009 - 2022 peak until 2040.

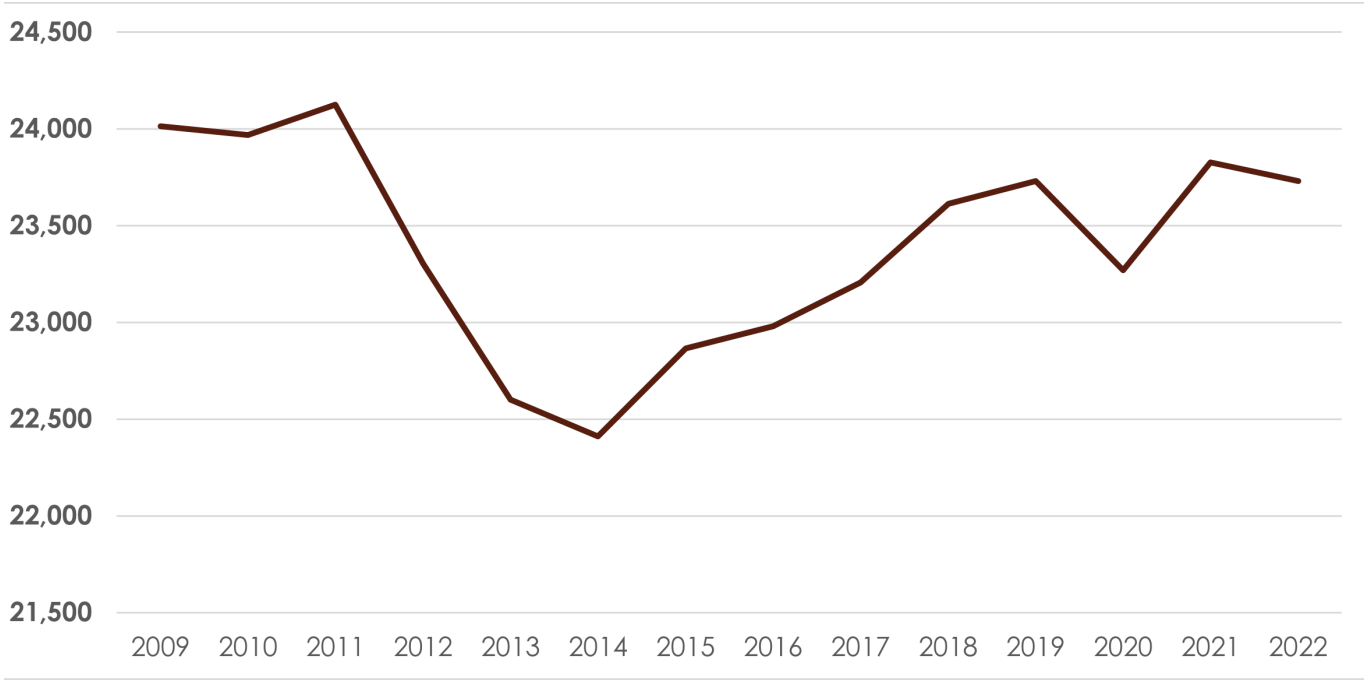
FIGURE 22: HOUSEHOLD PROJECTIONS



Households

Household projections for McKinley County, like population projections, should not be considered without some degree of further analysis – they should also consider historical trends in household size. Since 2009, McKinley County's average household size has fluctuated from 3.8 to a consistent peak of 4.1 between 2011 and 2014, before declining to 3.4 between 2016 and 2022, resulting in an average household size of 3.7. Because McKinley County's average household size has fluctuated in tandem with the county's overall growth trends, simply dividing McKinley County's projected future population is a good starting point; however, migration and economic conditions will ultimately determine population. Using each of the three mathematical population projection methods, McKinley County is expected to grow by 979.48 to 1,335.36 households between 2023 and 2050.

FIGURE 23: JOBS



Jobs

Data from the New Mexico Economic Development Department (NMEDD), Greater Gallup Economic Development Corporation (GGEDC), and the American Community Survey show an overall period of job growth from 2020 to 2022, with McKinley County experiencing a 2.0% increase in jobs during this time period. According to the New Mexico Economic Development Department, the two industries with the greatest year-over-year percent change in gross domestic product were mining, quarrying, oil and gas extraction, and arts, entertainment, and recreation. The GGEDC is collaborating with the NMEDD to invest in job growth in transportation and logistics, energy, autonomous vehicles, manufacturing, and outdoor recreation.

FIGURE 24: 2022 GDP BY INDUSTRY

Industry		2022	Industry % of Total		2021-2022 Growth	YOY % Change
Accommodation and Food Services	$	105,766,000	4.65%	$	2,176,000	2%
Administrative/Support & Waste Management/Remediation	$	28,163,000	1.24%	$	3,178,000	13%
Agriculture, Forestry, Fishing, and Hunting	$	5,826,000	0.26%	$	(3,949,000)	-40%
Arts, Entertainment, and Recreation	$	2,700,000	0.12%	$	804,000	42%
Construction	$	33,866,000	1.49%	$	1,233,000	4%
Educational Services	$	8,334,000	0.37%	$	77,000	1%
Finance and Insurance	$	35,684,000	1.57%	$	(939,000)	-3%
Health Care and Social Assistance	$	151,975,000	6.69%	$	(8,986,000)	-6%
Information	$	24,030,000	1.06%	$	2,397,000	11%
Management of Companies and Enterprises	$	2,515,000	0.11%	$	38,000	2%
Manufacturing	$	96,012,000	4.22%	$	(52,110,000)	-35%
Mining, Quarrying, and Oil and Gas Extraction	$	182,780,000	8.04%	$	53,405,000	41%
Other Services (except Public Administration)	$	52,133,000	2.29%	$	1,702,000	3%
Professional, Scientific, and Technical Services	$	18,952,000	0.83%	$	419,000	2%
Public Administration	$	975,346,000	42.92%	$	12,001,000	1%
Real Estate and Rental and Leasing	$	158,467,000	6.97%	$	718,000	0%
Retail Trade	$	154,943,000	6.82%	$	(20,603,000)	-12%
Transportation and Warehousing	$	152,104,000	6.69%	$	11,878,000	8%
Utilities	$	7,201,000	0.32%	$	(2,706,000)	-27%
Wholesale Trade	$	38,006,000	1.67%	$	(1,928,000)	-5%
All Industries	**$**	**2,272,550,000**		**$**	**(7,526,000)**	**0%**

**Not shown to avoid disclosure of confidential information*
-This historical look at GDP data represents the most recent county GDP data available

SOURCES: NEW MEXICO TAXATION AND REVENUE DEPT, NEW MEXICO DEPARTMENT OF WORKFORCE SOLUTIONS, U.S. BUREAU OF LABOR STATISTICS, U.S. BUREAU OF ECONOMIC ANALYSIS AND EDD CALCULATIONS

3

TRANSPORTATION NETWORK

Roadways

McKinley County currently owns a network of about approximately 805.74 miles of roads. Figure 25 is a map of road ownership in the County. The McKinley County Road Department website has resources including their Road Improvement Policy, their latest Road Inventory, and their latest Road Index.

Roadway Names

There are some roads in the County where the County Road Department, Navajo DOT and BIA all have different names for the same road or segment of road. Please see Appendix A which includes maps showing which roads have multiple names and corresponding tables with all of the different road names.



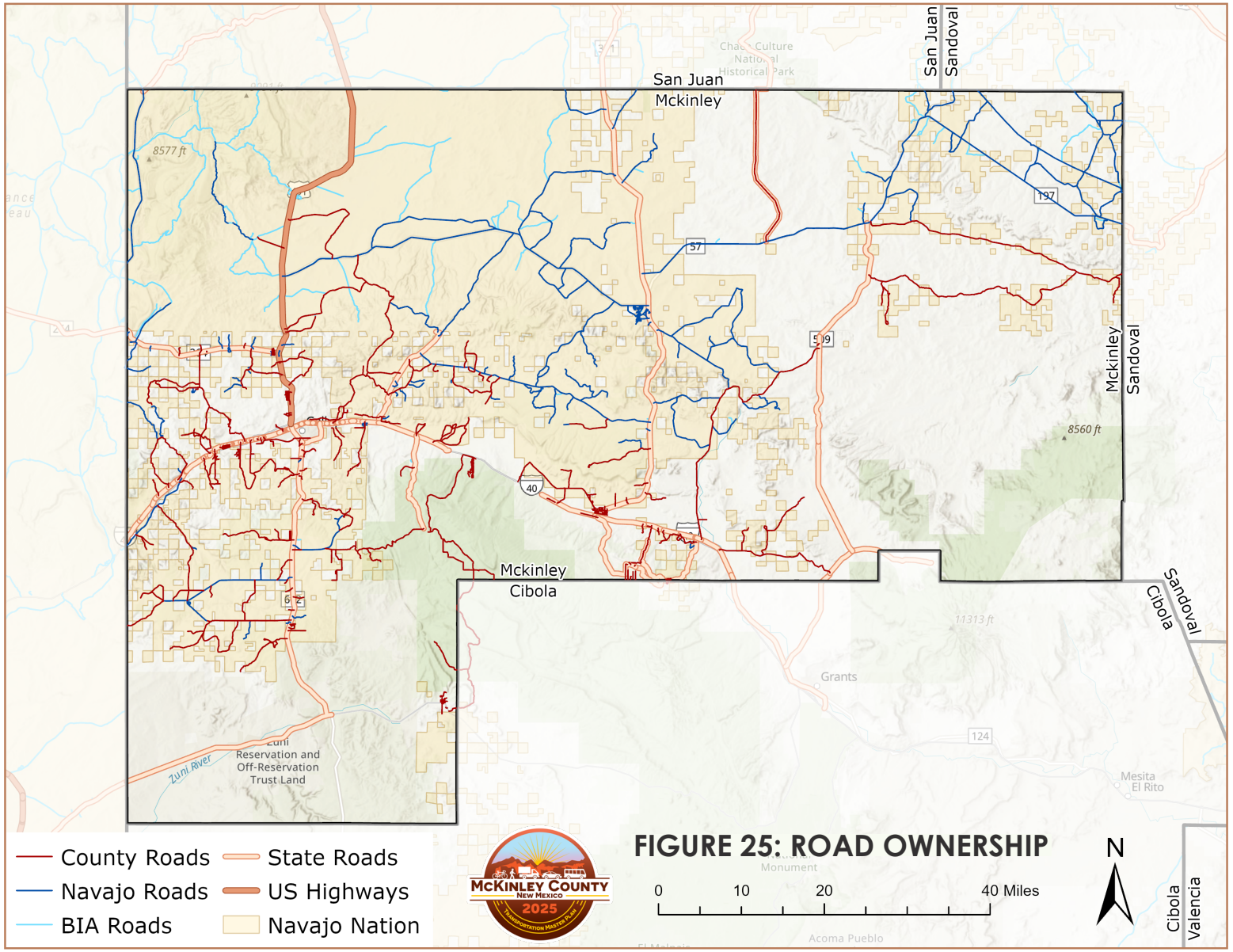


FIGURE 25: ROAD OWNERSHIP



Functional Classification

Functional Classification refers to a framework for identifying the particular role of a roadway in moving vehicles through a greater roadway network. Over the years, functional classification has come to assume additional significance beyond its purpose within the greater network, and it now also establishes expectations about roadway design, including its speed, capacity, and relationship to existing and future land use development. McKinley County currently uses 5 separate classifications for its roadway network, which are:

- **Interstate**
- **Principal Arterial**
- **Minor Arterial**
- **Major Collector**
- **Minor Collector**



The following functional classification definitions and characteristics have been established within the New Mexico Department of Transportation Functional Classification Guidance Manual.[1]

Interstate – Highest class of Arterials; abutting land uses are NOT directly served by them; also have higher speed limits, higher vehicle miles traveled (VMT), and more travel lanes (than Minor Arterials), which results in more mobility; are used for statewide travel, and typically represents the lowest percentage of mileage of the state's roadway network.

Principal Arterial - Other Freeways and Expressways – Very similar to Interstates, with travel lanes separated by some type of physical barrier, abutting land uses NOT directly served by them; also have higher speed limits, high VMT, and more travel lanes (than Minor Arterials).

Minor Arterial – Used for trips of moderate length and offer connectivity to the higher Arterial system (Principal Arterials). These roads may carry local bus routes. They offer less mobility (than Principal Arterials), but more accessibility.

Major Collector – Longer in length than Minor Collectors, connects larger traffic generators to the Arterial network; also have lower connecting driveway densities, higher speed limits, higher VMT, more travel lanes, and are spaced at greater intervals (than Minor Collectors); Major Collector mileage is less than Minor Collector mileage.

Minor Collector – Lower speed limits, located in under-served and clustered residential areas; have more connecting driveways, lower VMT than Major Collectors, fewer travel lanes, and are spaced at closer intervals than Major Collectors and includes more mileage than Major Collectors.

Local – Account for the highest percentage of all roadways in terms of mileage. Local roads carry no through traffic movement and are used to provide access to adjacent land.

1 *https://www.arcgis.com/home/item.html?id=f2fc877d107b4e338deb789f70a8779e*

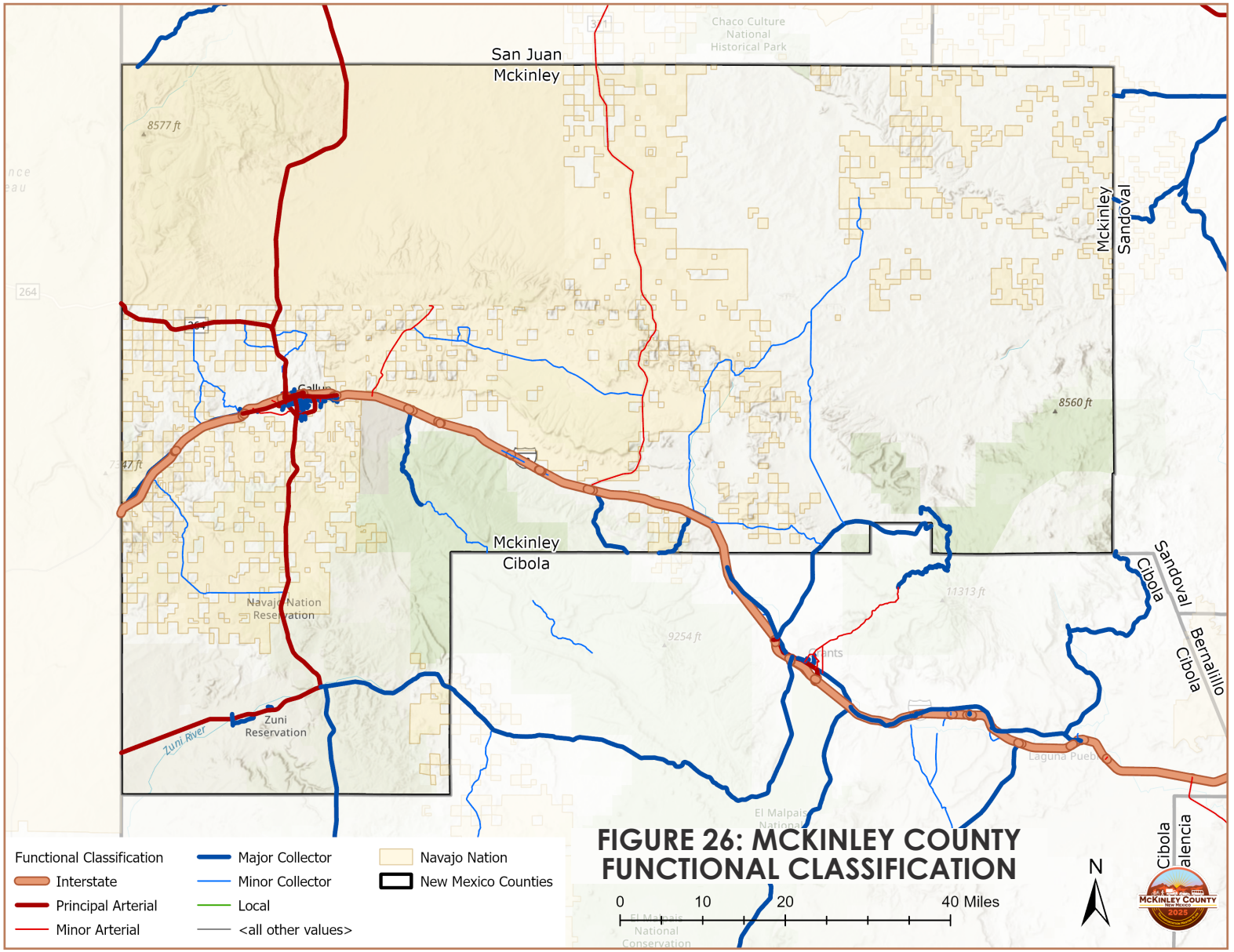


FIGURE 26: MCKINLEY COUNTY FUNCTIONAL CLASSIFICATION

Major Roadway Connections

Regional connections are critical to the overall roadway network of McKinley County, as residents regularly travel outside of the County for work, healthcare services, and other major retail and service needs. Major access to Albuquerque metro area is provided by I-40, while US 491 provides a north–south route though the Four Corners region. NM 264, NM 371, and NM 602 also provide regional connections throughout the County, as well as access to many of the smaller communities and destinations within the County. Additional regional connections across Sandoval County are provided by various state-owned roadways. See Figure 26 for the functional classification of major roads across McKinley County.

Table 4: Major Roadways

Roadway	Functional Classification	Owner	Description
I-40	Interstate	NMDOT	Provides a regional, interstate connection E-W across McKinley County.
US 491	Principal Arterial	NMDOT	Provides a regional north–south route through NW McKinley County to the greater Four Corners area.
NM 602	Principal Arterial	NMDOT	Provides a regional north-south route south of Gallup to State Highway 53, near the Zuni Reservation.
NM 264	Principal Arterial	NMDOT	Provides a regional, interstate connection E-W from Yah-Ta-Hey into Arizona.
US Rt. 66	Principal Arterial	NMDOT	Provides a regional, interstate connection E-W through the County, the entire state of New Mexico, and through Arizona and Texas.
NM 53	Principal Arterial	NMDOT	Provides a regional connection W-E from central Arizona/New Mexico border to I-40.
NM 371	Minor Arterial	NMDOT	Provides a regional north-south route on the East side of the County, from Thoreau to Farmington.
NM 566	Minor Arterial	NMDOT	Provides a regional connection, just east of Gallup, from I-40 to recreational locations such as Red Rock Park and the WLJ Bull-Riding Arena.
Navajo Service Rte 9	Major Collector	NMDOT	Provides a regional west/east connection between US 491 and NM 371, providing access to Navajo Nation land surrounding the area, such as Standing Rock and Brimhall Nizhoni.

Traffic Volumes

The following table develops a brief summary of volume to capacity on roadways within McKinley County at the Minor Collector classification and above. The "assumed AADT (Rural) column is anticipated capacity for the related functional classification based on FHWA guidance. The information contained below is intended to provide a snapshot on the overall capacity of the roadway network based on measured volumes in 2018 by NMDOT. If areas of concern are present, or not adequately captured by this analysis, it is recommended that County leadership commence more specific travel demand modeling or spot measurements that were not originally part of the scope of work for this project.

Table 5: AADT and V/C Ratio per Functional Classification, FHWA

Functional Classification	Assumed AADT (Rural)	2018 AADT	V/C Ratio
Interstate	34,000	21,663	0.64
Principal Arterial	8,500	8,766	1.03
Minor Arterial	6,000	4,223	0.70
Major Collector	2,600	1,179	0.45
Minor Collector	1,110	381	0.34

Ranges in this table are derived from 2011 HPMS data

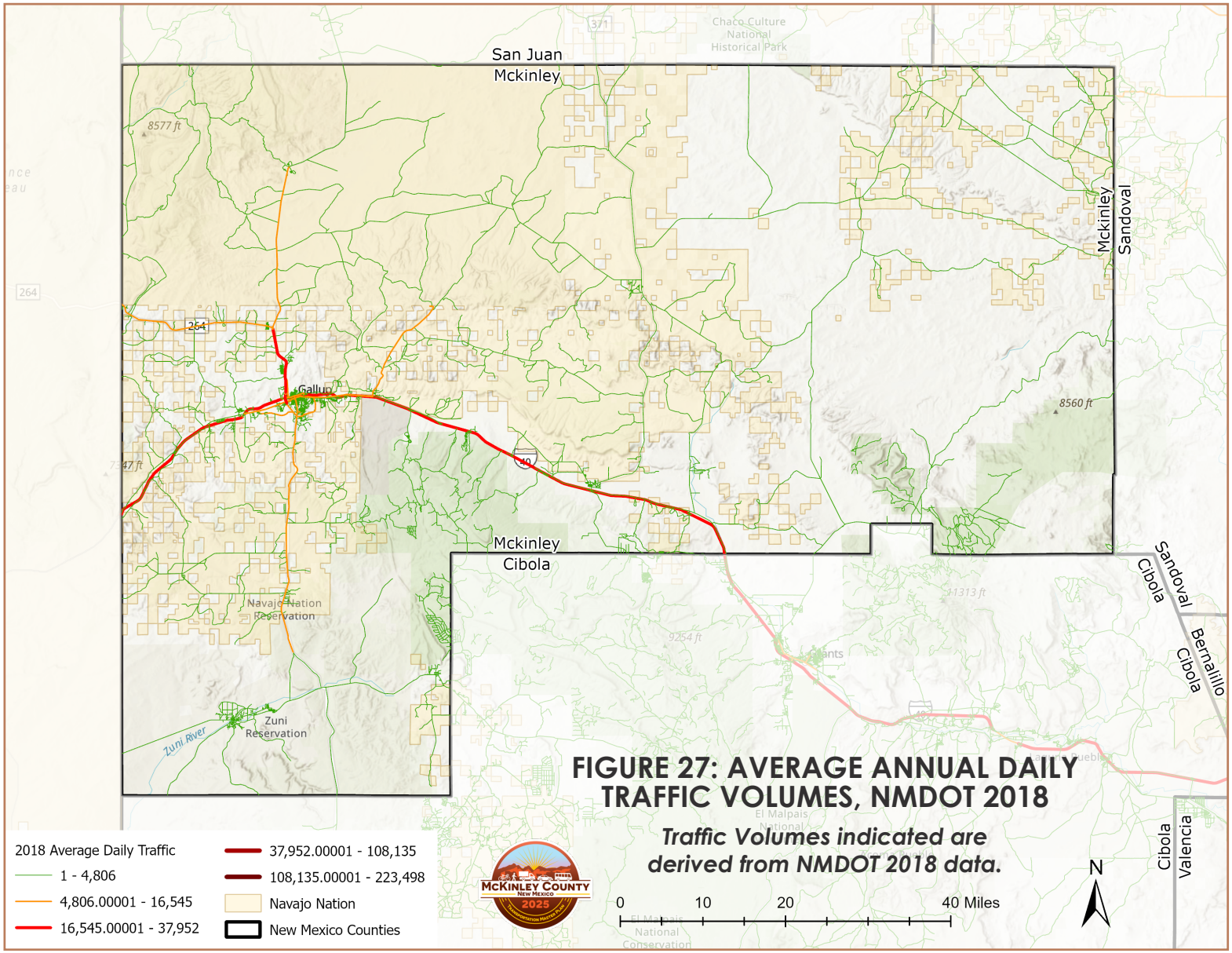


FIGURE 27: AVERAGE ANNUAL DAILY TRAFFIC VOLUMES, NMDOT 2018

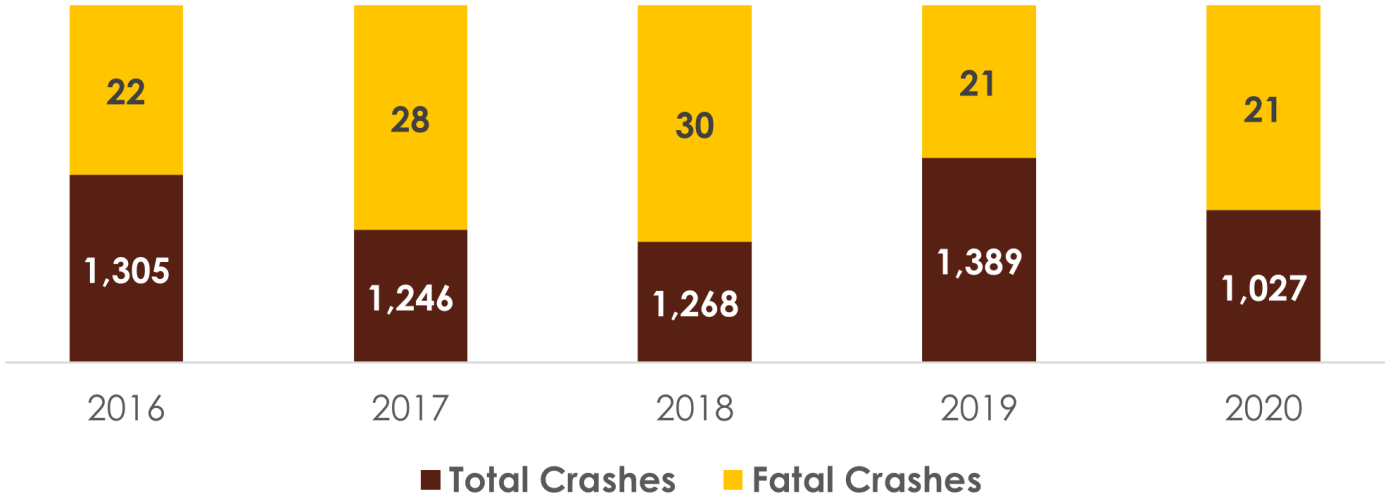
Traffic Volumes indicated are derived from NMDOT 2018 data.

Crash Data

Crash analysis is almost always a part of the overarching analysis completed for projects like this Transportation Master Plan. Included below is a high-level summary of crash information throughout the County's road network. Specific to this planning process, a separate and supplementary comprehensive safety action plan and associated analysis was completed. Please find more detailed roadway safety information contained in the **Chapter 4 SAP** section, including the identification of safety hot spots and recommended implementation strategies to abate identified safety issues.

During the five-year period of 2016 through 2020, there were 6,235 crashes reported on streets and highways within McKinley County. Of these crashes, 122 involved a major injury or fatality. Crash distribution for the most recently reported and available data (2020) is available in the following Figures. The yearly distribution throughout the County can be viewed in the Appendix of this document.

FIGURE 28: TOTAL AND FATAL CRASHES (2016-2020), NMDOT



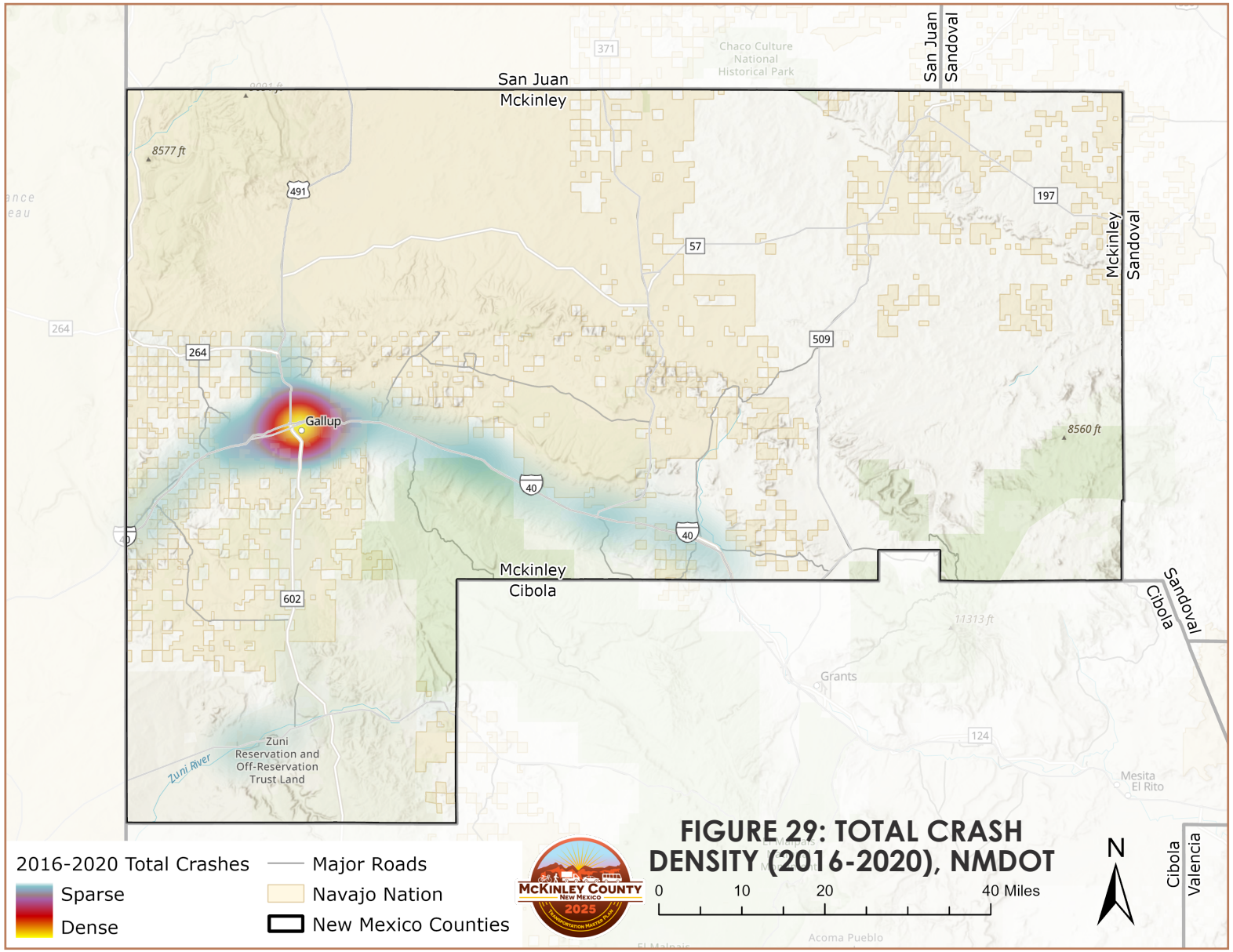


FIGURE 29: TOTAL CRASH DENSITY (2016-2020), NMDOT





The majority of total crashes between 2016 and 2020 were located in Gallup, along the Route 66 corridor (specifically along the central, downtown segment through the City), along the 491 corridor on the North side of the City, and along the I-40 corridor throughout the entire County. For safety related recommendations pertaining to the immediate Gallup area, please see the recently adopted Gallup Transportation Master Plan, located on the City's website.

Another hotspot with a high number of crashes between 2016 and 2020 is in Zuni Pueblo along State Highway 53 as well as throughout the downtown area of Zuni Pueblo.

There are a multitude of negative design attributes that have likely led to this high number of crashes in both of these places including, faded traffic paint, blind right and left turns, and a lack of left turn signals. These "hotspots" are also high-density areas, with a high traffic rate due to many retail stores and access to residential neighborhoods. This increase in vehicular movement also increases the probability that an accident will occur in these areas.

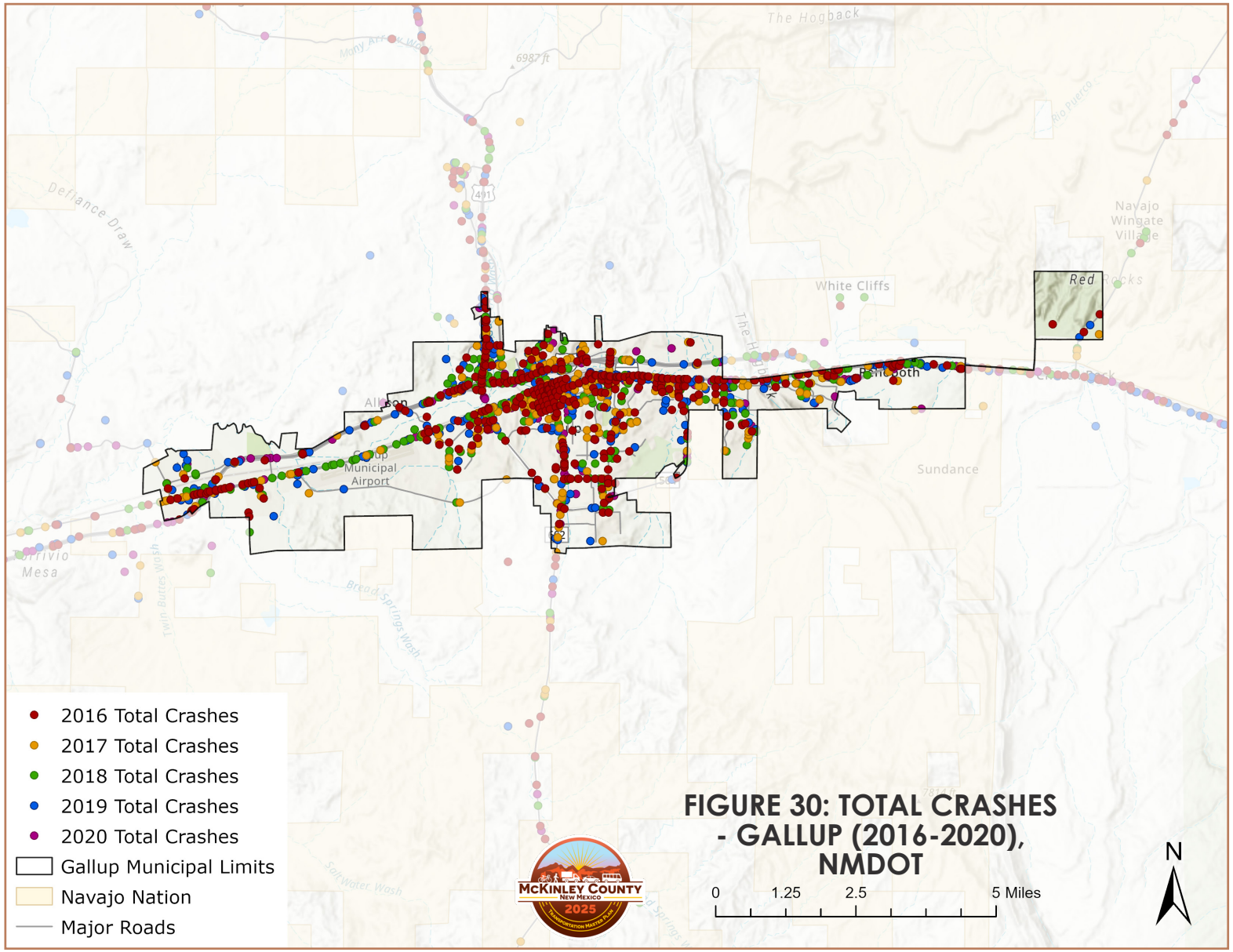


FIGURE 30: TOTAL CRASHES - GALLUP (2016-2020), NMDOT

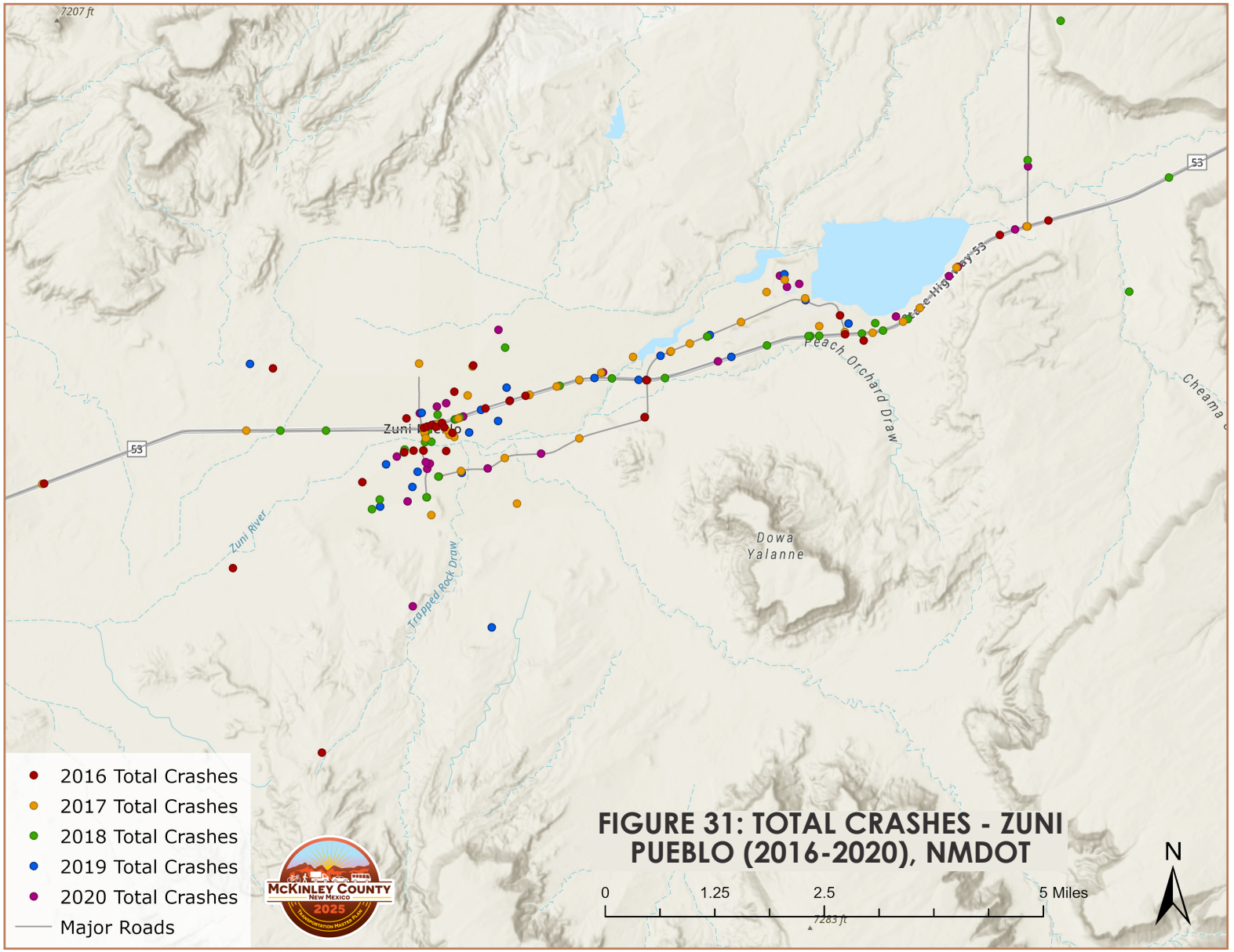


FIGURE 31: TOTAL CRASHES - ZUNI PUEBLO (2016-2020), NMDOT



There were 122 total fatal crashes recorded between 2016 and 2020 within the McKinley County limits. Most fatal crashes occur along the I-40 corridor. There are two predominant hotspots in and around the City of Gallup (31 fatal crashes within the City's municipal limits), the majority of which are concentrated on the segment of I-40 and Route 66 that runs through Gallup on the East side of the 491 corridor.

Further analysis indicates these locations are poorly lit during the nighttime, are void of pedestrian facilities, unsignalized intersections, and are heavily congested areas due to the associated land use. Implementing appropriate street lighting, signalized intersections and pedestrian safety improvements will be helpful in abating the issue. Figure 32 identifies the total number of fatal crashes from 2016 through 2020.

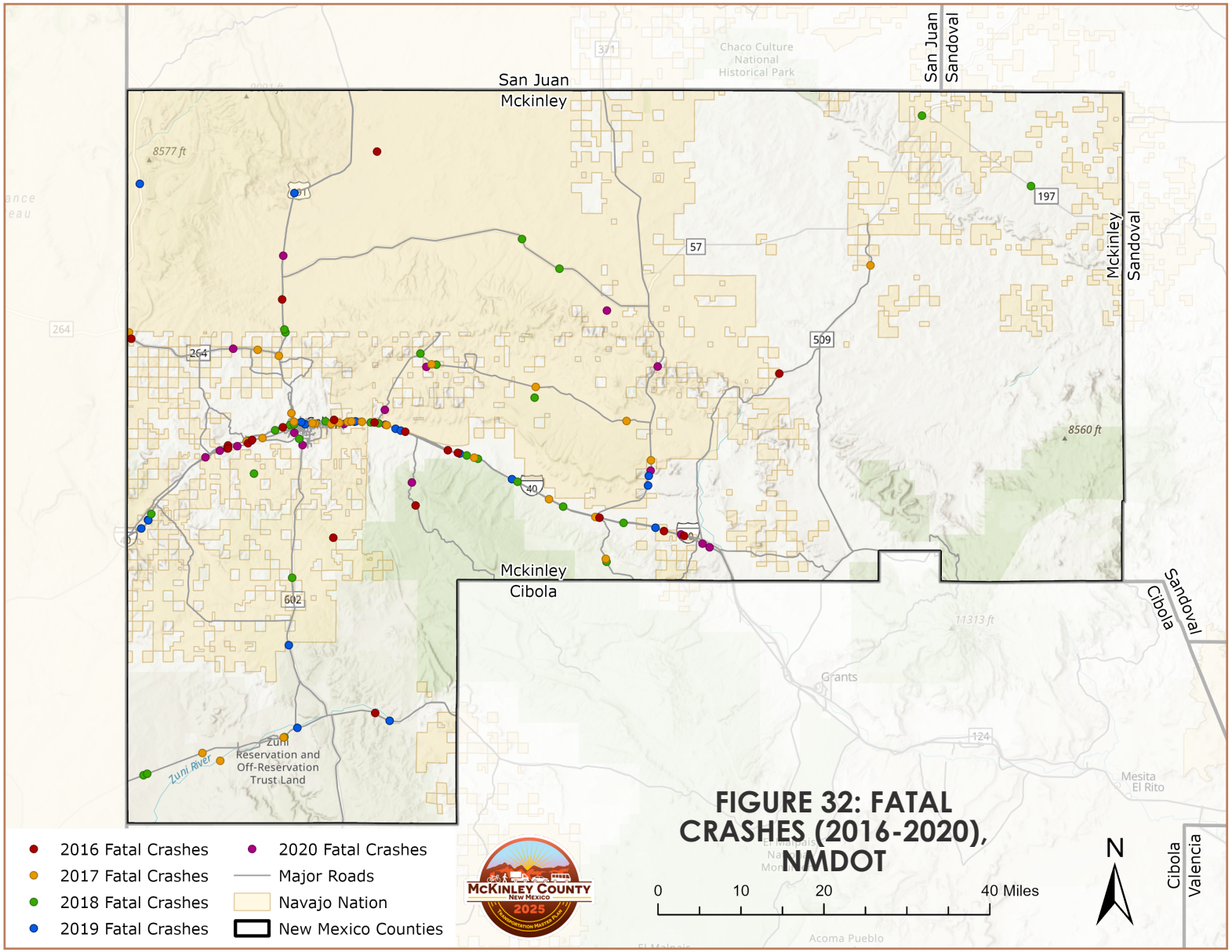


FIGURE 32: FATAL CRASHES (2016-2020), NMDOT



There were 142 crashes involving pedestrians within McKinley County between 2016 and 2020, of which 38 were fatal crashes. It should be noted that while pedestrians constitute only 0.02% percent of the total crashes within McKinley County, they represent 31% percent of the fatalities in the County. As more people are expected to utilize active transportation options in the region within the coming years, pedestrian trips are expected to increase in general. This growth emphasizes the critical importance of assessing safety issues for these more-vulnerable users through crosswalk visibility, lighting, pedestrian refuge, reduced crossing distances (where possible) and reduced speeds in support of safe, comfortable, and connected facilities.

Figure 33 illustrates the locations of pedestrian-involved crashes within Gallup.

The majority of pedestrian-involved crashes from 2016-2020 were located in the City of Gallup, along the Route 66 and I-40 corridor (specifically along the central segments through the City), and along the 491 corridor on the North side of the City. Upon further analysis, the pedestrian facilities in these areas are incomplete and would benefit from a focused redesign effort – noted deficiencies include faded crosswalks, lack of crossing facilities, lack of/incomplete sidewalks. These "hotspots" are also high-density areas, with a high traffic rate due to the intensity of adjacent land use and access to residential neighborhoods. Although these areas are ideal distances for pedestrian-access, these conditions do not make it a safe space for pedestrians.

The low vehicle-to-person rate within Gallup is evidence of high pedestrian activity which the City has a responsibility to accommodate. The updating of pedestrian facilities would be a great place to start, as well as the addition of new facilities in these high-density areas. Making these pedestrian facilities ADA-accessible should also be considered.

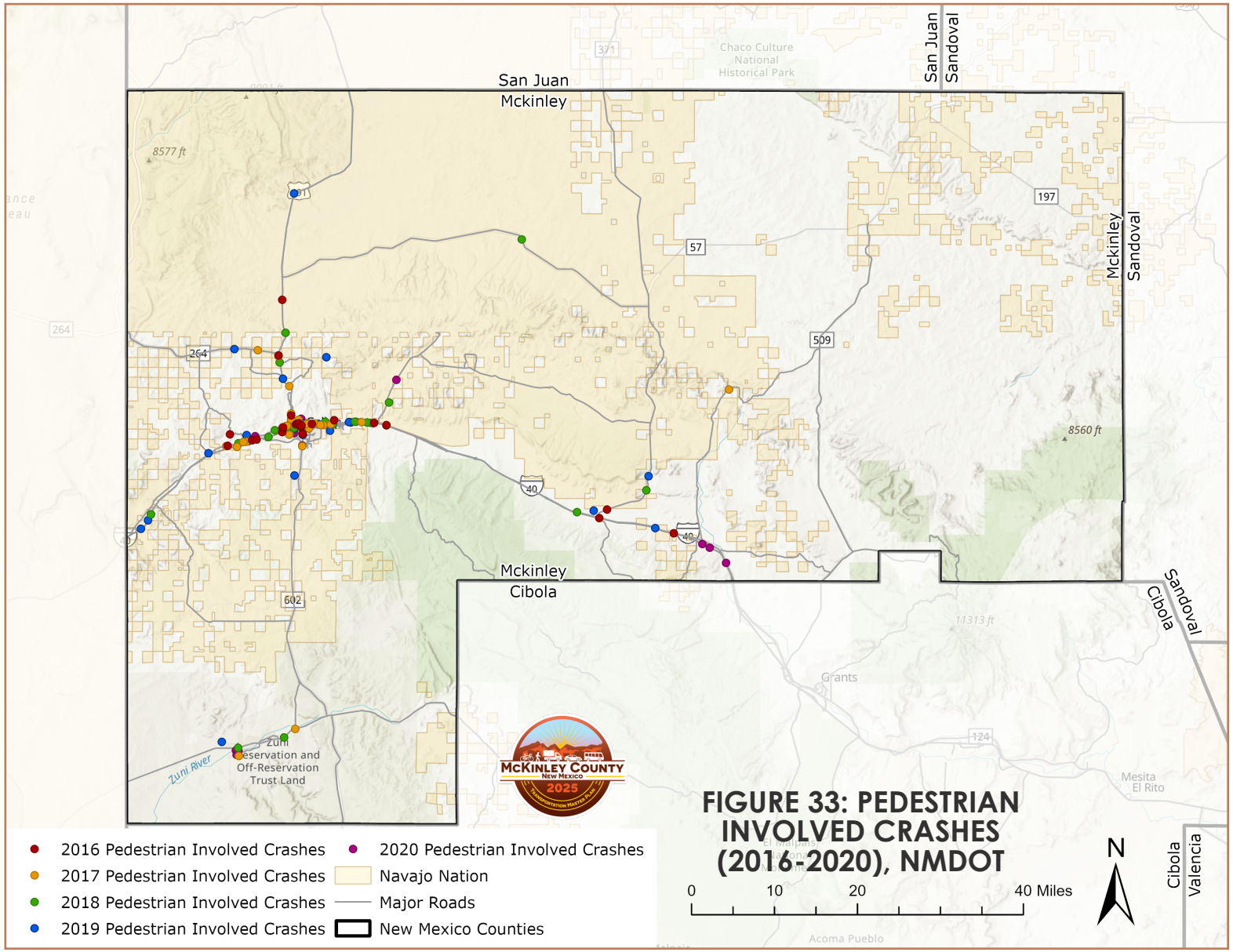


FIGURE 33: PEDESTRIAN INVOLVED CRASHES (2016-2020), NMDOT



Pedestrian Facilities

Existing pedestrian facilities are primarily located within the City of Gallup. Pedestrian facilities within smaller communities and the unincorporated areas of McKinley County are currently very limited and most pedestrian travel is done along shoulders on NM and US highways.

DESIGN CONSIDERATIONS

Sidewalks and Multi-Use Trails

In general, sidewalks are appropriate within new subdivisions and roadways connected to urban areas. Multi-use trails are desirable and should be considered along major County roads where right-of-way is available.

Pedestrian Lanes

Alternative options for pedestrians may be considered in rural areas where curb and gutter are not appropriate, and where traffic volumes are low. Specifically, many paved local roads may be an appropriate choice for pedestrian lanes, which typically feature 4 to 6 foot striped areas on the edge of the paved road area. According to the FHWA guide Small Town and Rural Multimodal Networks, pedestrian lanes are on-street walking routes along paved routes with little traffic (i.e., below 500 vehicles per day) and speeds of 30 MPH or less.

Dirt Trails

Dirt trails and wide shoulders may be considered for pedestrian usage along more rural roads where ADA standards do not need to be met.

Bicycle Facilities and Trails

Opportunities to bike on formal facilities are currently very limited within McKinley County, with some existing facilities available in Gallup. Roadway shoulders and informal trails accommodate most of the bicycle traffic within the unincorporated areas of the County.

According to the McKinley County Comprehensive Plan, there has been substantial focus and investment into multi-use trail systems in McKinley County to develop adventure tourism as an economic driver. Nearly a decade ago, the U.S. Forest Service (USFS) launched the Zuni Mountains Trail Partnership (ZMTP), partnering with McKinley and Cibola Counties. The ZMTP is designing and constructing over 200-miles of non-motorized, single-track trail systems.

Table 6: NM Bike Plan Priority Tiers - McKinley County

Roadway Name	NM Bike Plan Tier
US 491	Tier 1
US Rt 66	Tier 1
NM 264	Tier 2
NM 371	Tier 2
NM 53	Tier 2
NM 566	Tier 2
NM 602	Tier 2



Project highlights include the following: In 2018, the Recreational Trails Program awarded $1.7 million: (a) Cibola County to develop the Quartz Hill Trail, a 30-mile trail segment, and (b) McKinley County to develop the (McGaffey) Milk Ranch Trail, a 36-mile trail segment. In 2019, the Recreational Trails Program awarded another $151,134 for design and construction of the McKenzie Ridge Trail Connector to continue implementation of the overall Zuni Mountains Trail Project.

NM Bike Plan

Multiple New Mexico and US highways located in McKinley County are identified as Tier 1 and Tier 2 facilities in the 2018 NMDOT Prioritized Statewide Bicycle Network Plan (NM Bike Plan). These tier designations reflect the level of benefits from bikeways and the type of desired infrastructure rather than priority for implementation. When reconstruction or major rehabilitation takes place on the roadways, the NM Bike Plan recommends at least 5-foot bike lanes on Tier 1 and Tier 2 facilities within municipal limits and 5' (or wider) shoulders in unincorporated areas. In general, buffers are desirable on higher speed and volume roadways. Table 6 contains a full list of these roadways.

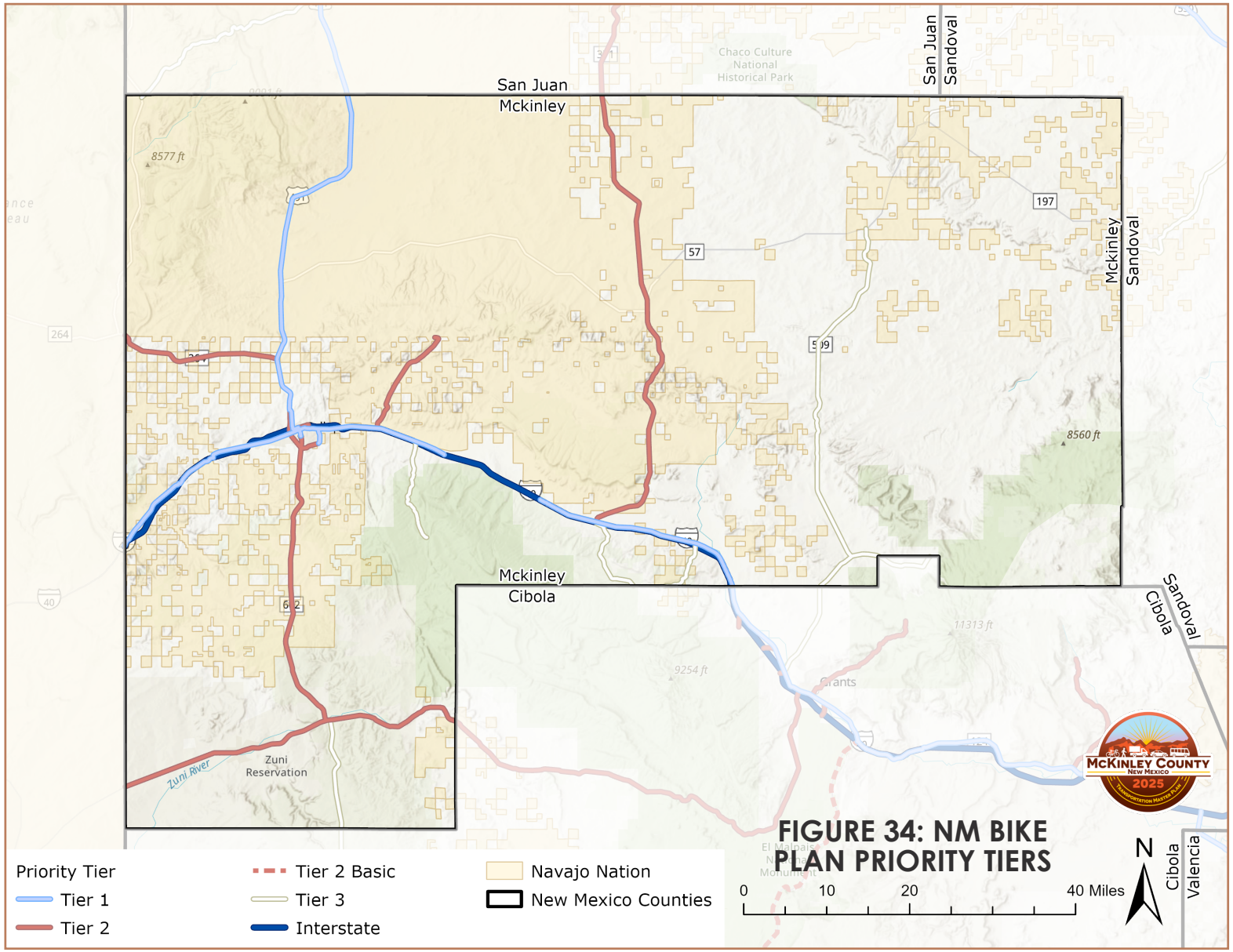


FIGURE 34: NM BIKE PLAN PRIORITY TIERS



Transit

Public transit within McKinley County is currently available through both rail- and bus-based transportation. Local and regional bus transportation providers operate primarily within the City of Gallup, and currently include the following:

- **Gallup Express** provides local transportation in Gallup and Zuni, as well as intercity service between the two towns. There are 4 express routes: North, South, East, and West. Gallup Express provides route-deviation service up to ¼ mile off the route to pick up or drop off for an additional $1 charge.
- **Navajo Transit** provides regional transportation within the Navajo Nation. This bus service provides 18 routes in and around the City of Gallup.
- **Greyhound** provides intercity transportation. The local Greyhound station is located at the Route 66 Mini Mart at 3060 West Highway 66.
- **A:shiwi Transit** provides local and intercity transportation for Zuni Pueblo and the surrounding area.

The County is also accessible by rail. Amtrak provides daily service from Gallup to Flagstaff, Los Angeles, Albuquerque, and other destinations via Amtrak's Southwest Chief. The station is located in the Gallup Cultural Center at 201 East Highway 66. Ashiwi Transit has two routes within the County, one that runs the length of Zuni Reservation and one that circumnavigates the City of Gallup, specifically through the Downtown area.

Figure 36 shows all current transit routes within McKinley County, including Ashiwi Transit, Gallup Express, and Navajo Transit System. Gallup Express consists of four lines: West, East, North, and South, and runs throughout the City of Gallup along Route 66, north on US 491 to Gamerco, and throughout the Downtown area. Navajo Transit System is a much more extensive network, servicing almost the entire area between NM 371, I-40, and the north/west borders of McKinley County. Navajo Transit System services parts of eastern Arizona as well as a large portion of San Juan County directly north of McKinley County however, only those routes within McKinley County are shown in Figure 36. Routes 5, 6, 13, 14, and 7A/B are the transit routes mostly within McKinley County.

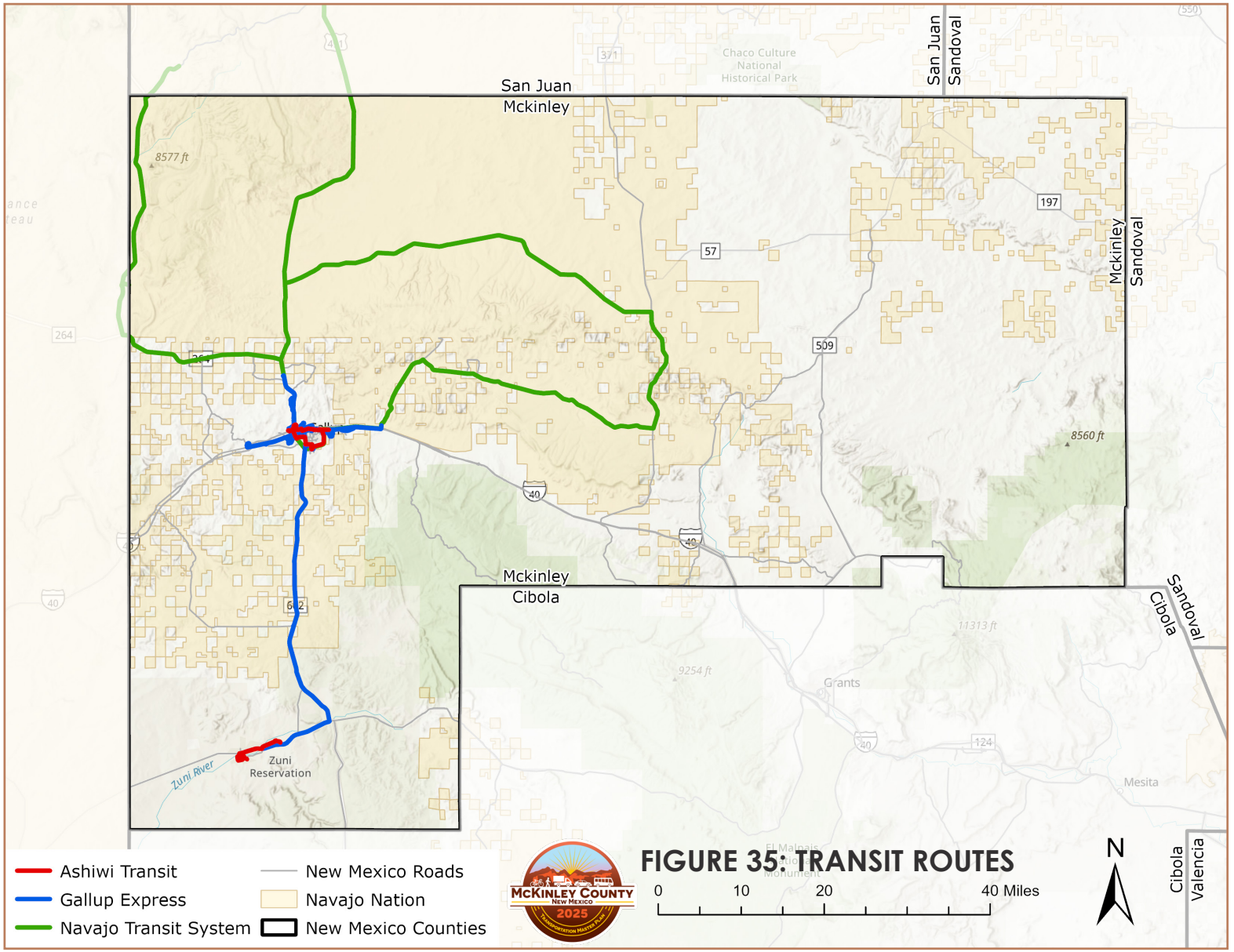


FIGURE 35: TRANSIT ROUTES



Rail and Freight

The BNSF Railroad's South TransCon track connects McKinley County to the Port of Long Beach and the Port of Houston, as well as ports of entry at the Mexican and Canadian borders. BNSF also operates a major rail yard in downtown Gallup. I-40 is utilized as a major freight corridor between Los Angeles and Albuquerque and beyond.

Airports

McKinley County has three civil-use airports — Gallup Municipal Airport (GUP), Black Rock Airport (ZUN), and Crownpoint Airport (0E8) — the Gallup Municipal Airport (GUP), which is a general aviation facility located three miles southwest of downtown Gallup. Owned and operated by the City of Gallup, the airport covers an area of 359 acres, and maintains a single runway which measures 7,316 feet by 100 feet. GUP offers passenger service to Phoenix once daily. National and international travel is available through the Albuquerque International Sunport, while regional flights are available at the Santa Fe Regional Airport and the Flagstaff Pulliam Airport in Arizona. The Double Eagle II Airport, located approximately seven miles to the northwest of Albuquerque, is also available as a public airport, and provides general aviation, air ambulance, corporate flights, military flights, training flights, charter, and private aviation.

Bridges

There are currently 631 bridges within McKinley County. Of those, 11 bridges are designated as a part of a Statewide Transportation Improvement Plan (STIP) or as a Local Project. The majority of these bridges named for replacement were built in the 1970s and 1980s constructed from "Miscellaneous Metal".

Many of McKinley County's bridges are Vietnam-era military surplus. These prefab, portable bridges were intended to be temporary; those still in use today have exceeded their life expectancy. When these bridges are closed due to the deterioration of their condition, connectivity in the County is reduced, forcing travelers to re-route through lengthy and time-consuming detours. For bridges that aren't closed, capacity restrictions cause large heavy vehicles, such as school buses and fire trucks to reroute. School buses cannot properly serve students if their travel times increase significantly, and emergency vehicle response times suffer if they are forced to make detours. Deteriorating bridges pose a safety risk to travelers. A bridge failure could result in serious injury and death.

The data shown in Figures 36, 37, 38, and 39 can be used to prioritize bridge replacement. Figure 36 shows all bridges in the County and which bridges are owned by the County. Figure 37 shows the year that each County owned bridge was built in. Figure 38 shows whether the condition of a County owned bridge is poor, fair, or good. Figure 39 shows the year each County owned bridge was last inspected. Figure 40 shows all bridges in the County and which ones are included in the STIP.



Whitecliffs Railroad Bridge

REPLACEMENT BARRIERS

McKinley County is facing many barriers to replacing its deteriorating bridges. First, the quantity of bridges in need of replacement means that to replace them all would require a tremendous application of resources, currently beyond the County's capacity to apply. Next, many of the bridges are within Navajo communities. The county may need to obtain right of way or manage expiring easements to commence bridge improvement projects in some areas. Bridge replacement projects are complex, and there are prohibitive costs associated with conducting cultural, environmental, and biological surveys. McKinley County also faces difficulties coordinating across jurisdictions and navigating complex approval processes.

Due to the high cost and lack of funding sources for large-scale replacement efforts, McKinley County has, to date, pursued a bridge-a-year approach to replacement.

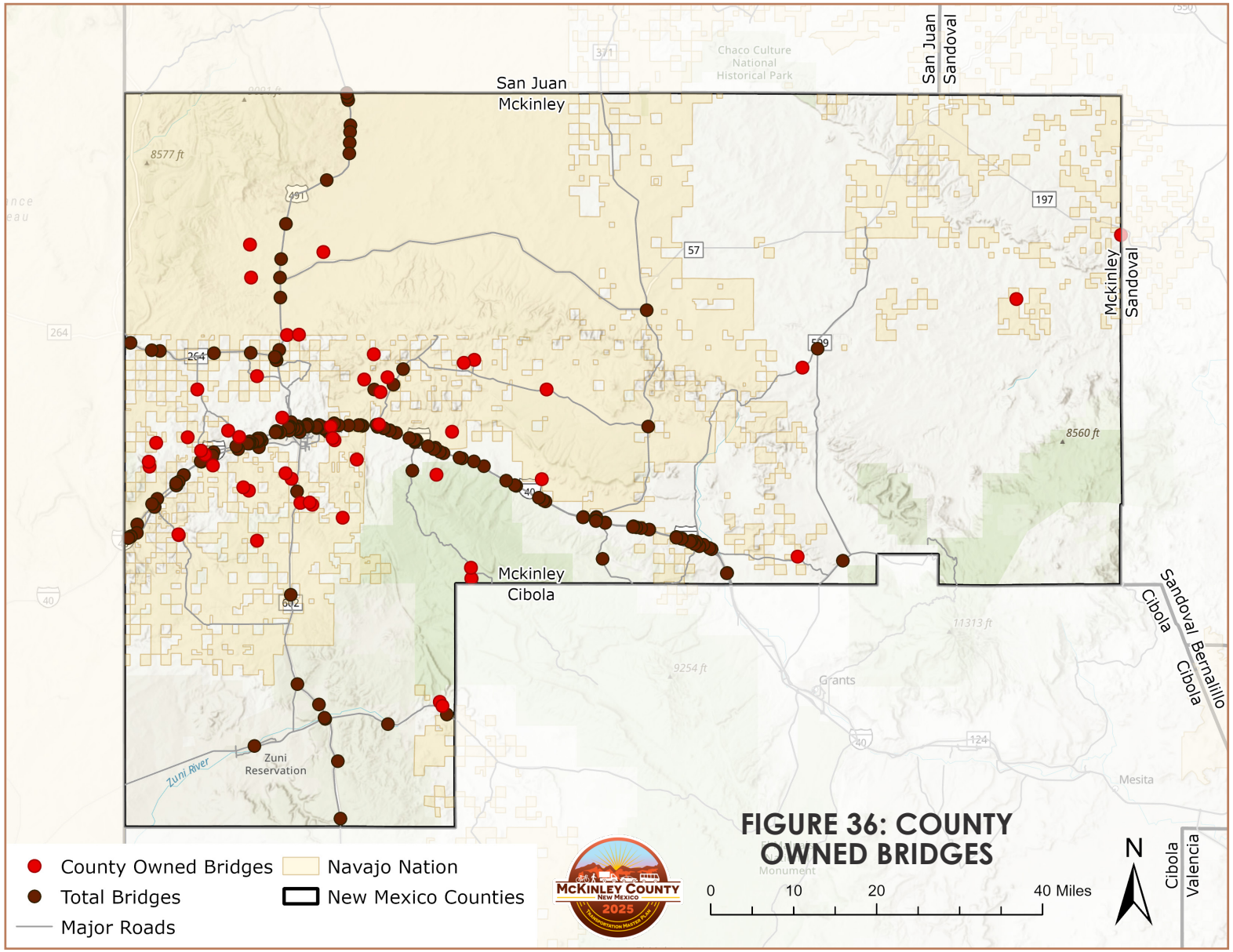


FIGURE 36: COUNTY OWNED BRIDGES

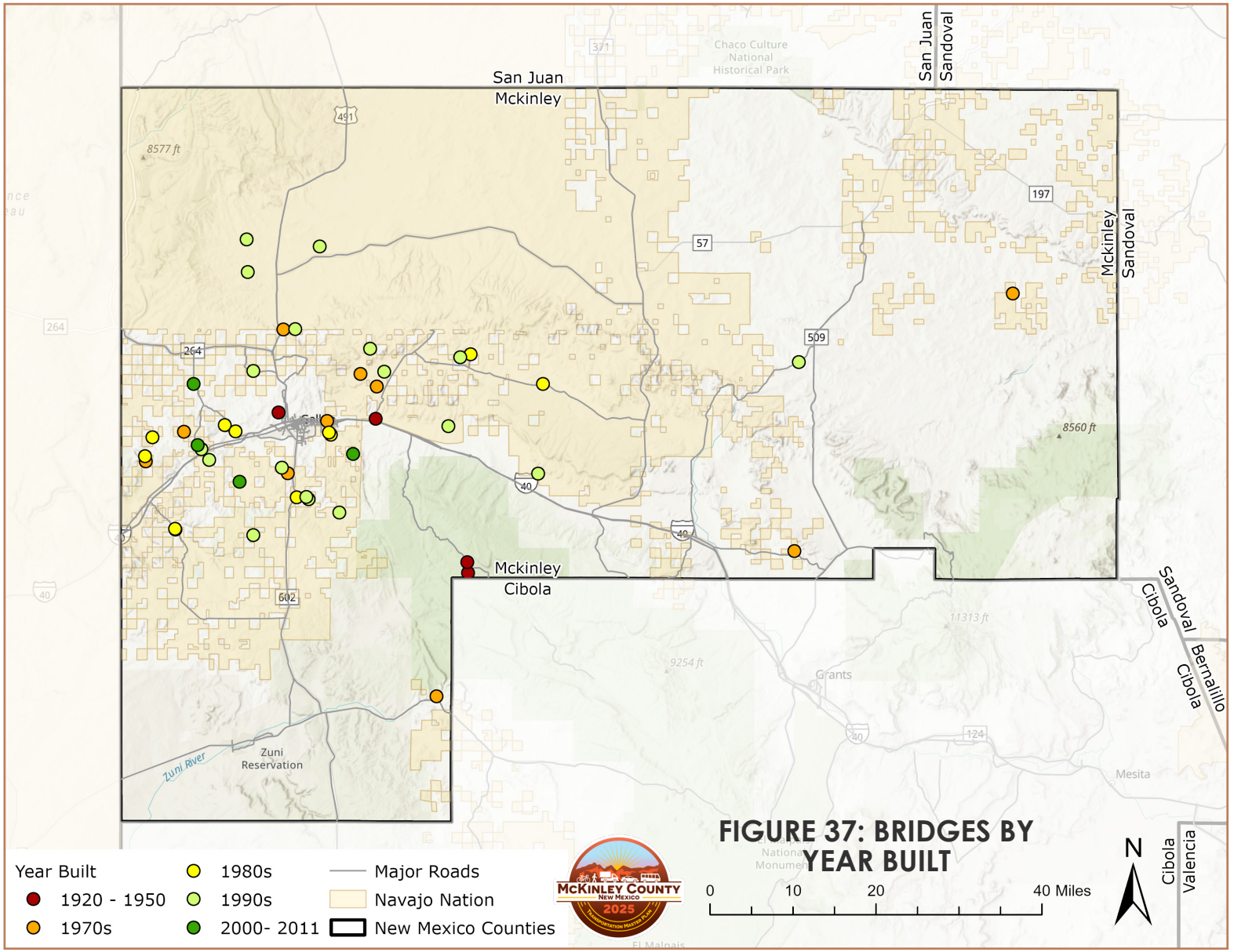


FIGURE 37: BRIDGES BY YEAR BUILT

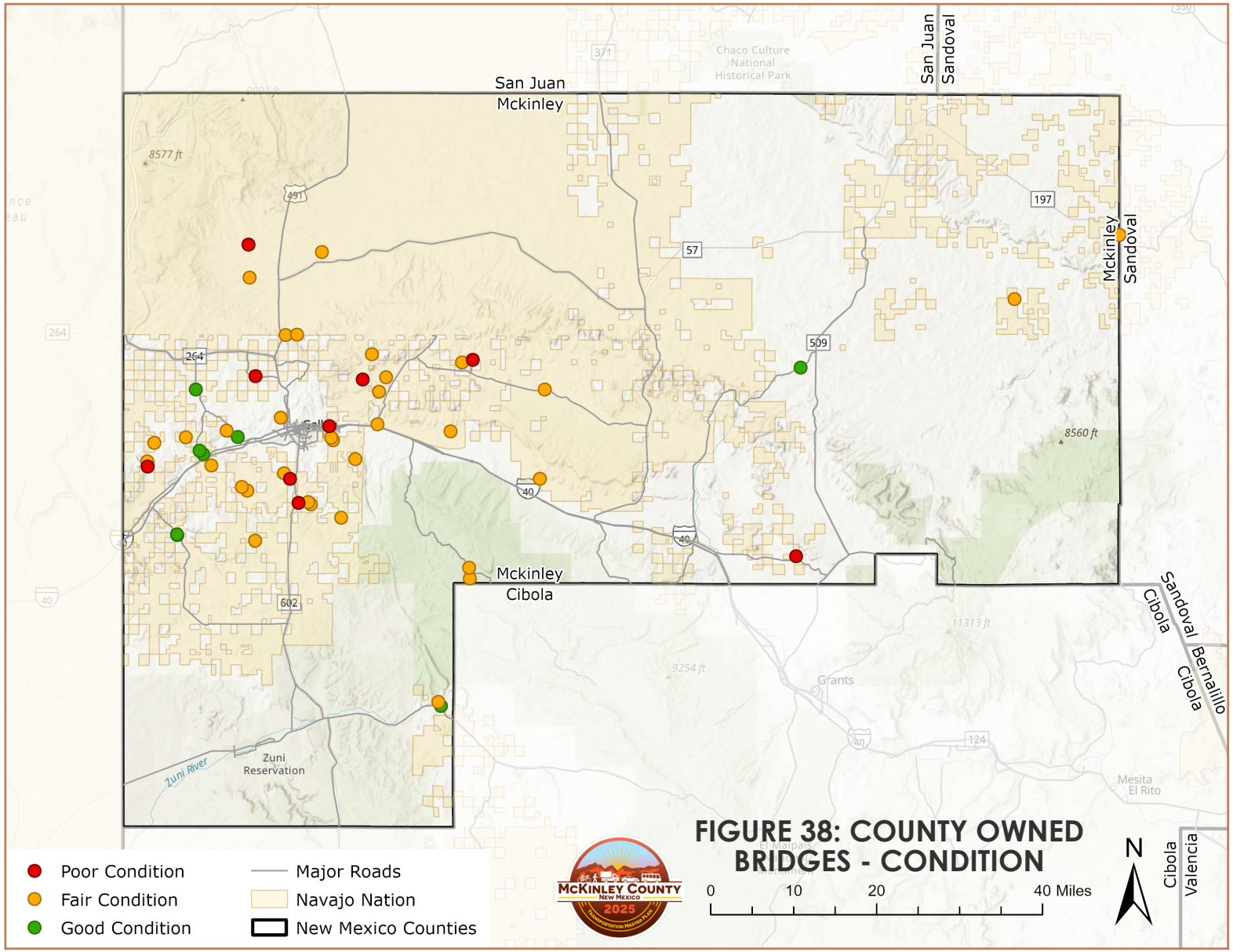


FIGURE 38: COUNTY OWNED BRIDGES - CONDITION

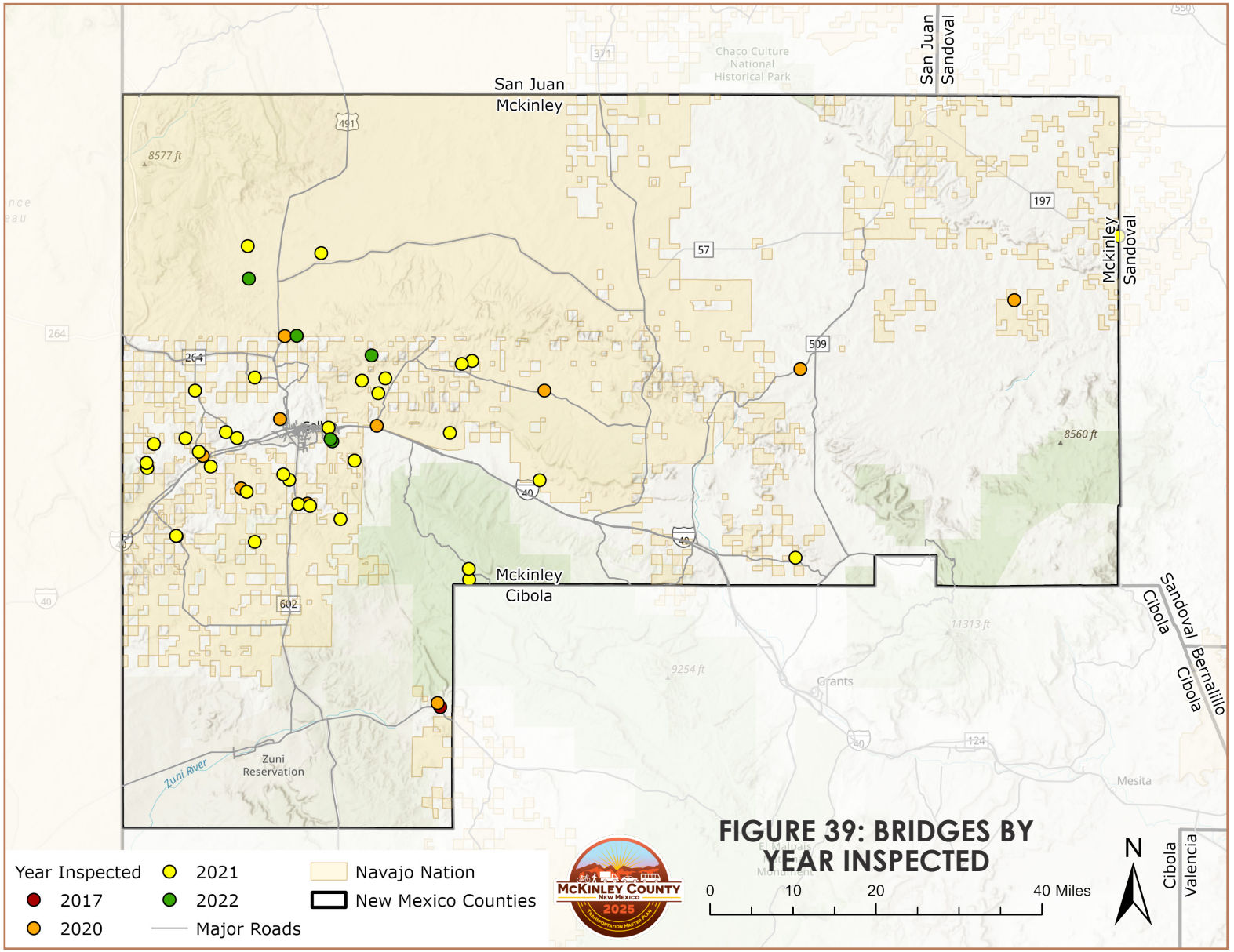


FIGURE 39: BRIDGES BY YEAR INSPECTED

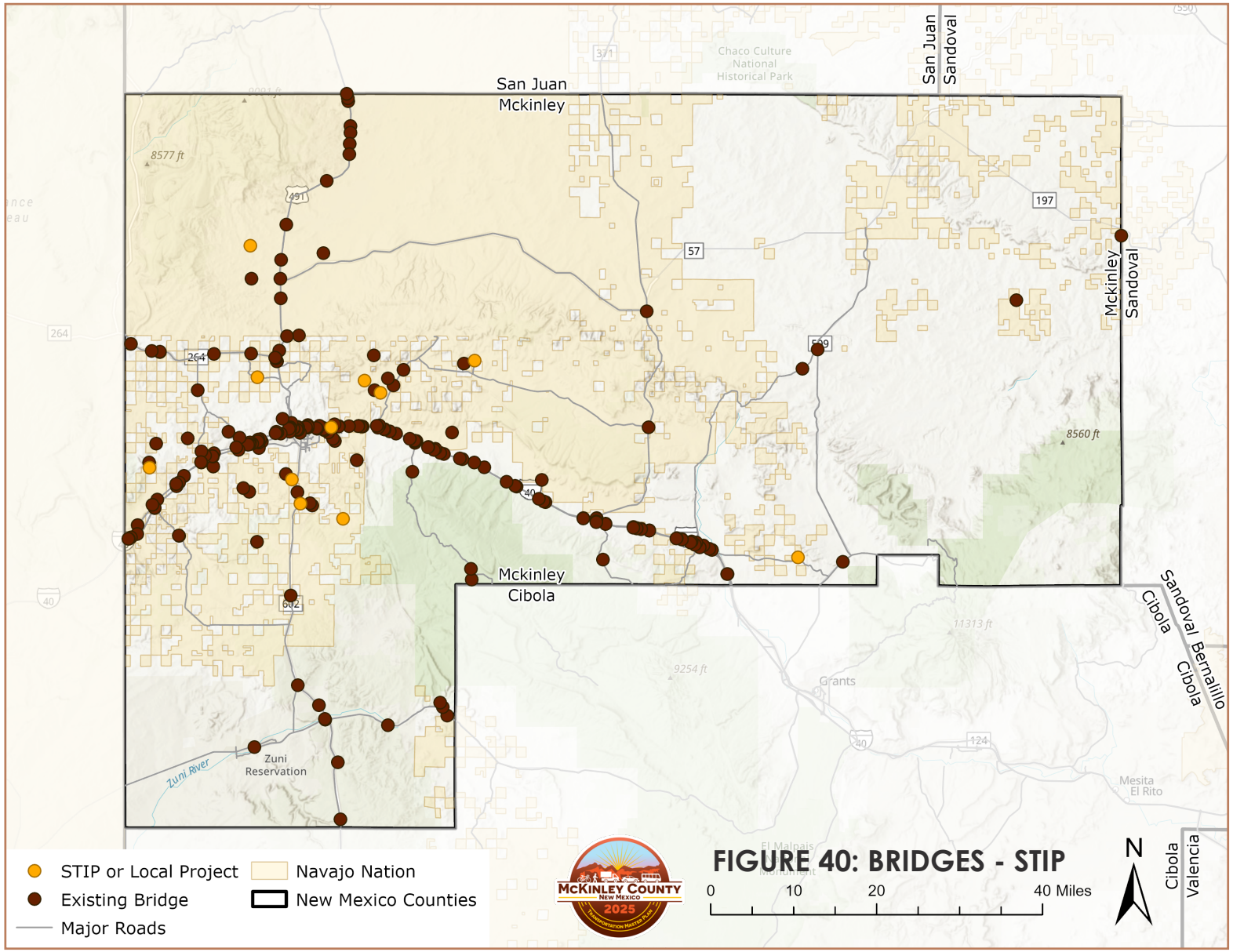


FIGURE 40: BRIDGES - STIP

4. SAFETY ACTION PLAN

EXECUTIVE SUMMARY

This Vision Zero Safety Action Plan (Further referenced herein as "SAP" and "the Plan") is intended to guide McKinley County in working to eliminate all traffic fatalities and severe injuries while promoting safe, healthy, and equitable mobility for all. The County, in partnership with the Northwest New Mexico Council of Governments (NWNMCOG) and the New Mexico Department of Transportation (NMDOT), are committed to the eventual goal of zero traffic fatalities and severe injuries by the year 2040.

McKinley County is dedicated to creating safe streets for all users, including pedestrians, cyclists, drivers, individuals with disabilities, children, and elderly. Recommended goals include reducing driver inattention and impairment, implementing forgiving roadway designs, reducing driving speeds, ensuring safe trucking, improving crash reporting, and achieving zero deaths by 2040. The Safety Action Plan addresses the many crash characteristics in rural vs. urban areas within the County and details proven safety countermeasures to help eliminate crashes along County roadways. Safety countermeasures include policy efforts, enforcement, and engineering strategies to improve roadway safety.

Recommended projects (see the Implementation and Evaluation section) are categorized into short-term (1-2 years), medium-term (3-5 years), and long-term (5-10 years) initiatives. Given the collaborative effort already in place to develop this CSAP, it is anticipated that a special working group coordinated by the NWNMCOG will oversee the implementation and evaluation of this SAP, continuously identifying prospective partnerships and funding sources, and evaluating progress annually. It will be up to the County Manager to make the final determination. Additionally, the Plan outlines several funding opportunities to support transportation safety projects, including federal grants, state programs, and local government funds.

The goal of the Vision Zero initiative is to develop a transportation network that protects all users and eliminates fatalities and serious injuries in the community, and the success of the SAP depends on the ongoing commitment to the goal of the Vision Zero principles and the collaborative efforts of everyone involved.





INTRODUCTION

About 40,000 people lose their lives on U.S. roads per year. Vision Zero and similar initiatives have been adopted throughout the country with the philosophy that even one death on roads is too many. The SAP incorporates the Safe System Approach, which considers driver behavior and enforcement mechanisms to improve safety but places the strongest emphasis on design and engineering. Using a careful review of crash data in McKinley County, this document will identify areas for further examination, strategies for improving safety, and prioritization for implementation of these strategies. This Plan was developed through data analysis of the most current NMDOT crash data as well as input from the public and local stakeholders to determine areas of emphasis within McKinley County.

Safe Streets for All (SS4A)

The SAP was funded by NMDOT State Planning and Research funds and was set up to align with the requirements associated with the Safe Streets and Roads for All (SS4A) program. The SS4A program was established by the Bipartisan Infrastructure Bill to fund initiatives that aim to eliminate or significantly reduce road deaths and serious injuries. In addition to reducing roadway deaths, this program prioritizes initiatives that incorporate equity, sustainability, economic competitiveness, and best practices into their approach.

Study Area

This plan covers the area within McKinley County, located in Northwestern New Mexico. It is bordered by San Juan County in the north, Sandoval County in the east, Cibola County in the south, and Arizona in the west. Major roadways in McKinley County include I-40, US 491, NM 53, NM 36, NM 602, NM 264, and NM 371. Aside from I-40 and US 491, most of these roads are two-lane rural highways.

Approximately 72,073 people live in McKinley County. Of these, 76% identify as American Indians and 10% as white with the remaining composed of other races. 34% of McKinley County residents had income below the poverty level in the last 12 months at the time of the American Community Survey (2022), compared to 18% of the overall New Mexico population. Every census tract (except the three that make up Gallup) to s in McKinley County meet the federal definition for Area of Persistent Poverty and Historically Disadvantaged Community.

Of the approximately 23,701 McKinley County residents who are workers 16 and over, 77% report driving alone to reach work. 8% reported carpooling with one or more other people, 3% reported walking, 1% took public transportation, and less than 1% bicycled. 10% report working from home. For these, 62% report that their trip takes 29 minutes or less, 29% report their trip takes between 30 and 59 minutes, and 9% report their trip takes 60 minutes or longer. 12% of households reported having no access to a vehicle.

McKinley county's mode share reflects New Mexico's overall mode share, with 76% reporting driving alone to work, 10% carpooling, 2% walking, and 1% each for bicycling and walking with 10% working from home. Additionally, 6% of New Mexico households report having no access to a vehicle.

Equity

An analysis of and the incorporation of equity in the safety planning process is a specific requirement of the SS4A program and ensures that outcomes of the broader crash analysis and development of countermeasures are equitably implemented in the future. The following analysis ensures an equitable approach to implementing the goals, objectives, and projects of this SAP and the associated TMP.



Of the 72,073 people living in McKinley County, approximately 28,400, or 38%, live in census tracts designated as disadvan¬taged by the Federal Government (Figure 41). Further, USDOT scores McKinley County in the 88th percentile for Transporta¬tion Insecurity, further broken down into the 88th percentile for Transportation Access, the 86th percentile for Transportation Cost Burden, and the 75th percentile for Transportation Safety. Areas with higher scores for transportation access experience longer commute times and difficulties in traveling regardless of mode. These burdens constitute significant disadvantages for those seeking employment opportunities and attempting to access resources. Areas with higher scores for transportation cost burden spend a higher portion of their income on trans¬portation. This includes paying for public transport, fuel, vehicle maintenance, insurance, and other costs. This situation leaves less money for healthcare, housing, and food which contributes to poverty. Areas with higher scores in transportation safety have a higher level of fatal crashes per 100,000 people.

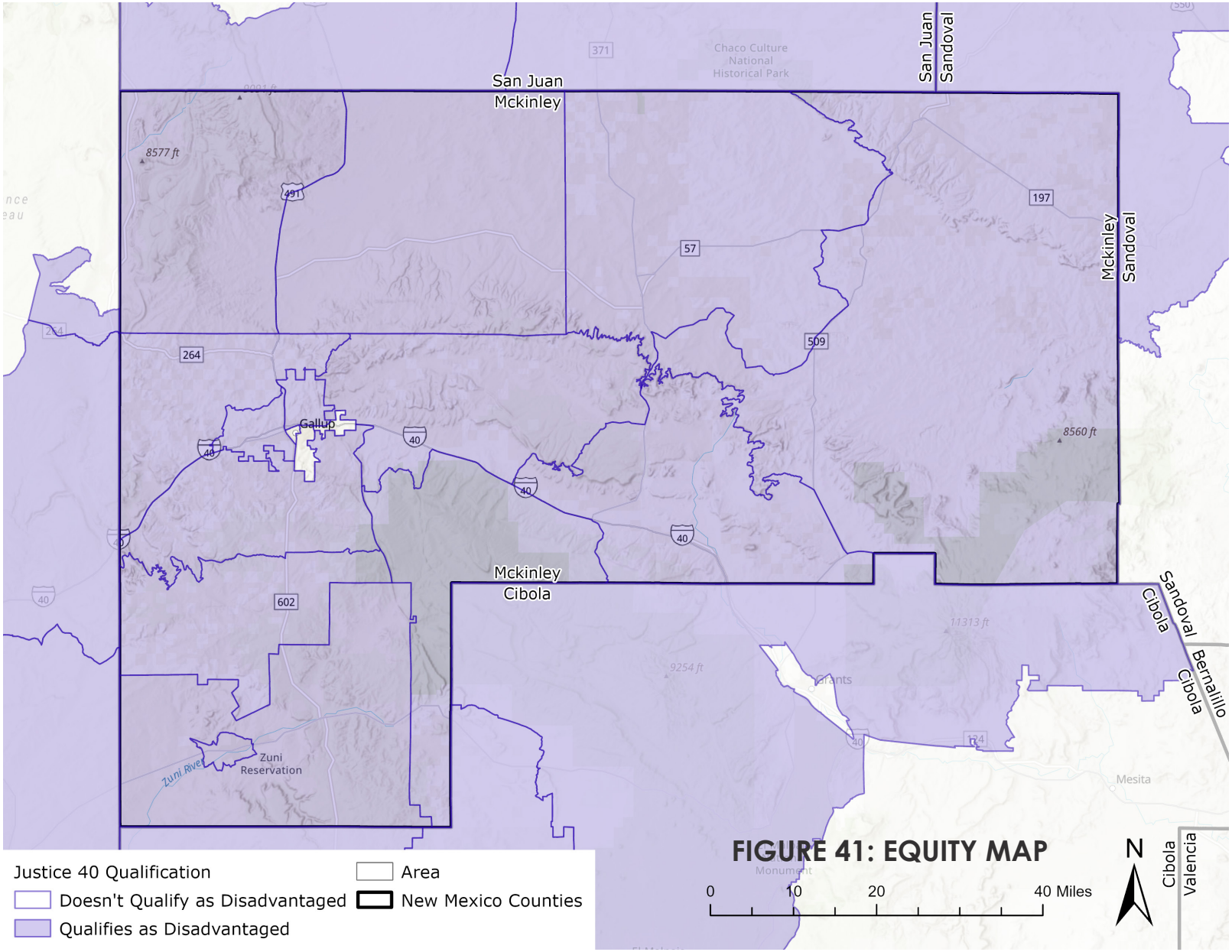


FIGURE 41: EQUITY MAP

Planning Process

The project team coordinated with all jurisdictions within McKinley County including the Northwest New Mexico Council of Governments (NWNMCOG), chapters of the Navajo Nation, Zuni Pueblo, and the City of Gallup. Other entities considered in the development of this plan include the City of Grants, the Village of Milan, the Northwest Regional Transportation Planning Organization (NWRTPO), the New Mexico Department of Transportation (NMDOT), and the Navajo Nation Department of Transportation (Navajo DOT). Stakeholders were engaged at meetings and the project team reviewed plans that were developed by the above-listed agencies. Transportation safety concerns, priorities, and recommendations, gathered from engagement and research, influenced the development of this plan.

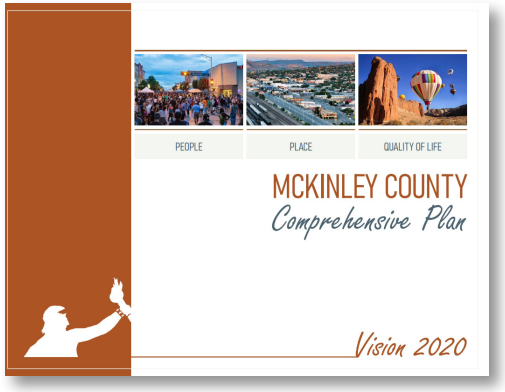


Existing Plan Review

This plan aligns with previous planning efforts re¬garding safety as a means to leverage work that has already taken place, and continue momentum for project implementation. The following plans were reviewed and incor¬porated into the recommendations and goals of the safety action plan. Many of these plans were already reviewed in the introduction to this plan, so the review that took place for this section had a specific focus on transportation safety. The intent of this section is to connect the goals, objectives, and identified projects with existing adopted plans to ensure implementation in the future.

Navajo Nation Long Range Transportation Plan (2021)

The section of the plan that addresses safety centers around crash data, highlighting hotspots and discussing contributing factors. Navajo DOT estimates that fatal crashes are greatly underreported, and, as a result, serious injury and other crashes are underreported even more. The plan calls for improved pedestrian and bike infrastructure.



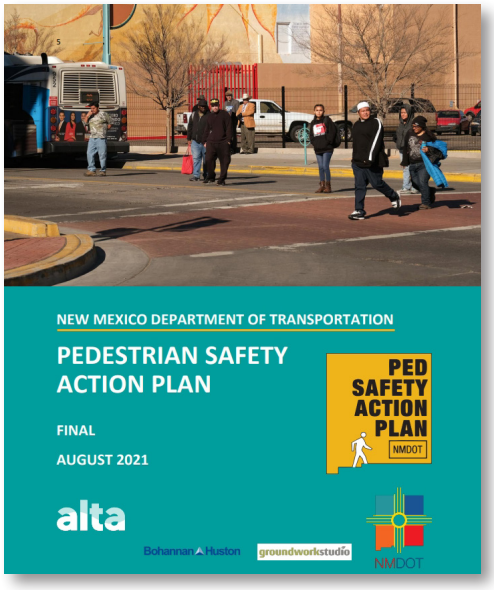
McKinley County Vision 2020

McKinley County Vision 2020 is the county's comprehensive plan. The plan names 'interstate safety' as an important concern of county residents, particularly along the I-40 corridor which serves the transportation of goods into and through the county and supports commerce and tourism. Driving While Intoxicated (DWI), Driving Under the Influence (DUI), pedestrian and bicycle collisions, safety on unpaved and graveled roads, and speeding are all outlined as primary safety concerns in the plan. Safety ranks among the goals of the plan: "promote and support transportation planning and project development that are focused on safety for all county facilities and services." This goal has five objectives: consider complete corridor design, use signage to warn for livestock in the road, work with the RTPO to establish a forum for reporting issues, interagency coordination to address flooding and drainage issues on county roadways, and address safety concerns at at-grade rail crossings.



NMDOT New Mexico 2045 Plan (2021)

This plan, adopted in 2021, outlines NMDOT's vision for the future of New Mexico's transportation system. One of the main goals of the plan is to "improve safety for all transportation system users." This goal is broken down into five objectives: reduce the number of roadway fatalities, injuries, nonmotorized fatalities and injuries, work zone fatalities and injuries, and invest in infrastructure and programs that improve pedestrian safety. This portion of the plan also outlines performance measures to check whether efforts toward reaching this goal are successful. This includes not just the count of deaths and injuries going down, but that count expressed as a rate of injuries and fatalities per vehicle mile travelled (VMT). NMDOT conducted public engagement during the development of this plan, and respondents identified improving highway safety as one of the top four priorities.



NMDOT Pedestrian Safety Action Plan (2021)

The NMDOT Pedestri an Safety Action Plan (PSAP) was adopted in August of 2021. The plan begins by pointing out some urgency: the National Highway Traffic Safety Administration (NHTSA) ranked New Mexico in the top four for pedestrian deaths expressed as deaths per 100,000 population from 2012-2019. New Mexico was ranked first for many of those years. Looking at NHTSA's rankings in the years since this plan was completed reveals that New Mexico was ranked first in 2020 and 2021 as well, further illustrating the severity of the problem. The main objective of this planning effort is to reverse this trend statewide.

With this goal in mind, the PSAP identifies seven action areas:

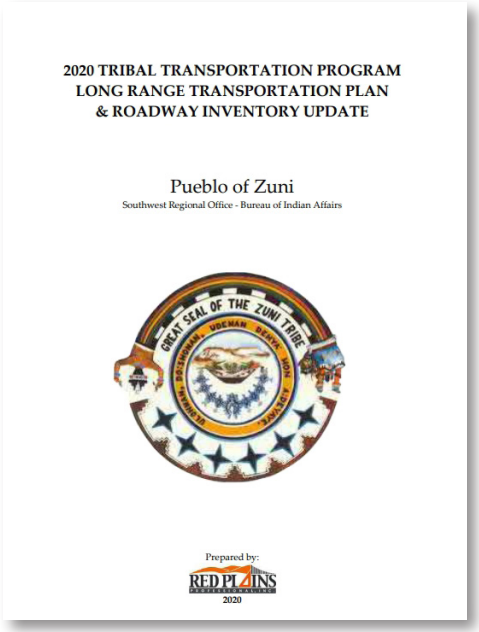
- **Data, Analysis, and Evaluation**
- **Driver Education**
- **Pedestrian Outreach Program**
- **Highway and Traffic Engineering**
- **Law Enforcement and Emergency Services**
- **Communication**
- **Planning and Legislation**

The PSAP makes an important point relevant to any effort to reckon with pedestrian deaths: reports that attribute pedestrian involved collisions to pedestrian error misrepresent the cause of the accident by locating it within the choices of the individual walking and ignoring the context that informed that decision. For instance, in a situation where a pedestrian is struck mid-block, this may be recorded as a pedestrian error as the person chose to cross the street somewhere other than a crosswalk. What the data may not record is that the nearest crosswalks were a quarter mile or more out of the pedestrian's way. When that pedestrian made the choice to cross mid-block, that was a rational decision. The error was not made by the pedestrian, but by the designer.



Northwest New Mexico Regional Transportation Plan (2023)

This plan, updated 2023 and developed by the NWNMCOG, identifies safety as one of its main goals. The northwest region anticipates increased heavy duty truck traffic, especially on I-40, as the region becomes a hub for freight shipping and considers the possibility of becoming an inland port. Safety improvements, policy changes, and enforcement mechanisms for trucking are proposed by this plan as a result. This plan also mentions at-grade rail crossings, signs for wildlife and domestic animals, and improving safety for multi-modal users. The plan recommends working with law enforcement to improve data quality.



Zuni Pueblo TTP LRTP & Roadway Inventory (2020)

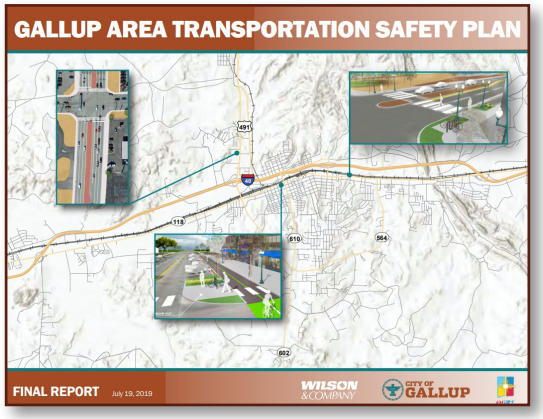
The 2020 Tribal Transportation Program Long Range Transportation Plan and Roadway Inventory does not have a chapter devoted exclusively to safety, but improving safety for all road users is included in the study's scope. The study does identify a Transportation Safety Plan and transportation safety improvements (i.e., implementing the Transportation Safety Plan) as high priority projects to complete in the future. In the project list at the end of the study, various safety improvements being completed as part of those projects are also listed.



Gallup Transportation Master Plan (March 2024)

This plan, recently adopted in 2024, recommends traffic calming measures along NM 118 (Route 66) through Gallup to improve pedestrian safety, and to continue to implement the safety plan (discussed below). Gallup residents engaged in a poll ranked safety as their #1 transportation concern. The plan outlines several countermeasure Gallup wishes to implement on its streets to improve safety including the installation of high-visibility crosswalks, pedestrian countdown timers, pedestrian refuges, curb extensions, and various types of bicycle facilities.

Gallup Area Transportation Safety Plan (July 2019)



This plan, completed in July of 2019, has four overarching goals:

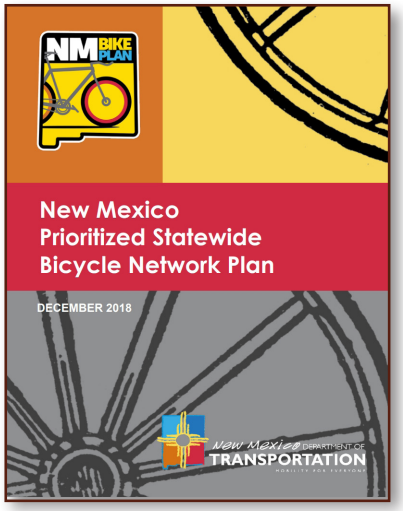
- Reduce the potential for fatal and serious injury crashes within the Gallup area (vehicle/vehicle, vehicle/pedestrian, and vehicle/bicycle crashes).
- Enhance the common understanding of the need for roadway safety improvements in Gallup.
- Partner with safety practitioners within and outside of the Gallup community to enhance roadway safety.
- Evaluate opportunities to enhance roadway safety with all infrastructure projects

The plan includes a comprehensive analysis of crash data and economic/demographic characteristics of the area. It also identifies emphasis areas such as impaired driving, road departure, speeding, and pedestrians. The analysis extends to intersection design, driveway density, traffic counts, rail crossings, sidewalks, and using Strava data to estimate bicycle counts. For each emphasis area the plan contains a list of recommended interventions, including bump outs, reducing 4 lane roads to 2 lane roads, consolidating driveways, and others.



Prewitt-Milan Transportation Master Plan (September 2022)

This plan, adopted in 2022 contains concerns in the study area about visibility, crashes, and at-grade railroad crossings. Winds along the I-40 corridor stir up dust that limits visibility and creates a hazard of travelers. The plan also recommends building complete sidewalk networks in urban areas and removing or upgrading all at-grade rail crossings. Inadequately wide or poorly maintained shoulders also pose a risk to motorists. Increased truck traffic also requires upgrades to some interchanges along I-40 to ensure adequate acceleration/ deceleration lanes and turning radii for large vehicles.



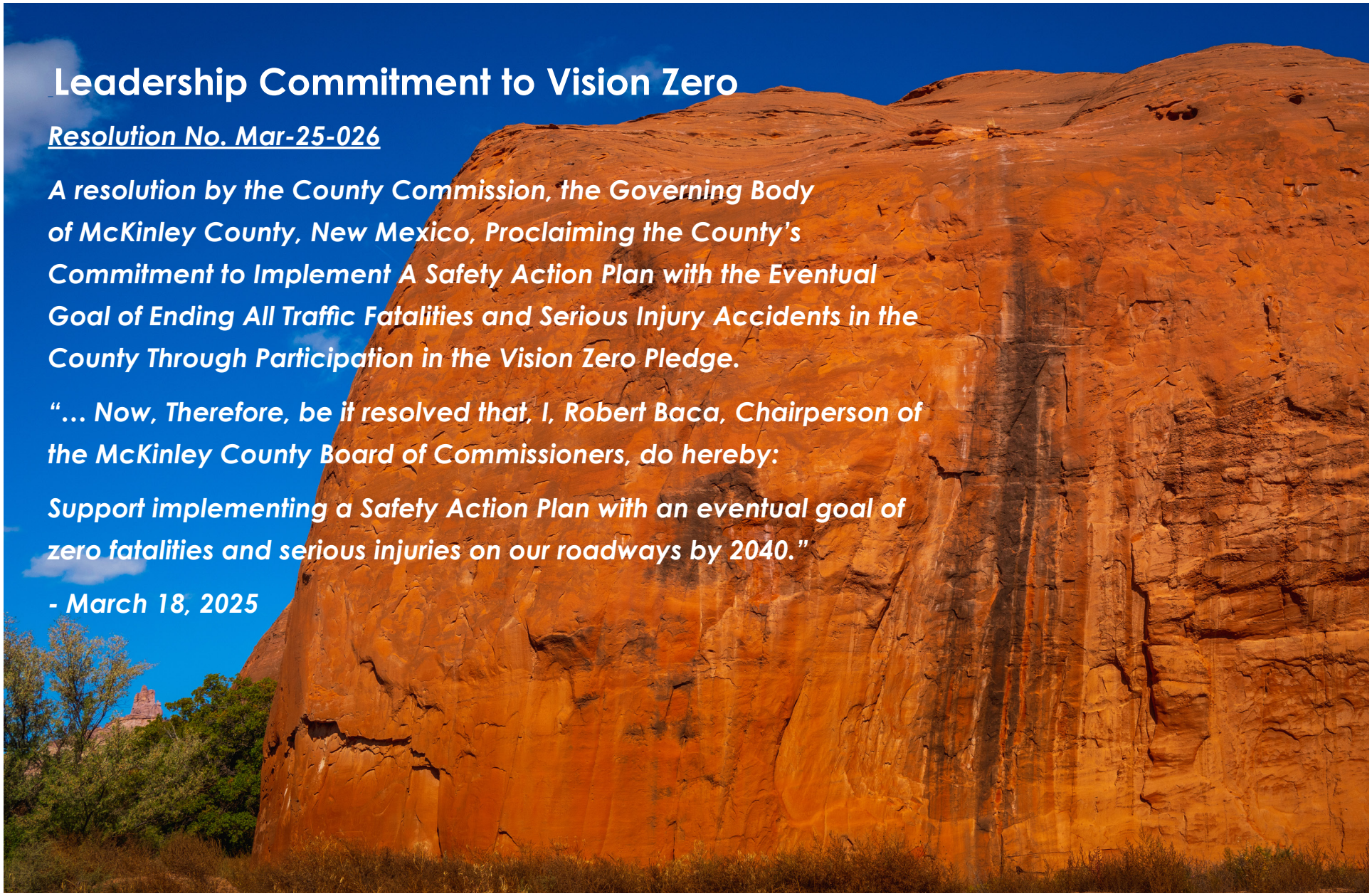
New Mexico Prioritized Statewide Bicycle Network Plan (September 2018)

As a statewide bicycle plan for the state of New Mexico, this document outlines several goals for its implementation, including safety and comfort. This includes providing high-quality routes to New Mexico residents and reducing bicyclist injuries with countermeasures such as dedicated bicycle facilities, wide shoulders on designated routes, and improving crossings at intersections. The McKinley County region is depicted in this plan's priority region six, where several roads are identified as Tier 1 (highest priority for bicycle



Four Corners Intermodal Transloading Equinox (November 2016)

This plan concerns the planning and delivery of projects designed to improve multi-modal access to the future Energy Logistics Park, Navajo Inland Port, and regional connections to existing and future transportation infrastructure. The project's goal is to evaluate existing conditions, gather data on land use, consider future transportation conditions, and evalutate the impacts of growth on the region.



Leadership Commitment to Vision Zero

Resolution No. Mar-25-026

A resolution by the County Commission, the Governing Body of McKinley County, New Mexico, Proclaiming the County's Commitment to Implement A Safety Action Plan with the Eventual Goal of Ending All Traffic Fatalities and Serious Injury Accidents in the County Through Participation in the Vision Zero Pledge.

"… Now, Therefore, be it resolved that, I, Robert Baca, Chairperson of the McKinley County Board of Commissioners, do hereby:

Support implementing a Safety Action Plan with an eventual goal of zero fatalities and serious injuries on our roadways by 2040."

- March 18, 2025

VISION

Eliminate all fatal and serious injury crashes

The McKinley County Board of Commissioners resolved to support the implementation of this Safety Action Plan with an eventual goal of zero fatalities and serious injuries on county roadways by 2040.

GOALS

Coordination with adjacent jurisdictions

People don't live their lives constrained to a single jurisdiction, and their trips move from road to road regardless of ownership. Coordinating efforts between tribal governments, municipalities, the county, and regional organizations is the only way to ensure that safety is improved across all of McKinley County for all road users. As shown by Fig 4. Jobs by Population in the existing conditions chapter, there are areas in McKinley County that have high population and high jobs or one or the other, suggesting routine travel movements between those areas.

Creating communication protocols and entering into intergovernmental agreements can give structure and routine to coordination, improving the efficiency and speed of implementation.

Incorporate safety improvements during road projects, maintenance, and development

Infrastructure takes time and planning to build. One way to approach implementation is to ensure that when a new road project is underway, or as developers turn in site plans, appropriate safety improvements are made as those efforts unfold. This way, gaps in sidewalk networks, inadequate shoulders along bike priority corridors, and other safety issues can be systematically and incrementally addressed as funds become available for projects.

Evaluate opportunities for mode shift

This is not to eliminate car travel, but replace some car trips with walking, biking, and public transportation trips where it makes the most sense to do so. As traffic volumes increase, the wear on roadways increases, making maintenance more expensive. Air quality also deteriorates as traffic increases. This goal is critical to support the health and safety of all McKinley County residents, workers, and visitors.

Mode shift can also improve safety by taking advantage of a safety in numbers effect that increases safety in an area where more people walk or bike. Motorists become accustomed to seeing them, making them easier to detect and giving motorists and pedestrians alike confidence in navigating shared spaces. Public transportation is also the safest mode of transportation, with significantly fewer deaths and injuries than any other mode.

Redesign Existing Infrastructure

Redesigning existing infrastructure can improve safety for residents and travelers in areas that may lack the resources and infrastructure seen in more urbanized regions. Rural transportation creates unique challenges, such as long stretches of road with limited lighting, high-speed limits, and insufficient pedestrian or cyclist infrastructure. Redesigning key roads and intersections can reduce accidents and fatalities, especially in high-risk areas like curves, blind spots, and remote locations. Key improvements may include better road mark

ings, enhanced signage for sharp turns or intersections, improved visibility, and the addition of safer crossings or wildlife barriers. Incorporating local knowledge and needs will ensure that improvements are tailored to the specific context of rural McKinley County, fostering a safer environment for drivers, pedestrians, and cyclists.

Reduce Inattention and Impairment

Inattention and impairment while driving can be reduced by implementing strategies that address common causes of accidents, such as distracted driving and driving under the influence. In rural areas, where isolation on the road can lead to a false sense of security, this plan aims to raise awareness and encourage responsible driving behaviors. This includes promoting public education campaigns about the dangers of texting, using mobile phones, or driving while impaired by alcohol or drugs. Additionally, enforcement of traffic laws could be improved with increased sobriety checkpoints and more visible signage warning of the risks of impaired driving. By redesigning certain infrastructure features, such as adding rumble strips or installing lighting at key locations, the plan also aims to increase driver awareness and help reduce the likelihood of accidents caused by inattention. Ultimately, the goal is to create a safer driving environment in rural McKinley County, where drivers are more focused, informed, and responsible behind the wheel.

Reduce Speeding

The goal to reduce speeding in rural McKinley County is a key component of the Safety Action Plan, aimed at improving roadway safety and preventing serious crashes. Rural roads in the county often have limited visibility, minimal lighting, and longer emergency response times, making speeding particularly dangerous. By implementing targeted strategies such as enhanced enforcement, traffic calming measures, and public awareness campaigns, the plan seeks to encourage safer driving behaviors. Reducing speeding will not only decrease the likelihood and severity of collisions but also protect the lives of residents, pedestrians, and other road users across the county's rural areas.

Improve Freight and Passenger Interaction

Improving the interaction between freight and passenger vehicles in rural McKinley County is a critical goal, aimed at reducing conflicts and enhancing overall traffic safety. With major freight routes passing through, passenger vehicles often share the road with large trucks under challenging conditions, including narrow lanes, limited shoulders, and varying speeds. The plan focuses on identifying high-risk corridors, improving signage and road markings, and exploring infrastructure upgrades such as dedicated turn lanes or passing zones. By fostering safer and more efficient interactions between freight and passenger traffic, the county can reduce crashes, minimize delays, and support both community mobility and economic activity.

Improve and Utilize Crash Reporting

Improving and utilizing crash reporting in McKinley County is an important goal aimed at strengthening data-driven decision-making and enhancing roadway safety. Accurate and timely crash reporting helps identify high-risk locations, understand contributing factors, and evaluate the effectiveness of safety interventions. In rural areas, where crashes may be underreported due to limited law enforcement presence or communication barriers, it is critical to update reporting systems, and encourage community involvement in reporting incidents. By improving the quality and accessibility of crash data, McKinley County can better allocate resources, prioritize safety projects, and ultimately reduce traffic-related injuries and fatalities.

COMMUNITY ENGAGEMENT

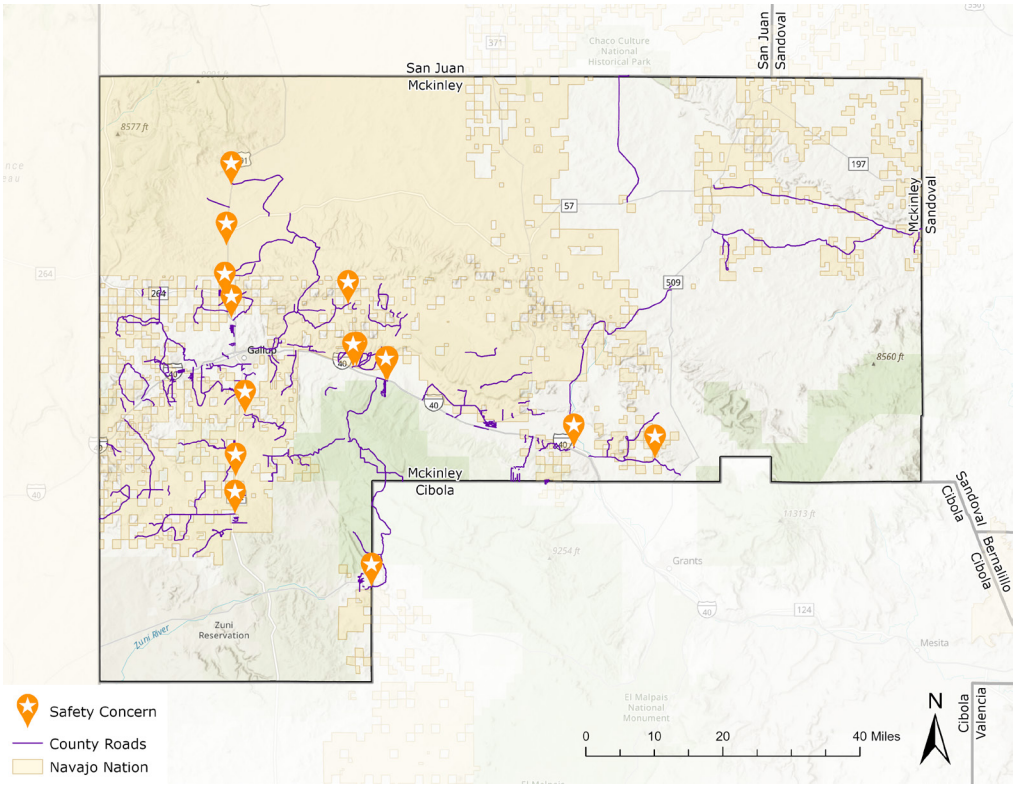
Process

The community engagement process was inclusive and representative, with stakeholders involved from the County, Navajo DOT, Zuni Pueblo, BIA, the City of Gallup, and NMDOT. There were several ways to engage with the planning process, including a project website, an interactive map, a table at the Gallup Arts Crawl, and several stakeholder meetings.

The public engagement process has been detailed in a previous section of this plan, but safety emerged as a key theme from these meetings. On the project website, visitors could interact with a map and identify areas that posed a safety concern or required a pedestrian or bicycle improvement. At the first stakeholder meeting, which took place in December 2023, safety was voted the top concern by attendees. On a word cloud of participant's biggest frustrations, the term safety appeared again, alongside pedestrian friendly and visibility. One participant mentioned that they would like to see public transportation improvements for areas outside of Gallup, such as Zuni Pueblo. Road maintenance and specifically equity in road maintenance was a concern as well, with one commenter recommending that roads with higher use should be prioritized, another pointing out that roads and parking lots next to schools seemed to be better maintained in more affluent areas. Another suggestion was to build roundabouts in front of high schools.

On the website's interactive map, members of the public identified 15 locations as safety concerns. 40 locations total were added to the map, so these locations represent a little over a third of all locations identified. See figure 42 for a map showing the locations identified as safety concerns. One commenter requested a safer intersection at NM 602 and Cousins Road, several comments located along US 491 north of Gallup requested acceleration and deceleration lanes into key community access points along the highway. Other comments included safety concerns around unpaved roads, speeding trucks, rail conflicts, and limited egress from communities in the case of an emergency.

FIGURE 42: SAFETY CONCERN LOCATIONS



DATA SUMMARY AND ANALYSIS

Introduction

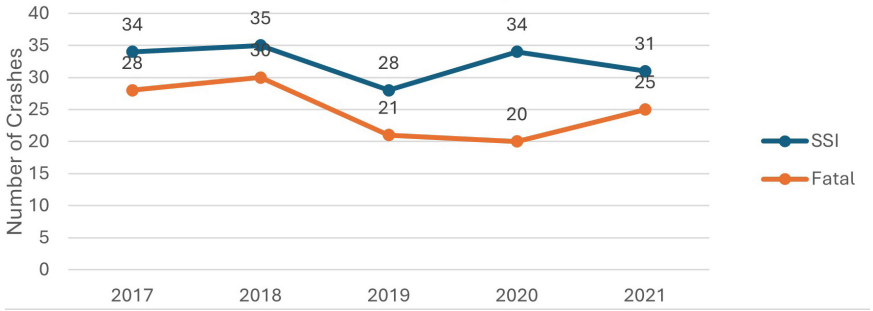
The following data summary and crash analysis meets the SS4A requirements for a comprehensive crash analysis and is substantially detailed to help the County identify and understand crash severity, crash types, and the breakdown of fatal and seriously injured crashes by type – vehicular, pedestrian, bicyclist, etc. This information further informs the identification of crash contributing factors in the county and coupled with locational data (see crash locations maps starting on page 96 and severity network analysis on page 97), directly inform identified safety countermeasures recommended later in this plan.

Data Limitations

There are many limitations when interpreting available crash data. For example, officers reporting the crashes that occurred on the interstate often indicated intersection type using the following choices: T-Intersection, Four-Way, Other Types, Not and Intersection, or Unknown. Because most interstates do not have the same type of at-grade intersections as other roadways, a majority of crashes were designated as occurring in an 'unknown' type of intersection. One recommendation in this plan is to have more uniform reporting systems, and officer education sessions on crash reporting best practices. The information could be much more useful if those filling out the report had better options for the type of location, such as merge point, diverge point, or ramp to surface road. Even on non-interstate roads where these intersection types do exist, they are typically underreported.

This plan, even though it is being written in 2023 - 2025, uses crash data between 2017 and 2021. The reason for this is that crash data becomes available after a lag of a few years. 2021 was the most recent crash data available as the analysis began.

FIGURE 43: SEVERE CRASHES BY YEAR



Crash Summary

Between 2017 and 2021 there were 6,263 crashes in McKinley County. As shown in Figure 43, the number of crashes has remained relatively stable over the time period studied. There was a dip between 2018 and 2020, but fatalities increased in 2021.

Of these, 124 (2%) were fatal, 162 (2.5%) resulted in a serious injury, 1418 (22%) were classified as "other" injury, and 4,559 (72%) were classified as property damage only (PDO).

Table 7: Severity for All Crashes

	PDO	Other Injury	Serious Injury	Fatal	Total
Crashes 2017-2021	4,559	1,418	162	124	6,263

Table 8: Crashes by Roadway Type

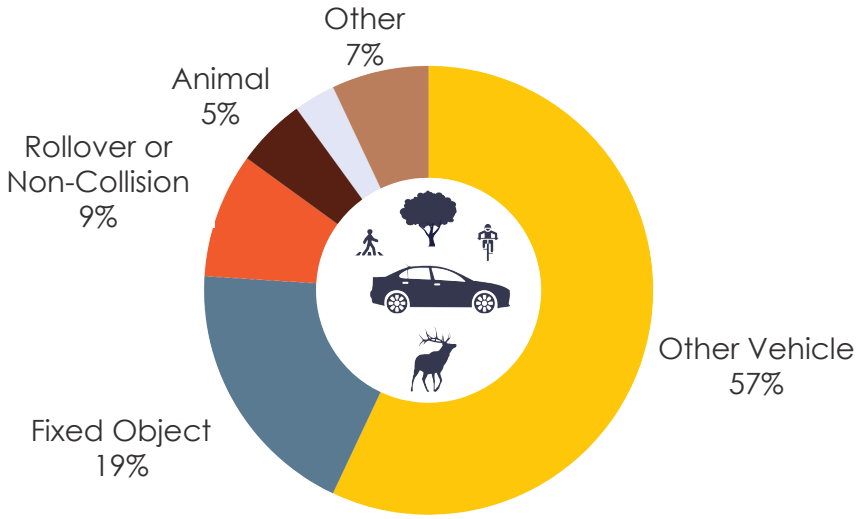
	Crashes	%
Interstate	1,721	27.5%
Urban non-interstate	3,271	52.3%
Rural non-interstate	1,266	20.2%
Total*	**6,258**	100%

**Table 2 excludes some crashes where roadway type was not available*

3,271 (52%) of these crashes happened on urban non-interstate roads, 1,721 (27%) happened on interstates, and 1,266 (20%) happened on rural non-interstate roads.

The most common type of collision is vehicle to vehicle, followed by a fixed object, non-collision incident such as a road departure or rollover, collisions with animals (wildlife and domestic), and bicycle and pedestrian collisions.

FIGURE 44: COLLISION TYPES



Severe Crashes

About 5% of crashes between 2017 and 2021 were severe crashes that resulted in life-threating injury or death. Of crashes that occurred on urban non-interstate roads, 2.5% were severe, for rural non-interstate roads 9% were severe. This crash pattern can be explained by the fact that urban areas have more and slower traffic, while rural areas generally have fewer vehicles moving faster. In rural areas there are fewer crashes overall, but when they do occur, they are more likely to be severe than in urban areas. For interstates, 5% of crashes were severe.

Table 9: Severity for All Crashes on the Interstate

	Crashes	%
PDO	1,257	73%
Other Injury	379	22%
Serious Injury	46	2.7%
Fatal	39	2.3%
Total	**1,721**	**100%**

5%

Interstates tend to have more traffic than rural areas, but still fewer crashes than urban non interstate roads because interstates are designed to emphasize mobility with long, wide lanes designed for high speeds with few conflicts. Urban non interstate roads are more likely to be designed to emphasize accessibility. Of course, accessibility is desired in urban areas and helps drive economic activity, but necessarily creates much more opportunity for conflicts such as intersections, driveways, and the presence of pedestrians and cyclists. Collisions between vehicles where there is a heavy truck involved are particularly dangerous, with 42% of these crashes resulting in a fatality.

FIGURE 45: HEAVY TRUCK COLLISIONS



42% of crashes involving a heavy truck are fatal

Pedestrian involved crashes are the most likely to be severe with 42% resulting in serious injury or death.

Kinetic energy is the source of damage and danger from collisions and the mass and speed of objects determine the amount of energy. Vehicles with higher mass (such as heavy-duty trucks carrying goods or materials) do much more damage to whatever they collide with. For passenger vehicles, speed is the number one factor in the severity of a collision. For pedestrians, the likelihood of death rises exponentially with vehicle speed. A pedestrian struck by a driver operating a vehicle travelling at 20mph will generally have a 90% likelihood of survival, but that drops to 60% if struck by a vehicle traveling at 30mph, and 20% for a vehicle traveling at 40mph. At speeds in excess of 50mph, the likelihood of survival approaches 0%. Human perception also makes collisions more likely at higher speeds. As a vehicle travels faster, the driver's field of vision contracts causing them to see and notice less. A driver's reaction time remains constant but distance traveled as that reaction time elapses increases at higher speeds. Once the brake is applied, the vehicle has a braking distance that is also farther at higher speeds and at higher vehicle weights. Vehicle safety features such as forward collision warnings, automatic braking, and pedestrian detection braking augment a driver's reaction time but are often expensive add-ons to vehicles manufactured in the last 10 or so years and do not operate with 100% effectiveness. New regulations from the National Highway Traffic Safety Administration (NHTSA) will require these features to be standard in all new vehicles starting in 2029.

Pedestrian Involved Crashes

There were 141 total pedestrian involved collisions in the study area between 2017 and 2021. Of these collisions, 69 were severe, resulting in serious injury or death. The breakdown of location occurrence is as follows: 40 occurred on rural non interstate roads, 81 on urban non interstate roads, and 16 on interstates. Interstates are the deadliest setting for pedestrians, nearly two-thirds of pedestrians struck by a driver on the interstate were killed, and nine of the 16 pedestrians killed on interstates were struck at night in an area that was reported as unlit. Pedestrian crashes occurring on the interstate reinforce the need for adequate and separated sidewalks and multi-use paths, eliminating the possibility of pedestrian and vehicle conflicts.

FIGURE 46: PEDESTRIAN INVOLVED COLLISIONS



47% of crashes involving pedestrians result in a fatality or severe injury

Bicycle Involved Crashes

There were 21 total bicycle involved crashes in McKinley County between 2017 and 2021. None of these resulted in death, but one resulted in serious injury. Most of these crashes resulted in a "other" injury. Most of these occurred on urban non-interstate roadways. The amount of bicycle crashes may seem relatively low but this may be a result of a lack of cycling taking place in McKinley County, rather than a high degree of safety for cyclists.

FIGURE 47: BICYCLE INVOLVED COLLISIONS



90% of crashes involving bicyclists result in an injury

CONTRIBUTING FACTORS

Speeding

There are many factors that affect vehicle speeds, and the posted (or statutory where no posting exists) speed limit is only one. Road surface type and quality, weather conditions, curves, slopes, presence of structures or other objects along the roadway, driving lane width, and turning radius all can affect how fast people will drive down a road. The presence (or absence) of these factors can be intentionally designed into road projects. Existing roads with speeding problems can be improved with countermeasures that decrease vehicle speeds. These can include reduction of the clear zone on the sides of a roadway, speed bumps or cushions, chicanes, curb extensions or bulb-outs, reduction of line of sight, and anything else that creates a feeling of enclosure around a driver traveling down the roadway. In this way, not just road design but also urban design can contribute to how fast drivers will feel comfortable travelling.

Distracted Driving

With the proliferation of cell phones and smart devices over the past two decades, distracted driving has become more of a problem nation-wide. New vehicles on the market today have replaced simple buttons and knobs with flashy touch-screen infotainment systems that take driver's eyes away from the road more often and for longer periods of time. Educational campaigns aimed at drivers to put down their cellphones have existed for as long as cellphones have (ironic that drivers must take their eyes off the road to read a billboard encouraging them to keep their eyes on the road), and laws can be enacted and enforced to deter drivers from using their phones while operating a vehicle. One potential avenue for helping to address this problem is like the intervention above about speeding. If drivers feel safe and comfortable, then they will feel safe and comfortable enough to check a device and take their eyes off the road. If they detect potential hazards or conflicts, they will be less likely to take their eyes off the road. Note that New Mexico does not currently ban the use of hand-held devices while driving.

Impaired Driving

There were 846 drug and/or alcohol involved crashes in McKinley County between 2017 and 2021. Of these, 175 were severe. New Mexico has several laws regarding driving under the influence, including mandatory ignition interlocks for all convictions, a ban on open containers, license suspension on first offense, higher penalties for blood alcohol content over .16, and increased penalties for repeat offenders. Between 2014 and 2018, McKinley County was in the top 5 New Mexico Counties for alcohol involved crashes.



FIGURE 48: IMPARIED DRIVING

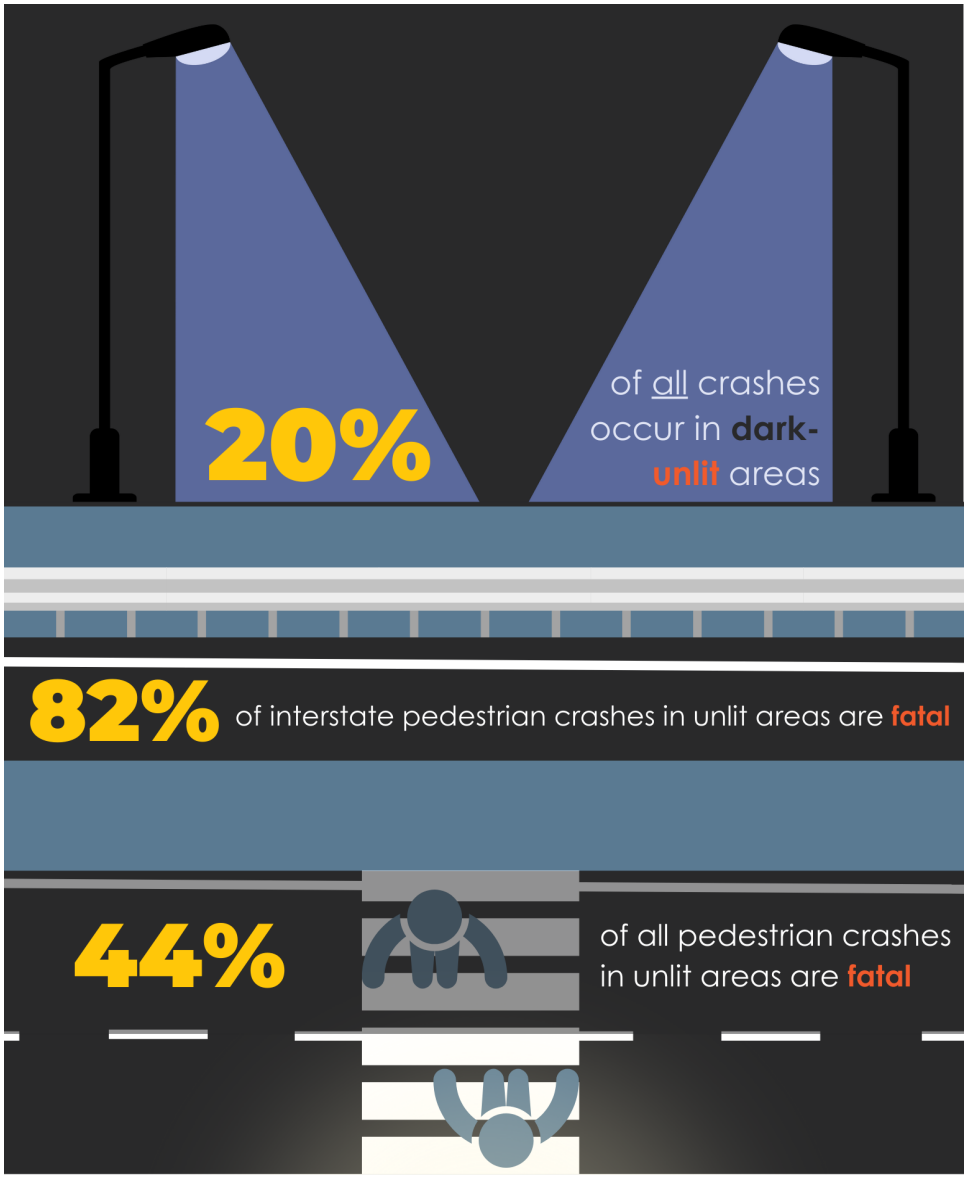


Lighting

Crashes occurring on interstates in dark, unlit areas were more likely to be severe, at 5.5% (compared to 4.9% overall). Of the 85 severe crashes that occurred on the interstates, 32 took place in dark, unlit conditions. This is significant because interstates have much less traffic at night than during the day, and well-trafficked areas tend to have more lighting.



FIGURE 49: LIGHTING



Vulnerable Road Users (VRUs)

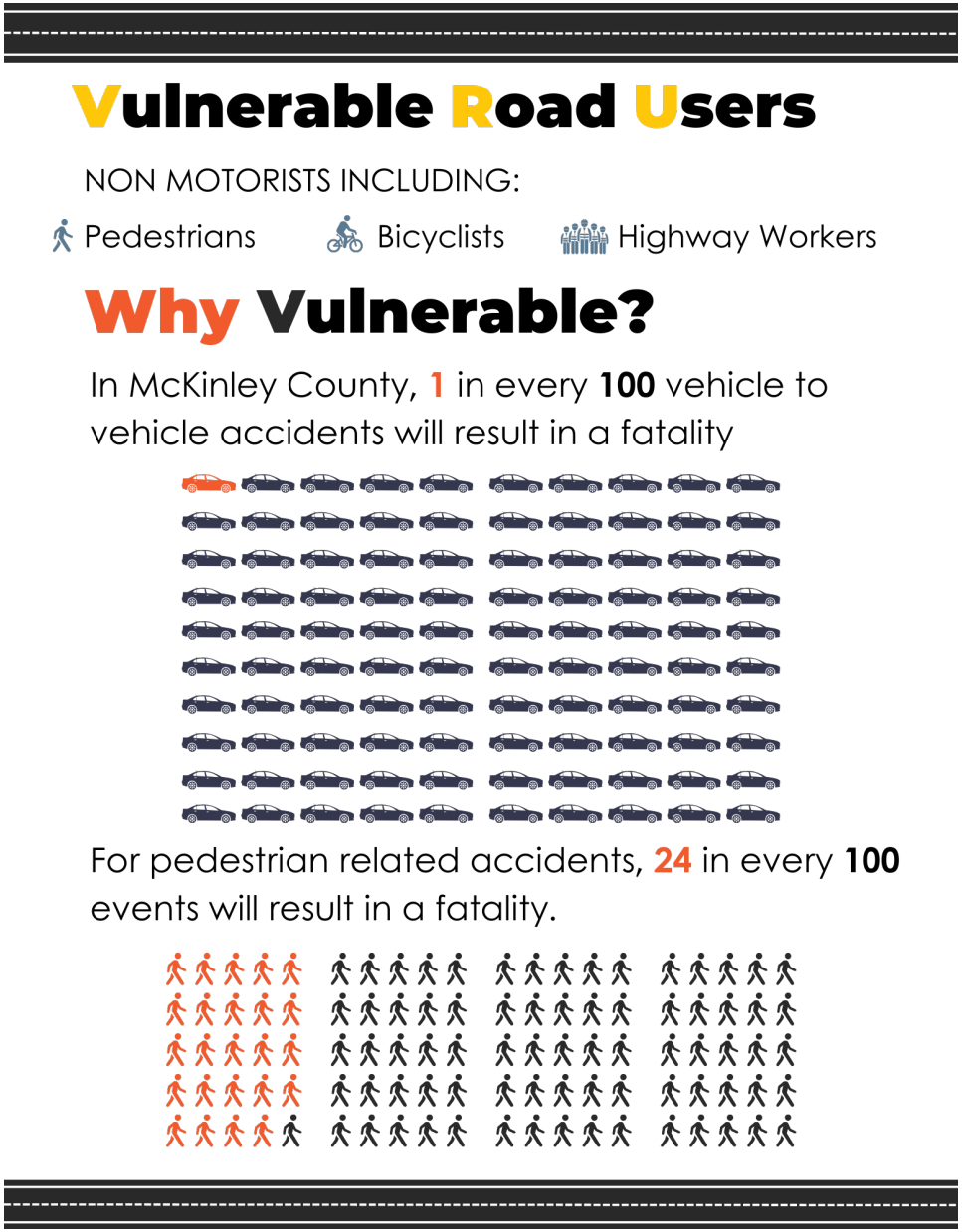
VRUs are road users on or adjacent to the street who are not in a vehicle. Automobiles have been engineered in a way that anticipates the fact that they collide into one another. There are crumple zones, air bags, and seatbelts to protect the driver when this occurs. Those not inside a vehicle do not have the benefit of these features, human bodies cannot absorb the amount of kinetic energy a moving car can deliver resulting in injury and death. The definition of VRU extends not only to bicyclists and pedestrians but to roadway workers, and people operating mobility devices like wheelchairs. Countermeasures that help protect VRUs protect all of us, most motorists will park their car and walk some distance to their ultimate destination, all public transportation trips begin and end with walking (or biking), and people walk pets and for recreational purposes.

Other characteristics may further vulnerablize VRUs. For instance, children are more vulnerable among pedestrians. Their brains are still developing, and they lack the capacity to judge the speed and distance of oncoming cars at crossings. Their smaller bodies also decrease the visibility of traffic, parked and/or oncoming cars occlude their view of vehicles. This issue extends to anyone whose line of sight is closer to the ground for any reason, such as those using mobility devices.

Impaired Walking

NMDOT's most recent annual crash report shows that the share of pedestrians who were under the influence of alcohol when they were struck and killed by drivers fell from 51.9% in 2017 to 37.1% in 2021. It is unknown, however, how reliable this data is. NHTSA's Pedestrians Traffic Safety Facts for 2021 reports that 30% of pedestrians killed by drivers had a BAC of 0.08 or above and 4% had a BAC between 0.01 and 0.07 for a total of 34%, about a third of all pedestrian fatalities. FARS data for the

FIGURE 50: VULNERABLE ROAD USERS



same year reports that only 9.7% of pedestrians were walking while under the influence of alcohol, drugs, or medication. The discrepancy has been present between these data sources for years. NHTSA reported that these figures are based on a combination of known test results and imputed BACs when no test results are available. The method of imputing missing BAC levels is documented here. Without test results, there is no way to be sure the pedestrian was under the influence at all and a NHTSA spokesperson has said that this was based solely on the reporting officer's opinion. To evaluate whether the victim was drunk when they were hit the officer must rely on the testimony of eyewitnesses. Sometimes the only testimony available is that of the driver who struck the pedestrian, a person who may be biased toward making the pedestrian appear more blameworthy. The evidence that 'drunk walking' is a problem is flimsy at best. It should also be noted that walking at night is more dangerous for all pedestrians, including those that are sober.

Walking under the influence is risky. While under the influence of alcohol, one's ability to detect vehicles and judge their speed and distance is reduced. At high BAC levels, people sometimes display indifference to their own safety and well-being and engage in generally riskier behaviors overall. That said, the lethal risk involved with walking drunk accrues almost entirely to the pedestrian, unlike someone who chooses to drive a vehicle while drunk, placing themselves and others at risk. One study of pedestrian behavior suggested that while under the influence, people walking shift their motivations from safety to efficiency (it should be noted that these results were achieved in an experimental virtual reality environment). Where there are infrequent crosswalks or where pedestrians must walk far out of their way to reach a crosswalk, many people choose to cross at an uncontrolled location. It could be that drunk pedestrians are more likely to make that choice. Wherever there are locations where pedestrians crossing is highly undesirable, such as interstates, infrastructure like walls and fences can be used to control access.

Walking while drunk is not illegal. The position of this report is that countermeasures targeted at reducing drunk walking will not be an effective strategy for eliminating roadway deaths in McKinley County and will not be recommended in this plan. Rather, its position is that effective countermeasures that protect all pedestrians will also have the effect of making those walking while under the influence safer as well.

Travel Lane Departure

On long, straight rural roads, travel lane and road departure collisions tend to be more common. Driving impaired, speeding, and distracted driving can contribute to this, but so can drowsiness and lapses in the concentration required to operate a motor vehicle due to long trip durations and quickly passing scenery. These incidents can happen to anyone, humans are simply not neurologically equipped to maintain vigilance for long periods of time. Because these roads are long and straight, they are forgiving of lapses in vigilance, but an unexpected curve or presence in the road such as a bicycle or an animal can present a dangerous situation. A higher rate of first harmful event types such as fixed object collisions, non-collision, and even front to front collisions with other vehicles could suggest that this type of incident is more common.

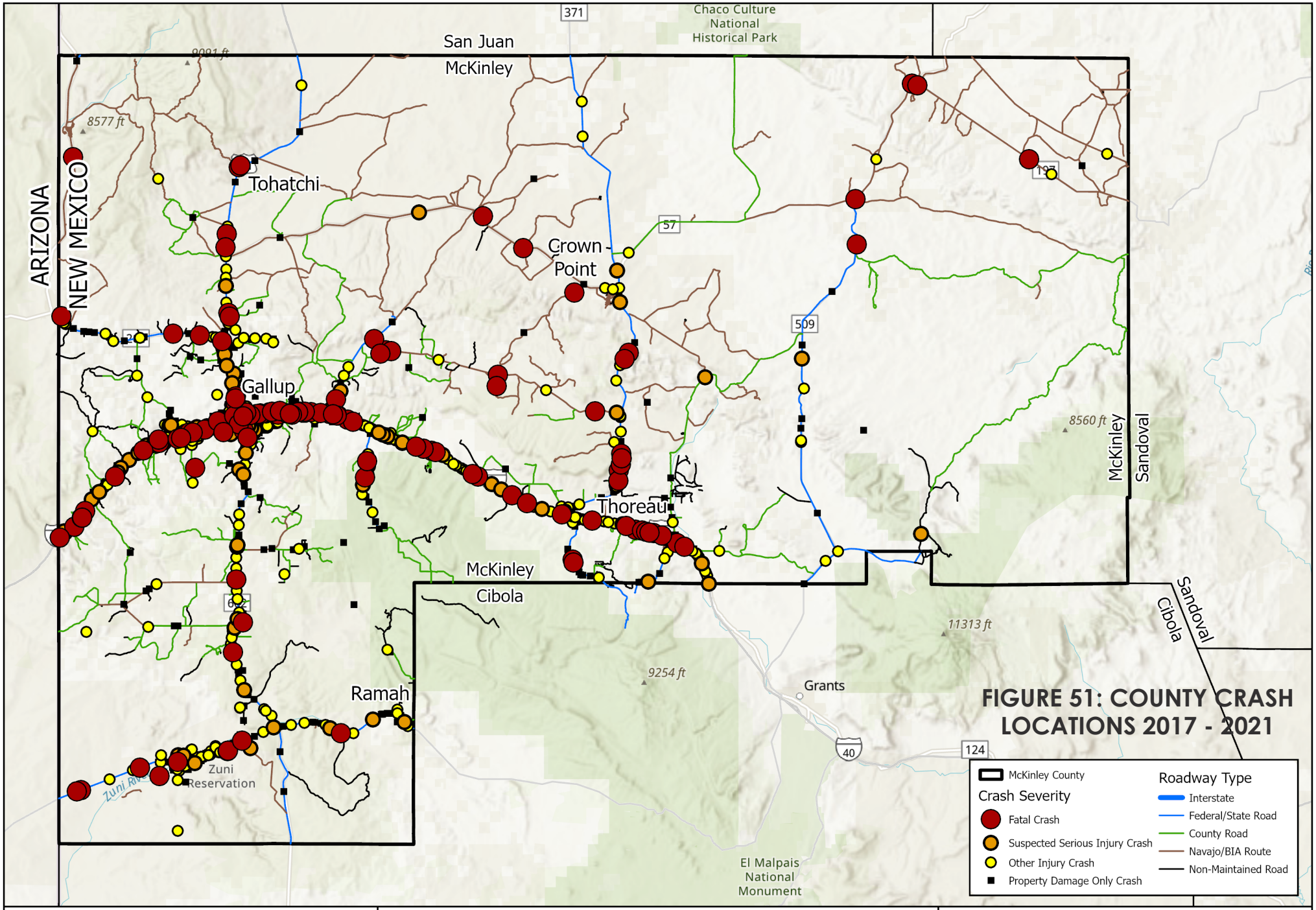


FIGURE 51: COUNTY CRASH LOCATIONS 2017 - 2021

0 14 Miles

96

Crash Locations By Severity

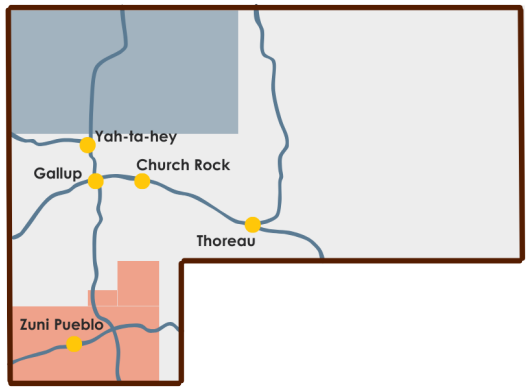
McKinley County Transportation Master Plan

WILSON & COMPANY

SEVERITY NETWORK

Countywide

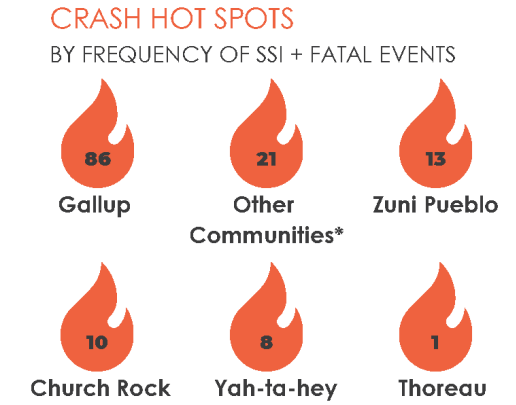
FIGURE 52: CRASH HOTSPOTS



Looking at crash locations between 2017 and 2021 in McKinley County overall, it is observed that severe crashes are clustered mostly along the I-40 corridor and in Gallup. Other cities in towns in the region also show small hotspots, including Highway 53 near Zuni Pueblo, Highway 371 between Crownpoint and Thoreau, and Highway 491 between Tohatchi and Gallup.

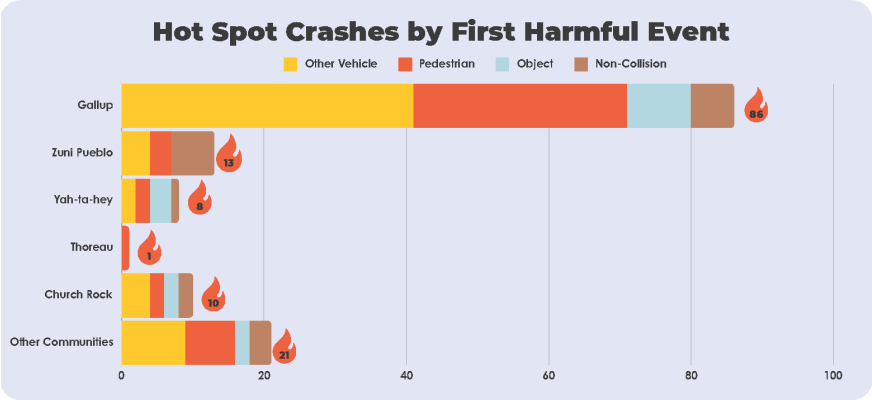
Crash hot spots are centered around population centers. In Fig 36, communities with fewer than 40 crashes were combined into other communities. Fig. 37 further breaks down the types of crashes in each of these six locations.

FIGURE 53: CRASH HOT SPOTS



This analysis may reveal some priorities for countermeasures. For instance, in Gallup, over half of fatal collisions involve pedestrians, suggesting interventions that help protect pedestrians as a high impact intervention. In the other communities category, 86% of fatal crashes involved a pedestrian, indicating that pedestrian safety is an issue even outside of Gallup.

FIGURE 54: HOT SPOT CRASHES BY FIRST HARMFUL EVENT



In Church Rock, over half of crashes resulted in a fatal injury, suggesting that some further study is required to uncover what is making crashes in that location more dangerous than in other areas and how that can be addressed. For nearly half of crashes in Zuni Pueblo the first harmful event was designated as non-collision. Non-collision incidents as defined by USDOT include all of the following: cargo loss, crossing the center line of a roadway, downhill runaway, explosion or fire, brake failure, blown tire, jackknife, rollover, running off the road, and trailer separation. This is a wide variety of different types of incidents and further analysis could reveal effective countermeasures.

Finally, two-thirds of all crashes in these hot spots occurred in dark, unlit areas. This indicates a possibility that more lighting could increase safety, especially if combined with traffic calming measures that slow traffic down during times when there is less traffic on the road.

In Figure 39, the count of total crashes is compared to the percent of those crashes that are serious, that is fatal or resulting in a life-threatening injury. This shows that even though Gallup has a high number of crashes, places like Church Rock and other cities have relatively more serious crashes.

FIGURE 55: FATAL AND SSI CRASHES

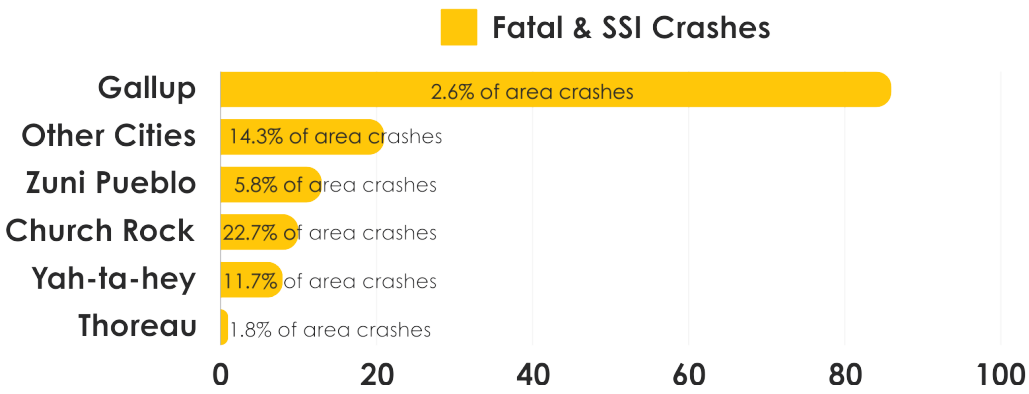
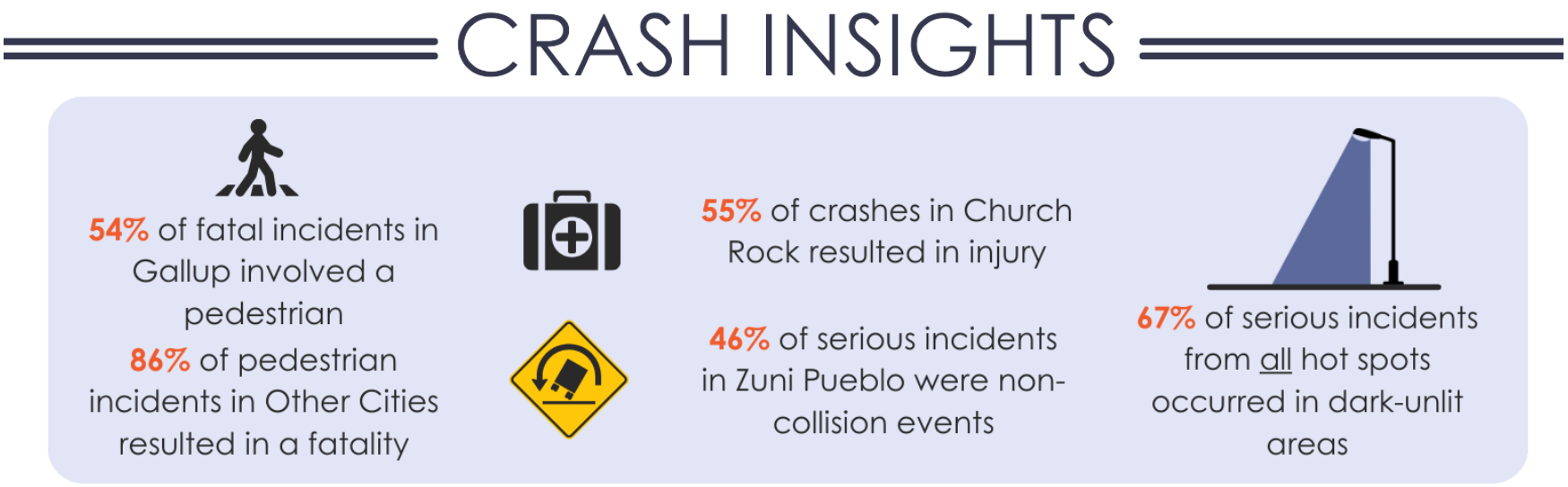


FIGURE 56: CRASH INSIGHTS



** Other Cites is an aggregate of all cities with less than 40 incidents*

Interstate Crashes

Along I-40, the most common crash types are other vehicle, non-collision, fixed object, and pedestrian. Crashes along the corridor tend to be clustered around population centers like Gallup, Church Rock, and Thoreau. About 5% of interstate crashes in McKinley County are severe. Of these severe crashes, 13 involved a pedestrian and 10 of those were in dark, unlit conditions. The presence of pedestrians on the interstate could suggest that crossings are needed or other gaps in the pedestrian network. More than a quarter of fatal crashes on the interstate involved a pedestrian. The interstate is not somewhere someone chooses to walk if there is another, better option.

Table 10: First Harmful Event for Severe Crashes on the Interstate

	SSI	Fatal	Total
Other Vehicle	20	15	**35**
Non-Collision	15	8	**23**
Object	7	5	**12**
Pedestrian	2	11	**13**
Animal	1		**1**
Left Blank	1		**1**
Total	**46**	**39**	**85**

Table 11: Fatal Crashes by Non-Interstate Roadway

	Fatal	% Fatal	Total
Rural	59	4.7%	**1,266**
Urban	25	0.8%	**3,271**
Total	**84**	**1.9%**	**4,537**

Non-Interstate Crashes

Non-Interstate crashes follow a similar pattern to interstate crashes, with more crashes clustered around cities, and more crashes involving pedestrians. Far more crashes occurred on urban non-interstate roadways (3,271 during the study period), than on rural non-interstate roadways, (1266). However, crashes on rural roadways are more likely to be fatal or involve a serious injury. Less 1% of crashes on urban non-interstate roads were fatal, while close to 5% of crashes on rural non-interstate roads resulted in death. See fig xx for more details.



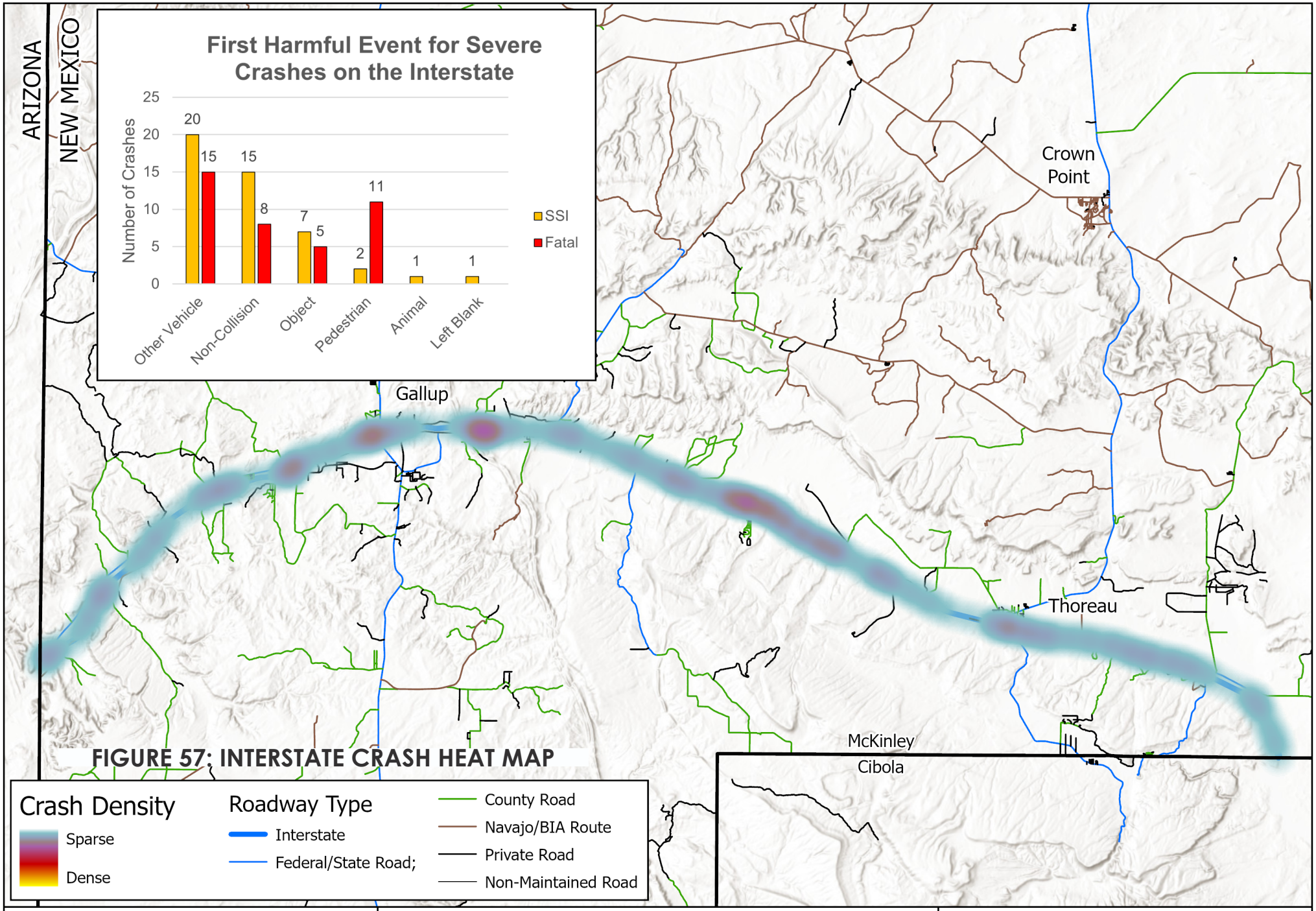


FIGURE 57: INTERSTATE CRASH HEAT MAP

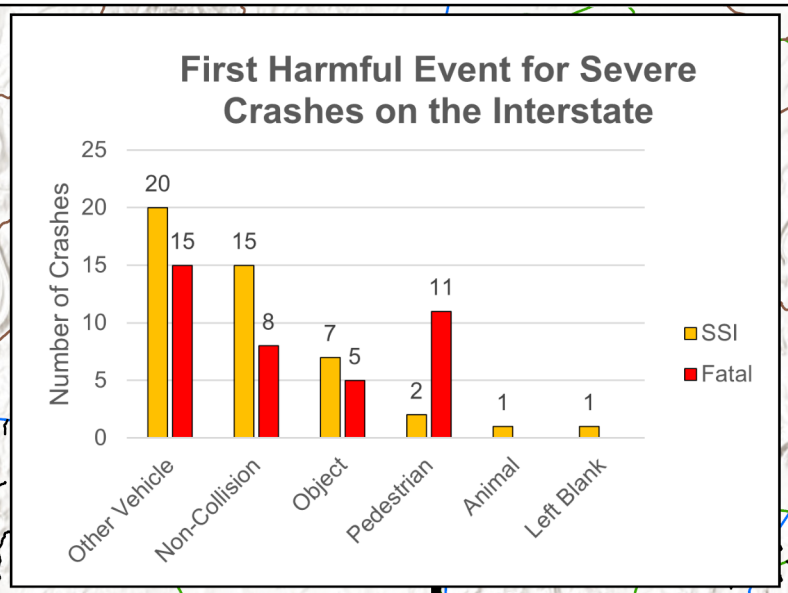
0 6 Miles

Interstate Crash Locations By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY

FIGURE 58: INTERSTATE CRASH LOCATIONS



ARIZONA

NEW MEXICO

Crown Point

Gallup

Thoreau

McKinley

Cibola

Crash Severity

- Fatal Crash
- Suspected Serious Injury Crash
- Other Injury Crash
- Property Damage Only Crash

Roadway Type

- Interstate
- Federal/State Road;
- County Road
- Navajo/BIA Route
- Private Road
- Non-Maintained Road

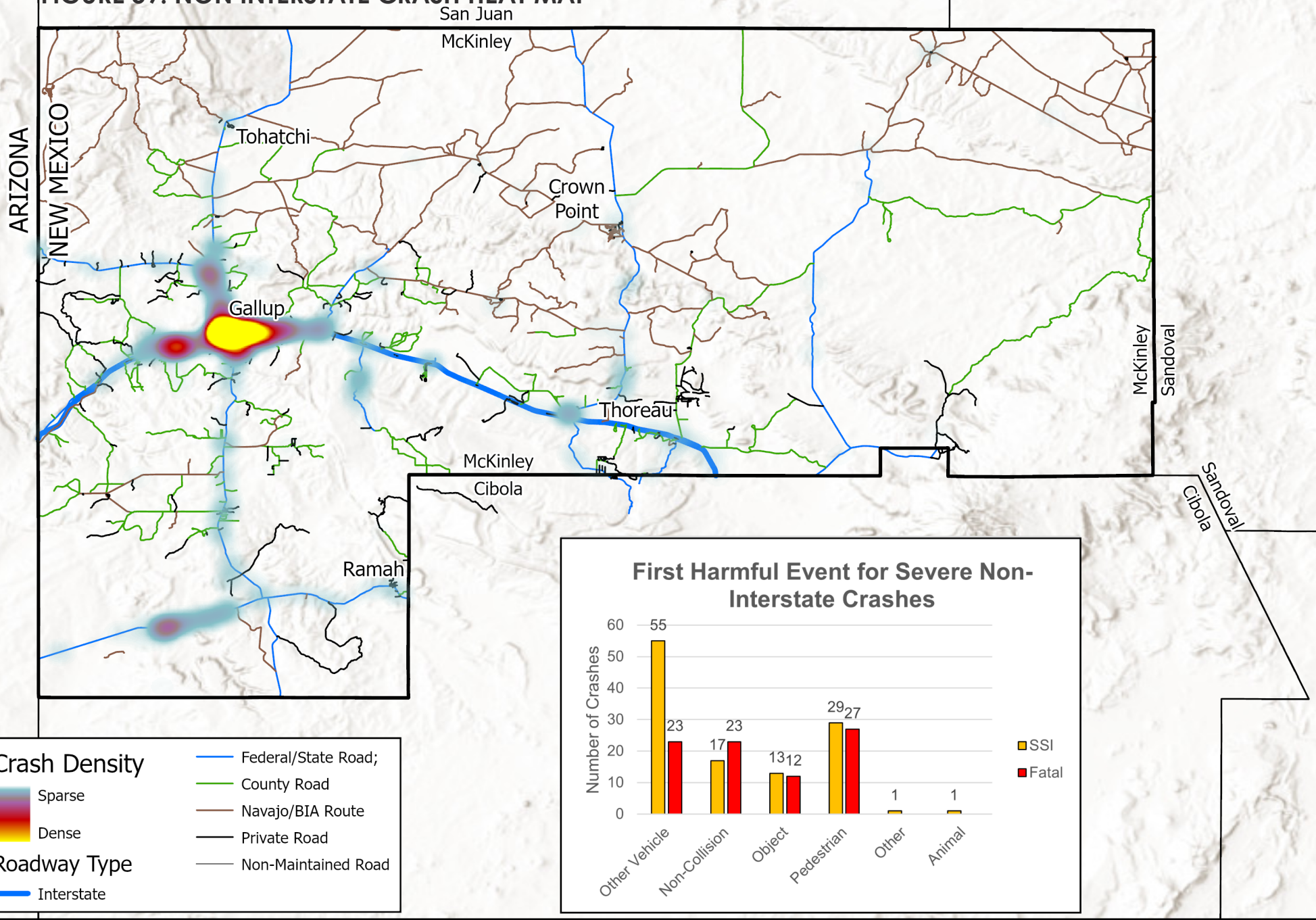
0 6 Miles

Interstate Crash Locations By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY

FIGURE 59: NON INTERSTATE CRASH HEAT MAP

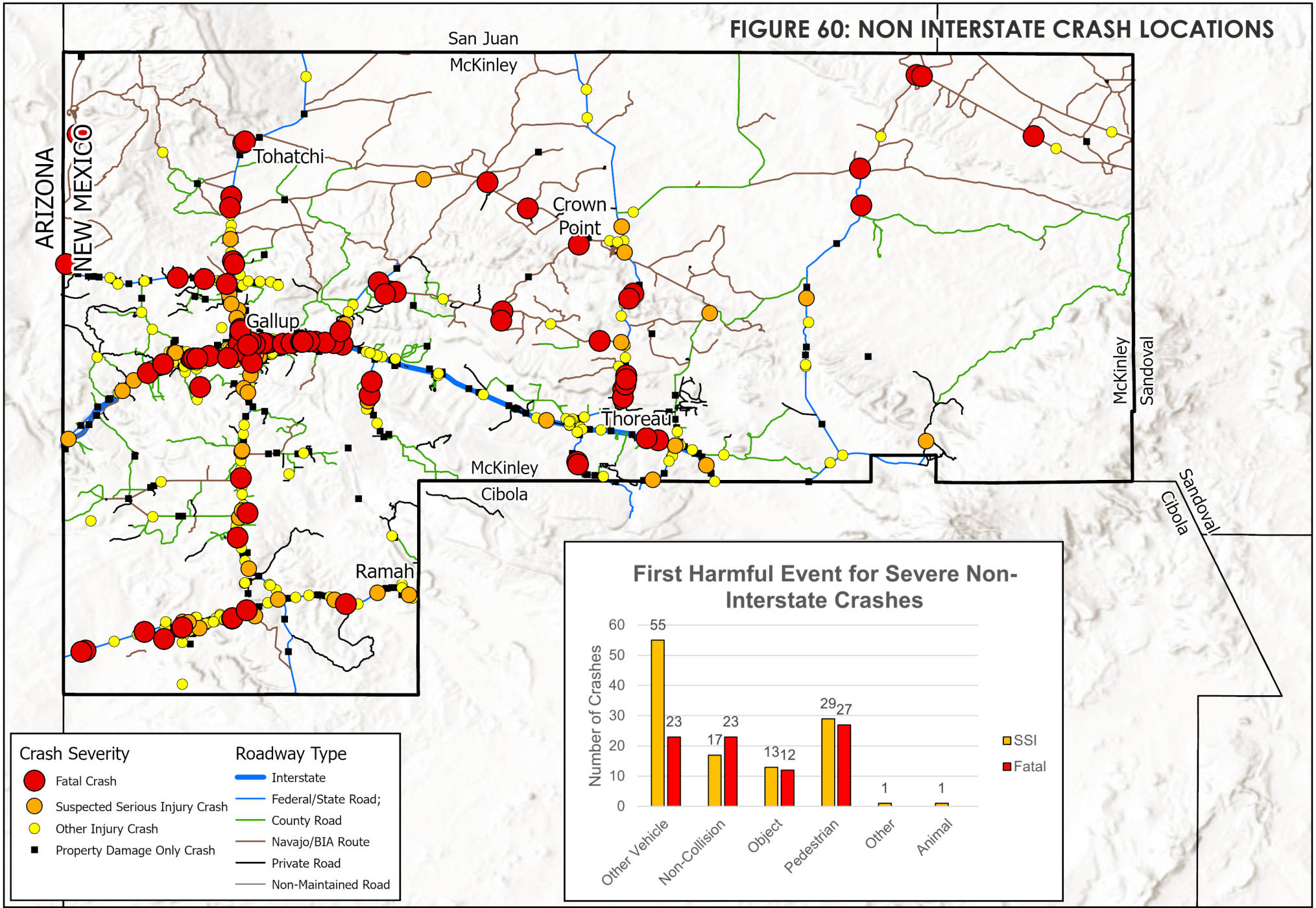


Non-Interstate Crashes By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY

FIGURE 60: NON INTERSTATE CRASH LOCATIONS



0 14 Miles

Non-Interstate Crashes By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY

Bicycle and Pedestrian Crash Locations

Most pedestrian and bicycle crashes take place in cities near where people live. In McKinley County, most of these crashes are taking place in Gallup, but as discussed above, a higher percentage of pedestrians are killed in other communities. Pedestrian safety is a countywide concern, and not limited only to Gallup. As seen in Table 12, lighting remains a critical concern, with pedestrians much more likely to be killed in dark unlighted conditions for highways and interstates.

It's tempting to view the relatively lower number of bicycle involved crashes as an expression of a lack of demand, but it could also be interpreted as a lack of places where people who would otherwise bike feel comfortable riding. Fewer bicycle crashes at night as shown in Table 13 may also indicate that few people ride bikes at night.



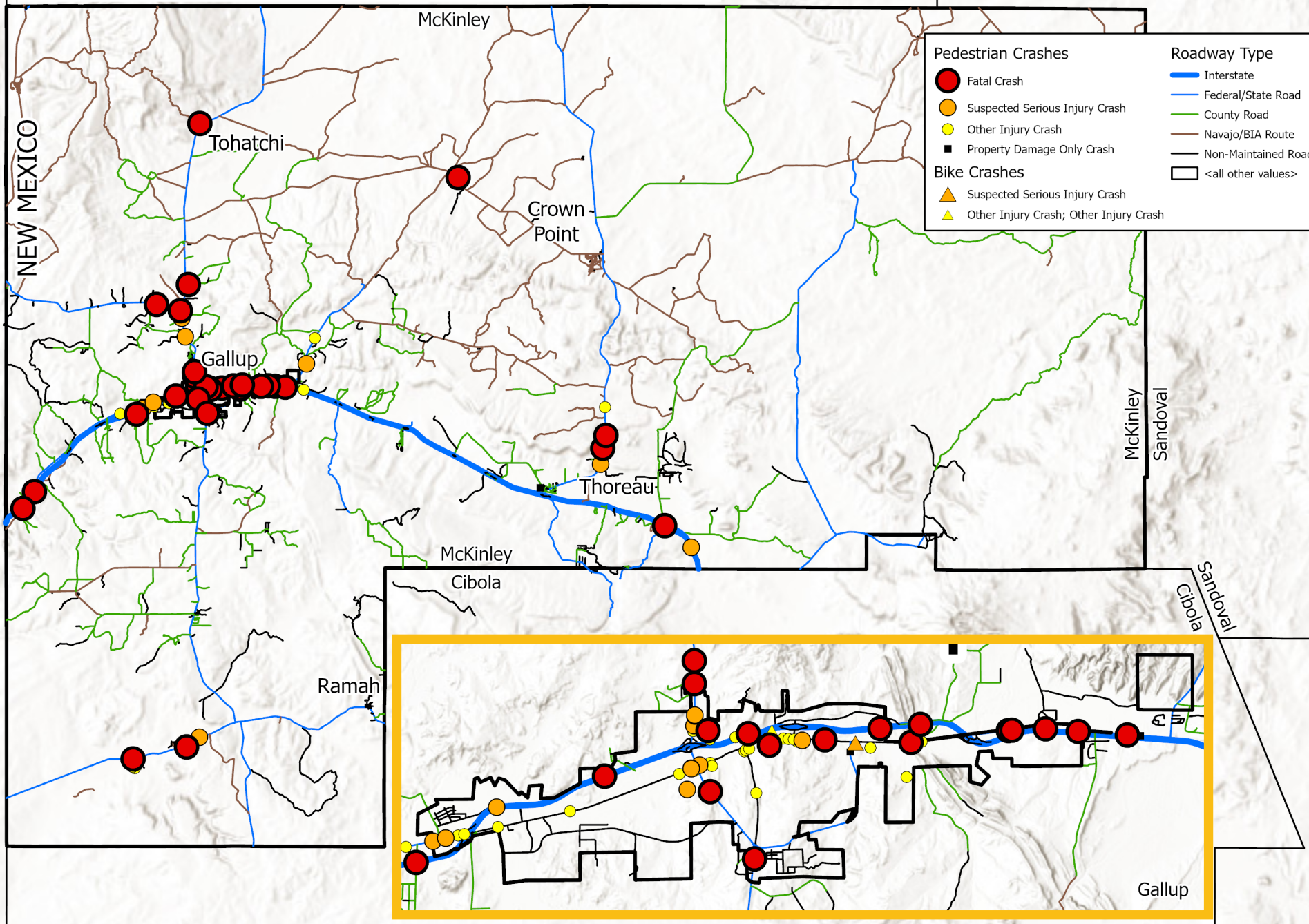
Table 12: Pedestrian Involved Crashes by Road System and Light Conditions by Severity

	PDO	Other Injury	Serious Injury	Fatal	Total
Interstate	2		3	11	**16**
Day or Lighted	1		2	1	**4**
Dark-Not Lighted	1		1	9	**11**
Unrecorded				1	**1**
Non-Interstate	9	61	28	27	**125**
Highway	6	35	22	24	**87**
Day or Lighted	4	20	14	8	**46**
Dark-Not Lighted	2	14	8	16	**40**
Unrecorded		1			**1**
Local	3	26	6	3	**38**
Day or Lighted	3	21	4	2	**30**
Dark-Not Lighted		5	2	1	**8**
Total	**11**	**61**	**31**	**38**	**141**

Table 13: Bicycle Involved Crashes by Light Conditions

	PDO	Other Injury	Fatal	Total
Day or Lighted	2	14	**1**	**17**
Dark-Not Lighted		3		**3**
Unrecorded		1		**1**
Total	**2**	**18**	**1**	**21**

FIGURE 61: BICYCLE AND PEDESTRIAN CRASH LOCATIONS

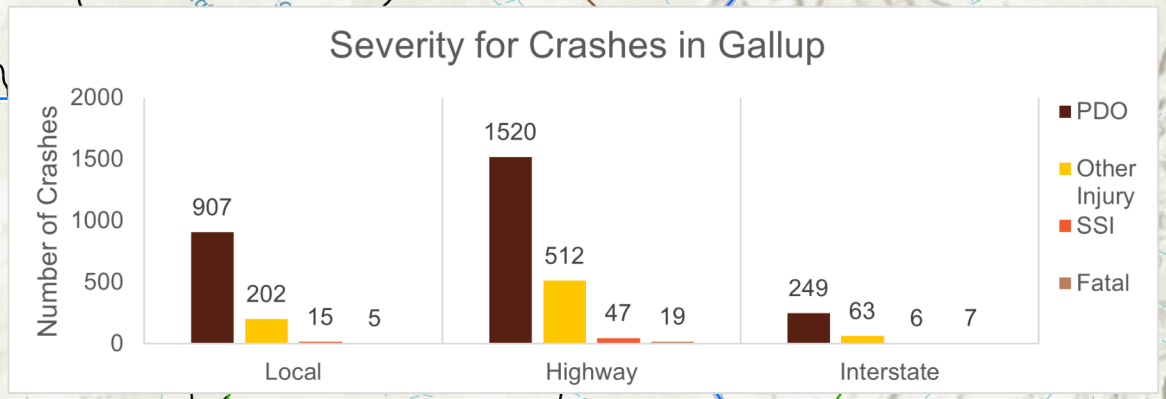


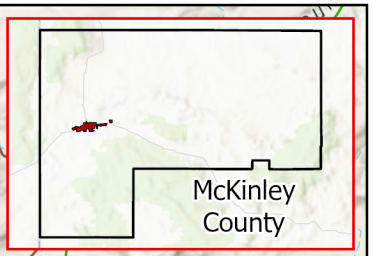
0 14 Miles

Pedestrian and Bicycle Crash Locations By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY





Gallup Crash Locations

In Gallup, most severe crashes occur on urban non-interstate highways, which is consistent with the Gallup Transportation Safety plan's finding that most of Gallup's crashes were occurring on principal arterials. Due to the high number of crashes in Gallup, this plan recommends implementation of safety countermeasures.

FIGURE 62: GALLUP CRASH LOCATIONS

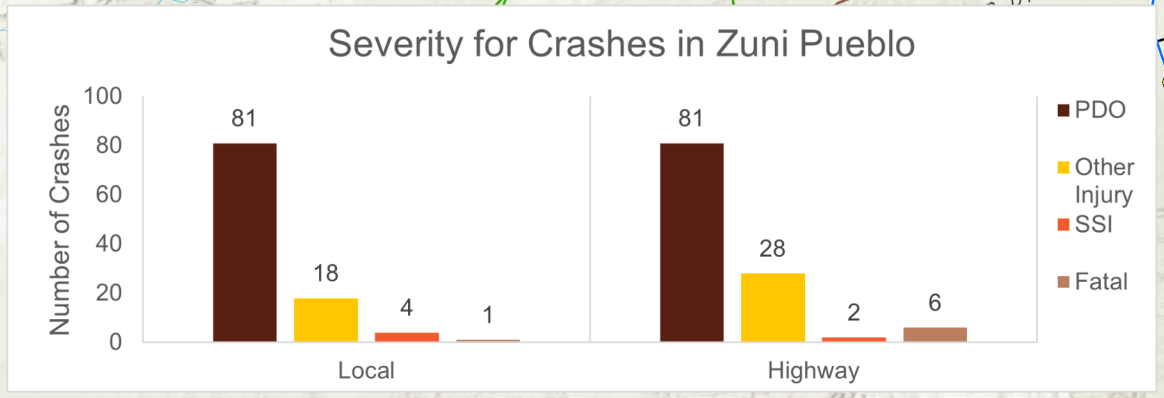
0 2 Miles

106

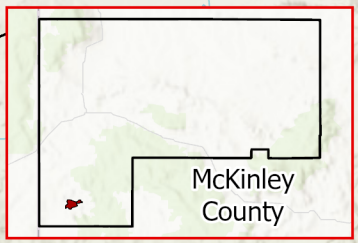
Crash Locations in Gallup By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY



Note: All crashes shown were listed in Zuni Pueblo in crash reports.



Zuni Pueblo Crash Locations

Nearly all severe crashes near Zuni Pueblo occurred on SH 53, with a few occurring on local roads. Recommendations for SH 53 near Zuni Pueblo include adding streetlights, improving multimodal infrastructure between Zuni Pueblo and Blackrock, and the implementation of speed management.

FIGURE 63: ZUNI PUEBLO CRASH LOCATIONS

Black Rock
Zuni Pueblo

Crash Severity
- Fatal Crash
- Suspected Serious Injury Crash
- Other Injury Crash
- Property Damage Only Crash

Roadway Type
- Interstate
- Federal/State Road
- County Road
- Navajo/BIA Route
- Non-Maintained Road

0 3 Miles

Crash Locations in Zuni Pueblo By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY

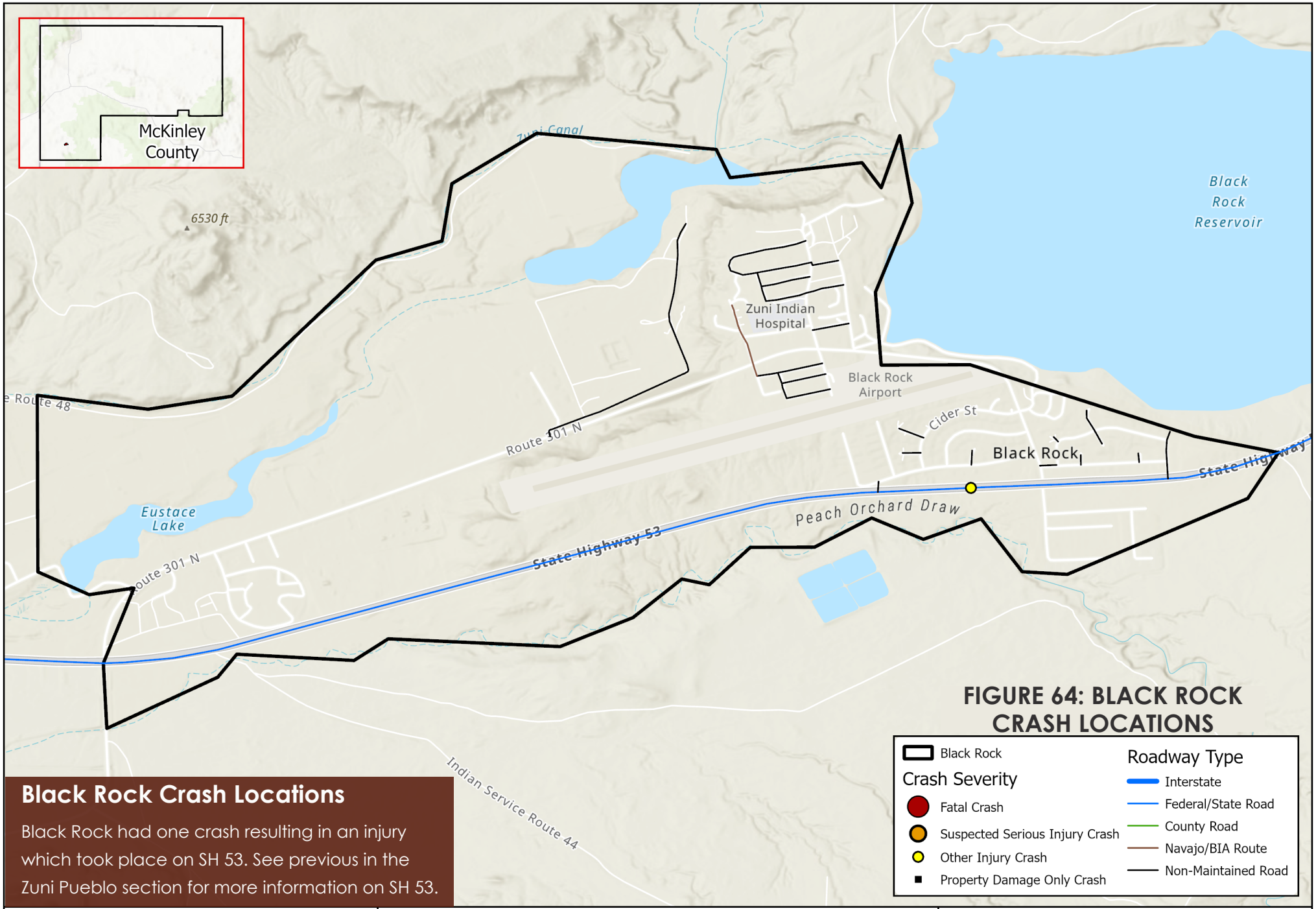


FIGURE 64: BLACK ROCK CRASH LOCATIONS

Black Rock Crash Locations

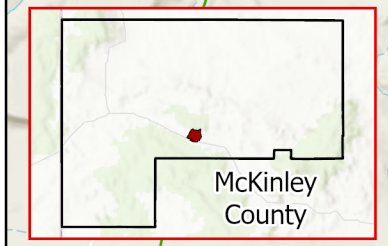
Black Rock had one crash resulting in an injury which took place on SH 53. See previous in the Zuni Pueblo section for more information on SH 53.

0 0.3 Miles

Crash Locations in Black Rock By Severity

Thoreau Crash Locations

Of the two severe (one fatal, one serious injury) crashes that occurred in Thoreau, one occurred on I-40, and the other on the frontage road. The fatal crash occurred on I-40 at Exit 53 when an out-of-control vehicle crossed the median.



Note: All crashes shown were listed in Thoreau in crash reports.

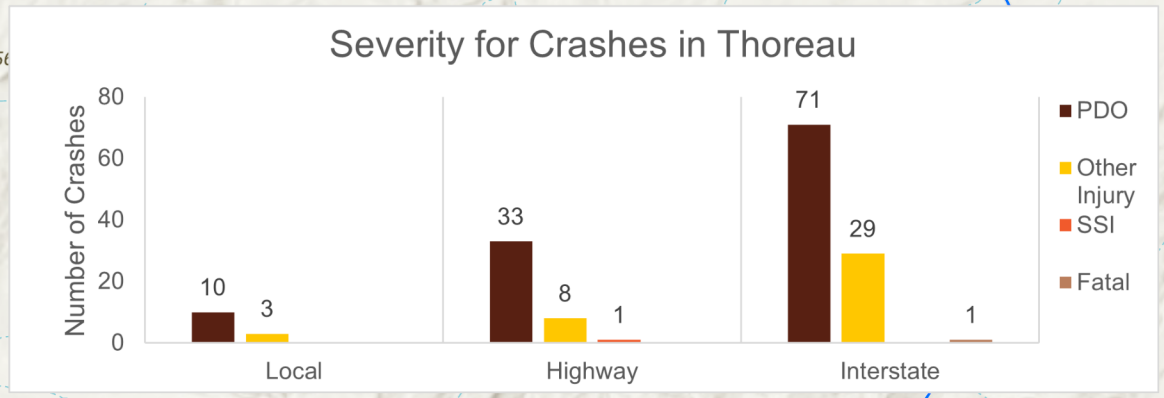
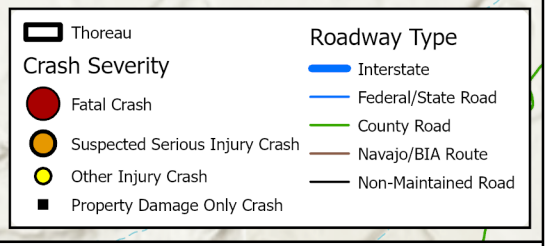


FIGURE 65: THOREAU CRASH LOCATIONS



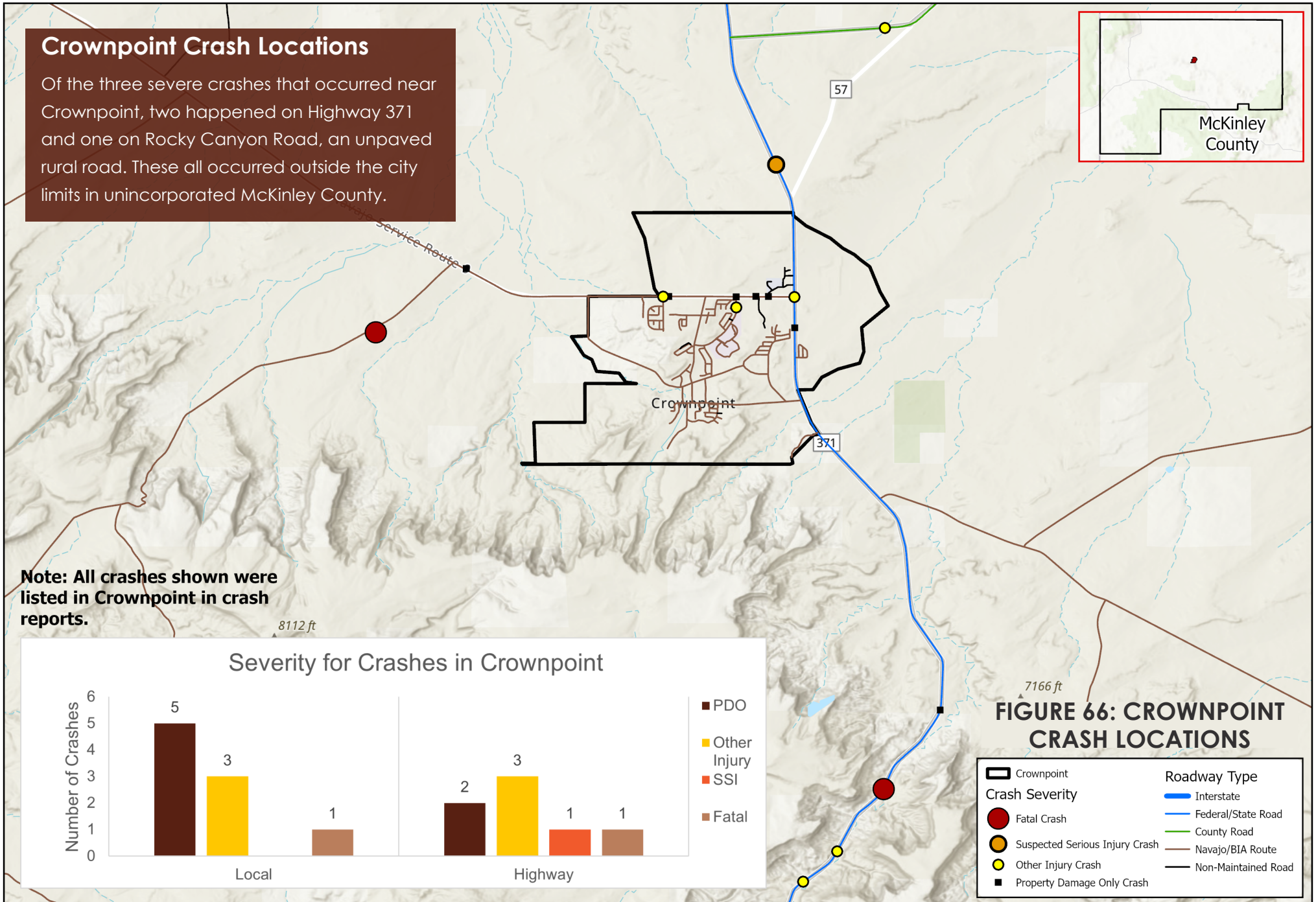


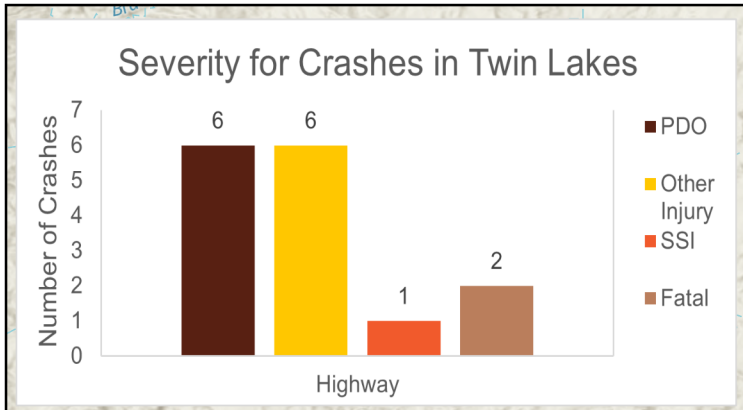
FIGURE 66: CROWNPOINT CRASH LOCATIONS

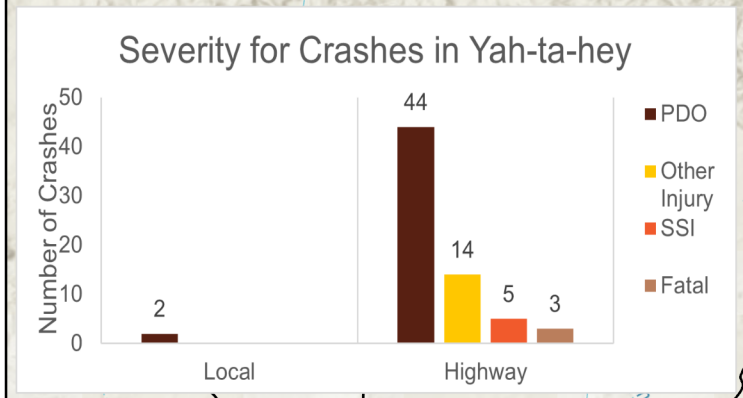
0 1.5 Miles

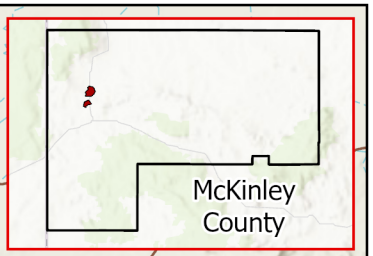
Crash Locations in Crownpoint By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY







Ya-ta-hey and Twin Lakes Crash Locations

All the severe crashes in Twin Lakes and Ya-ta-hey occurred on non-interstate highways, 264 and 491. The implementation plan recommends installing chevron signs on horizontal curves along 491, adding an acceleration lane near Chee Dodge Elementary School. A raised median on 491 in this area may also help improve safety.

FIGURE 67: YAH-TA-HEY & TWIN LAKES CRASH LOCATIONS

Twin Lakes
Yah-ta-hey

Crash Severity
- Fatal Crash
- Suspected Serious Injury Crash
- Other Injury Crash
- Property Damage Only Crash

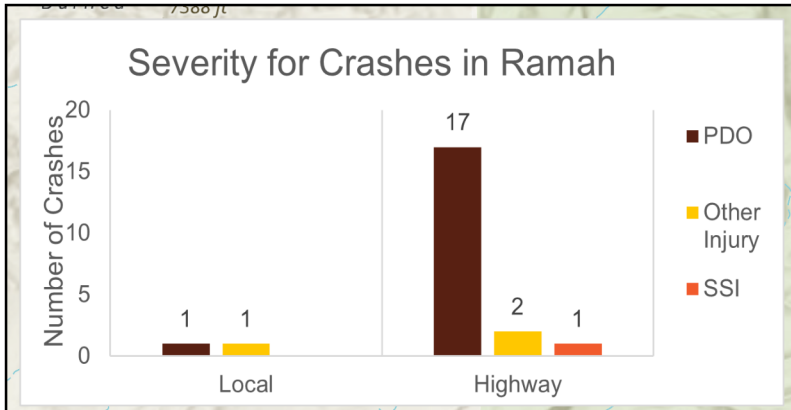
Roadway Type
- Interstate
- Federal/State Road
- County Road
- Navajo/BIA Route
- Non-Maintained Road

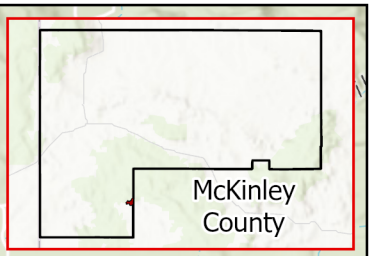
0 1.5 Miles

Crash Locations in Yah-ta-hey & Twin Lakes By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY





Pasture Hollow
County Road 12
Culebra Dr
Pasture Hollow
The Hogback
Ramah Reservoir
7703 ft
Chees Hollow
Pescado Draw
Bond St
Ramah
Ramah Valley
Cebolla Creek
Antenna Hill
Bond St
Togeye Canyon
Wild Sheep Mesa
7472 ft
7308 ft

Ramah Crash Locations

One severe crash occurred on SH-53. Many of the crashes near Ramah on SH-53 were collisions with animals, so countermeasures listed in the implementation table to address animal collisions should be considered for this location.

FIGURE 68: RAMAH CRASH LOCATIONS

Ramah

Crash Severity
- Fatal Crash
- Suspected Serious Injury Crash
- Other Injury Crash
- Property Damage Only Crash

Roadway Type
- Interstate
- Federal/State Road
- County Road
- Navajo/BIA Route
- Non-Maintained Road

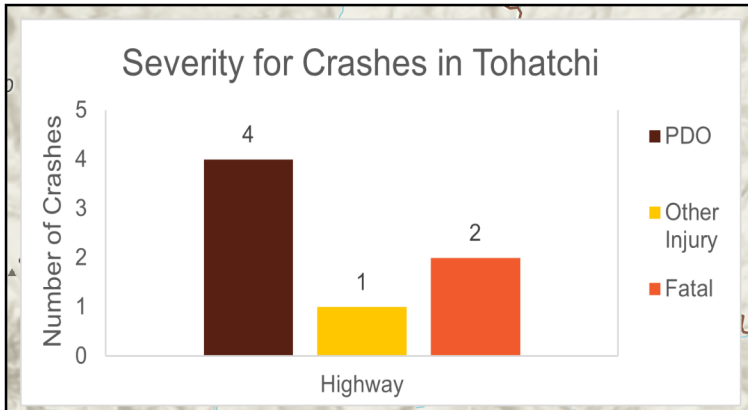
0 1 Miles

112

Crash Locations in Ramah By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY



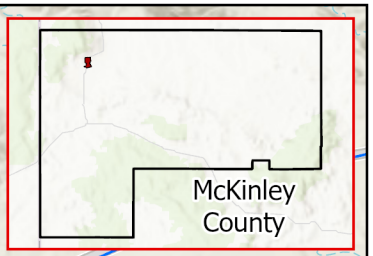


FIGURE 69: TOHATCHI CRASH LOCATIONS

Tohatchi

Crash Severity
- Fatal Crash
- Suspected Serious Injury Crash
- Other Injury Crash
- Property Damage Only Crash

Roadway Type
- Interstate
- Federal/State Road
- County Road
- Navajo/BIA Route
- Non-Maintained Road

Tohatchi Crash Locations

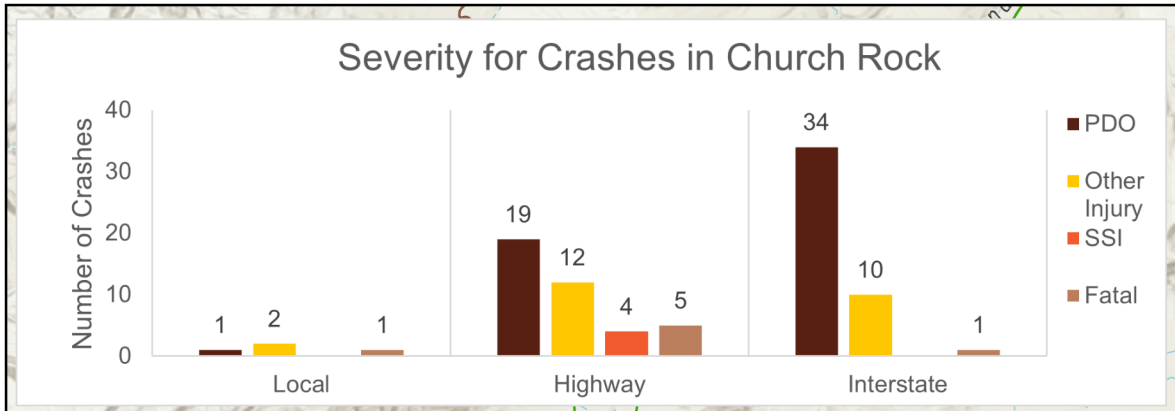
Two fatal crashes occurred on highway 491, near the access roads to the town. Both of these were collisions with a pedestrian, suggesting a need for some kind of enhanced crossing treatment for 491 near Tohatchi.

0 1 Miles

Crash Locations in Tohatchi By Severity

McKinley County Transportation Master Plan

WILSON & COMPANY



Note: All crashes shown were listed in Church Rock in crash reports.

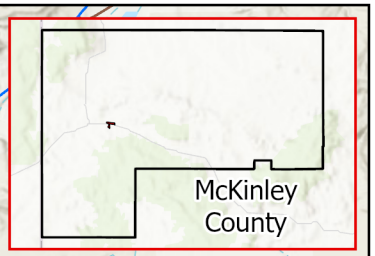


FIGURE 70: CHURCH ROCK CRASH LOCATIONS

Church Rock Crash Locations

Seven fatal crashes occurred in Church Rock, one on I-40, five on highways (66 and 566), and one on a local road, Uphill, which is an unpaved rural road. These included two with other vehicles, two with fixed objects, one rollover, and one pedestrian. Safety improvements along the highways could address each of these issues with guardrails, median, lighting, and some kind of crosswalk treatment or grade separated crossing for pedestrians.

0 1.5 Miles

Crash Locations in Church Rock By Severity

WILSON & COMPANY

EMPHASIS AREAS AND COUNTERMEASURES

Challenges

To address transportation safety challenges, emphasis areas and countermeasures are discussed in this plan. The implementation table included in this plan shows which countermeasures (actions) address specific challenges. Based on the analysis of crash data, the following challenges were identified. Countermeasures are detailed in Appendix C.

SPEED LIMIT COMPLIANCE

Speed limit compliance is a persistent challenge and safety hazard in rural McKinley County, where drivers often exceed posted limits due to open road conditions and minimal traffic enforcement. This behavior increases the risk of severe crashes, particularly in areas with limited visibility, sharp curves, or unexpected obstacles such as wildlife or slow-moving vehicles.

MULTIMODAL SAFETY

Multimodal safety in McKinley County faces significant challenges due to inadequate infrastructure, forcing pedestrians, bicyclists, and transit users to navigate alongside fast-moving traffic. This increases the risk of serious injuries or fatalities, especially in areas with poor lighting, limited signage, and minimal separation between modes of travel.

MULTIMODAL ACCESSIBILITY

Multimodal accessibility is a challenge in McKinley County, where limited transportation options and infrastructure make it difficult for residents without personal vehicles to travel safely and efficiently. Gaps in pedestrian paths, bike routes, and transit services hinder mobility and access to essential destinations like schools, healthcare, and employment.

TRAFFIC CONTROL DEVICE COMPLIANCE

Traffic control device compliance is a challenge in McKinley County, where drivers may disregard stop signs, signals, and other roadway markings due to low traffic volumes or poor visibility. This noncompliance increases the risk of collisions, particularly at intersections and pedestrian crossings where clear adherence is critical for safety.

ADA COMPLIANCE

ADA compliance is a challenge in rural McKinley County, where many sidewalks, curb ramps, and public facilities do not meet accessibility standards. This creates significant barriers for individuals with disabilities, limiting their ability to travel safely and independently within the community.

Emphasis Areas

Minimizing crashes will contribute to less congestion, fewer taxpayer-supported emergency responses, financial savings from avoided fatalities, injuries, property damage claims, insurance premiums, and vehicle repair or replacement, and most importantly, fewer deaths and serious injuries of loves ones. Emphasis areas and general safety countermeasures are listed in the following section.

COUNTY ROAD SAFETY

The FHWA recommends countermeasures for rural highway safety that mostly include improving markings and signage. For example, reflective materials can help motorists see signs and markings at night or in poor weather. Specific areas identified for such improvements can be found in the implementation table.

VISIBILITY IMPROVEMENTS

Visibility improvements help make roads safer by making it easier for motorists to see each other and other road users. This plan recommends visibility improvements throughout the study area, specific areas can be found in the implementation table.

FIXED OBJECT CRASHES

A fixed object crash occurs when a motorist departs the roadway and collides with an object adjacent to the road such as a tree, utility pole, or structure. This type of collision can be reduced by implementing countermeasures that help keep drivers in their lane, removing such objects from the areas next to the road, and/or reducing the severity of these crashes when they occur. See the table for specific locations.

OVERTURNING CRASHES

Overturning and rollover crashes occur when a car flips onto its side or roof due to lateral forces acting on the vehicle from steering movements plus speed. As a result, these crashes occur most frequently around curves. Any vehicle can overturn but it is more likely in a vehicle with a higher center of gravity such as a truck, SUV, or RV. These crashes can also result from departing the roadway and encountering a slope that causes the vehicle to roll. See specific locations in the table.

SIDESWIPE CRASHES

A sideswipe occurs when two vehicles travelling the same direction collide side to side. There is a risk for such collisions anywhere cars merge such as on interstates or at intersections where vehicles turn. Areas without adequate deceleration or acceleration lanes can make these crashes more likely by presenting difficult conditions in which to merge. See table for specific locations.

CRASHES ALONG CURVES

Crashes along curves occur when motorists either fail to steer or understeer and depart the roadway or oversteer and cross the centerline. Improved markings can alert drivers to the presence of the turn and return their attention to driving, and guardrails can help prevent severe crashes from occurring. See table for specific locations.

ROADWAY DEPARTURE AND CROSS-MEDIAN CRASHES

Any departure of the travel lane can occur due to driver inattention and drowsiness, or motorists swerve to avoid a road hazard. Barriers, signage, and tactile features like rumble strips can help keep drivers alert and help them navigate long drives on rural highways. See table for locations.

ACCESS CONTROL PLAN

Intentionally controlling access along roadways can help improve safety and traffic flow. See specific recommendations and locations in the table.

ROUNDABOUTS AND STOP CONTROLLED INTERSECTIONS

Uncontrolled intersections or two-way stop intersections can become challenging to navigate and present a safety hazard as traffic volumes increase over time. See table for specific intersections that could benefit from a roundabout or four-way stop configuration.

TRAFFIC SIGNAL

Four way stops may not be sufficient to control wide, multi-lane roads with high traffic volumes and speeds. These intersections are best controlled with a traffic signal. See table for specific intersections that could benefit from the installation of a traffic signal.

INFRASTRUCTURE TO PROTECT VULNERABLE ROAD USERS

As discussed in the section about vulnerable road users, those outside of cars are more likely to be severely injured or killed when a collision occurs. Countermeasures that protect these road users are most effective in locations where there are more of them. See table for specific locations.

SCHOOL CROSSINGS

As discussed in the section about vulnerable road users, children are especially vulnerable. Countermeasures present adjacent to schools and other amenities frequented by children, and on the routes that lead to them from residential areas, help protect them. See table for specific locations.

COUNTERMEASURES TO REDUCE TRUCK ACCIDENTS

Improvements on I-40, especially on ramps and shoulders, can help reduce truck crashes. See table for more information.

COUNTERMEASURES TO REDUCE CAR/TRAIN CONFLICTS

Building grade-separated crossings where rails and roads intersect improves safety for both. See table for more information.

EDUCATION, ENFORCEMENT, AND COMMUNICATION

While the Safe Streets and Roads 4 All approach places the greatest emphasis on road design, engineering, and infrastructure, education and enforcement can supplement those efforts. See table for specific recommendations.

MISCELLANEOUS

Other recommendations that do not fit into any one of the previous emphasis areas. See table for information.



IMPLEMENTATION AND EVALUATION

Vision Zero acknowledges that there are several contributing factors regarding safe systems and safe mobility, including but not limited to, equity, policy and education, roadway design, safe speeds, enforcement, behaviors, and technology. This Plan is intended to provide actionable strategies that over time will achieve the shared goal of zero fatalities and serious injuries in McKinley County. The evaluation of crash data and public outreach exercises contributed to the identification of several emphasis areas where the implementation of safety countermeasures will provide the greatest effect on eliminating traffic fatalities and serious injuries.

Phased Implementation

The safety countermeasures listed in the table below are separated by short-term, mid-term, and long-term project recommendations.

SHORT-TERM PROJECTS

Immediate short-term projects should be implemented within the following two years.

MID-TERM PROJECTS

Medium-term projects should be implemented in 3-5 years.

LONG-TERM PROJECTS

Long-term projects should be implemented in 5-10 years, unless resources become available sooner.

The following table outlines the identified emphasis areas for this Plan as well as the proposed safety countermeasures to reduce and eliminate traffic fatalities and serious injuries in the County. The first page of the table focuses on safety countermeasures for County-owned roads.



	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
1. County Road Safety									
1.1	Install Reflectors	County & State Highways throughout study area (also in section 4)	Short	$5,500/mile		X	X		
1.2	Install streetlights or other visibility enhancements and curve warnings and surface enhancements as needed	County Route 1 from Mentmore Rd straight past Climbing Rock Road and Defiance Draw to the curve at the Railroad right of way (approx 7.5 miles)	Short	$1,018,000		X			
1.3	Increase Stop Control Visibility - Stop Lines	Intersection Navajo Service Route 48 / County Road 19	Short	$300/ intersection		X		X	
1.4	Increase Stop Control Visibility - Stop Lines	Intersection Navajo Service Route 11 (County Route 15) / Pinedale Road	Short	$300/ intersection		X		X	
1.5	Install targeted Curve Advanced delineation/barriers, longitudinal rumble strips, median barriers, safetyEdge, and wider edge lines	County Route 15 West from 2nd Canyon Road past intersection with Pinedale Rd to the T Intersection (approx 5.25 miles)	Short	$3,828,000	X			X	
1.6	Install Stop Ahead Symbol sign (W3-1)	Refuge Rock Rd 0.2 miles east of intersection with Twin Buttes Rd (far side of hill crest)	Short	$6,900/each	X			X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
2. Maloney Ave/NM 609 Access Control, Road Diet, and Alternative Modes Improvements									
2.1	Roadway Configuration - Design and implement road diet	Maloney Ave/NM 609, Gallup focus area	Long	$46,200	X	X	X	X	X
2.2	Speed Management - Reduce speed limit	Maloney Ave/NM 609, Gallup focus area	Short	$6,900/each	X	X			
2.3	Implement Access Management - Install raised median	Maloney Ave/NM 609, Gallup focus area	Medium	$1,378,000/mile	X	X	X	X	
2.4	Implement Access Management - Driveway closure/ relocation/ consolidation	Maloney Ave/NM 609, Gallup focus area	Medium	-		X	X	X	X
2.5	Implement Access Management - Limit allowable movements	Maloney Ave/NM 609, Gallup focus area	Short	$306,000/mile		X	X	X	X
2.6	Implement Access Management - Provide turn lanes	Maloney Ave/NM 609, Gallup focus area	Medium	$163,000/each		X	X	X	X
2.7	Multimodal Facilities - Add Bike Lanes	Maloney Ave/NM 609, Gallup focus area	Medium	$1,327,800/mile		X	X		
2.8	Pedestrian Facilities - Install Pedestrian Hybrid Beacons	Maloney Ave/NM 609, Gallup focus area	Short	$41,300/each		X	X	X	X
2.9	Install Bump Outs (Curb Extensions)	Maloney Ave/NM 609, Gallup focus area	Short	$196/ft	X	X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
2.10	Enforce ADA Compliance (fix sidewalk cracks, remove trees from sidewalks)	Maloney Ave/NM 609, Gallup focus area	Short	$1,060,000/mile		X	X		X
2.11	Intersection Improvements - Enhance pedestrian infrastructure, where applicable	Maloney Ave/NM 609, Gallup focus area	Medium	$11,000/each	X	X	X	X	X
3. U.S. 491 Access Control, Road Diet, and Alternative Modes Improvements									
3.1	Roadway Configuration - Design and Implement Road Diet	U.S. 491, Gallup focus area	Long	$61,000	X	X	X	X	X
3.2	Speed Management - Reduce Speed Limit	U.S. 491, Gallup focus area	Short	$6,900/each	X	X			
3.3	Implement Access Management - Install raised median	U.S. 491, Gallup focus area	Short	$1,378,000/mile	X	X	X	X	
3.4	Implement Access Management - Driveway closure/ relocation/ consolidation	U.S. 491, Gallup focus area	Medium	-		X	X	X	X
3.5	Implement Access Management - Limit allowable movements	U.S. 491, Gallup focus area	Short	$306,000/mile		X	X	X	X
3.6	Implement Access Management - Provide turn lanes	U.S. 491, Gallup focus area	Medium	$163,000/each		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
3.7	Multimodal Facilities - Add Bike Lanes	U.S. 491, Gallup focus area	Medium	$1,327,800/mile		X	X		
3.8	Pedestrian Facilities - Install Pedestrian Hybrid Beacons	U.S. 491, Gallup focus area	Short	$41,300/each		X	X	X	X
3.9	Install Bump Outs (Curb Extensions)	U.S. 491, Gallup focus area	Short	$196/ft	X	X	X	X	X
3.10	Enforce ADA Compliance (fix sidewalk cracks, remove trees from sidewalks)	U.S. 491, Gallup focus area	Short	$1,060,000/mile		X	X		X
3.11	Intersection Improvements - Enhance pedestrian infrastructure, where applicable	U.S. 491, Gallup focus area	Medium	$11,000/each	X	X	X	X	X
4. Visibility Improvements									
4.1a	Increase Stop Control Visibility - Stop Lines	Intersection at NM 566 / NM 118-U.S. 66	Short	$300/ intersection		X		X	
4.1b	Increase Stop Control Visibility - Stop Lines	Intersection at Indian Service Route 40-Francisco Road / Ojo Caliente Road-Indian Service Route 2	Short	$300/ intersection		X		X	
4.1c	Increase Stop Control Visibility - Stop Lines	Intersection at NM 602 / Park Avenue	Short	$300/ intersection		X		X	
4.1d	Increase Stop Control Visibility - Stop Lines	Intersection of Sandy Springs Road / Route 301	Short	$300/ intersection		X		X	
4.1e	Increase Stop Control Visibility - Stop Lines	Intersection of 9th St / Coal Basin road	Short	$300/ intersection		X		X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
4.1f	Increase Stop Control Visibility - Stop Lines	Intersection of U.S. 491 / China Springs Loop	Short	$300/ intersection		X		X	
4.1g	Increase Stop Control Visibility - Stop Lines	Intersection of Indian Service Route 4 / NM 53	Short	$300/ intersection		X		X	
4.1h	Increase Stop Control Visibility - Stop Lines	Intersection of Pinedale Road and County Road 566	Short	$300/ intersection		X		X	
4.1i	Increase Stop Control Visibility - Stop Lines	Intersection of NM 602 / NM 53	Short	$300/ intersection		X		X	
4.1j	Increase Stop Control Visibility - Stop Lines	Intersection of NM 602 / Bread Springs Roads	Short	$300/ intersection		X		X	
4.2a	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of Alma Drive / NM 264	Medium	$11,000/each		X	X	X	X
4.2b	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of I-40 / NM 118-U.S. 66	Medium	$11,000/each		X	X	X	X
4.2c	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of NM 602 / Mendoza Road-Nizhoni Boulevard	Medium	$11,000/each		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
4.2d	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of Marguerite Street / NM 118-U.S. 66	Medium	$11,000/each		X	X	X	X
4.3	Increase Stop Control Visibility - Flashing Lights & Stop Lines	As Needed - Study Area Wide	Medium	$134,000/each	X	X	X	X	
4.4	Install Delineators	I-40 through study area	Short	$17,900/mile	X	X	X		
4.5	Install Reflectors	County & State Highways throughout study area	Short	$5,500/mile		X	X		
4.6	Clear Vegetation at Intersection Corners	Study area wide where necessary	Short	$226,000/mile		X	X	X	X
4.7	Install streetlights	NM 371 from Thoreau to Navajo Route 49 /NM 53 between and including Zuni Pueblo and Black Rock.	Medium	$1,000,000/ each		X		X	
4.8	Flash Flood Areas (W8-18)	Mentmore Road	Short	$6900/each					
5. Fixed Object Crashes									
5.1	Design ROW to include Clear Zone Compliance	Arterials throughout study area	Medium	-		X	X		X
5.2	Install/Improve Median Prominence (Painting and Signage)	Arterials throughout study area	Short	$18,000	X	X	X	X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
5.3	Correcting Unsafe Drainage Features	Ditch located along Uphill Road near intersection with Navajo Service Route 11-Pandele Road	Long	-		X	X		
5.4	Remove obstructions (such as trees, etc.)	Intersection of Kiva Drive and Cactus Road	Short	$226,000/mile					
6. Overturning Crashes									
6.1	Shielding Objects and Slopes - Install Guardrail	I-40 through study area	Medium	$498,000/mile				X	
6.2	Delineation Treatment - Install chevron signs on horizontal curves on rural two-lane undivided roads, where applicable	Rural highway segments (NM 53, NM 118-U.S. 66, NM 197, NM 371, U.S. 491, NM 509)	Medium	$1,060,000/mile	X			X	
7. Sideswipe Crashes									
7.1a	Roadway Configuration - Add Acceleration Lane	U.S. 491, just north of Chee Dodge Elementary School for the commercial parcels)	Long	$488,000/each	X			X	
7.1b	Roadway Configuration - Add Acceleration Lane	NM 264 near Milespost (MP) 12 for the liquor store)	Long	$488,000/each	X			X	
7.2	Roadway Configuration - Add Deceleration Lane	Mendoza Road at intersection with Horse Fine Road	Long	$163,000/each	X			X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
8. Crashes Along Curves									
8.1a	Install Advance Curve Sign (W1-2) and Guard Rail	NM 53 near Milepost (MP) 16	Medium	$505,500/mile				X	
8.1b	Install Advance Curve Sign (W1-2) and Guard Rail	NM 118 near Tsa Ya Toh Road	Medium	$505,500/mile				X	
8.1c	Install Advance Curve Sign (W1-2) and Guard Rail	Mendoza Road west of intersection with NM 602 (just for westbound)	Medium	$505,500/mile				X	
8.1d	Install Advance Curve Sign (W1-2) and Guard Rail	Navajo Service Route 6 east of intersection with NM 509	Medium	$505,500/mile				X	
8.2	Install Advance Curve Sign (W1-2) and Loose Gravel Sign (W8-7)	NM 456 near the intersection with NM 75-Lee Ranch Highway	Short	$505,500/mile				X	
9. Roadway Departure and Cross-median Crashes									
9.1	Install targeted Curve Advanced delineation/barriers, longitudinal rumble strips, median barriers, safetyEdge, and wider edge lines	Rural highway segments (NM 53 near MP 16, NM 118 near Tsa Ya Toh Road)	Long	$3,828,000/mile	X			X	
9.2	Shoulder widening and/or adding longitudinal rumble strips (shoulder and/or centerline), where applicable	Rural highway segments (NM 53, NM 118, NM 371, NM 400, NM 602, NM 612, Navajo Service Route 11)	Long	$1,001,000/mile	X			X	
10. Access Control Plan									

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
10.1	Install raised median	Rural highway segments (U.S. 491)	Medium	$1,378,000/mile	X			X	
10.2	Create directional median openings to allow left turns and U-turns	Gallup Focus Areas	Medium	-	X			X	
10.3	Provide turn lanes	(Intersections are discussed in Section 7)	Medium	$163,000/each	X			X	
10.4a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with I-40 and Rehoboth Drive	Medium	-		X	X	X	X
10.4b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Rehoboth Drive at Comfort Inn, La Quinta, Speedway Access Drives	Medium	-	X			X	
10.5a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with Industry Road and Armando Ortega Boulevard	Medium	-		X	X	X	X
10.5b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Armando Ortega Boulevard at Western Skies Drive, USA RV / Howard Johnson Access Drives	Medium	-	X			X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
10.6a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with Ford Drive and Boardman Drive	Medium	-		X	X	X	X
10.6b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Boardman Drive at Valentina Drive, Verdi Drive, and Will Drive	Medium	-	X			X	
10.7	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with NM 602 / 8th Street	Medium	-		X	X	X	X
10.8a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with I-40 and Rico Street	Medium	-		X	X	X	X
10.8b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Rico Street at Best Western, Shell, Motel 6 / One 9, Rodeway / Microtel Access Drives; and Plaza Avenue	Medium	-	X			X	
10.9a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between Crestview Rd and I-40	Medium	-		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
10.9b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of I-40 at Sunset Memorial Park / Kachina Rentals, Armored Electric / Trails West Mobile Home Park, TA Truck Stop / Bombay Restaurant, and Loves Access Drives; Mentmore Avenue and Cam D Monte Sol	Medium	-	X			X	
11. Roundabouts and Stop Controlled Intersections									
11.1a	Consider Roundabout or All Way Stop Control (AWSC)	Intersection of Aztec Ave and Valentina Dr	Long	$5,742,000/ roundabout	X	X	X	X	X
11.1b	Consider Roundabout or All Way Stop Control (AWSC)	Intersection of U.S. 66 and Miyamura Opas	Long	$5,742,000/ roundabout	X	X	X	X	X
11.1c	Consider Roundabout or All Way Stop Control (AWSC)	Intersection of 1st St and Mesa Ave	Long	$5,742,000/ roundabout	X	X	X	X	X
12. Traffic Signal									
12.1	Install Traffic Signal	As Needed - Study Area Wide	Long	$574,000/each	X	X	X	X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
12.2a	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/ or implementing flashing yellow arrow)	Intersection of 9th Street and Jefferson Avenue	Long	$20,600/ intersection	X	X	X	X	
12.2b	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/ or implementing flashing yellow arrow)	Intersection of Arnold Street and NM 118-U.S. 66	Long	$20,600/ intersection	X	X	X	X	
12.2c	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/ or implementing flashing yellow arrow)	Intersection of Toltec Drive and NM 118-U.S. 66	Long	$20,600/ intersection	X	X	X	X	
12.2d	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/ or implementing flashing yellow arrow)	Intersection of Mollica Drive and NM 118-U.S. 67	Long	$20,600/ intersection	X	X	X	X	
12.2e	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/ or implementing flashing yellow arrow)	Intersection of Boardmand Drive and NM 118-U.S. 68	Long	$20,600/ intersection	X	X	X	X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
12.2f	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/ or implementing flashing yellow arrow)	Intersection of Boardman Drive and Aztec Avenue	Long	$20,600/ intersection	X	X	X	X	
13. Infrastructure to Protect Vulnerable Road Users									
13.1	Implement Multimodal Infrastructure	Gallup Focus Areas, NM-53 Between and Including Zuni Pueblo and Black Rock, NM-118 in Gallup, NM-53 Between and Including Zuni Pueblo and Black Rock	Medium	-	X	X	X	X	X
13.2	Add Bike Lanes	NM-371 From I-40 to Smith Lake	Medium	$980,000/mile		X	X	X	X
13.3	Install Pedestrian Hybrid Beacons	As Needed - Study Area Wide	Short	$41,300/each	X	X	X	X	X
13.4	Install Bump Outs (Curb Extensions)	As Needed - Study Area Wide	Medium	$196/ft	X	X	X	X	X
13.5	Enforce ADA Compliance (fix sidewalk cracks, remove trees from sidewalks)	Gallup Focus Areas, NM-118 in Gallup	Long	1,060,000/mile		X	X	X	X
13.6a	Install high-visibility crosswalk	Intersection of Alma Drive / NM 264	Short	$11,000/each		X	X	X	X
13.6b	Install high-visibility crosswalk	Intersection of I-40 / NM 118-U.S. 66	Short	$11,000/each		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
13.6c	Install high-visibility crosswalk	Intersection of NM 602 / Mendoza Road-Nizhoni Boulevard	Short	$11,000/each		X	X	X	X
13.6d	Install high-visibility crosswalk	Intersection of Marguerite Street / NM 118-U.S. 66	Short	$11,000/each		X	X	X	X
13.7	Install pedestrian countdown timer	Gallup Focus Areas, NM-118 in Gallup	Medium	$20,600/ intersection		X	X	X	X
13.8	Consider pedestrian overpass	Locations where at-grade pedestrian crossings near schools are not possible.	Long	$520/sqft		X	X	X	X
13.9	Comprehensive corridor-wide pedestrian improvements	U.S. 66 corridor (22% of pedestrian crashes 2017-2022 occurred along U.S. 66)	Medium	-	X	X	X	X	X
13.10	Restripe Crosswalk with high visibility paint, add HAWK or Rapid Flashing Beacon if warranted	Intersection of U.S. 491 / Tohatchi Drive	Medium	$134,000/each	X	X	X	X	X
14. School Crossings									
14.1	Install Pedestrian signaling, Improve Crosswalk Striping	As Needed - Study Area Wide	Short	$134,000/each	X	X	X	X	X
14.2	See "Vulnerable Users section for recommendations at 13.10	Intersection of U.S. 491 / Tohatchi Drive	Medium	-	X	X	X	X	X
15. Countermeasures to Reduce Truck Accidents									

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
15.1	Truck-focused safety improvements	I-40 Ramp intersections at NM-118 (exits 16 & 26), NM-602 (especially the WB Terminal), and Maverick Road	Long	-		X	X	X	
15.2	Shoulder widening		Long	$1,001,000/mi		X	X	X	
16. Countermeasures to Reduce Car - Train Conflicts									
16.1	Consider train overpass/underpass to replace existing at-grade intersection.	As Needed - Study Area Wide	Medium	$57,420,000					
16.2	Install traffic control (traffic signal and automated crossarm)	As Needed - Study Area Wide	Long	$574,000	X			X	
17. Education, Enforcement, Communication									
17.1	Implement pedestrian and bicycle safety program with NMDPS including policy, enforcement, communication, education, incentive, and engineering strategies	Study area wide	Short	-		X			X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
17.2	Emphasize and implement education and enforcement to reduce distracted driving, driving without a seatbelt and DUI. Use High Visibility Enforcement (HVE) and/or High Visibility Patrols (HVP) directed at motorists	Study area wide	Short	-	X	X		X	
17.3	Targeted use of Speed Safety Cameras and speed feedback signs.	State Highway approaches to population centers	Short	$68,800/ea	X	X		X	
17.4	Implement Speed Management and install Share the Road signs to reduce motorcycle involved crashes	Interstate locations throughout; NM-491 Northbound North of the Interstate / Southbound approaching Gallup; NM-118 leaving I-40 Interchanges towards downtown (exits 16 & 26); NM-53 EB & WB approaching Zuni Pueblo/Black Rock	Medium	$6,900/each	X	X	X	X	
17.5	Install Double Side Road Intersection Warning Signs (W2-8)	Intersections of U.S. 491 at Tohlakai Road and Jack Johnson Road in Twin Lakes	Short	$6,900/each		X	X	X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
18. Policy and Zoning Updates									
18.1	Review and update zoning codes to enhance multimodal accommodation	Study area wide	Medium	$50,000 - $100,000/study		X	X		X
18.2	Conduct multimodal transportation studies	Study area wide	Short	$50,000 - $150,000/study		X	X	X	X
18. Miscellaneous									
19.1	Implement Variable Speed Limits (VSLs)	I-40 through study area	Medium	$1,980,000/mile	X				
19.2	Install High-Friction Surface Treatments (HFST)	(identify specific ramps, curves, and intersections with higher risk and locations with frequent weather conditions-related crashes)	Long	-					

5. REGIONAL PLANNING AND COORDINATION CONSIDERATIONS



INTRODUCTION

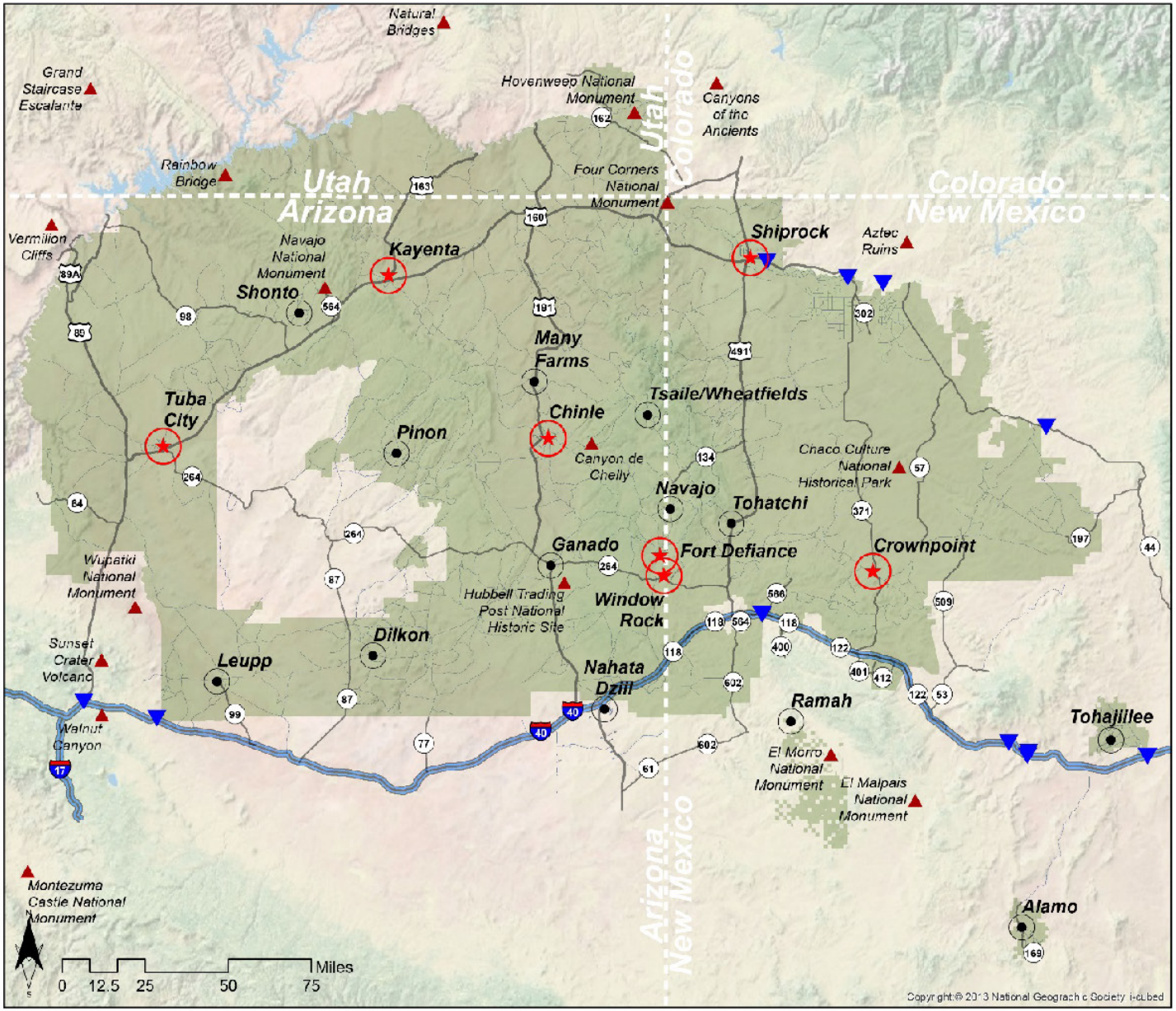
Regional planning and coordination are essential components to ensure implementation of the recommendations of any transportation plan, especially one for McKinley County. Given the county's diverse geography, rural and tribal communities, and key transportation corridors, a well-coordinated approach ensures that infrastructure investments align with regional growth, economic development and community needs. Noted as a key need during stakeholder discussions, effective collaboration among local, tribal, state, and federal agencies will help streamline funding opportunities, enhance mobility, and improve safety across the transportation – addressing the foundational goals of this plan. By integrating regional perspectives moving forward, the county can develop a sustainable and equitable transportation system that supports residents and visitors alike.

NAVAJO NATION

The Navajo Nation's Long Range Transportation Plan (LRTP) was completed in 2021 and was developed to coordinate collaboration between Navajo DOT, the Bureau of Indian Affairs (BIA), and the Federal Highway Administration (FHWA). Navajo DOT is a division of the Navajo Nation and became self-administered to better control its federal funding allocations between Navajo DOT and Bureau of Indian Affairs (BIA). As part of their reorganization in 2013, they worked with the Federal Highway Admin¬istration (FHWA) and converted their previous 38-year TTIP to the current 5-year TTIP. The TTIP outlines specific Navajo DOT project activities over a 5-year period and is updated every year with new projects.

More specifically, information included below about the Navajo Nation's LRTP is provided to stress and encourage the continued implementation coordination necessary to ensure projects are coordinated in a timely and efficient manner. For example, The Crownpoint area, located within McKinley County and north of I-40 along NM-371, is identified as a Primary Growth Center for the Navajo Nation. The project team for the LRTP stud¬ied the major road network, rivers or streams, and topography and determined locations of landmarks within the growth centers and where civic/institutional and recreational activity nodes occur. This information is essential when planning for the future of Navajo Nation and accommodating predicted transportation needs (See Figure 71), of which, some may have specific touchpoints with County roads that should be considered herein.

FIGURE 71: GROWTH CENTERS AND DESTINATIONS (LRTP 2021)



Navajo Nation

Destinations

Growth Center

- Primary
- Secondary
- National Monument
- Casino and other destinations

Road Hierarchy

- Interstate
- US Highway
- State Highway
- BIA Routes

NAVAJO D.O.T.

WILSON & COMPANY

The National Tribal Transportation Facility Inventory (NTTFI) is a roadway classification system following the BIA methodology (see Figure 72). A list of roadway classifications and their meanings are shown below.

Class 1- Major Arterial: Serves traffic between large population centers and maintain an average daily traffic volume of 10,000 vehicles per day or more with more than two lanes of traffic

Class 2- Rural Minor Arterial: Provide a connection to smaller towns and communities and generally allow high overall traffic speeds with minimum interference to through traffic movement. Facilitate less than 10,000 vehicles per day.

Class 3- City Local: Streets serving residential areas.

Class 4- Rural Major Collector: Serves as a collector to rural local roads.

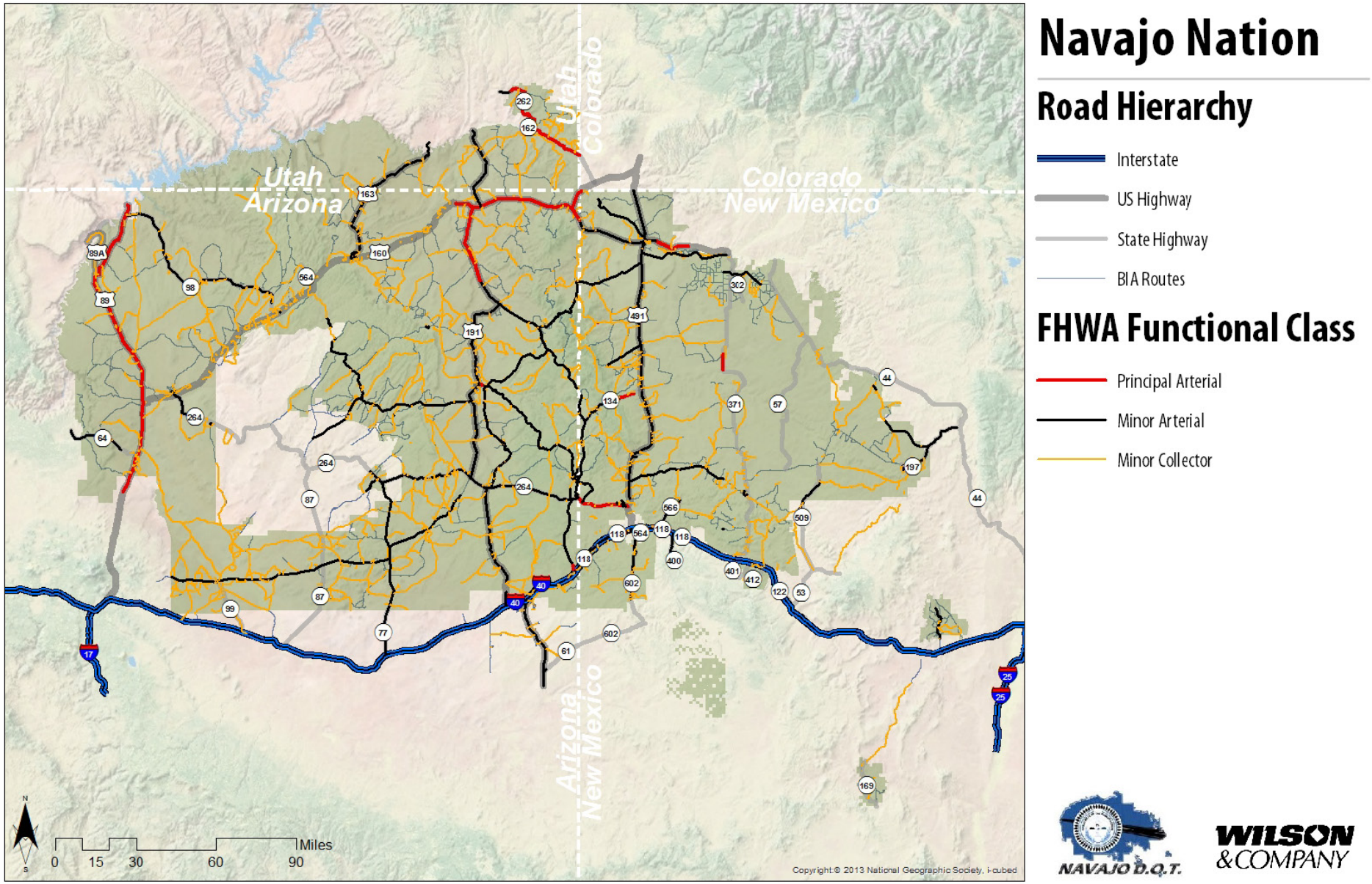
Class 5- Rural Local: May serve areas around villages, farming areas, schools, attractions, or various small enterprises

Class 6- City Minor Arterial: located within communities and serve as access to major arterials.

Class 7- City Collector: Located within communities and serve as collectors to the city local streets.

Class 8 - This class encompasses all non-road projects such as paths, trails, walkways, or other designated types of routes for public use by foot traffic, bicycles, trail bikes, snowmobiles, all terrain vehicles, or other uses to provid for the general access of non-vehicular traffic.

FIGURE 72: NAVAJO ROADWAY CLASSIFICATION (LRTP 2021)



Within the Navajo Nation, the BIA is responsible for 5,194 miles of roads for all road classes. The total miles of BIA operated roads by Agency and by class are listed in Table 5-2 of the Long-Range Transportation Plan for class codes 1 through 8.

Throughout the planning process, challenges have been noted by stakeholders and County staff such as, road maintenance agreements, funding allocation, right-of-way determination, and ownership. A thoughtful and concerted effort by the County and BIA/Navajo DOT would drastically change not only continual and structure maintenance of the overall roadway network throughout the county, but also support a more focused implementation effort moving forward.

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8	Total
Chinle	1.0	222.4	0.7	326.1	51.8	0.0	0.0	0.0	602
Crownpoint	0.0	24.2	6.5	241.2	222.5	2.4	0.0	0.0	496.8
Ft. Defiance	2.0	199.7	0.0	716.3	172.6	0.2	0.0	0.0	1090.8
Shiprock	0.0	120.0	2.8	657.1	511.2	0.0	0.0	0.0	1291.1
Tuba City	0.0	61.4	9.3	742.8	595.6	2.7	1.2	0.0	1413
NIIP	0.0	13.4	0.0	31.5	6.6	0.0	0.0	0.0	51.5
New Lands	0.0	0.0	15.6	43.2	2.1	0.0	0.0	0.0	60.9
Total	**3.0**	**641.1**	**34.9**	**2758.2**	**1562.4**	**5.3**	**1.2**	**0.0**	**5006.1**

Navajo Nation Transit

Navajo Transit System (NTS) provides service to many of the Chapter communities. It operates an independent transit system and at the current time bus fare is being waived. Operating and capital funding is provided primarily from Navajo Nation funds, state funds, and Federal Transit Administration (FTA) 5311 Rural Public Transportation Program as administered from Arizona, Utah, and New Mexico Departments of Transportation.

The route network covers key areas of The Navajo Nation and provides good connectivity. (See Figure 73).

The NTS operates on weekdays between 5:00 AM and 7:00 PM (MST) and is closed on weekends. Communities and Chapters located between the established origin and destination have access to transit services. Below is a list of current route origins and destinations and future routes with proposed origins and destinations from the Long-Range Transportation Plan.

FIGURE 73: NTS ROUTES (LRTP 2021)

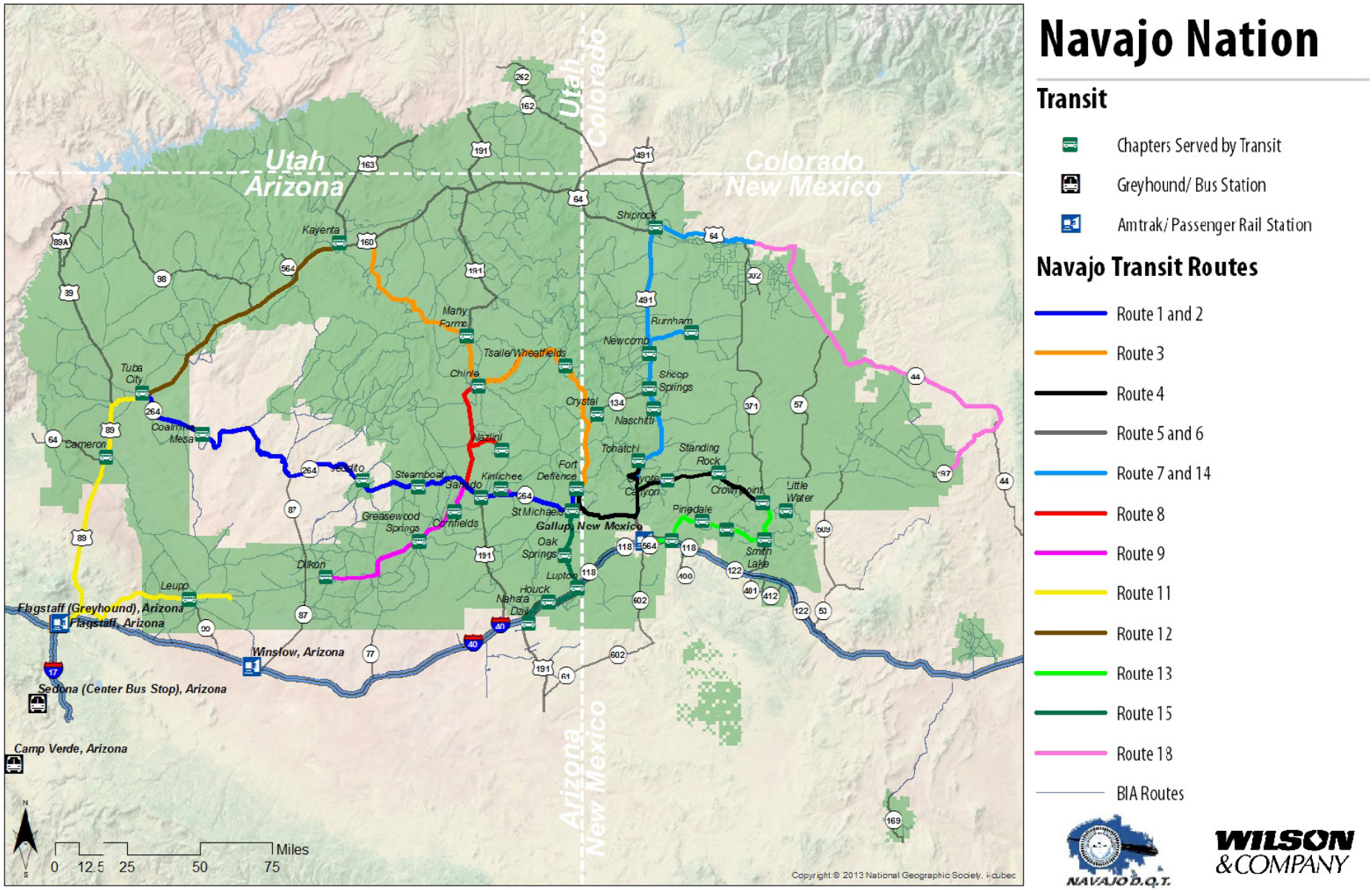


Table 5-4 | Current NTS Routes

Route Number	Origin & Destination
Route 01:	Tuba City, AZ to Ft.Defiance, AZ and return
Route 02:	Steamboat, AZ to Ft. Defiance, AZ and return*
Route 03:	Kayenta, AZ to Ft.Defiance, AZ and return
Route 04:	Crownpoint, NM to Ft.Defiance, AZ and return
Route 05:	Ft. Defiance, AZ to Gallup, NM and return
Route 06:	Crystal, NM to Gallup, NM and return
Route 07-A:	Newcomb, NM to Farmington, NM and Ft.Defiance, AZ and return
Route 07-B:	Newcomb, NM to Shicprock, NMand Farmington, NM and return
Route 08:	Chinle, AZ to Ganado, AZ and Tsaile, AZ and return
Route 09:	Dilkon, AZ to Ft. Defiance, AZ and return
Route 11:	Flagstaff, AZ and Tuba City, AZ and return
Route 12:	Kayenta, AZ to Tuba City, AZ and return
Route 13:	Ft.Defiance, AZ to Crownpoint, NM and Gallup, NM and return
Route 14:	Shiprock, NM to Ft.Defiance, AZ and return
Route 15:	Sanders, AZ to Window Rock, AZ and return
Route 16:	Aneth, UT to Bluff, UT and Blanding, UT and return*
Route 17:	Monument Valley, UTto Bluff, UT and Blanding, UT and return*
Route 18:	Torreon, NM to Cuba, NM and Farmington, NM and return*

***Undefinable time on when services will resume.**

Table 5-5| Future NTS Routes

Route Number	Origin & Destination
Route 19:	Forest Lake, AZ to Pinon, AZ and Chinle, AZ and return
Route 20:	Ramah, NM to Gallup, NM and Ft.Defiance, AZ and return



I-40

Interstate 40 (I-40) is the third-longest U.S. Interstate, running from Barstow, California in the west to Wilmington, North Carolina in the east. As a key corridor in McKinley County, I-40 spans almost 70 miles from the New Mexico/Arizona border to the McKinley/Cibola County border.

I-40 is one of three interstates in New Mexico managed by the New Mexico Department of Transportation (NMDOT) on behalf of the U.S. Department of Transportation. In 2024, NMDOT developed a corridor study for I-40, identifying near- and long-term improvements along this corridor related to traffic volumes, safety, and drainage. This section summarizes potential and proposed improvements, as well as other statewide, regional, and focused plans and projects, and identifies how each may benefit or impact McKinley County.

Current Conditions

ROADWAY AND SHOULDER CONFIGURATION

A substantial portion of the I-40 corridor through McKinley County is designed as a four-lane divided highway, with one three-lane section at eastbound mileposts 40 to 42 – to increase capacity where slower trucks may cause bottlenecks and substantial travel time delays. Current shoulder configurations vary throughout the corridor but are generally insufficient to provide safe off-road space for stopped vehicles.

Traffic Volumes

Annual average daily traffic (AADT) for both directions, as reported in 2022 along this section of I-40, varies significantly. The lowest AADT, 17,236, was reported near the Manuelito Port of Entry, about 8.6 miles from the Arizona/New Mexico border and the highest AADT, 34,186, was reported at the Ford Drive interchange in Gallup. The average AADT across 23 traffic count locations comes in at about 23,000 AADT. Heavy truck traffic makes up a significant portion of this daily traffic, with the split ranging from about 20 to 50 percent of total vehicles, depending on the location.

INTERCHANGES AND SAFETY

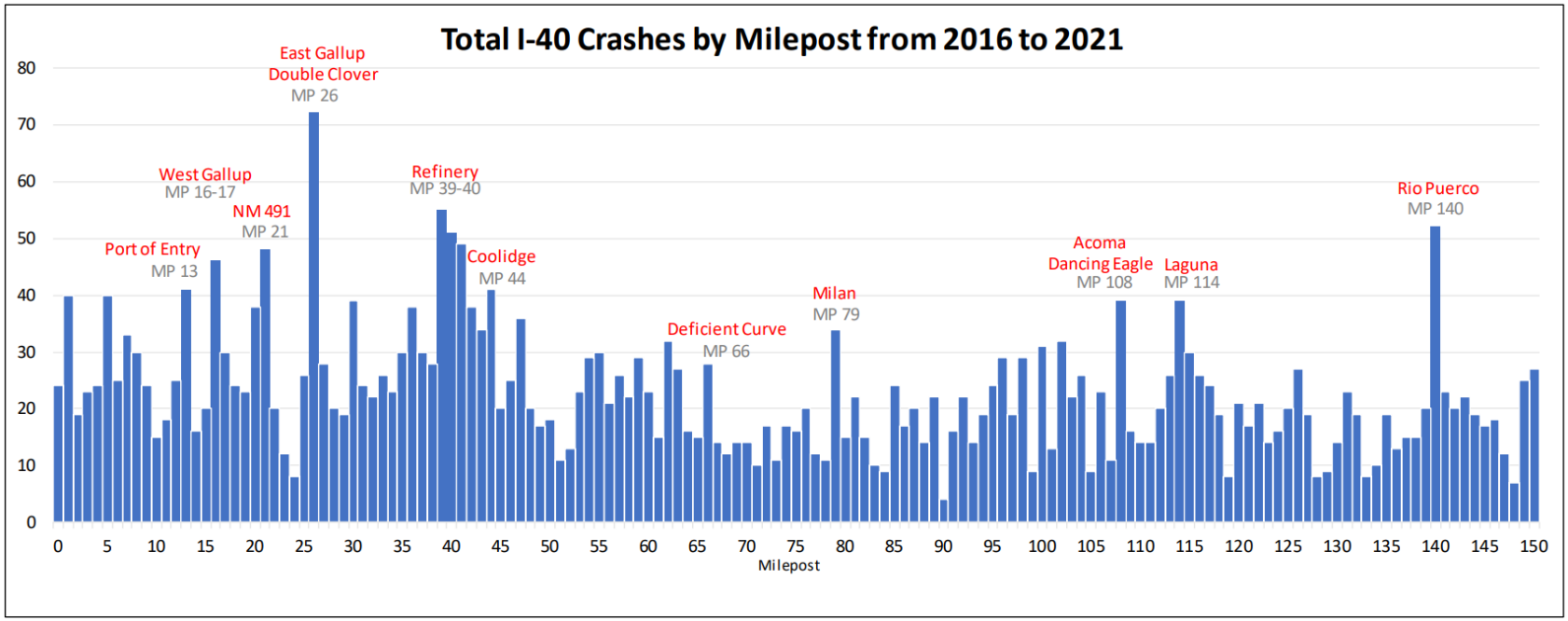
Interchanges, the on- and off-ramps connecting the Interstate to the adjacent roads and communities, are key congestion points and increase the potential for crashes. Figure 74 is a graph of all crashes by milepost that occurred on I-40 between 2016 and 2021. The greatest number of crashes along the first 150 miles of I-40 in New Mexico, between Arizona and Albuquerque from 2016 to 2021 occurred at the East Gallup Double Clover (MP 26), with 71 crashes during that period. The next highest number of crashes were at the Refinery exit (MP 39-40), with 53 and 51 crashes respectively. Extending off-ramps from 300 feet to 1,000 feet has been shown to decrease crashes by up to 5% , while extending on-ramps in the same way has decreased crashes by up to 29%.

Weather is a factor in 21% of crashes on the corridor, most of which can be attributed to winter weather, figures that are consistent with national trends.

DRAINAGE

Drainage from adjacent land can also impact I-40, with flooding closing I-40 at Fort Wingate, MP 33, and other river crossings. With regional drainage coming through the South Rio Puerco, the river can overtop I-40 and close the interstate and NM-118, the frontage road. NMDOT is designing and developing a few bridge and roadway improvements along this corridor to address the issue, work which may include raising the roadways in addition to expanding the capacity to move water under the roads by expanding bridges.

FIGURE 74: TOTAL I-40 CRASHES BY MILEPOST (2016-2021)



Most common crash types: Fixed object (20%) Side-swipes (17%) Overturns (14%) Rear-ends (13%) = 64%

Proposed Improvements

INTERSTATE ROADWAY DESIGN

To consider the scope and scale of improvements, NMDOT contracted a study of projected future traffic volumes along I-40 out to 2050. For the majority of the corridor, these future volumes did not warrant increasing the corridor to three lanes, with the exception of the section through Gallup, where 2050 traffic congestion would be significant enough to warrant a third travel lane. Note: Roadway widening does not itself relieve traffic congestion, studies have illustrated the concept of induced demand through roadway widening projects. The intent here is roadway widening coupled with a travel demand management plan as implemented in other sections of the corridor where the inclusion of three travel lanes can be found.

Otherwise, the general design of I-40 is suggested to include complete 12-foot shoulders on either side of the two travel lanes, to provide safe off-road egress for distressed vehicles, and to serve as temporary travel lanes when another travel lane would have to be closed for construction or due to a crash. Also identified in the NMDOT study of I-40, a total of118 curves are identified as needing correction due to roadway departure issues.

INTERSTATE RAMPS

More systemically, the on- and off-ramps need extending to ensure safe ingress and egress from the Interstate. Based on NMDOT information, the following ramps are proposed to be improved within the study area:

Table 15: I-40 Ramp Condition Assessment

Exit	Description	Ramp Improvements Needed
3	Eastbound Rest Area	2 of 2
8	Defiance/Manuelito	4 of 4
12	Westbound Pullout	2 of 2
16	West Gallup	1 of 4
20	Downtown Gallup	5 of 5
22	Gallup	4 of 4
26	East Gallup	4 of 4
33	McGaffey	4 of 4
36	Iyanbito	4 of 4
53	Thoreau	2 of 4

Extending interstate on- and off-ramps can offer several benefits that improve safety, traffic flow, and overall efficiency of the transportation network. The following (non-exhaustive) list outlines key advantages to their implementation:

1. **Enhanced Safety:** Longer ramps provide more space for vehicles to accelerate to highway speeds when entering or decelerate when exiting, reducing the likelihood of accidents caused by abrupt speed changes.
2. **Reduced Congestion:** Extended ramps help to prevent traffic bottlenecks at on- and off-ramp junctions by allowing a smoother merge or exit process, which can reduce congestion on both the ramps and the main highway.
3. **Improved Traffic Flow:** With more space to merge and diverge, vehicles can do so more efficiently, improving the overall traffic flow on the interstate and reducing delays.
4. **Increased Capacity:** Longer ramps can accommodate more vehicles, which is especially beneficial during peak traffic times or in areas with high traffic volumes.
5. **Better Accommodations for Heavy Vehicles:** Longer ramps are particularly beneficial for trucks and other heavy vehicles, which require more space to accelerate and decelerate safely.
6. **Enhanced Emergency Response:** Extended ramps provide more space for emergency vehicles to maneuver, improving response times and access to incidents on the highway.
7. **Smoother Transitions:** Longer ramps can help in creating smoother transitions between different speed zones, improving the driving experience for motorists.
8. **Future-Proofing:** As traffic volumes increase over time, having longer ramps can help accommodate future growth without the need for immediate further expansion or modifications.
9. **Reduced Fuel Consumption and Emissions:** Improved traffic flow and reduced congestion can lead to lower fuel consumption and emissions, contributing to environmental benefits.
10. **Improved Wayfinding:** Longer ramps can offer better opportunities for signage, helping drivers navigate more effectively and reducing sudden lane changes or last-minute maneuvers.

INTELLIGENT TRANSPORTATION SYSTEM IMPROVEMENTS

Traffic can also be managed with Intelligent Transportation Systems (ITS), which on this corridor could include improvements such as upgrading and adding data collection stations, cameras, and messaging signs. These features can help NMDOT better understand, respond to, and inform the traveling public about traffic conditions.

Longer term, NMDOT is proposing the development of a Traffic Management Center (TMC), similar to the facility in Albuquerque that monitors and manages ITS along the Interstates through the Albuquerque region. Specifically, a TMC offers numerous benefits that improve traffic flow, safety, and overall efficiency of the transportation network. Key benefits of a TMC include:

- Real-Time Traffic Monitoring: TMCs monitor traffic conditions in real-time using cameras, sensors, and other data sources. This allows for immediate detection of congestion, accidents, and other incidents.
- Incident Management: Rapid identification and response to traffic incidents reduce their impact. TMCs can dispatch emergency services, reroute traffic, and clear obstructions quickly.
- Optimized Traffic Flow: By analyzing traffic patterns and using adaptive traffic signal systems, TMCs can optimize signal timings to improve traffic flow, reduce delays, and minimize congestion.
- Traveler Information: TMCs provide real-time information to drivers via electronic signs, mobile apps, and websites, helping them make informed decisions about their routes and avoid congested areas.
- Improved Safety: Enhanced monitoring and rapid response to incidents improve overall road safety, reducing the likelihood and severity of accidents.
- Efficient Use of Infrastructure: TMCs help maximize the use of existing road infrastructure by managing traffic more effectively, potentially delaying the need for costly expansions.
- Environmental Benefits: By reducing congestion and optimizing traffic flow, TMCs contribute to lower fuel consumption and reduced emissions, promoting a cleaner environment.
- Data Collection and Analysis: TMCs gather extensive data on traffic patterns, which can be analyzed to improve long-term transportation planning and policy decisions.
- Support for Autonomous Vehicles: TMCs can facilitate the integration of autonomous vehicles into the transportation network by providing necessary infrastructure and real-time data support.
- Coordination of Special Events: During special events or emergencies, TMCs can coordinate traffic management efforts to ensure smooth traffic flow and public safety.

TRADEPORT AND CLEAN CORRIDOR DEVELOPMENTS

In early 2024, Bernalillo County was awarded funds to plan, study, and begin design of an I-40 Tradeport Corridor to run from the California ports in Los Angeles, through Kingman and Winslow, Arizona, and connecting to Albuquerque, New Mexico. This development is intended to simplify the movement of goods along this corridor and develop a chain of hydrogen fueling and electric charging stations to support this commercial freight corridor.

FUTURE CONSIDERATIONS

Most improvements along the I-40 corridor are to address safety concerns, and to improve traffic operations and reliability, which impact fluidity on the Interstate. With growing traffic volumes, particularly long-haul freight, improved safety and reliability will benefit those traveling in and through McKinley County for personal travel and business.

Improved truck parking capacity and management with the future truck parking availability system will also support and enhance the driving experience for long-haul truck drivers.

Highway Freight

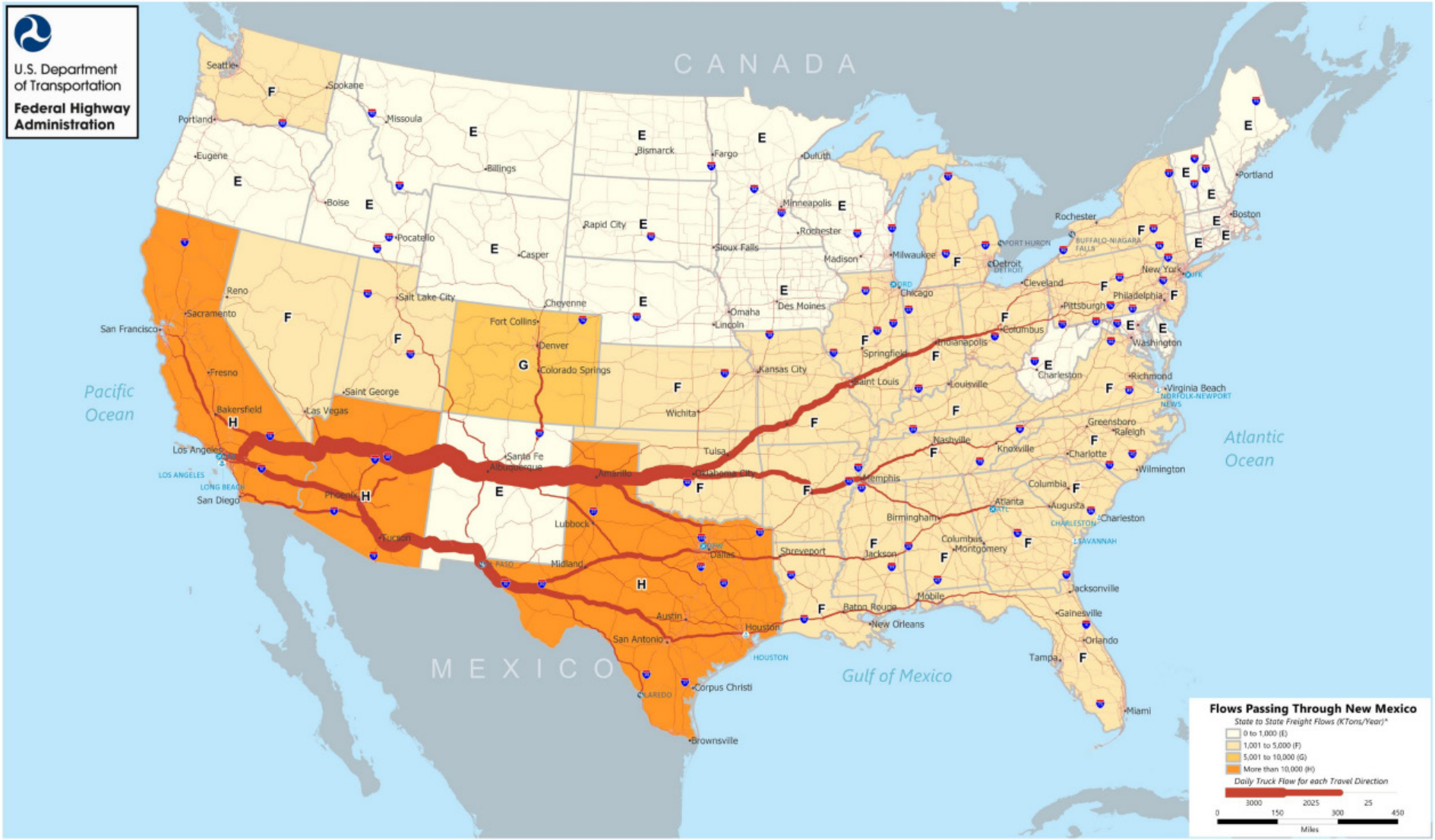
The I-40 freight network from costal California through New Mexico, and other areas of the United States, is a pivotal part of the National Highway Freight Network (NHFN) and is classified as a Primary Highway Freight System (PHFS) corridor. McKinley County, NM serves as a common passageway for freight drivers along I-40 as well as US 491 and NM 371—two major trucking routes that run north and south. As freight service along the roadway continues to grow, the county's attention to maintaining and servicing their freight routes becomes influential to the national economy (see Figure 75). I-40, surrounding roadways, and other freight routes should be designed to accommodate the high levels of truck traffic while also servicing the common motorist.

The purpose of the 2045 New Mexico Freight Plan is to direct the process of identifying and improving the current freight network. This document contains important information regarding the existing conditions and expectations of the freight network. A group of contributors known as the Freight Advisor Committee (FAC) took the time to consider past historical trends and look forward toward emerging trends as they prepared the freight plan. They expressed concerns about ample truck parking, improved roadway conditions for truck drivers, and providing off-access routes in case of roadway closures (p. 6). This section, along with other relevant sections, will discuss the existing highway freight network, freight needs, and other related elements of concern in McKinley County.



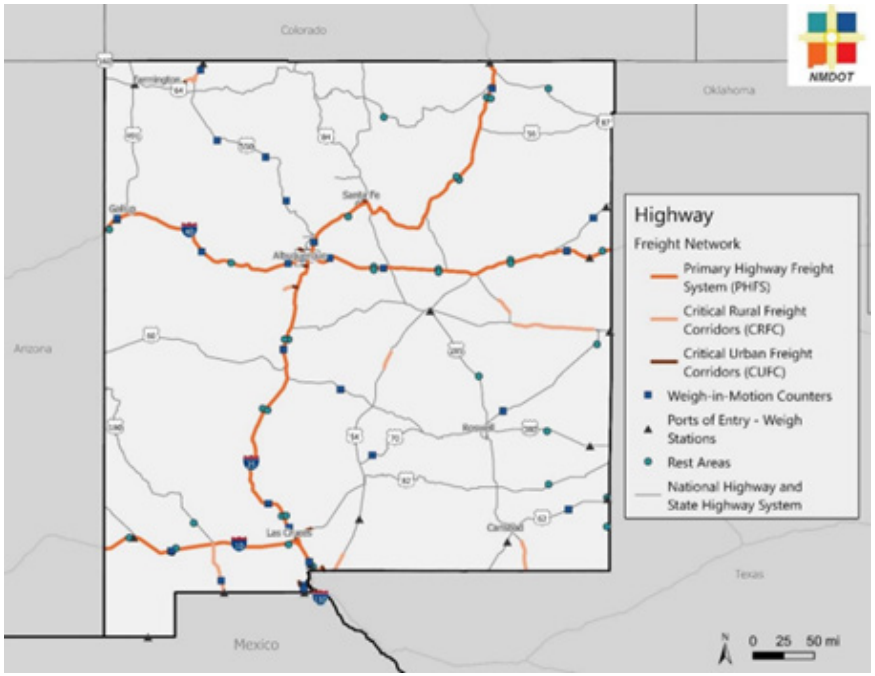
FIGURE 75: 2017 THROUGH TRUCK MAP

Estimated FAF Flow for Trucks Passing Through New Mexico on National Highway System 2017



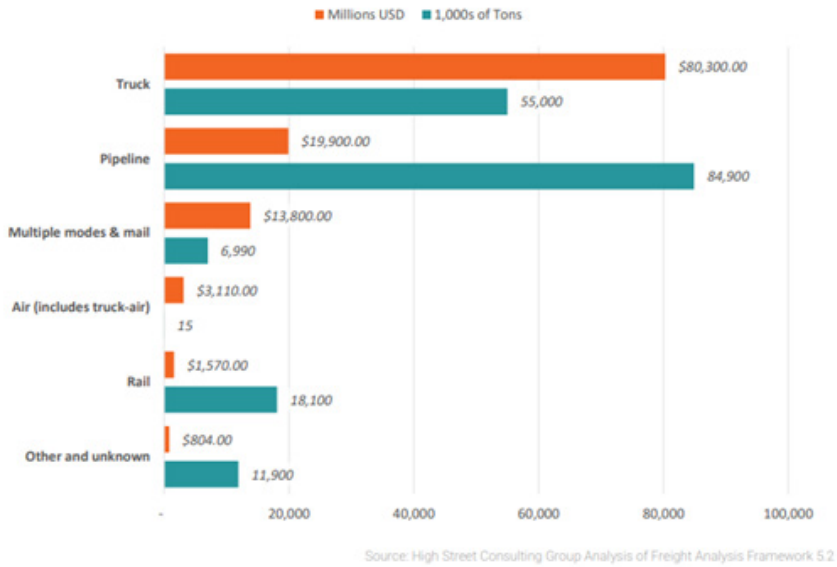
Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty-five FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.1. Flows include 42 different commodities represented in FAF.
*State to State flows represent annual KTons of freight transported by trucks that pass through New Mexico including imports and exports that use New Mexico as the gateway port.

FIGURE 76: NATIONAL HIGHWAY FREIGHT NETWORK: NM 2045 FREIGHT PLAN



Trucks and Pipelines are the primary commodity movement method for freight either leaving or arriving in New Mexico. In 2017, 55 million tons of goods (valued at $80.3 million) were transported via truck. Below are resources that can be used in the Transportation Master Plan as it pertains to this topic.

Figure 4. Domestic trade by mode with Origin or Destination in New Mexico tonnage (1,000s of tons) and value (millions of USD), 2017



Source: High Street Consulting Group Analysis of Freight Analysis Framework 5.2



FIGURE 77: TRUCK PARKING LOCATIONS: NM 2045 FREIGHT PLAN

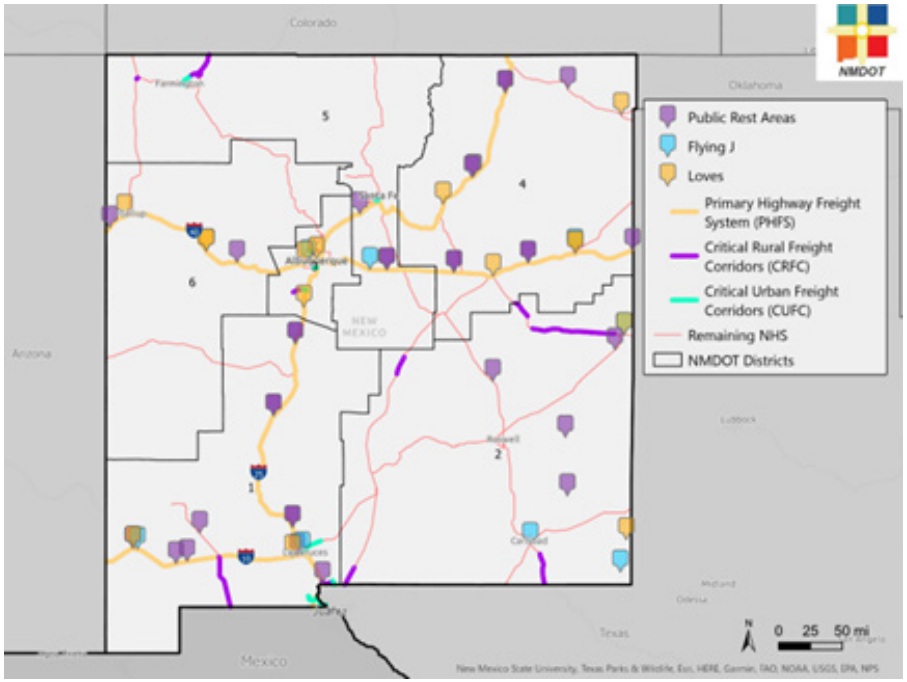
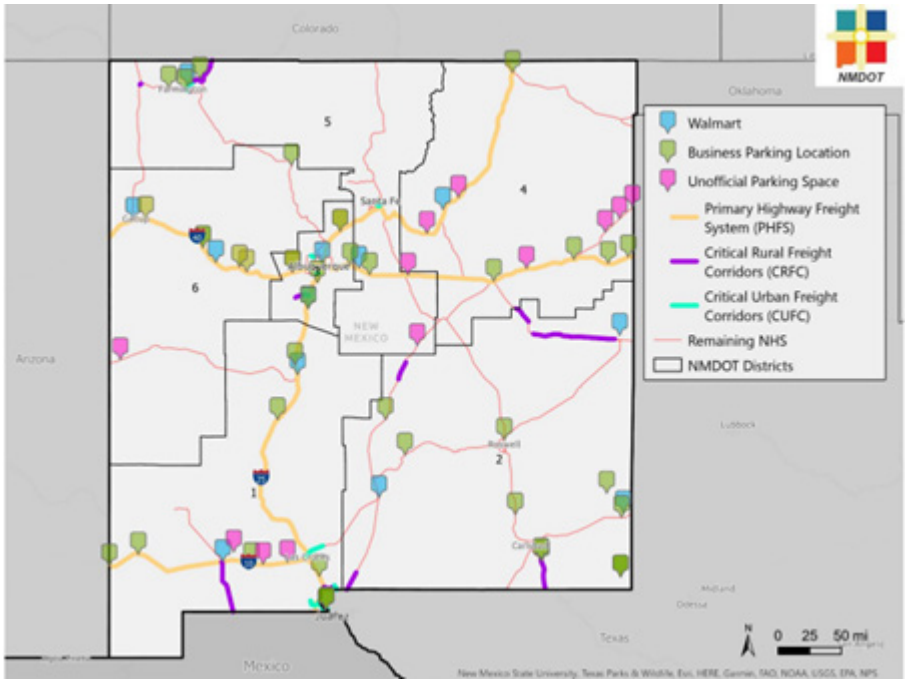


FIGURE 78: OTHER TRUCK PARKING LOCATIONS: NM 2045 FREIGHT PLAN



Truck Parking

Freight drivers are required to take periodic brakes to recuperate and prevent drowsy driving. The location and amount of truck stops, including available alternatives, is an important aspect of freight transportation. Figures 77 and 78 display the location of truck stops and alternative stopping locations, respectively. An inadequate supply of truck parking and rest areas have the potential of creating a hazard due to fatigued truck drivers who will park in informal or unauthorized areas to meet their rest requirement.

In McKinley County, shown as part of region 6 in figures 77 and 78, There are truck stops available off MP 16 in Gallup and off MP 39 on Maverick Road. Including the Speedy Truck Stop in Arizona bordering McKinley County, official truck stops are within a half hour of travel within the area. Considering the alternative truck stops and amount of truck traffic through the area, there appear to be enough truck stops to service the truck freight needs throughout McKinley County. Further studies could be conducted to determine the unauthorized areas where trucks most often park and if further needs exist along the interstate and other routes in the freight network.

With the national trade value projected to increase $21.7 billion in 2025 to $36.3 billion in 2050, and New Mexico exports projected to grow from $4.1 billion in 2025 to $7.4 billion in 2050 (Freight Analysis Framework 5.5.1 Dashboard), this will mean an increase of regional and national truck traffic, and more truck parking will be needed. NMDOT is conducting a truck parking study and has utilized GPS data to evaluate truck parking capacity along key corridors, including I-40. Part of a future TMC could include truck parking availability tracking, similar to the I-10 Truck Parking Availability System in southern New Mexico, which helps truck drivers know where and when they can stop to get a parking space.

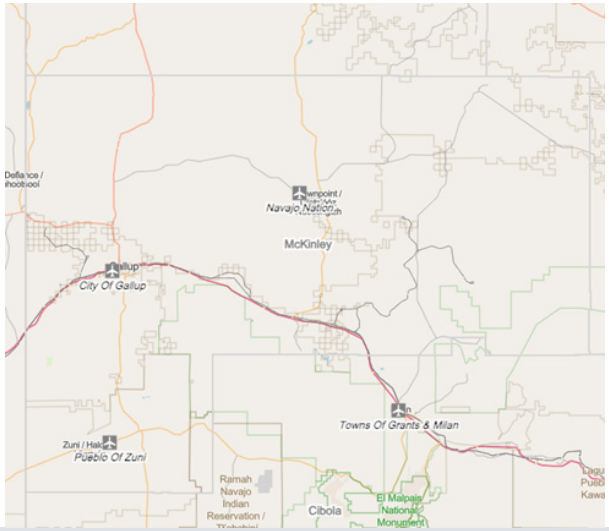
Comparing to Air Freight

Air freight is a common method used to transport goods for its quick delivery. An efficient air freight network can decrease cargo delivery times, and consequently, improve economic activity. New Mexico has one international airport and several regional airports, but air freight is not a commonly used service. Additionally, there are no truck/rail facility or terminals, which is indicative of statewide freight numbers referenced in the I-40 Corridor Study that 80-90% of freight traffic being pass through. Just as most of the truck and rail freight pass through, there is not a large presence of air freight in the County or the state. McKinley County has three civil-use airports—Gallup Municipal Airport (GUP), Black Rock Airport (ZUN), and Crownpoint Airport (0E8)—indicating that there is no air freight in the county. Opportunities could be explored to determine if air freight is viable in the county, particularly focusing on the Gallup Municipal Airport.

FIGURE 79: NEW MEXICO AIRPORTS - NMDOT



FIGURE 80: NEW MEXICO AIRPORTS - NMDOT



ROADWAY NETWORK

A study of I-40 was recently conducted detailing existing conditions and proposed improvements from Arizona to Albuquerque. This study included several recommendations within the context of McKinley County. In conjunction with this study, and as part of the McKinley County Transportation Master Plan, Wilson and Company conducted an interchange analysis as part of the subregion plan for Gallup & Milan. This report includes an analysis of interchanges from milepost 33 to 47 (see attached PowerPoint) and recommendations for the current and potential roadway networks, and their elements, within the county with specific attention toward the subregional area.

Improved Roadway Conditions

Road surface conditions affect the safety, travel time, and driver comfort along the roadway. The FAC reported that poor surface conditions "lead to vehicle control issues" and "tire shreds from truck tire blowouts" (page 78). The Fixing America's Surface Transportation (FAST) Act of 2015 contains a set of requirements that help identify needed areas along the national transportation system. Additionally, the Transportation Asset Management Plan (TAMP) maps a framework to assess roadway conditions and develop a plan for corridor preservation. Adherence to these documents in the context of the New Mexico roadways will help realize necessary improvements along I-40 and other areas in McKinley County.

Off-Access Routes

The frequent crashes and recurring maintenance along I-40 often require lane closures, temporary road closures, and significant traffic delays. Historic Route 66 and NM-118 provide alternative routes through most of McKinley County; however, off-access service needs still exist. From milepost 36 (Iyanbito Interchange) to milepost 47 (Continental Divide Interchange), also known as the sub-regional area, there are no east-west, off-access routes. Road closures or significant delays in the sub-region area have detours that are more than double the expected travel time when under normal roadway conditions. The I-40 New Mexico corridor study supports the idea of a viable detour road to improve capacity, congestion, and safety. Providing off-access routes along I-40, such as a frontage road, would decrease delays and increase the safety and operational efficiency on the interstate.



RAIL (BNSF SOUTHERN TRANSCON CORRIDOR – GALLUP SUBDIVISION)

The rail network is an important part of the nation's economic productivity—servicing a third of US exports. Looking at the 2040 horizon, freight continues to be a pivotal part of the nation's economy with a 30% expected increase in freight service by weight (Overview of America's Freight Railroads, AAR). Included in the New Mexico 2045 Freight Plan Update are goals to support economic growth and provide consistent, adequate railroad safety. The list of goals and objectives are shown in Table 16 and should be used to identify future projects and areas of improvement along the rail corridor. This section includes an analysis of the rail network within McKinley County.

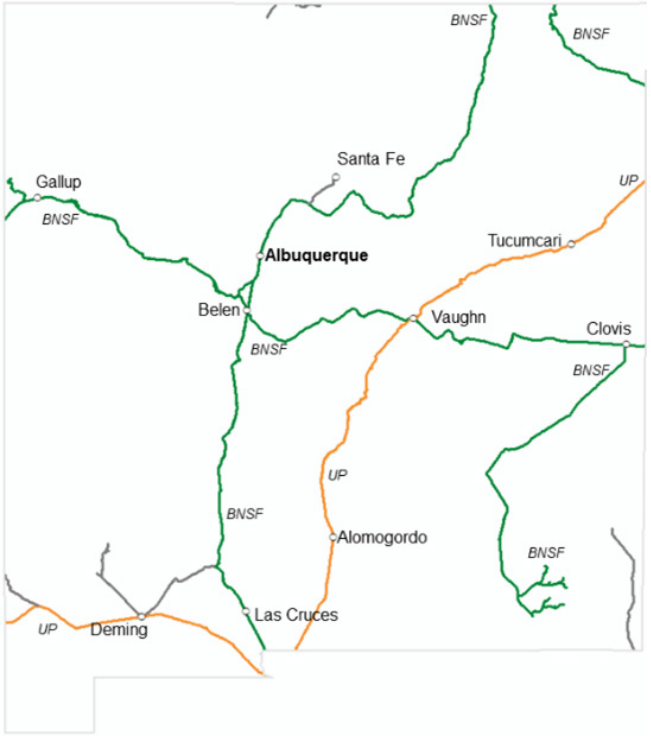
Table 16: New Mexico 2040 Freight Plan Update - Goals and Objectives (page 26)

Goal	Objective
Support Economic Growth and Development	Increase capacity of long-distance freight corridors
	Develop and promote local freight connections
	Link rail investments to strategies that support economic development
Improve railroad safety and security	Improve highway-rail grade crossing safety
	Implement Federally mandated safety and security systems
	Develop and implement other safety-related measures included in the Rail Safety Improvement Act of 2008 (RSIA)
Maintain railroad assets in a state of good repair	Improve the conditions of the State's Class III rail lines

Rail Ownership, Location, and Train Quantities

More than 165 trains travel through New Mexico each day making it an important portion of the national rail network. Rail access from southern California ports pass through McKinley County and provide access to several locations in the Southern United States and Mexico (see Figure 81). The main rail carrier in this area is the Burlington Northern Santa Fe (BNSF) line—a Class I railroad with up to 90 trains a day running both directions on the Southern Transcon Corridor.

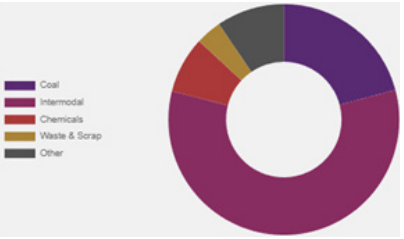
FIGURE 81: NEW MEXICO RAIL LINES (AAR DATA CENTER)



The Transcon line (Gallup Subdivision) runs east-west along the Interstate 40 corridor and includes several lines that run north and south of the Transcon line including the Defiance Branch which runs northwest of the city of Gallup. Amtrak passenger service operates on the Transcon line with a stop in Gallup. Most of the freight that runs through McKinley County is intermodal, meaning the containers are switched between ships, trains, and trucks on their journey (See Figure 81).

FIGURE 82: FREIGHT COMMODITIES ORIGINATING FROM NEW MEXICO (AAR DATA CENTER

COMMODITIES	CARLOADS	PCT
Coal	25,300	20.9%
Intermodal	70,400	58.1%
Chemicals	9,600	7.9%
Waste & Scrap	4,400	3.6%
Other	11,500	9.5%
Total	121,200	100%



Gallup has a BNSF Certified Site, the Gallup Energy Logistics Park (GELP), which is an industrial development with a 365-acre parcel approximately five miles northwest of Gallup within proximity of I-40 and NW state highway 491. A certified site means that BNSF has scouted out potential sites for development by identifying optimal rail-served sites and conducts in-depth reviews of ten economic development criteria to determine if the site meets BNSF's readiness standard. This happens even before a potential customer asks this of BNSF. This ensures that a site is ready for rapid development.

This industrial park is anticipated to serve the light manufacturing, storage, transloading, and logistics industries of northwest New Mexico.

FIGURE 83: GALLUP ENERGY LOGISTICS PARK, LLC



Available Resources

This section lists some of the available resources to learn more about discussions found in this report.

I-40 NM Corridor Study (https://i40nmstudy.com/)

New Mexico 2045 Freight Plan Update (https://www.transportation.gov/sites/dot.gov/files/2023-12/New_Mexico_Freight_Plan_Update_March_2023.pdf)

BNSF Railway (https://www.bnsf.com/)

FHWA Freight Management and Operations (https://ops.fhwa.dot.gov/freight/freight_analysis/state_info/new_mexico/nm.htm)

Federal Railroad Administration (https://railroads.dot.gov/)

Association of American Railroads (https://www.aar.org/#!)

Bureau of Transportation Statistics (https://www.bts.gov/)

New Mexico Freight Network Map (https://nmdot.maps.arcgis.com/apps/webappviewer/index.html?id=74193c9c54b74628930529f0b0f32415)

New Mexico DOT Map Gallery (https://nmdot.maps.arcgis.com/home/index.html)

National Bridge Inventory (https://geodata.bts.gov/datasets/national-bridge-inventory/about)

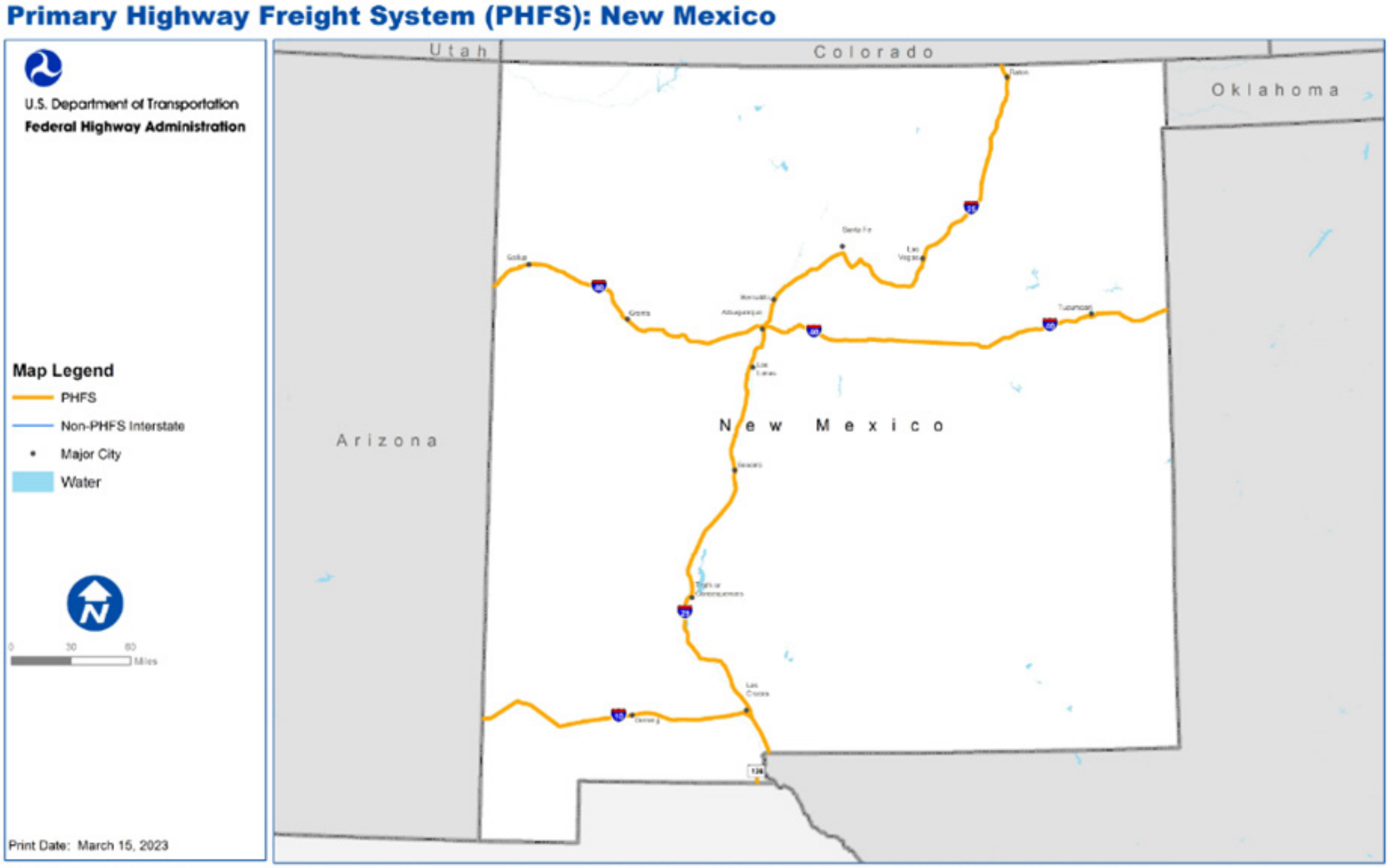
Gallup Energy Logistics Park, LLC (https://energylogisticspark.com/)

Aircraft Owners and Pilots Association (https://www.aopa.org/)

OTHER FIGURES

Highway Freight

FIGURE 84: NEW MEXICO HIGHWAY FREIGHT SYSTEM



Note: PHFS and the Non-PHFS Interstate mileage is based on the U.S. Department of Transportation, Federal Highway Administration, All Roads Network of Linear Referenced Data (ARNOLD) - 2019 geospatial database.
Non-PHFS Interstate mileage can fluctuate based on changes made to the Interstate System. The mileage for Non-PHFS Interstate is based on the Interstate Mileage reported in the National Highway System (NHS) as of October 17, 2019.
The mileage for CRFCs and CUFCs is based on the State reported data as of January 27, 2023

FIGURE 85: 2050 THROUGH TRUCK MAP



Note: Major flows include domestic and international freight moving by truck on highway segments with more than twenty-five FAF trucks per day and between places typically more than fifty miles apart.
Source: U.S. Department of Transportation, Federal Highway Administration, Office of Freight Management and Operations, Freight Analysis Framework (FAF), version 5.1. Flows include 42 different commodities represented in FAF.
*State to State flows represent annual tons of freight transported by trucks that pass through New Mexico including imports and exports that use New Mexico as the gateway port.

FIGURE 86: I-40 NM STUDY (PARAMETRIX FREIGHT GRAPHIC)

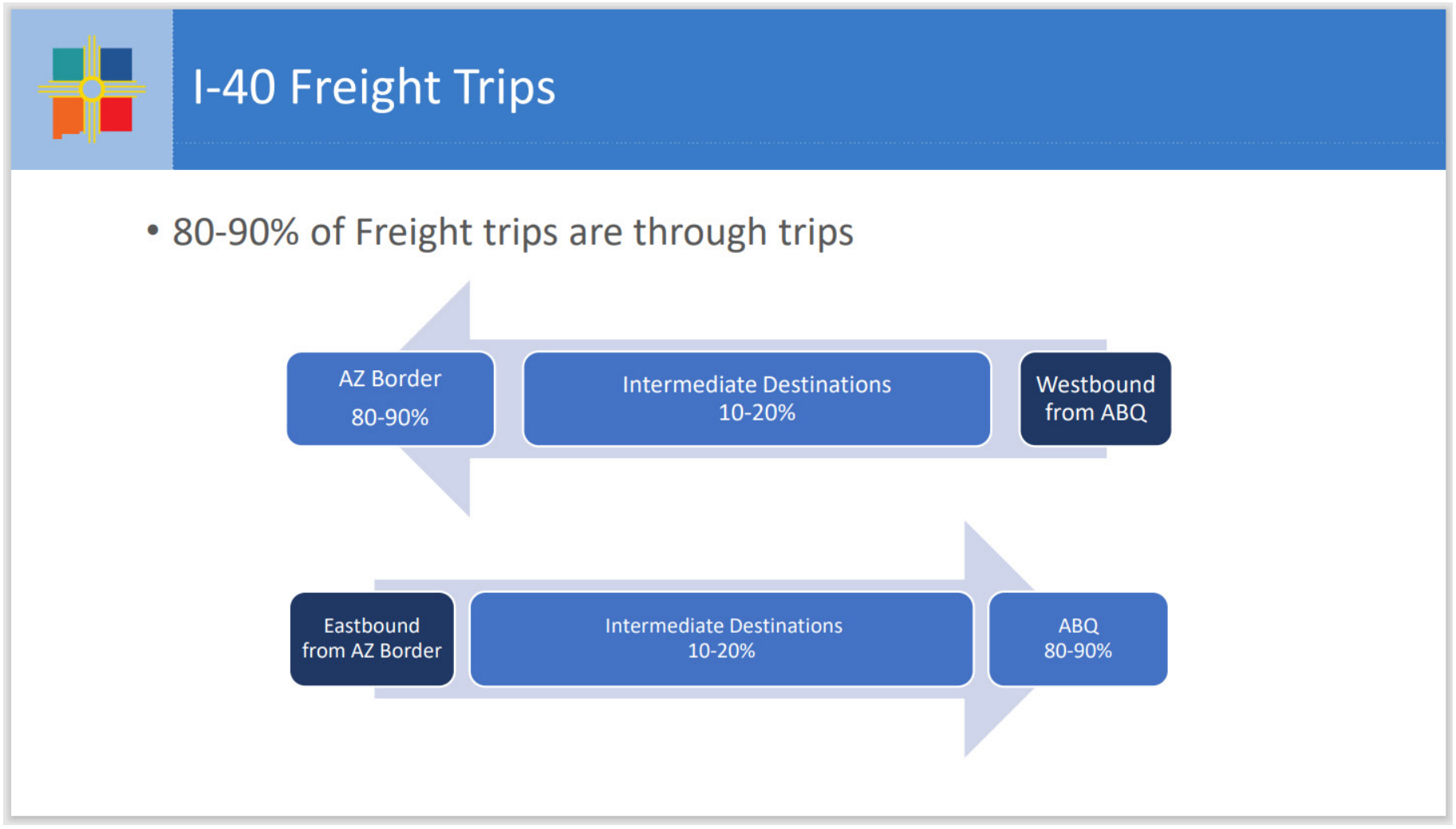


FIGURE 87: 2045 FREIGHT PLAN CONCERNS

Question	Response Themes
What freight-related problems have you experienced in the last 5 years?	Access Issues: rural areas, tribal communities, absence of rail spurs, first and last mile, stakeholder coordination Supply Chain Delays: manufacturing, shipping, wait times at international crossings Lack of Roadway and Trucking Accommodations: difficulty passing vehicles, lack of bypasses, roadway deterioration, lack of parking resulting in parking on shoulders, road closures and reroutes Other: funding, economic opportunity
What changes to freight transportation are you preparing for over the next 5 years?	Access Issues: rural communities, tribal lands, railroad spur construction, highway connectors, stakeholder engagement Regulatory Requirements: carbon emissions, air freight separation, safety improvements Technological Advancements: alternative fuels, electric vehicles, autonomous vehicles, funding for innovative technology Increased Demand and Competition: short line rail traffic, rail capacity (286K), overall capacity, e-commerce, labor shortages
What emerging freight transportation trends are on your radar for the long-term future?	Technological Advancements: autonomous vehicles, alternative fuels, fleet electrification, hydrogen cell conversions Shift in Demand: long haul trucking vs. rail transload, cross-border traffic Other: nearshoring, population changes, land use near railways

Rail

FIGURE 88: BNSF RAIL SUBDIVISIONS

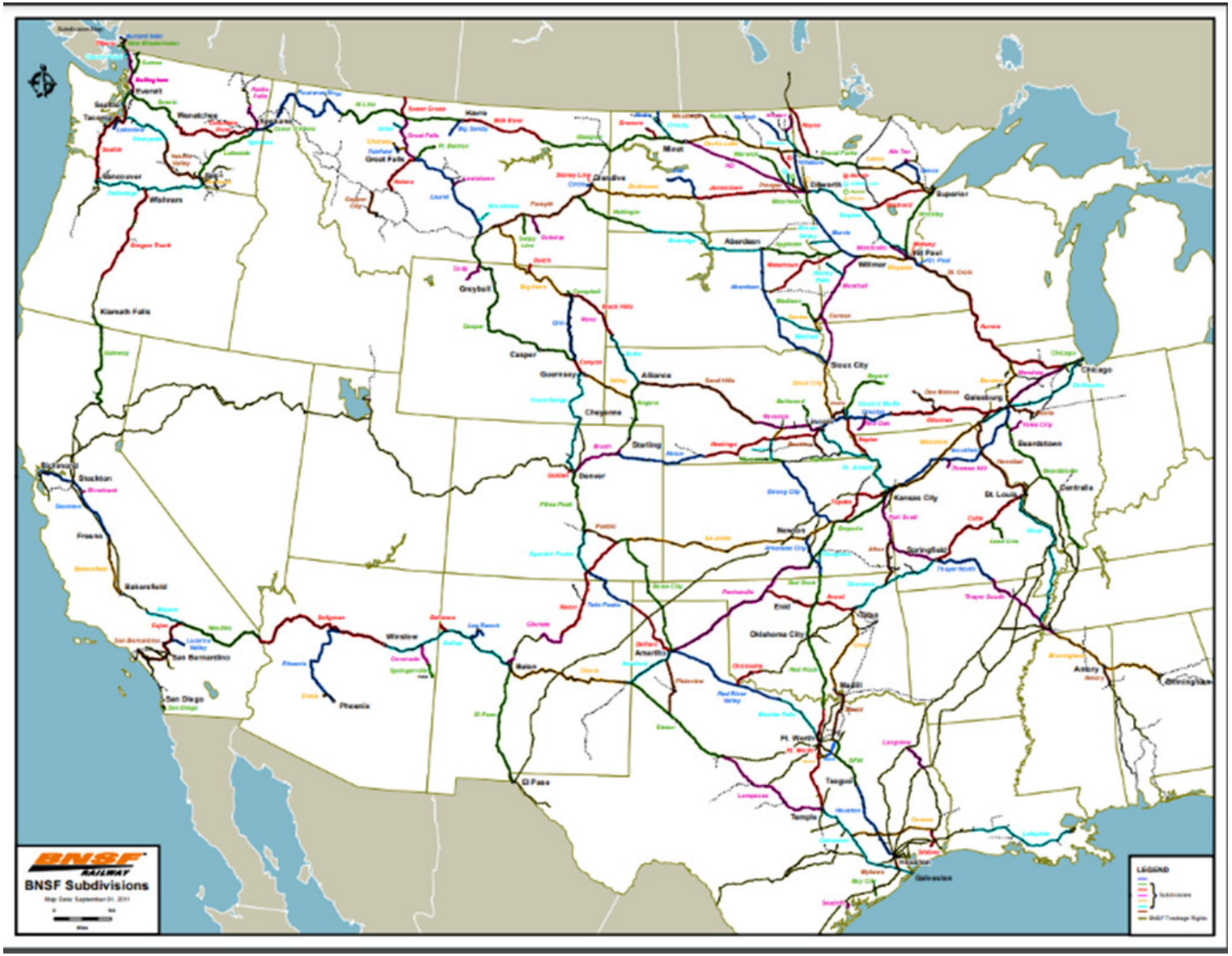


FIGURE 89: NEW MEXICO RAIL FREIGHT (AAR)



FIGURE 90: RAIL FREIGHT AND TRUCK FREIGHT NETWORKS: NM 2045 FREIGHT PLAN

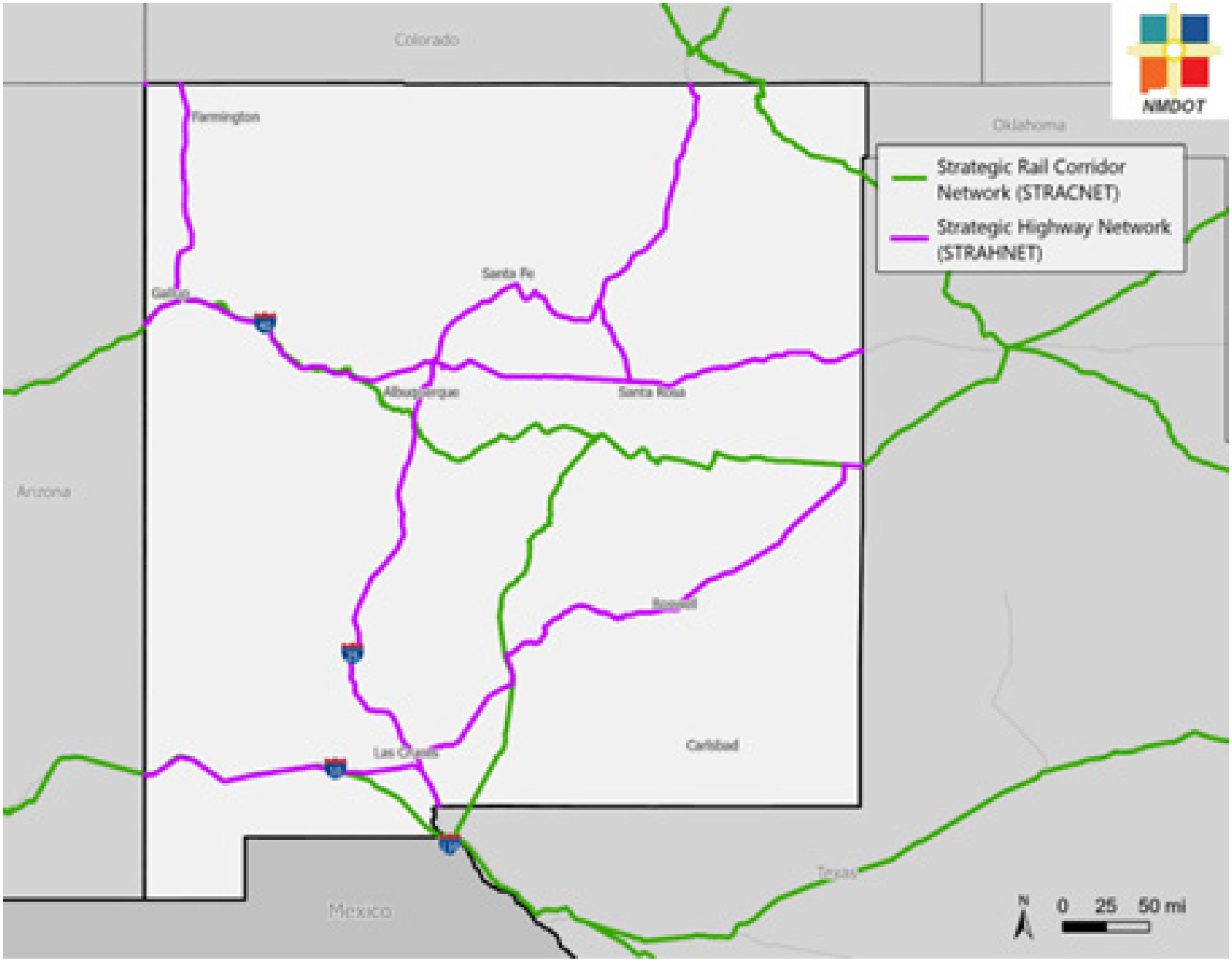
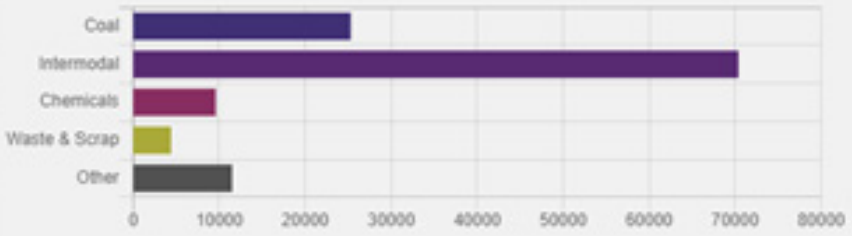


FIGURE 91: FREIGHT COMMODITIES, NEW MEXICO (AAR STATE DATA)

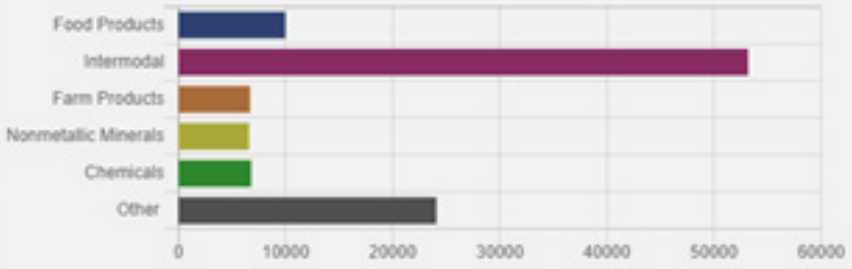
Originating In New Mexico

COMMODITIES	CARLOADS	PCT
Coal	25,300	20.9%
Intermodal	70,400	58.1%
Chemicals	9,600	7.9%
Waste & Scrap	4,400	3.6%
Other	11,500	9.5%
Total	121,200	100%



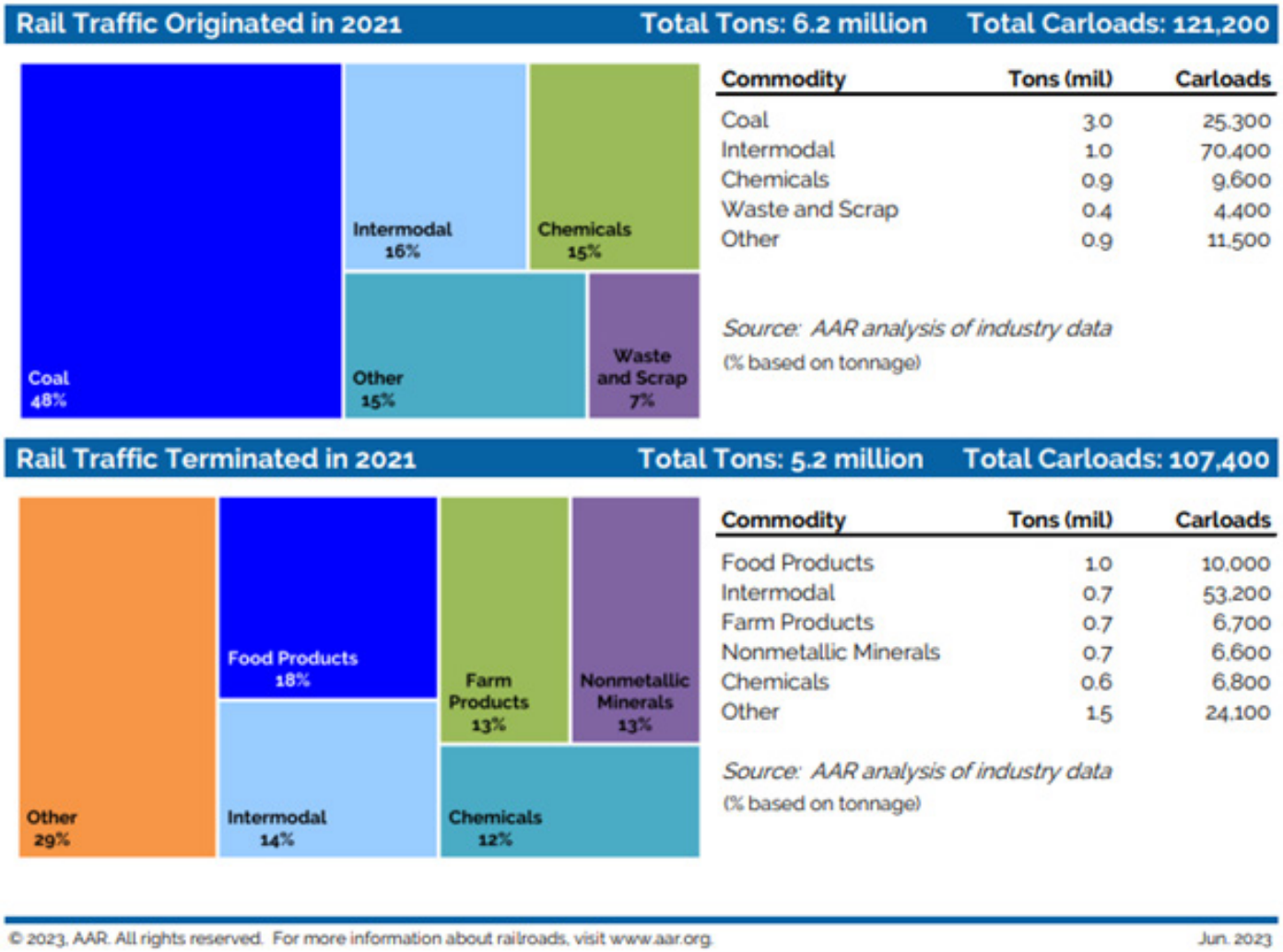
Terminating In New Mexico

COMMODITIES	CARLOADS	PCT
Food Products	10,000	9.3%
Intermodal	53,200	49.5%
Farm Products	6,700	6.2%
Nonmetallic Minerals	6,600	6.1%
Chemicals	6,800	6.3%
Other	24,100	22.4%
Total	107,400	100%



*data from 2021

FIGURE 92: RAIL FREIGHT COMMODITIES (AAR STATE DATA)



6. EMERGING AND ADVANCED TECHNOLOGY CONSIDERATIONS



INTRODUCTION

Incorporating emerging and advanced technologies into the Transportation Master Plan for McKinley County, New Mexico, is essential for creating a more efficient, safe, and sustainable transportation system. As mobility needs evolve, innovations such as intelligent transportation systems, electric and autonomous vehicles, and enhanced data analytics can improve traffic management, reduce environmental impacts, and expand mobility options for residents. Given the county's rural and tribal communities, leveraging technology can help bridge connectivity gaps, enhance transit accessibility, and optimize infrastructure investments. By embracing these advancements, McKinley County can future-proof its transportation network, support economic growth, and improve quality of life for all residents.

McKinley County, NWNMCOG, the City of Gallup, and a variety of additional regional partners have studied and pursued a range of advanced technology opportunities and initiatives. The information contained in this section is meant to pro¬vide a snapshot summary of evolving transportation-related considerations the County and the region should incorporate as transportation projects are continued to be identified and implemented. Each of the initiatives outlined below present a substantial opportunity for the County to leverage moving forward and has the potential to positively impact the com-munity well beyond solely the transportation system.

PRIOR PLANS AND STUDIES

Freight-Related Economic Development Opportunity Study (HM 96, 2016)

The New Mexico state legislature recognized that changes would impact freight travel from newly announced federal hours of service (HOS) requirements, enforced by electronic logging devices (ELDs) starting in December 2017. Communities could be impacted by, or plan for, an increased number of large trucks parking for at least 10 hours. To anticipate and adapt to this potential impact, NMDOT supported the development of a freight study to evaluate truck travel patterns from key ports and hubs, and a survey of truck drivers. This analysis revealed that areas of I-40 are within an 11-hour drive of significant freight generators such as Long Beach-Los Angeles, Dallas-Fort Worth, and San Antonio. Interchanges along I-40 in McKinley County are good candidates for truck parking facilities to serve these drivers. In addition to parking and diesel fuel, drivers reported in surveys that they prefer stops with amenities such as food, showers, opportunities for exercise, connections to cities, and WIFI capability. McKinley County could coordinate with regional and state partners to conduct a gap analysis along its segment of I-40 and identify locations for such facilities.

The Gallup Mobility Hub – February 2021

The mobility hub is intended to provide state-of-the-art facilities and infrastructure to support cutting edge high-technology research, development and production of autonomous vehicles and related transportation and communications technologies and services, including automated logistics, delivery services, and fulfilment center operations. If and when this Mobility Hub and Autonomous Corridor are completed, McKinley County must address some concerns. First, safety. How will the deployment of automated vehicles affect McKinley County residents? How will and automated vehicle respond if it is approaching a pedestrian? There are also concerns related to the storage and transport of hydrogen fuel, which is highly flammable. Automated Vehicles may have environmental concerns as well, related to their operation, manufacturing, and the amount of computational power it takes to run them. These vehicles also have IT needs that may be difficult to meet in rural and remote areas. There are also potential benefits, such as an increase in STEM jobs in the region as well as other jobs created to support the Mobility Hub.



photo: https://www.visitgallup.com/directory/gallup-municipal-airport/

As conceived, the Mobility "hub" will be an industrial AV research and testing park, to be located at the Gallup Municipal Airport. The "spokes" will include state-of-the-art logistics and transloading functions within a rail-served commercial industrial park, a trucking TransPortal, and AV testing facilities in and around the airport, at other locations near Gallup, and along a dedicated "autonomous corridor" on I-40 from Gallup to Albuquerque.

The plan also calls for the creation of an autonomous corridor on I-40 between Gallup and Albuquerque. This is a roadway with specific infrastructure and design to allow for autonomous vehicles to travel with ease and with decreased human intervention. This could include dedicated lanes, sensor arrays, special road markings, and other specialized systems.

Gallup Mobility Investment District Report and Delivery Plan – November 2021

The Mobility Investment District focused on creating a unique facility for automotive original equipment manufacturers and technology companies to support their testing and product development requirements, centered around the Gallup Municipal Airport and connecting to new facilities including a Testing and Development Complex in the City, a Truck Mobility Complex, and a larger national-scale truck testing corridor between the ports in Los Angeles and east to Albuquerque.

New Mexico HB 270

Passed in 2021, HB270 sets regulations for autonomous vehicle testing in New Mexico. This bill establishes the following regulations:

- The Department of Transportation must be notified at least 5 days prior that an Autonomous Vehicle will be tested on a public roadway.
- Autonomous Vehicles must follow Federal safety regulations.
- Local governments cannot prohibit Autonomous Vehicles from operating within their jurisdiction.
- Sets definitions of various terms related to Autonomous Vehicles.



Autonomous Vehicle Testing Track and Fueling Feasibility Study, Gallup, New Mexico (2023)

This feasibility study stems from the work of the region to implement the GALLUP Planning Project, an initiative funded by the US Economic Development Administration designed to bring the research and testing of autonomous vehicles to Gallup-McKinley County through the creation of the Gallup Mobility Investment District. This study explores the overall feasibility of developing an Autonomous Vehicle Test Track and Mobility Center and identifies potential alternative fueling and charging stations in the Gallup area. The study investigates possible site locations and evaluates them based upon a set of consistent factors.

As a collaborative effort between the City of Gallup and McKinley County, a variety of transportation-related factors should be considered moving forward to realize the implementation of the proposed AV testing track and associated alternative fueling infrastructure. Specifically, this plan highlights the use of a site within the Gallup Energy Logistics Park served by key corridors that vary in ownership and management – Carbon Coal Road, Us 491, and Mentmore.

ALTERNATIVE FUELING

The U.S. DOT has federal criteria for Alternative Fuel Corridor (AFC) designations for electric vehicle charging, hydrogen, liquefied natural gas (LNG), liquid petroleum gas (LPG or propane), and compressed natural gas (CNG) fuel corridors, to ensure a consistent driving experience across the country when looking for standard fueling signs. The national priority is to provide a safe and reliable fueling and charging experience along Interstate routes first. Each fuel type has different criteria for "ready" corridors that can be signed as alternative fuel corridors.

The map on page 187 (figure 93) shows the existing and planned EV chargers in McKinley County. Of these, at least 12 of the chargers on I-40 are equipped with DC Fast Charging capability - https://nmdot.maps.arcgis.com/apps/dashboards/ac19013bc5b44bc99d3a8f73e3c84019. A high level summary of the U.S. DOT AFC designation criteria is provided below.

EV Charging

- Publicly available
- Charging stations at least every 50 miles along the corridor
  - No more than 1 mile from the nearest interchange exit or highway intersection
- Each station has a minimum of four Combined Charging System (CCS) that can each deliver a minimum of 150 kW per port, and simultaneously to each port (600 kW/station)

Hydrogen

- Publicly available
- Fueling stations at least every 150 miles along the corridor
  - No more than 5 miles from the nearest interchange exit or highway intersection

Propane

- Publicly available
- Fueling stations at least every 150 miles along the corridor
  - No more than 5 miles from the nearest interchange exit or highway intersection
- Consistent with Bipartisan Infrastructure Law (BIL), propane fueling infrastructure should be limited to infrastructure for medium- and heavy-duty vehicles

CNG

- Publicly available
- Fast fill, 3600 psi
- Fueling stations at least every 150 miles along the corridor
  - No more than 5 miles from the nearest interchange exit or highway intersection

LNG

- Publicly available
- Fueling stations at least every 200 miles along the corridor
  - No more than 5 miles from the nearest interchange exit or highway intersection

Corridors that do not meet these criteria can be listed as AFC "pending" and could receive additional support to develop the corridor to meet the respective "ready" criteria. It should be noted that corridor designation criteria have changed since the initial AFC call for nominations in 2016, and the criteria may change again in the future. Refer to the current or most recent FHWA request for nominations to confirm the current corridor criteria if federal designation is the intention. There may be other state or national considerations for other support or funding.

EV Charging Expansion

The number and prevalence of electric vehicles is increasing, both in the public and private sectors, and beyond personal vehicles to buses and other large, municipal vehicles. In 2023, New Mexico adopted Advanced Clean Cars & Trucks Standards, which will require, starting in calendar year 2026, 43% of all new passenger cars and light-duty trucks and 15% of all new commercial heavy-duty trucks shipped to New Mexico auto dealerships by national auto manufacturers must be zero emission vehicles.

Unlike other alternative fuels, EV chargers can utilize a small footprint, and can be located in many different locations and configurations. There are three primary considerations in choosing how to support EV charging throughout the County.

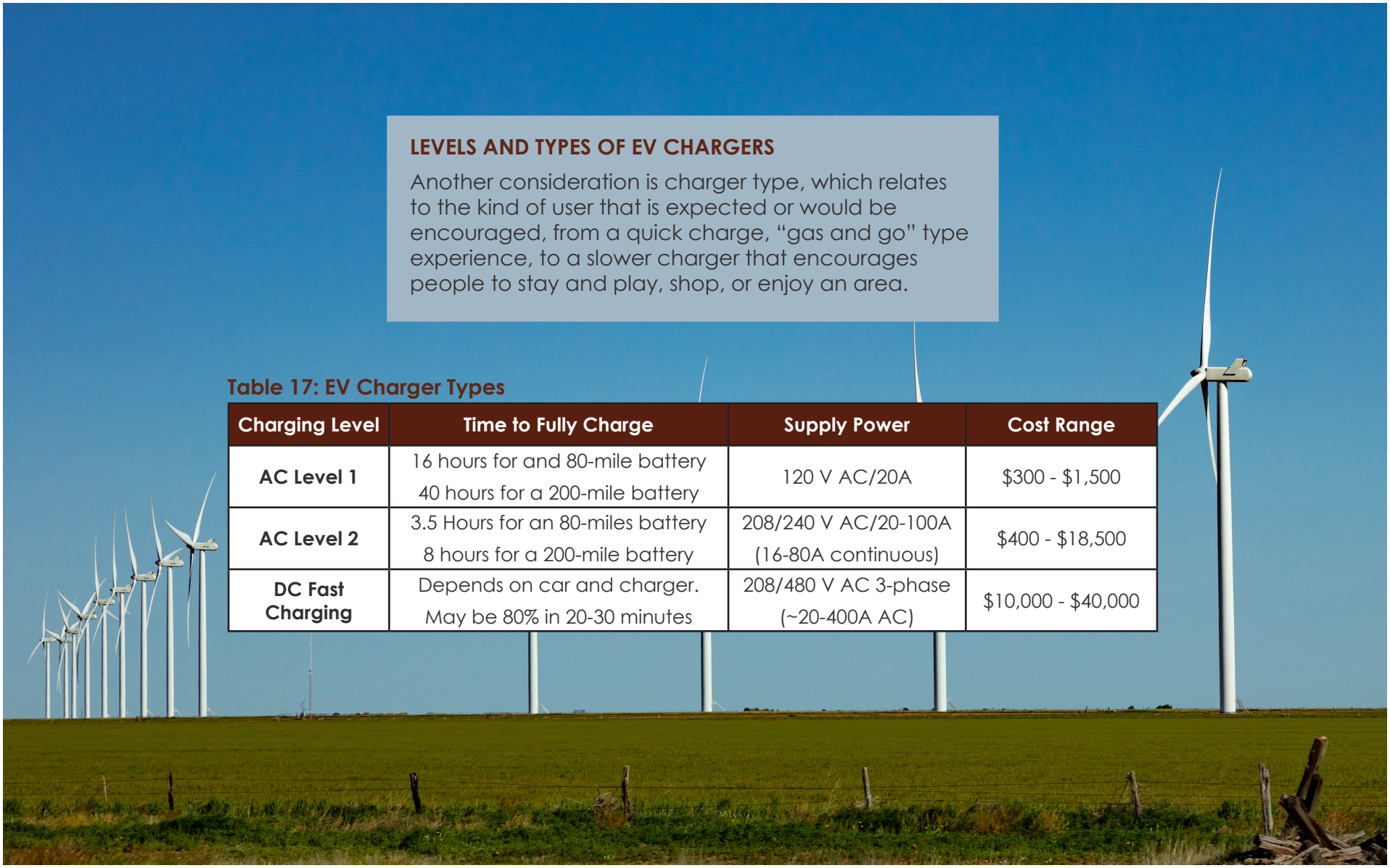


WHERE AND HOW TO SUPPORT EV CHARGING INFRASTRUCTURE

To support this growing economy, the County can proceed in different ways:

- Transition County fleet to EVs and create a distributed charging infrastructure
- Develop public properties with EV charging infrastructure for public use
    - These two options could be supported with County-owned infrastructure, or 3rd parties could own and manage the infrastructure on behalf of the County
- Encourage and partner with private companies to develop EV charging infrastructure
- Identify a broader corridor or regional planning structure to develop a network of EV chargers to support a municipal and/or public fleet, with other public and private partners

The County could pursue one or more of these options.



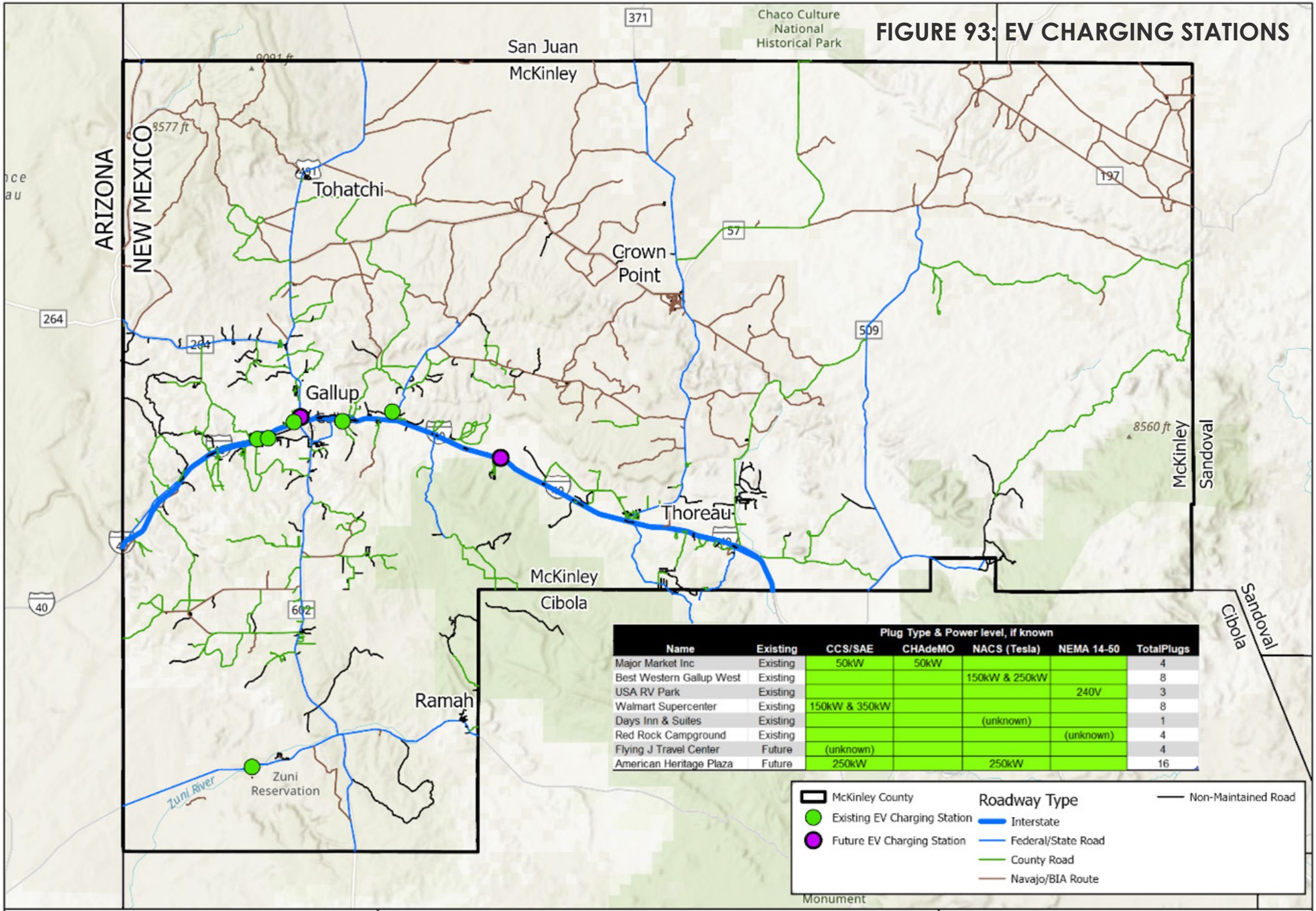
LEVELS AND TYPES OF EV CHARGERS

Another consideration is charger type, which relates to the kind of user that is expected or would be encouraged, from a quick charge, "gas and go" type experience, to a slower charger that encourages people to stay and play, shop, or enjoy an area.

Table 17: EV Charger Types

Charging Level	Time to Fully Charge	Supply Power	Cost Range
AC Level 1	16 hours for and 80-mile battery 40 hours for a 200-mile battery	120 V AC/20A	$300 - $1,500
AC Level 2	3.5 Hours for an 80-miles battery 8 hours for a 200-mile battery	208/240 V AC/20-100A (16-80A continuous)	$400 - $18,500
DC Fast Charging	Depends on car and charger. May be 80% in 20-30 minutes	208/480 V AC 3-phase (~20-400A AC)	$10,000 - $40,000

FIGURE 93: EV CHARGING STATIONS



Name	Existing	Plug Type & Power level, if known: CCS/SAE	CHAdeMO	NACS (Tesla)	NEMA 14-50	TotalPlugs
Major Market Inc	Existing	50kW	50kW			4
Best Western Gallup West	Existing			150kW & 250kW		8
USA RV Park	Existing				240V	3
Walmart Supercenter	Existing	150kW & 350kW				8
Days Inn & Suites	Existing			(unknown)		1
Red Rock Campground	Existing				(unknown)	4
Flying J Travel Center	Future	(unknown)				4
American Heritage Plaza	Future	250kW		250kW		16

McKinley County
Existing EV Charging Station
Future EV Charging Station

Roadway Type
Interstate
Federal/State Road
County Road
Navajo/BIA Route
Non-Maintained Road

0 14 Miles

EV Charging Stations

McKinley County Transportation Master Plan

WILSON & COMPANY

UTILITY CAPACITY

The third consideration is utility support and capacity. Electrical utility providers can supply information on the infrastructure and rate considerations that assist in this decision-making process.

SUMMARY OF EV CHARGING OPPORTUNITIES

As noted previously, a minimal number of existing EV charging stations are available in McKinley and largely located adjacent to the I-40 Corridor near and within the City of Gallup. This presents an opportunity to strategically expand this capacity depending on the goals identified by the County and its partners. There are a range of potential host locations throughout the County, ranging from restaurants and hotels to community centers and higher education facilities, as well as public, historic, and archaeological locations. Some of these destinations could support slower charging, especially where people are more likely to spend extended periods of time, reducing the cost to buy the equipment and construct site improvements.

EV Charger Funding

The County can institute public private partnership opportunities, or individually pursue funding opportunities, such as the National Electric Vehicle Infrastructure grant that is administered by NMDOT, and the Charging and Fueling Infrastructure grant.

Hydrogen Fueling

With a national interest in, and support for, the development of commercial-scale, low-cost clean hydrogen as part of the broader push towards zero or near-zero carbon emission fuels, McKinley County's location along I-40 creates an opportunity to capitalize on this effort. Based on the analysis completed for the Autonomous Vehicle Testing Track and Alternative Fueling Feasibility Study, exit 16 on I-40 was identified as a potential prioritized location for hydrogen fueling implementation. Beyond the opportunity to enter a public private partnership with supportive business entities, this interstate exit is also supported by three truck stops that could be improved to provide hydrogen fueling to maximize their existing footprints.



AUTONOMOUS VEHICLE AND MOBILITY TESTING CENTER

The Feasibility Study of Autonomous Vehicle Testing Track and Fueling, Gallup, New Mexico (2023) identified an area northwest of Gallup, adjacent to Carbon Coal Road and connecting with the Gallup Energy Logistics Park as a suitable location for an Autonomous Vehicle and Mobility Testing Center, noting that it is a rail-served 2,500- acre property located in McKinley County that is permitted for heavy industrial development and provides access to roads, rail, and utilities. BNSF has certified a 365-acre rail-served parcel located within the larger property.



FIGURE 94: STUDY AREA - GALLUP ENERGY LOGISTICS PARK

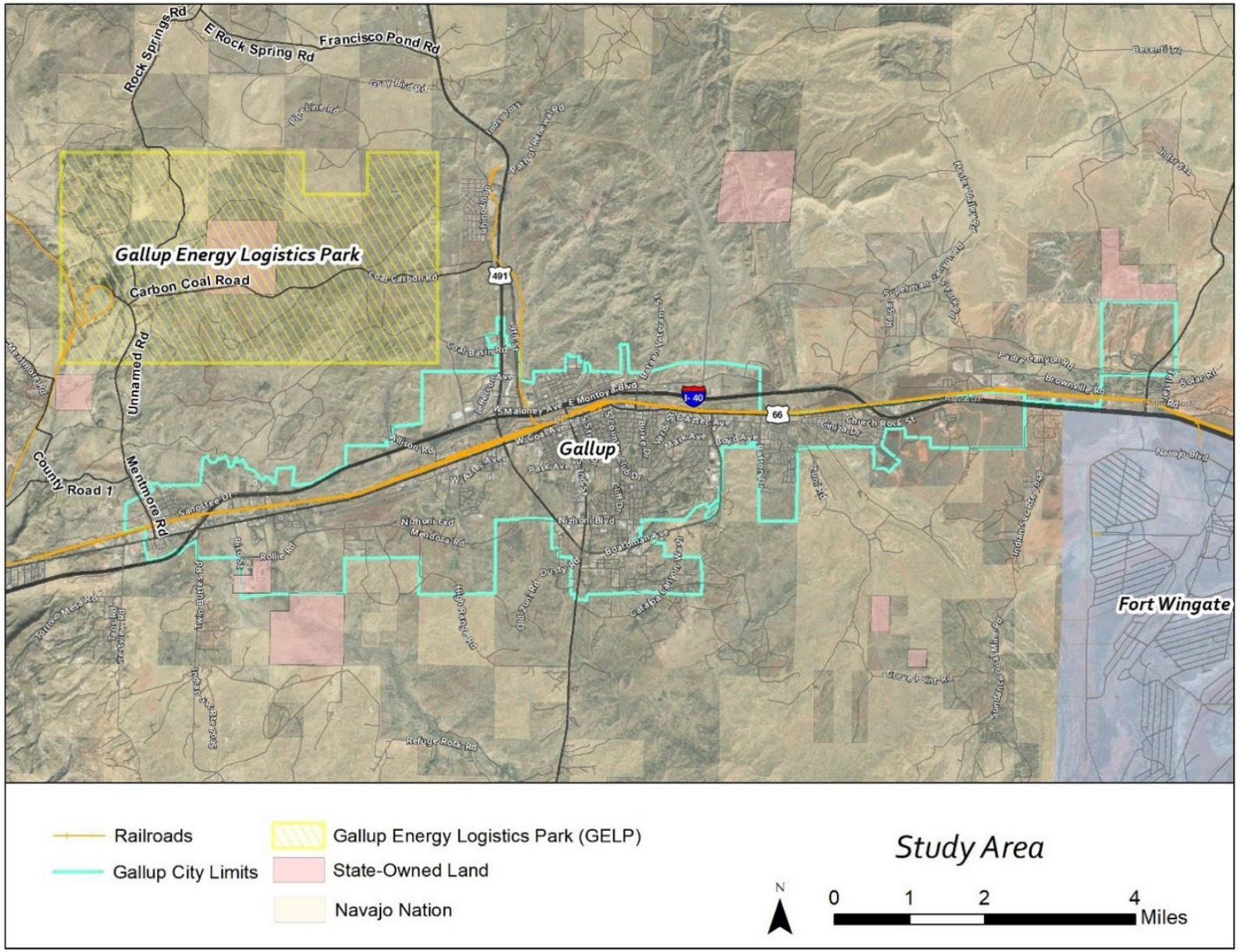
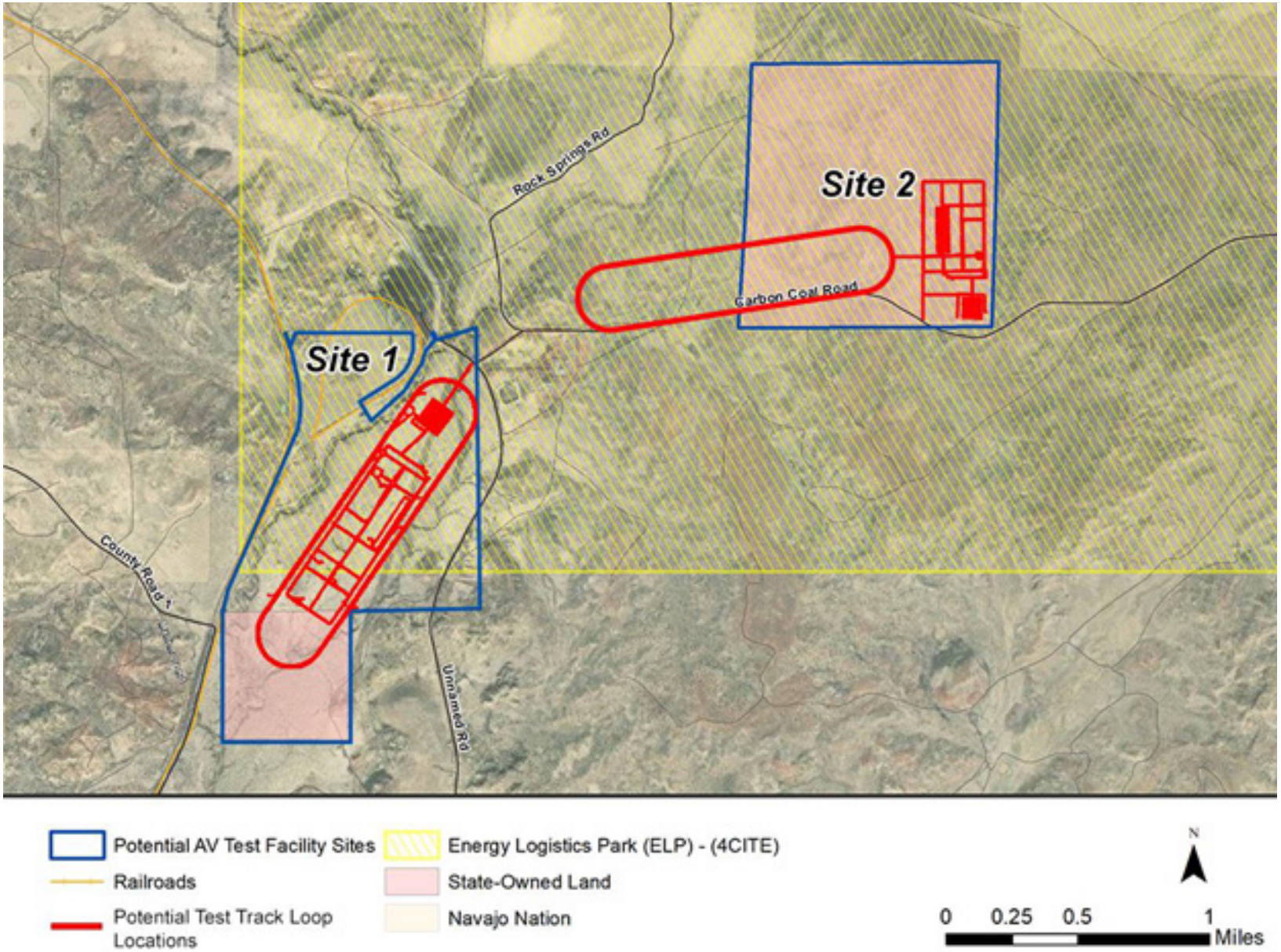


FIGURE 95: SITE CONCEPT DESIGNS FOR TEST TRACK LOOP AND FACILITY ALIGNMENT





SUPER TRUCK CENTER

In 2016, the New Mexico State Legislature supported House Memorial (HM) 96, Recognizing an Opportunity for Jobs Growth Presented by the New Federal Surface Transportation Law; Requesting the Economic Development Department and the Department of Transportation to study its potential and provide a report. The result was the Freight-Related Economic Development Opportunity Study, presented in November 2016.

One component of the study was to evaluate existing amenities, highlighting what could be leveraged, and identifying what could be improved, as seen in the following graphic for the Gallup area.

FIGURE 96: ECONOMIC DEVELOPMENT POTENTIAL RELATED TO TRUCK DRIVER AMENITIES, GALLUP AREA

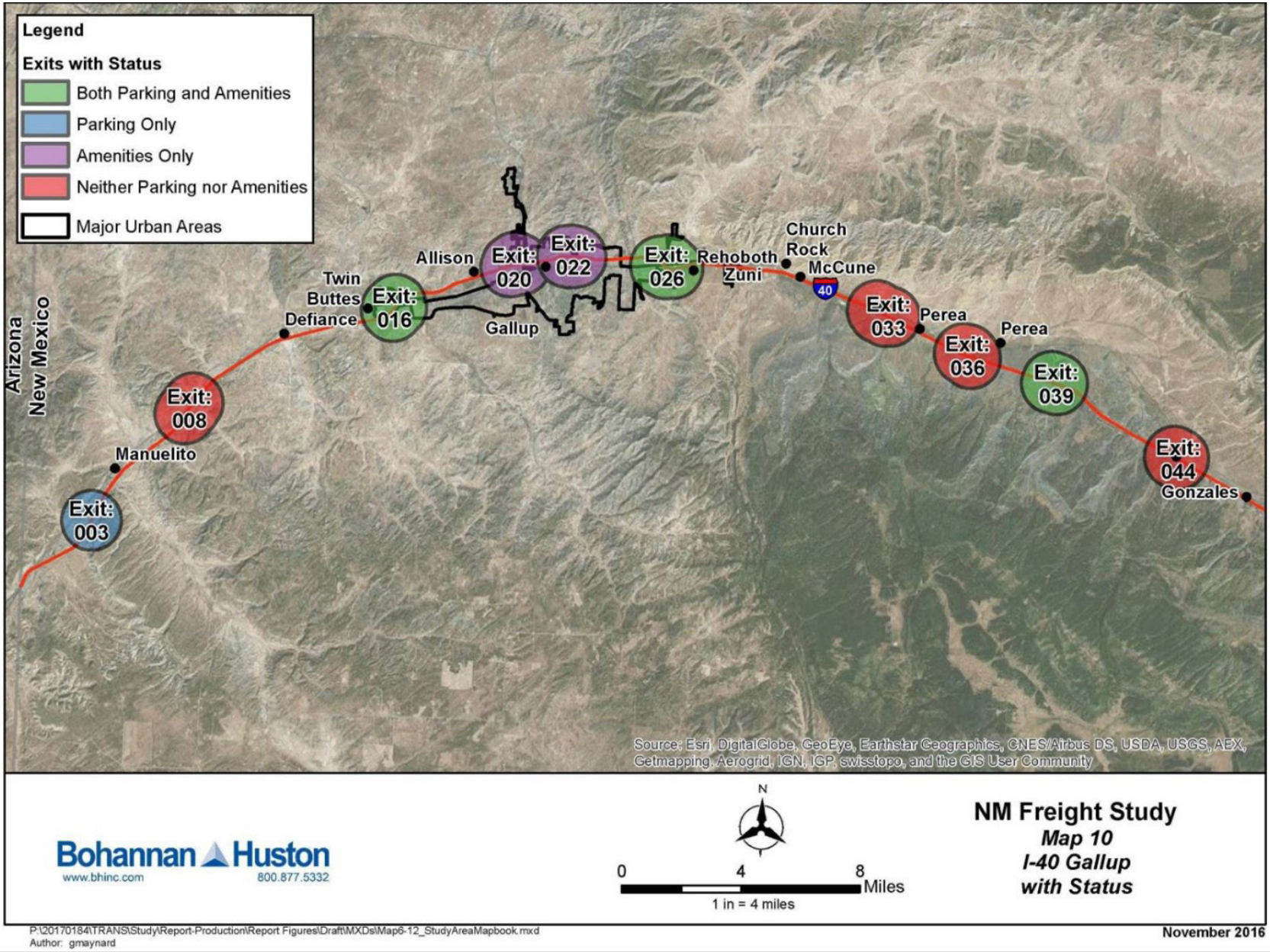


Table 18: Truck Driver-Related Amenities

Geography				Land Ownership						Parking		Amenities				
Route	Sector	Milepost	Distance to Metro	US BLM	US DOD	USFS	Tribal	Private	NM	Paved Truck Parking	Lit Parking	Diesel Fuel	Green Space	Physical Activity	Fast Food	Sit Down
I-40	Gallup	3	17	1%			93%	6%		•	•		•			
I-40	Gallup	8	12				57%	43%								
I-40	**Gallup**	**16**	**4**				**1%**	**69%**	**3%**	•	•	•	•	•	•	•
I-40	Gallup	20	0					100%				•	•	•	•	•
I-40	Gallup	22	0				0%	100%				•	•	•	•	•
I-40	**Gallup**	**26**	**4**	**6%**			**25%**	**69%**		•	•	•	•	•	•	•
I-40	Gallup	33	11		21%		79%									
I-40	Gallup	36	14			5%	95%									
I-40	**Gallup**	**39**	**17**			**9%**	**3%**	**70%**		•	•	•	•		•	•
I-40	Gallup	44	22			5%	3%	91%								

Table from HM 96 study page 37

The list of amenities identified incorporate feedback received from truck drivers responding to the project survey. These drivers identified the top four amenities they wanted to find at or around a truck center:

1. Available, convenient, and safe parking for long-term rest and to access food and other services
2. Dining options with quality, fresh, and healthy food
3. Areas for recreational activities and exercise, including areas to walk pets
4. Facilities with urgent care and clinics

The survey asked if drivers would utilize a shuttle to access these amenities near a truck stop. Of the total responses received, 58% indicated they would utilize a shuttle if improvements were centralized to support their needs. This information indicates that truck drivers would utilize amenities beyond what is typically provided at a truck stop, and the HM 96 study highlighted the Gallup area as a potential point for concentrated truck parking needs, based on expected travel times and the need for truck drivers to stop for an extended period of time.



INLAND PORT

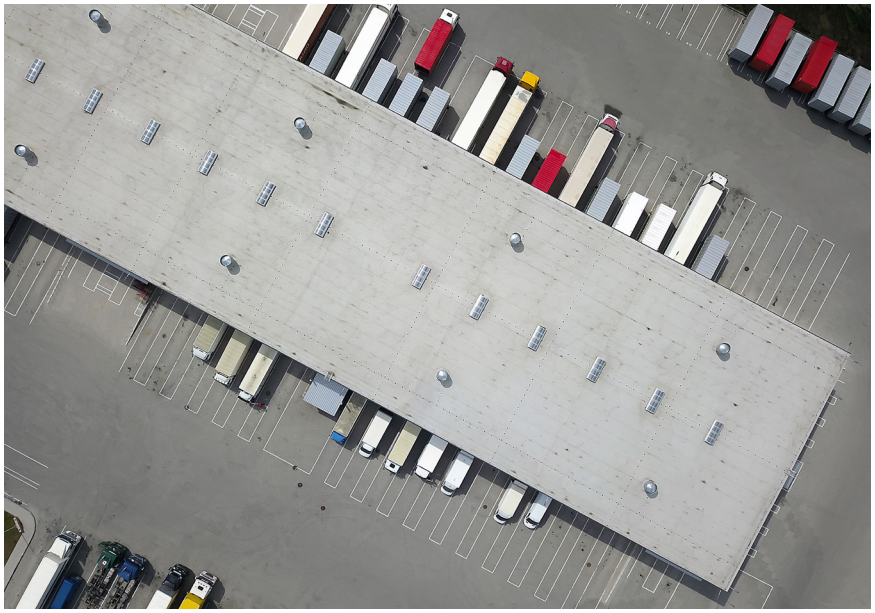
McKinley County is home to two major freight corridors: I-40 running between California and North Carolina, and BNSF's Transcon line connecting the ports of Los Angeles and Long Beach to the Houston port, as well as Midwest markets. The 2021 New Mexico Air Service Marketing Strategy plan from NMDOT, lists the Gallup Municipal Airport as a top candidate to support for regional air support service development. These assets align for a potential inland or dry port.

The County commissioned an inland port study, and the result was the McKinley County Inland Port Market Analysis which was completed in 2020. This analysis considered three distinct markets: intermodal activity of containerized imports and exports moving to and from the Ports of Los Angeles and Long Beach (LA/LB), over-the-road trucking where Gallup is halfway between LA/LB and Dallas, Texas, and carload rail activity that focuses on "captive markets such as oil/gas, energy, agriculture, biomass, manufacturing and other bulk opportunities."

Based on market analysis, Gallup did not have sufficient attraction for warehousing and logistics related to intermodal activity, primarily due to the distance from major markets and the availability of warehousing near those major markets. On the other hand, Gallup is situated well to host a "Super Truck Center" that supports long-haul truck drivers who travel between Dallas and LA/LB when they need to take an extended break, as discussed previously in the HM 96 section above.

Regarding carload rail activity, the Gallup Energy Logistics Park is an active transloading facility, exporting 600,000-700,000 tons of materials trucked through Gallup for transload to railcars destined for Arizona and California for use in cement production, and importing frac sand by rail which is transloaded to truck for use in fracking operations in the San Juan Basin to the north. Regional hay and alfalfa volumes could also support rail-based exporting, and there is potential for regional forest product transport, and an increase in activity in the San Juan oil and gas basin.

Additional improvements are proposed to the Gallup Municipal Airport, along with the goal of Foreign Trade Zone (FTZ) and US Customs User Fee Airport (UFA) certification, which could elevate the role of the airport in regional and broader goods movements.



INTRODUCTION

This chapter outlines a comprehensive set of transportation recommendations designed to improve mobility, safety, and infrastructure resilience across McKinley County. Building on a foundation of technical analysis, stakeholder input, and regional coordination, the recommendations reflect both local priorities and broader transportation initiatives, including integration with the planning and design activities along the I-40 corridor and considerations of the alignment with the U.S. Department of Transportation's Safe Streets and Roads for All (SS4A) program. While specific countermeasures and implementation recommendations specific to safety are included in Chapter 4, the following content provides key overarching objectives and strategies, and a reference for the breadth of transportation-related improvements already being planned, for McKinley County to consider as transportation projects continue to be planned, designed, and implemented in the future.

7. RECOMMENDATIONS

COMMUNITY ENGAGEMENT

Noted previously in Chapter 2 (and detailed in Appendix B) a robust community and stakeholder engagement effort was conducted during the planning process to inform the recommendations included in this plan. Outlined below are key outcomes of the engagement effort that strengthens the recommendations and strategies included in this chapter. Where relevant, specific connections between engagement outcomes and included recommendations are highlighted withing the Overarching Objectives and Strategies section following.

Stakeholder Feedback

Stakeholder feedback focused primarily on the need for increased communication and coordina-tion between all agencies and interested stakeholders throughout the County. Additionally, the fol¬lowing issues were also identified as opportunities for future improvement through the development and use of this plan.

- Accessibility
- Connectivity
- Erosion
- Train Delays and Conflicts
- Connections and Congestion in and around the City of Gallup
- Bridge Replacement
- Right-of-Way Waivers for Project Implementation
- Additional North/South Connections through Gallup
- Ongoing Road Maintenance due to Heavy Truck Use

Public Feedback

Public feedback was mainly received during engagement coordinated with the Gallup Arts Fest. During this in-person engagement event, the main feedback received was the need for equity in road maintenance associated with school bus routes, and prioritizing improvements based on road¬way volume.

OVERARCHING OBJECTIVES AND STRATEGIES

Pairing strategies with clearly defined objectives is essential to ensure this plan is both actionable and effective. This approach provides a framework for aligning transportation initiatives with the county's broader goals – such as improving mobility, enhancing safety, supporting economic development, and promoting environmental sustainability. By directly linking strategic actions to measurable objectives, the plan can more effectively guide decision making, prioritize investments, and track progress over time, ultimately leading to a more connected and resilient transportation network for the residents and communities throughout the county.

A simplistic view of the paring between objectives and strategies is included immediately below. Details are included for each strategy further outlining its needs and implementation considerations.



Objective: Enhance Data Collection and Progress Monitoring

Identified Need: *When speaking with stakeholders and the public, a common comment was the lack of transparency of what entity is responsible for maintaining which roads. Additional public feedback identified the need to prioritize school bus routes and make other road improvements based on traffic volume.*

STRATEGIES

- Traffic Monitoring
- Right-of-Way Mapping (ROW)
- Asset Management
- Surface Transportation System Resilience
- Road Ownership Coordination
- Road Name Cross Referencing
- Performance Metrics

Objective: Regional Coordination

Identified Need: *A common theme identified by stakeholders was the need for increased communication and coordination between all agencies and interested stakeholders throughout the County. Right-of-Way Waivers for project implementation was also identified as an opportunity for future improvement. Common feedback gathered through the community and stakeholder process was regarding transportation through and around the City of Gallup. Improving connections and reducing congestion in and around the City of Gallup was shared by stakeholders as an opportunity for future improvement. Additional north/south connections through Gallup was also shared as a need.*

STRATEGIES

- Traffic Monitoring
- Right-of-Way Mapping (ROW)
- Asset Management
- Surface Transportation System Resilience
- Road Ownership Coordination
- Road Name Cross Referencing
- Performance Metrics

Objective: Develop Alternative Modes

STRATEGIES

- Bicycle Infrastructure and Education
- Pedestrian Safety
- Expand Transit

Objective: Embrace Emerging Technologies

STRATEGIES

- Identification and construction of Charging Stations
- Support for Hydrogen fueling
- Support for Autonomous Vehicles Testing

Objective: Economic Development

STRATEGIES

- Support Gallup Energy Logistics Park
- Support Autonomous Vehicle Mobility Testing Center
- Support Inland Port
- Support Super Truck Center

Objective: Project Prioritization

STRATEGIES

- Utilize a formalized process for determining project priorities (such as the example included in this plan) and adapt as needs and priorities influencing decisions change over time.

Objective: Prioritize Maintenance

Identified Need: *Ongoing road maintenance due to heavy truck use was shared by stakeholders as an opportunity for future improvement.*

STRATEGIES

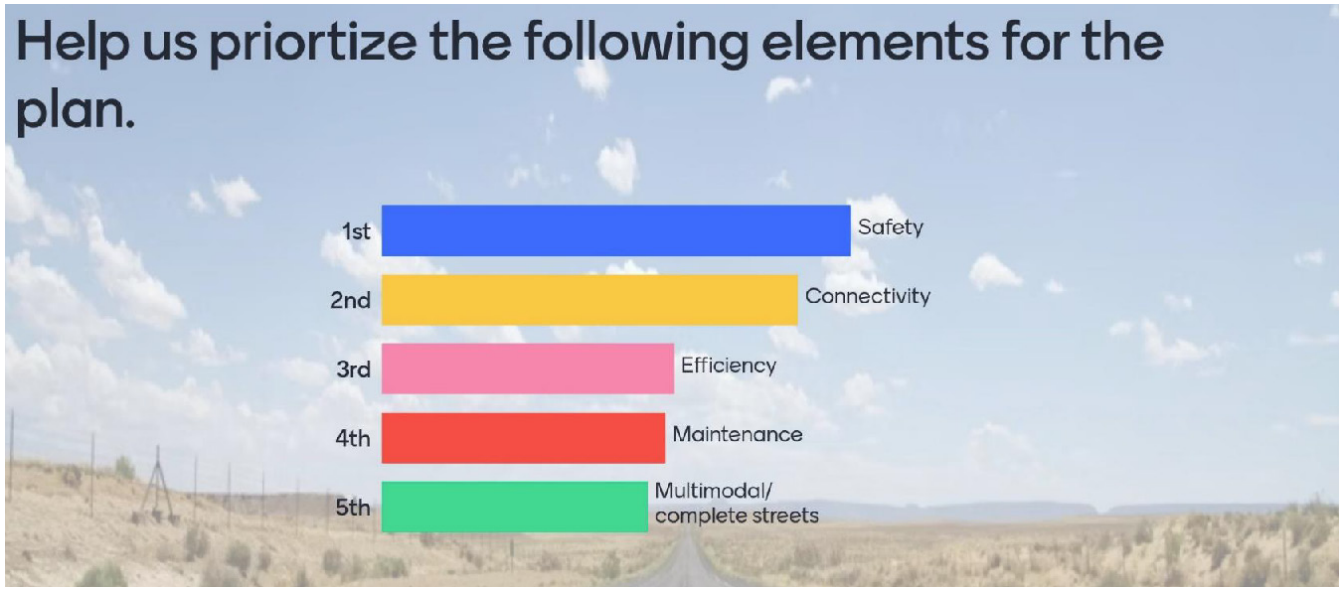
- Develop and implement a roadway maintenance program
- Consider future roadway improvements and maintenance through the use the prioritization criteria/process included in this plan.
- Prioritization process

Objective: Improve Connectivity

Identified Need: *Improving connectivity throughout the County was shared by stakeholders as an opportunity for future improvement. Connectivity issues were also a predominant discussion topic noted in the City of Gallup Transportation Master Plan.*

STRATEGIES

- Consider the implementation of roadway improvements that address volume and connectivity issues noted in this plan
- Coordinate with regional stakeholders to consider the design and implementation of the priority corridors and new connections noted below and further detailed in the Gallup TMP.



Objective: Improve Safety

Identified Need: *The TMP Stakeholder Committee prioritized safety as the most important element to include in the plan.*

STRATEGIES

- Follow and implement Safety Action Plan recommendations included in chapter 4
- Support the implementation of safety projects identified in incorporated communities within the County with Transportation Master Plans and/or safety action plans.
- Implement roadway projects

Objective: Continue progress on identified bridge replacement needs throughout the County.

Identified Need: *Stakeholders that were engaged while developing this plan identified bridge replacement as an opportunity for future improvement.*

STRATEGIES

- Continue to fund and implement the replacement of identified substandard bridges throughout the County.
- Consider and implement right-of-way acquisition as needed and appropriate depending on the project or partnership opportunity
- Implement and enforce adequate design standards

PRIORITY CORRIDORS

Gallup published its most recent Transportation Master Plan in March 2024, and identified several areas where coordination with McKinley County is necessary to meet regional transportation goals and to see supportive roadway improvement projects materialize. Given the inflow and outflow of residents of Gallup and the County, it is important for the two jurisdictions to work together to ensure efficient and safe travel along priority corridors.



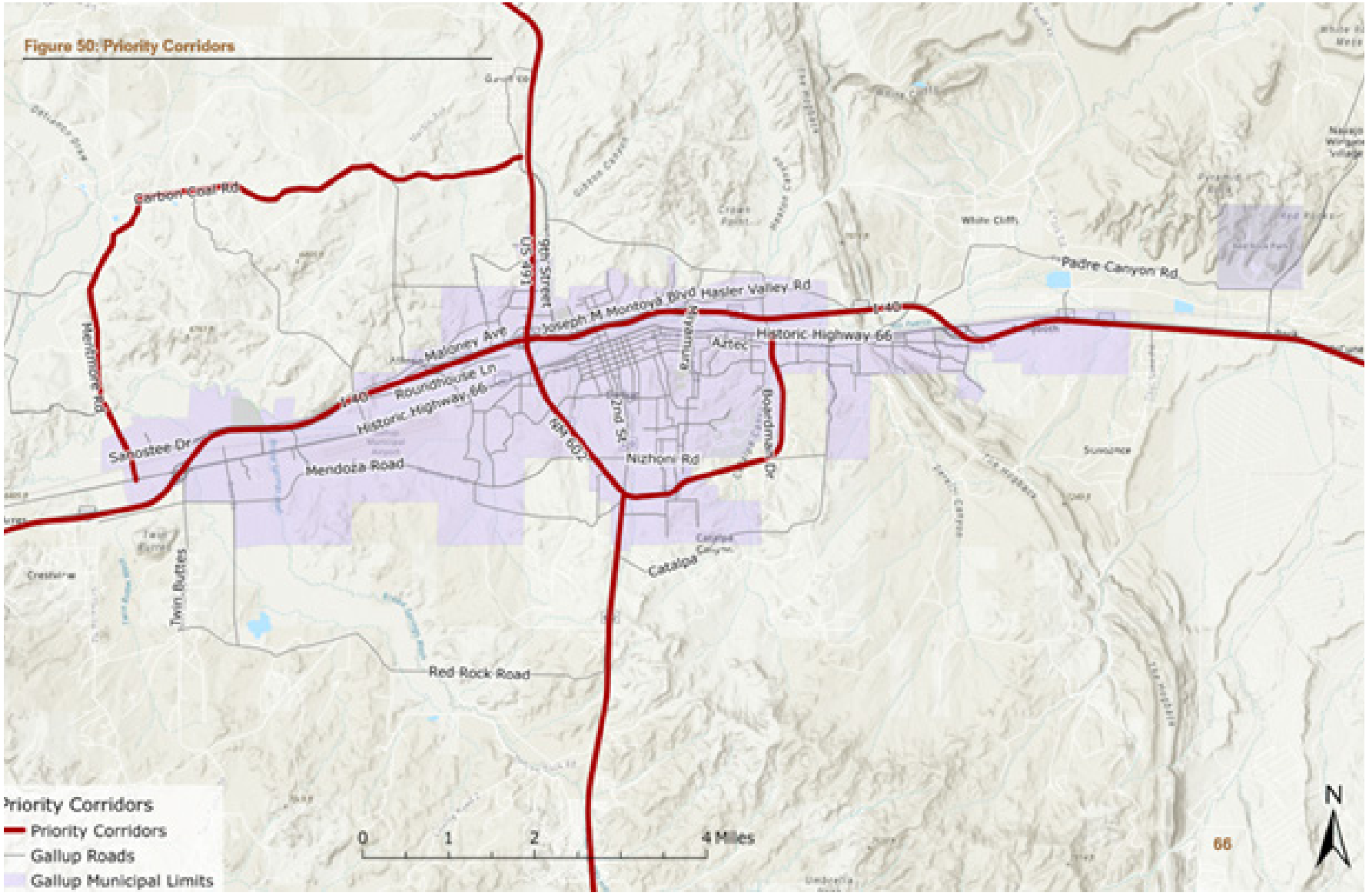


FIGURE 98: PRIORITY CORRIDORS IDENTIFIED IN THE CITY OF GALLUP TRANSPORTATION MASTER PLAN

IDENTIFIED PROJECT AND PROGRAM DETAILS

The following identified project specifics coincide with the identified strategies included in the preceding section. The purpose of this subsection is to detail the implementation considerations the county should undertake to implement the project.

Data Collection and Progress Monitoring

RIGHT-OF-WAY MAPPING

Conversations regarding Right-of-Way (ROW) and road ownership occurred frequently in stakeholder meetings and subsequent project team meetings with county staff and leadership. Some of the projects listed in the ICIP for 2025-2028 involve the County in different capacities. The County's role in the ICIP projects is summarized below.

- 12 Projects where McKinley County is the funded entity.
- 14 Projects on County roads where McKinley County is not the funded entity.
- 10 Projects are not on county roads but are or will be owned and maintained by McKinley County.
- 7 Projects not on County roads and only require coordination with McKinley County.

According to policy, the County requires consent and authorization of ROW to expend county resources for roadway improvement and maintenance projects. Currently, an up-to-date process and digital system for the accounting of right-of-way and filed easements is not in place. It is recommended that stored hard-copy information on file be converted to a digital record and subsequently mapped in a geodatabase for continued up-keep and tracking. It is anticipated that this effort will help support maintenance and reconstruction activities. Appendix X provides a potential workflow to support this effort. A summary of the 10 workflow steps is included as follows:

Step 1: Load ArcGIS Pro with three layers.
- McKinley County Boundary
- County Roads
- Section, Township, & Range

Step 2: From the ROW easement record, identify one section, township, and range line.

Step 3: In ArcGIS, select the section, township, and range that was identified.

Step 4: Select all section, township and range numbers and directions that apply.

Step 5: All section, township, and ranges selected will be highlighted blue.

Step 6: Zoom to the selected attributes on the map.

Step 7: In the highlighted area, select segments of the County Road.

Step 8: Turn road segments into a separate County road layer.

Step 9: Add buffer to represent the ROW that is provided in the easement record.

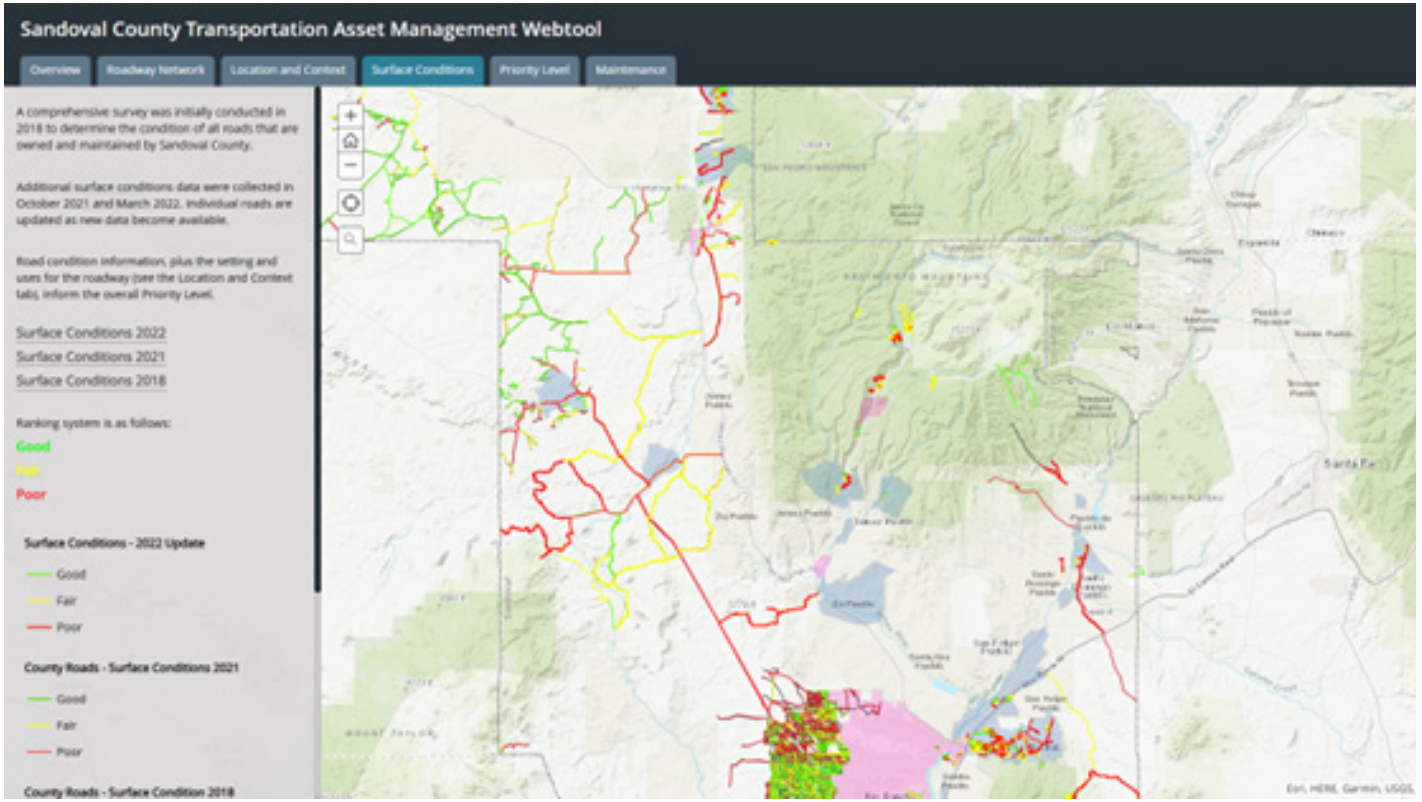
Step 10: Repeat with all sections, townships, and ranges listed on the easement record.

TRAFFIC MONITORING

NMDOT administers a traffic monitoring program that collects, analyzes, and reports traffic data for FHWA's Functional Classes 1 – 6 Urban. This data is collected through manual counts, portable counters, and permanent counters. The County should use the data that results from these counts as part of their prioritization process for transportation projects and to understand how road networks are being used, and what kind of new design may be needed. Traffic volume data also normalizes safety data, helping to give a more detailed picture of where safety problems are the worst, which can be critical to have when making funding requests. The data can be used to check to see if roadways need to be reclassified and potentially redesigned. NMDOT's traffic data is stored in MS2, interactive web-based software available to the public.

TRACKING ROAD NAMES AND OWNERSHIP

There are many entities that own roads in and throughout McKinley County, and many roads have multiple names. Given this, the success of a majority of future transportation project implementations is dependent upon regional and interjurisdictional coordination. Regional entities include McKinley County, the NMDOT, the City of Gallup, Navajo Nation Department of Transportation (NDOT), Pueblo of Zuni, and the Bureau of Indian Affairs (BIA). The database of road names developed for this plan should be updated annually.



ASSET MANAGEMENT

The County Roads department inspects 541 miles of roadway every 6 weeks, of which the County only has ROW on roughly 200 miles. Currently, the Roads department uses a spreadsheet to track inspection and maintenance of these roadways. As future improvements are made and as maintenance needs expand, it is recommended that a more specific asset management program be developed to support the efficient prioritization and tracking of road maintenance. A program such as that developed and maintained by Sandoval County could support both an internal asset management program and allow for transparency with McKinley County residents as to what McKinley County maintains and what they do not. (Example: Sandoval County Transportation Asset Management Plan)

SURFACE TRANSPORTATION SYSTEM RESILIENCE

Resilience is defined as the ability to avoid, anticipate, absorb, adapt to, and/or rapidly recover from current and future hazards. Resilience planning seeks to minimize risk by supporting resilient systems.

It is recommended that the County prepare for increased heat and weather events to reduce costs associated with the potential aftermath of these events. The County should consider developing an infrastructure resiliency plan for transportation system impacts due to wildfires, floods, dust storms, sediment deposit, and mudflows.



The County has already identified areas that have drainage issues, including Churchrock, Manuelito, and County Road 1.

To help identify where the most critical transportation infrastructure assets in the region may also be most exposed and vulnerable to environmental hazards, a GIS model may be developed based on methodology used in the NMDOT's Resilience Improvement Plan.

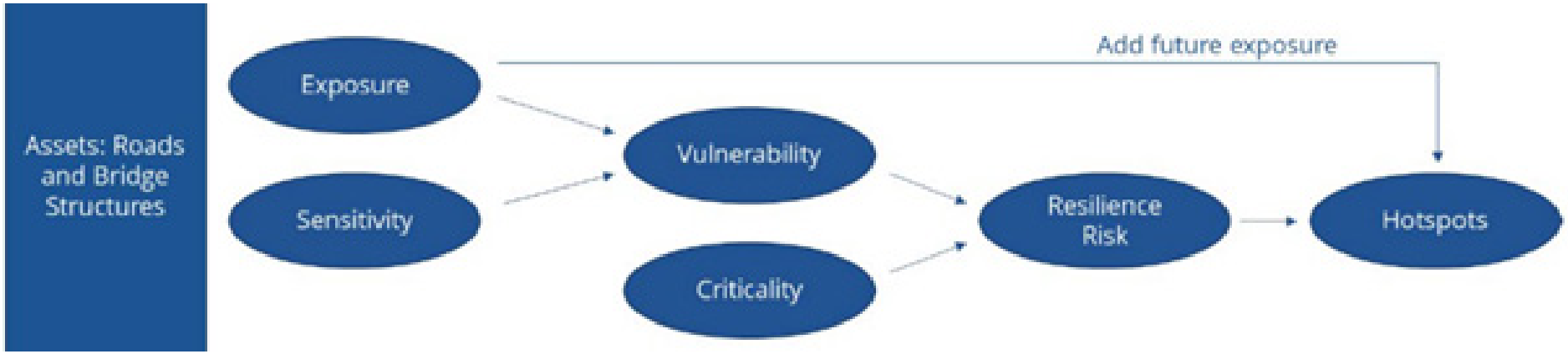


FIGURE 97: NMDOT RESILIENCE IMPROVEMENT PLAN (2024) - RISK METHODOLOGY



REGIONAL COORDINATION

Multi-Agency Road Forum

To support increased and continued coordination, it is recommended that the Multi-Agency Road Forum be reengaged in the County. Quarterly meetings could take place with representatives from each entity that owns and/or manages roads in the County. Leveraging leadership in the region, it is suggested that McKinley County and/or the NWNMCOG coordinate and manage the facilitation of these meetings. Topics of conversation may include any change to the list of road names, annual transportation improvement planning, implementation coordination, funding coordination and support, maintenance coordination and prioritization, etc. To enhance participation, it may be helpful to coordinate meetings in person at NDOT offices in Window Rock.

The Multi-Agency Road Forum should also coordinate on the following topics:

- **ROW Acquisition**
  - » ROW Checklist that County uses
  - » Consent Drives
- **Data Share Agreements between land management agencies**
- **Participation in RTPO**
- **NMDOT state and district partnership and STIP inclusion**
  - » PFF process
- **Support Gallup Urban Core Project**

NORTHWEST REGIONAL TRANSPORTATION PLANNING ORGANIZATION (NWRTPO)

Equally important for regional coordination is a focus to continue communication and coordination with the NWRTPO. The NWRTPO functions to:

- serve as a forum and to elicit informed recommendations for multimodal transportation and enhancement projects
- submit projects under certain funding categories to the New Mexico Department of Transportation (NMDOT) after prioritization
- promote the implementation of an efficient transportation network in the three-county region of Northwest New Mexico

NMDOT is the designated State agency that receives and administers federal transportation funds and State transportation funds. In order to manage transportation programs more efficiently, the State Transportation Commission created seven regional transportation planning organizations to work closely with NMDOT. The NMDOT has contracted with the regional planning organization, NWNMCOG, to administer the NWRTPO which includes San Juan County, McKinley County, and Cibola County.

The NW New Mexico Regional Transportation Plan lists the following three specific priority projects for McKinley County (quoted directly from appendix):

- County Road 19 road construction to chip seal or pave¬ment, and safety improvements for the large – six chap¬ter community population that depends on this corridor (supported by a 2012 safety award from NM-DOT HSIP Program).
- Safety improvements to County Road 1 (supported by a 2012 safety award from NM-DOT HSIP Program).
- County Road 77 improvements.

The RTP echoes the McKinley County Comprehensive Plan's strategy to minimize new costs by focusing improvements on roads that serve the most residents and by limiting growth of County road-miles. It also recommends discussing with the BIA the possibility of shared maintenance responsibilities or transferring road ownership, which could improve efficiency.

Further, it recommends collaborating with the BIA, Navajo Nation, NMDOT and the NWRTPO to come up with a regional maintenance plan "that assigns road maintenance respon¬sibility, identifies locations of maintenance yards, and allots number of personnel." It would be especially beneficial to all parties to locate maintenance yards in places that strategi¬cally serve all agencies.

Other recommendations related to intergovernmental cooperation include coordinating with Zuni Pueblo on roadway needs and possibly contracting to build or maintain roads on the Zuni Reservation and to work with Navajo DOT to install signage warning of livestock on roadways.

General regional transportation priorities from the RTP appli¬cable to McKinley County include reducing fossil fuel use, ef¬ficiently moving freight, promoting tourism, Complete Streets planning, and encouraging alternative intersection designs, such as roundabouts and diverging diamonds.

STATEWIDE TRANSPORTATION IMPROVEMENT PROGRAM (STIP)

The Statewide Transportation Improvement Program (STIP) Bureau is responsible for developing the four-year, fiscally constrained, list of federally funded and regionally significant projects called the STIP.

The STIP is created through a cooperative and comprehensive process that incorporates federally required Performance Measures (PMs), the seven National Planning Goals, and aligns with the NMDOT's Long Range Planning document to choose projects that support the vision of the Department and address the multimodal needs of New Mexico's transportation customers. The State's six-year transportation preservation and capital improvement program identifies multi-modal transportation projects that use Federal, State, and local government transportation funds. It includes projects of regional significance (projects with high public interest or air quality impacts) and projects in the National Parks, National Forests, and Indian Reservations.

As of January 2025, there are 83 projects included in the STIP that are located in McKinley County. Of these projects, entities listed as lead agency include NMDOT, Transit/Rail Division, Mckinley County, Zuni Pueblo, and City of Gallup. Project types include bridge rehab, preliminary engineering, rail/highway crossing, road rehabilitation, new construction, safety, and study/planning. Projects that have been funded through STIP are those that are programmed funding between 2024-2027. Those that have not been funded to date and list future year programming are projects that need investment from a source that differs from annual STIP allocations. An updated list of projects can be found on the ESTIP.

NAVAJO NATION

It is recommended that the County prioritize communication with Navajo Department of Transportation (NDOT) when planning and implementing transportation projects that interact with roads that the County owns or maintains and coordinate on projects that align with County goals. Navajo Chapter Houses and the McKinley County Roads Department are intertwined on many of the transportation projects on the 2024-2028 ICIP list.

The Crownpoint area, located within McKinley County and north of I-40 along NM-371, is identified as a Primary Growth Center for the Navajo Nation. The County could support NDOT when appropriate to help accommodate predicted transportation needs that develop with this growth.

SAFETY

The Safety Action Plan (Chapter 4) component of this TMP is intended to guide McKinley County in working to eliminate all traffic fatalities and severe injuries while promoting safe, healthy, and equitable mobility for all. Recommended projects (see the Implementation and Evaluation section) are categorized into short-term (1-2 years), medium-term (3-5 years), and long-term (5-10 years) initiatives. County specific projects are listed here.

- Install reflectors on County & State Highways throughout the County.
- Install streetlights on County Route 1 from Mentmore Rd straight past Climbing Rock Road and Defiance Draw to the curve at the Railroad right of way (approximately 7.5 miles).
- Increase Stop Control Visibility at the intersection of Navajo Service Route 48 and County Road 19.
- Increase Stop Control Visibility at the intersection of Navajo Service Route 11 (County Route 15) and Pinedale Road.
- Install targeted curve advanced delineation/barriers, longitudinal rumble strips, median barriers, safety edges, and wider edge lines at County Route 15 West from 2nd Canyon Road past intersection with Pinedale Road to the T intersection.
- Install stop ahead symbol sign (W3-1) at Refuge Rock Road 0.2 miles east of intersection with Twin Buttes Road (far side of hill crest).

BRIDGES

Due to the high cost and lack of funding sources for large-scale replacement efforts, McKinley County has, to date, pursued a bridge-a-year approach to replacement. Potential approaches to remedying this problem include multi-agency collaboration, project prioritization, and collaborative funding applications. By combining resources from multiple agencies, more bridges can be addressed in a timely manner. McKinley County might also explore using the FHWA Bridge Investment Program, which provides funding for bridge replacement, rehabilitation, preservation, and protection. Awards can go to planning projects, bridge projects, and large bridge projects. In 2023 the FHWA opened a rolling Notice of Funding Opportunity (NOFO) for the "Bridge Project Grants" category—which funds projects up to $100 million—and the "Planning Project" category of the Bridge Investment Program. Also in 2023, the FHWA issued a first-ever rolling NOFO for the "Large Bridge Project" category of the Bridge Investment Program, which funds projects larger than $100 million. In some cases, roads could be realigned to eliminate crossings, reducing the number of bridges.

The County should consider bridge replacement as a component of roadway infrastructure improvement projects. Determination of adequate design standards must be made based on state and federal standards, as well as proper crossing type (Single Span, CBC, Arch Pipes). Additionally, the County should continue prioritizing bridge replacement and maintenance projects based on previous planning efforts already indicating any type of phased approach. A bridge/culvert asset management plan should be developed and updated regularly.

EMERGING TECHNOLOGIES

The County should consider incorporating emerging technologies as transportation projects continue to be identified and implemented. The initiatives outlined below present a substantial opportunity for the County to leverage moving forward and has the potential to positively impact the com¬munity well beyond solely the transportation system.

Summary of EV Charging Opportunities

As noted previously, a minimal number of existing EV charging stations are available in McKinley and largely locat¬ed adjacent to the I-40 Corridor near and within the City of Gallup. This presents an opportunity to strategically expand this capacity depending on the goals identified by the Coun¬ty and its partners. There are a range of potential host loca¬tions throughout the County, ranging from restaurants and hotels to community centers and higher education facilities, as well as public, historic, and archaeological locations. Some of these destinations could support slower charging, especially where people are more likely to spend extended periods of time, reducing the cost to buy the equipment and construct site improvements.

A consideration the County needs to take into account is utility support and capacity. Electri¬cal utility providers can supply information on the infrastruc¬ture and rate considerations that assist in this decision-making process.

EV CHARGER FUNDING

The County can institute public private partnership opportu¬nities, or individually pursue funding opportunities, such as the National Electric Vehicle Infrastructure grant that is adminis¬tered by NMDOT, and the Charging and Fueling Infrastruc¬ture grant.

HYDROGEN FUELING

Exit 16 on I-40 was iden¬tified as a potential prioritized location for hydrogen fueling implementation. Beyond the opportunity to enter a public private partnership with supportive business entities, this in¬terstate exit is also supported by three truck stops that could be improved to provide hydrogen fueling to maximize their existing footprints.

The U.S. DOT has federal criteria for Alternative Fuel Corridor (AFC) designations for electric vehicle charging, hydrogen. A high-level summary of the U.S. DOT AFC designation criteria is pro¬vided below.

EV CHARGING

- Publicly available
- Charging stations at least every 50 miles along the corridor No more than 1 mile from the nearest interchange exit or highway intersection
- Each station has a minimum of four Combined Charging System (CCS) that can each deliver a minimum of 150 kW per port, and simultaneously to each port (600 kW/ station)

HYDROGEN

- Publicly available
- Fueling stations at least every 150 miles along the corridor No more than 5 miles from the nearest interchange exit or highway intersection

To support alternative fueling, the County may consider proceeding in a few ways:

- Transition County fleet to EVs and create a distributed charging infrastructure.
- Develop public properties with EV charging infrastructure for public use
- Encourage and partner with private companies to develop EV charging infrastructure.
- Identify a broader corridor or regional planning structure to develop a network of EV chargers to support a municipal and/or public fleet, with other public and private partners.

For more information on how to implement these initiatives refer to Chapter 6. Consider the map on page 187 that includes locations for future EV charging stations.

Autonomous Vehicle Testing

As a collaborative effort between the City of Gallup and McKinley County, a variety of transportation-related factors should be considered moving forward to realize the implementation of the proposed AV testing track and associated alternative fueling infrastructure. Specifically, the Feasibility Study of Autonomous Vehicle Testing Track and Fueling identified an area northwest of Gallup, adjacent to Carbon Coal Road and connecting with the Gallup Energy Logistics Park as a suit¬able location for an Autonomous Vehicle and Mobility Test¬ing Center.

Freight

Freight traffic through McKinley County is expected to continue to increase. I-40, surrounding roadways, and other freight routes should be designed to accommodate the high levels of truck traffic while also servicing the common motorist. Design for freight corridors can include roadway widening, wider shoulders, reducing curves, and extending interstate on- and off-ramps.

It is also of vital importance to develop truck parking facilities at interchanges along I-40 in McKinley County to accommodate this increase. According to the Freight-Related Eco-nomic Development Opportunity Study, truck drivers identified the amenities listed below as their top four.

1. Available, convenient, and safe parking for long-term rest and to access food and other services
2. Dining options with quality, fresh, and healthy food
3. Areas for recreational activities and exercise, including areas to walk pets
4. Facilities with urgent care and clinics

In addition to parking and diesel, amenities should be made available for drivers, such as food, showers, opportunities for exercise, connections to cities, and Wi-Fi capability. McKinley County should coordinate with regional and state partners to conduct a gap analysis along its segment of I-40 and identify locations for such facilities. The County should consider the feasibility of partnering with the City of Gallup to provide a shuttle from truck stops to Gallup so that truck drivers can access the amenities in the city. The County should also consider working with the City of Gallup to further study the economic opportunities and needs

associated with the development of a "Super Truck Center," and determine how such a facility could be connected to the community to leverage existing businesses and assets.

Regarding carload rail activity, the Gallup Energy Logistics Park is an active transloading facility. Regional hay and alfalfa volumes could also support rail-based exporting, and there is poten¬tial for regional forest product transport, and an increase in activity in the San Juan oil and gas basin.

Additional improvements are proposed to the Gallup Munic¬ipal Airport, along with the goal of Foreign Trade Zone (FTZ) and US Customs User Fee Airport (UFA) certification, which could elevate the role of the airport in regional and broader goods movements.

CURRENT FREIGHT PROJECTS NOTED BY COUNTY STAFF

- County Road19 resurfacing project noted in the current ICIP list below
- Rock Springs Extension
- Mentmore Extension
- Carbon Coal South (note, County is conflicted on supporting freight on this roadway)
- County Road 19 extension to NM371 to connect the industrial park to US371.

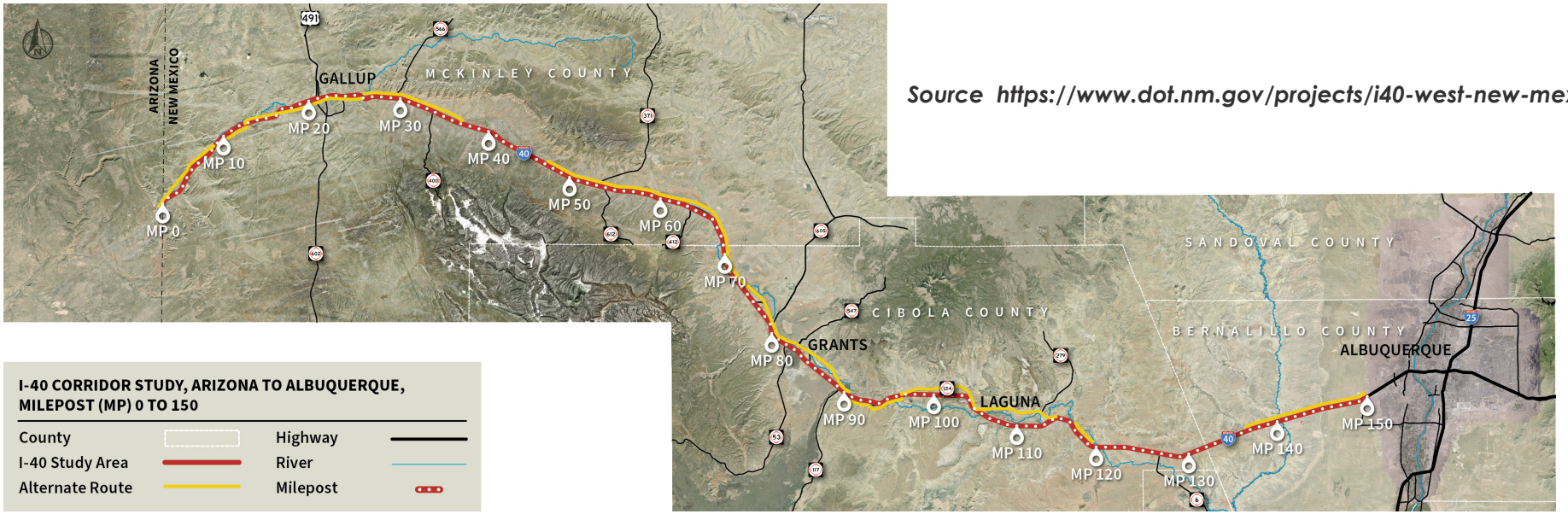
Prewitt-Milan Industrial Park

An industrial park is planned to serve rail traffic on a 626-acre site north of Prewitt in McKinley County. To accommodate increased vehicle volume between the park and I-40, roadway improvements are necessary, including key intersection improvements such as signalization, the addition of turn lanes, and the addition of accelera¬tion and deceleration lanes.

One specific recommended roadway improvement involves County Road 19 at the intersection of Route 66, which is an at-grade rail crossing. The 2022 Prewitt-Milan Transportation Master Plan notes: "The distance be¬tween the stop sign, and the railroad tracks is roughly 280 feet, providing the possibility for low visibility or stopped traffic on the at-grade railroad tracks. A potential realignment of Pillowcrest Road and CR 19 as an overpass over the railroad would negate this safety and congestion hazard and com¬bine the two intersections into one. Further north along CR 19 is the recently close Escalante Power Plant and consider¬ations should be made for higher traffic volumes as the site has the potential to be reused as a clean energy plant."

Other County Road 19 projects listed in the recommended project matrix include improvements at the intersection of CR-19 and NM-122; widening the shoulder and installing turn lates of CR-19 for freight track entrance at the Escalante Generating Station; adding acceleration lanes for south¬bound CR-19 and northbound turn lanes at future entrance to Prefill Industrial Park and installing roadway lighting at the future entrance to Prewitt Industrial Park.

The plan also notes that there's an opportunity "to reconfig¬ure the Solid Waste Authority Road Access to Prewitt Indus¬trial Park in McKinley County. The new route would address concerns from the existing route by providing a more direct route for freight traffic, utilizing an existing grade separated railroad crossing, and allow longer queue lengths between NM-122 and the BNSF rail line.



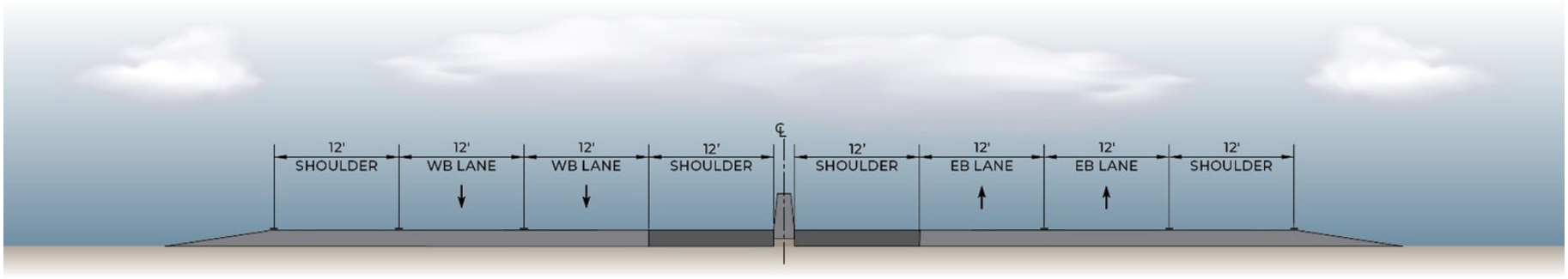
Source https://www.dot.nm.gov/projects/i40-west-new-mexico/

I-40 West Corridor Study

The I-40 West Corridor Study, conducted by the New Mexico Department of Transportation (NMDOT), evaluates a 150-mile stretch of Interstate 40 from the Arizona state line to the Atrisco Vista Interchange in Albuquerque. This study aims to identify necessary improvements to accommodate projected growth, enhance traffic operations and reliability, improve traveler safety, and address infrastructure conditions through 2050.

KEY FINDINGS

- Roadway Capacity and Growth: While two lanes in each direction are generally sufficient through 2050, a third lane is recommended in Gallup and on certain steep grades. Additionally, several interchange ramps require lengthening to meet future capacity needs and address geometric deficiencies.
- Operations and Reliability: Traffic backups are primarily due to construction, maintenance, and crashes rather than recurring congestion. Maintaining two lanes during construction and maintenance activities is crucial to prevent delays.
- Safety: The corridor experiences higher-than-average rates of fatal and serious injury crashes. Improvements are needed for interchange ramps and roadway curves to enhance safety.
- Infrastructure Condition: Pavement improvements, bridge repairs or replacements, and drainage structure enhancements are necessary to maintain roadway integrity.



Source https://www.dot.nm.gov/projects/i40-west-new-mexico/

PREFERRED ALTERNATIVE: ENHANCED 2-LANE WITH ADDED LANES

This approach involves widening inside and outside shoulders to 12 feet while maintaining two travel lanes in each direction. This configuration facilitates incident management and allows for future expansion to three lanes when warranted. Interchange ramps would be lengthened, and crossovers constructed to aid emergency response and traffic flow during incidents.

OPERATIONAL ENHANCEMENTS

- Intelligent Transportation Systems (ITS): Upgrades include additional data collection stations, cameras, messaging signs, weather information systems, and expansion of the fiber optic communications network. A Traffic Management Center in District 6 is proposed to coordinate ITS operations.
- Alternate Routes: Improvements to existing frontage roads, including bridge and pavement repairs, are considered to provide viable detours during I-40 incidents.
- Incident Management: Wider shoulders and improved coordination with law enforcement and emergency services aim to enhance response times and traffic management during incidents.

Interstate Ramps

More systemically, the on- and off-ramps need extending to ensure safe ingress and egress from the Interstate. Based on NMDOT information, the following ramps are proposed to be improved within the study area:

Exit	Description	Ramp Improvements Needed
3	Eastbound Rest Area	2 of 2
8	Defiance/Manuelito	4 of 4
12	Westbound Pullout	2 of 2
16	West Gallup	1 of 4
20	Downtown Gallup	5 of 5
22	Gallup	4 of 4
26	East Gallup	4 of 4
33	McGaffey	4 of 4
36	Iyanbito	4 of 4
53	Thoreau	2 of 4

Trade Port and Clean Corridor Considerations

In early 2024, Bernalillo County was awarded funds to plan, study, and begin design of an I-40 Tradeport Corridor to run from the California ports in Los Angeles, through Kingman and Winslow, Arizona, and connecting to Albuquerque, New Mexico. This development is intended to simplify the move¬ment of goods along this corridor and develop a chain of hydrogen fueling and electric charging stations to support this commercial freight corridor.

Future Considerations

Most improvements along the I-40 corridor are to address safety concerns, and to improve traffic operations and reli¬ability, which impact fluidity on the Interstate. With growing traffic volumes, particularly long-haul freight, improved safe¬ty and reliability will benefit those traveling in and through McKinley County for personal travel and business.

Improved truck parking capacity and management with the future truck parking availability system will also support and enhance the driving experience for long-haul truck drivers.

Gallup East/West Interchange Study

The Phase I-A/I-B Study for the Gallup East/West I-40 Interchange (CN 6101690) is currently underway. The purpose of the study is to address physical deficiencies at Exits 16 (West) and 26 (East) to improve operations, provide safer conditions, expand mobility options, and support growth and economic development in the region. The West interchange considered fourteen alternatives and has advanced three alternatives for detailed consideration; these alternatives make improvements at the existing interchange location, addressing eastbound merge conditions and expanding multimodal facilities. The East interchange considered eight alternatives and has advanced three alternatives for detailed consideration; all alternatives consider improvements around the existing interchange location, lengthening acceleration and deceleration lanes in both directions and expanding multimodal facilities. The County should consider supporting further design and final determination in the future as this study continues to be iterated.



Rail

The Safety Action Plan (Chapter 4) component of this TMP has identified several locations in the County where rail crossings are a safety hazard. Additionally, it is understood that there are efforts to vacate and/or remove at-grade crossings in several locations. Leveraging the information contained in this plan, the county should consider the implementation of the included safety recommendations, and more specifically outline vacation efforts for public information. As needed, the county may consider utilizing safety information in this plan to support the identification and application for funding to support safety countermeasure improvements.

Specific Rail and Rail Crossing recommendations include the following:

- The County should provide support for the potential downtown Gallup track relocation.
- The County should prepare for the spur of development that will accompany the planned rail service at industrial parks, including the Gallup Energy Logistics Park and the Prewitt-Milan Industrial Park.
- At-grade crossing improvements should be prioritized at the following prioritized crossings.
  - » County Road 19 at the intersection of Route 66
  - » 2nd and 3rd Streets
  - » Community of Iyanbito

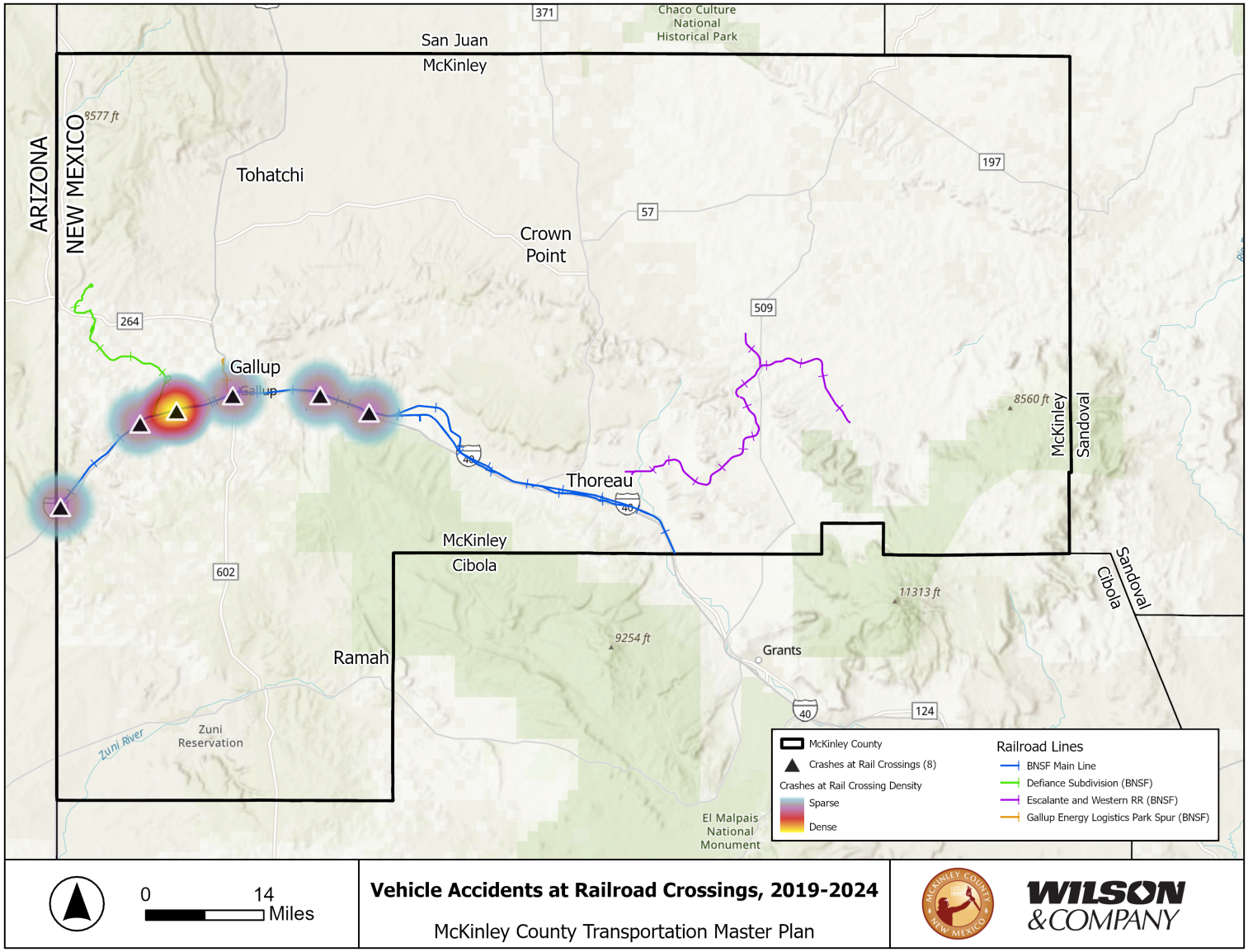


FIGURE 98. NM BIKE PLAN PRIORITY TIERS

Multi-Modal Considerations

BICYCLE AND PEDESTRIAN

Many State and Regional Plans list transportation alternatives such as bicycle and pedestrian infrastructure as a priority. The construction of new facilities and expanding existing networks is a shared goal among many stakeholders. McKinley County should consider prioritizing projects that improve non-motorized access to employment centers, transit stops, and schools, but be mindful of the rural nature of the County. The County should support the City of Gallup as they incorporate improved bicycle facilities in the City, with the possibility of targeted extensions on County roads adjacent to Gallup.

As identified in the SAP, design solutions for pedestrian facilities should be considered and implemented with a particular focus on identified high crash areas where pedestrians are involved.

When reconstruction or major rehabilitation takes place on road¬ways that are identified as candidates for multimodal improvements, the NM Bike Plan recommends at least 5-foot bike lanes on Tier 1 and Tier 2 facilities within municipal limits and 5' (or wider) shoul¬ders in unincorporated areas. In general, buffers are desirable on higher speed and volume roadways. See below for roadways in McKinley County that were designated as Tier 1 and Tier 2.

Table 19: NM Bike Plan Priority Tiers - McKinley County

Roadway Name	NM Bike Plan Tier
US 491	Tier 1
US Rt 66	Tier 1
NM 264	Tier 2
NM 371	Tier 2
NM 53	Tier 2
NM 566	Tier 2
NM 602	Tier 2

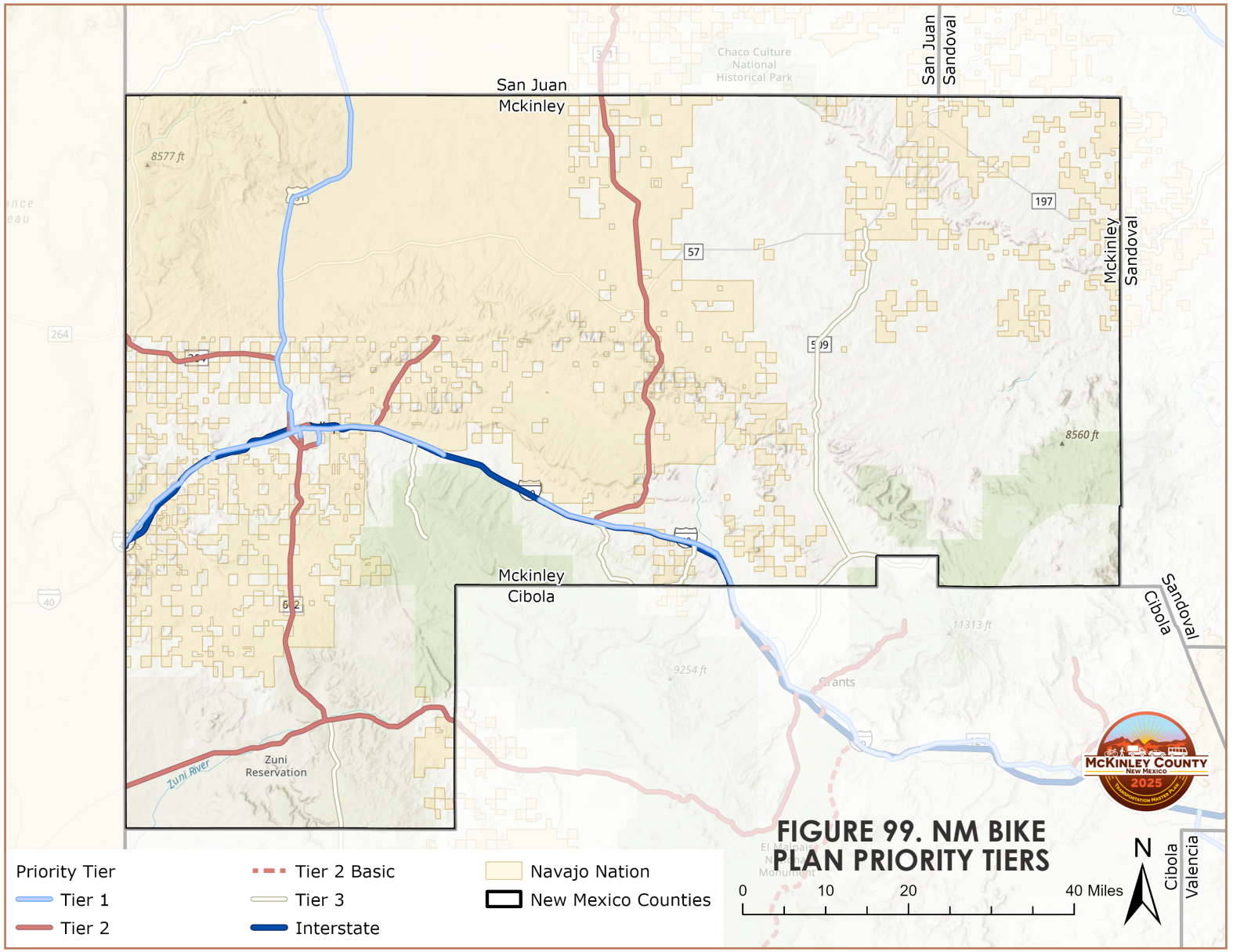


FIGURE 99. NM BIKE PLAN PRIORITY TIERS

Transit

McKinley County may benefit from an expansion of transit services between communities and especially from outlying residential areas into employment centers such as Gallup. However, the expansion of transit costs money, and a balance between increased service or expanded service must be determined to understand the full impact an investment in a coordinated transit effort may produce. As such, it is recommended that a transit ridership and expansion study be completed in coordination with the feasibility study for a Transit Hub to support the coordination of transit providers in the County. In addition, the possibility of a regional transit district like Northcentral RTD should be considered.

PROJECTS IDENTIFIED TO SUPPORT INCREASED CONNECTIVITY

The County should coordinate with Gallup to plan for new roadways and connections that support efficiency of the roadway network into the future. The Gallup TMP benefitted greatly from the development of a city-specific travel demand model which helped the project team, stakeholders, and City leadership better understand future congestion issues that may arise based on projected population and employment growth. Based on this analysis, a set of new roadway connections were identified, and it was determined that if implemented would greatly support network efficiency as development takes place in the City and the County as growth and development takes place through 2050. These new roadways will not be possible without a specific effort to collaborate between the City of Gallup and the County.

For more information on the identified connectivity improvements noted above, please reference the adopted Gallup Transportation Plan. Aside from these conceptual improvements, this plan also identified the following through stakeholder and project team coordination, as key opportunities for connectivity improvements in the near future.

- County Road 1 Carbon Coal South
- Rico Street and Rollie Road/Mendoza Road
- Hassler Valley Extension
- County Road 19 to NM371
- Sundance to Fort Wingate
- Second Access from Iyanbito to Fort Wingate and Churchrock NM566
- Gallup Urban Core connectivity projects
- I-40 Frontage between Iyanbito and Continental Divide
- County Road 1 Mentmore Extension on Gallup Energy Logistics Park to Carbon Coal Road

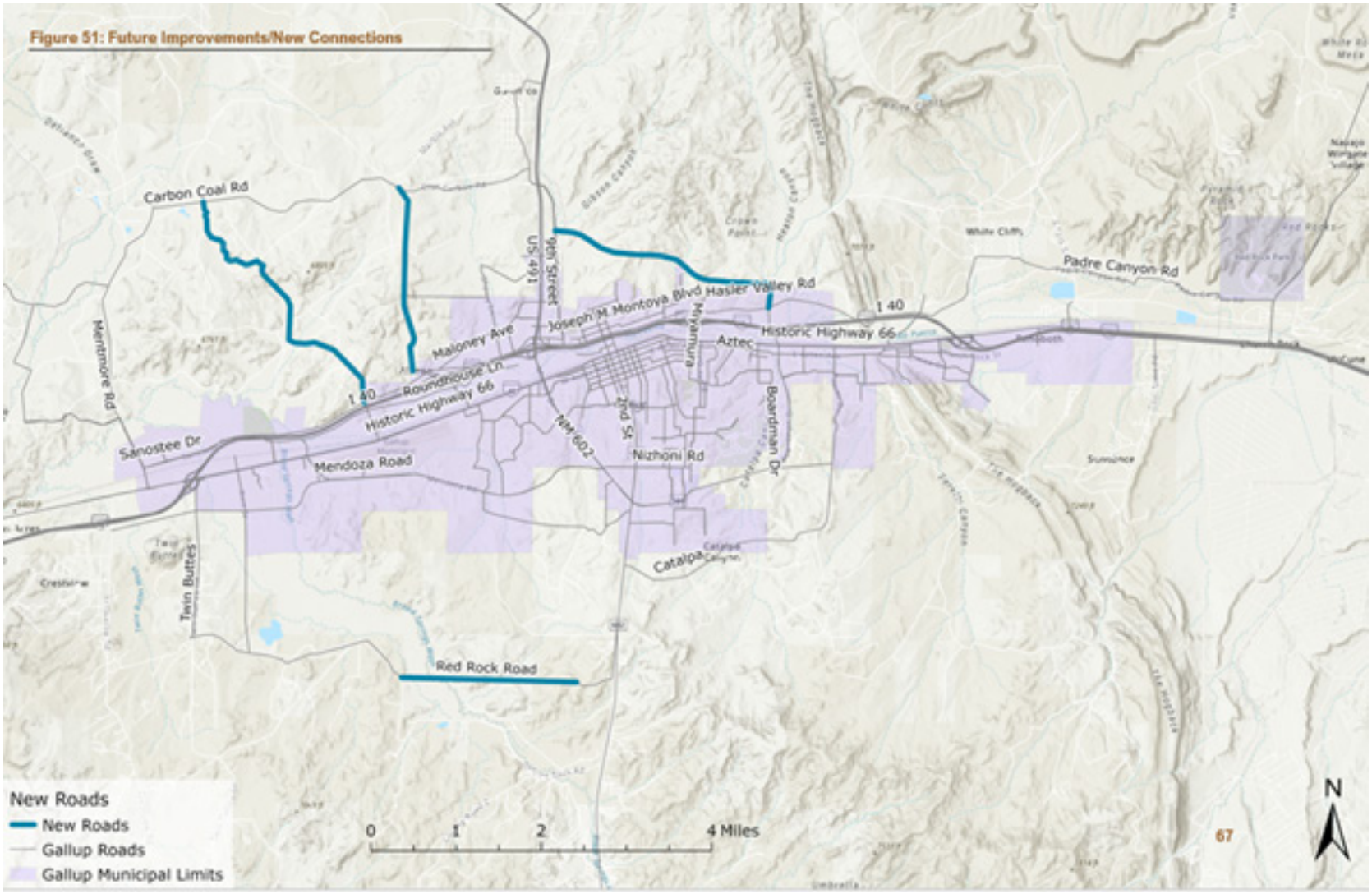


FIGURE 100: FUTURE IMPROVEMENTS/NEW CONNECTIONS IDENTIFIED IN THE CITY OF GALLUP TRANSPORTATION MASTER PLAN

PROJECT PRIORITIZATION

Any planning effort should include a method to choose which projects present the greatest need or highest impact for all McKinley County residents. By using a uniform method to evaluate all projects, McKinley County can ensure that the available funding from multiple sources is supporting projects that meet the transportation needs of the County. **Appendix E** outlines a data-driven process the McKinley County Commission, its staff, and other stakeholders can use to drive the prioritization process for existing possibilities and future proposals.





IDENTIFIED TRANSPORTATION PROJECTS

The Safety Action Plan component of the TMP (Chapter 4), includes a list of recommended transportation improvement projects to address safety concerns in the County. The remainder of this section provides a summary of the 2024-2028 ICIP list, and the 2024 RTIPR list and how the different entities in the County are intertwined when implementing transportation projects.

Infrastructure Capital Improvement Plan 2025-2028

According to the New Mexico Department of Finance and Administration ICIP Dashboard, there are 108 potential transportation projects on the Tribal, Local, and Public Agency (TLPA) ICIPs within McKinley County that need funding for 2025 through 2028. While McKinley County staff and elected officials may be aware of all of the projects on the ICIP list, the following categories may assist them with being knowledgeable about the upcoming transportation projects that are most related to the role that they serve in the County.

I. **12** Projects where McKinley County is the funded entity.

II. **14** Projects on County roads where McKinley County is not the funded entity.

III. **10** Projects not on county roads but would be owned and maintained by McKinley County.

IV. **7** Projects not on County roads and only require coordination with McKinley County.

What is an ICIP?

The local government ICIP is a planning tool, which establishes priorities for anticipated infrastructure projects for counties, municipalities, tribal governments, special districts, and senior citizen facilities. The local government ICIP is administered through the Department of Finance and Administration, Local Government Division. The ICIP planning tool encourages entities to develop and update their five-year plan annually which is submitted to the State. It provides an opportunity for communities to assist and assess any critical needs. Although the ICIP is not a funding source, it does include information in each project for state and federal funding opportunities. The goal is to take projects identified in long-range plans and get them listed on ICIPs.

In McKinley County, entities that have successfully submitted an ICIP and are eligible to receive funding include the City of Gallup, various Navajo Chapters, McKinley County, the Yah-ta-hey WSD Water and Sanitation District and the Williams Acres Water and Sanitation District. All of the projects included in the ICIPs would require coordination and collaboration between County staff and the other entities.

The cost for an individual transportation project in McKinley County ranges from $50,000 to $86,540,000 per project. Each project is in a different phase of funding. Some projects have already received some funding. All projects have funding allocated by year between 2025 and 2028. Funding sources include Capital Outlay (CAP), Local Funds (LFUNDS), State Grants (SGRANT), Federal Grants (FGRANT), the Indian Affairs Department (IA), the State Highway Department (DOT), the NM Finance Authority (NMFA), Community Development Block Grants (CDBG), NM Economic Development (NMEDD). These, among other funding sources will be described in greater detail in the Funding Sources section of the TMP.

I. PROJECTS WHERE MCKINLEY COUNTY IS THE FUNDED ENTITY

McKinley County is the project lead (funded entity) for 12 transportation projects included on the ICIP list and slated for funding between 2025 and 2028. These projects are summarized in Table 20. Seven (7) of these projects have already started.

Seven (7) of the projects involve bridge replacement or rail crossing improvement. The County plans to reconstruct approximately 48 bridges county wide. The county will need to acquire easements and rights of way and conduct archaeological and environmental studies, plan and design, and construct the bridges. Process to improve or reconstruct bridges will be decided by creation of a ranking system that will prioritize bridges based on various factors such as demand, cost, and difficulty of construction. Once the ranking list has been generated, McKinley County will seek funding per project one at a time. Phases will be based on condition of bridges, ease of right of way, design and construction, and funding resources. McKinley County has implemented two forms of prioritization including corridor and condition criteria.

Other McKinley County led projects include relocating a trailhead, planning, design and construction of various road improvements, extension of an access road, and acquiring right of way, and design and construction of a road to increase connectivity.

Table 20: ICIP Projects - McKinley County is Funded Entity

Project Title	Entity	Funding Sources	City	Location	Total Project Cost	Funded to Date	Not Yet Funded
County-wide Bridge Replacement	McKinley County	CAP, FGRANT, OR, DOT	Gallup	McKinley County	$86,540,000	$6,140,000	$80,400,000
Bridge 8085 Replacement	McKinley County	DOT	Gallup	CR43 - Superman Canyon Road & BNSF Rail	$6,000,000	$1,250,000	$4,750,000
CR43 Superman Canyon Bridge #1	McKinley County	IA, DOT	Churchrock	CR43 Superman Canyon Road	$5,850,000	$2,494,034	$3,355,966
CR1 - 'Mentmore Road' Reconstruction	McKinley County	LGRANT, LFUNDS, FGRANT	Mentmore	County Road 1	$28,000,000	$0	$28,000,000
High Desert Trailhead Relocation	McKinley County	NMEDD	Gallup	High Desert Trails (south of Gamerco/north of Gallup, NM)	$250,000	$0	$250,000
Deer Springs Road & Bridges Improvements	McKinley County	DOT, IA, IA,	Mexican Springs	Deer Springs Road	$7,500,000	$195,000	$7,305,000
Allison Corridor	McKinley County	LGRANT, FGRANT, DOT,	Gallup	Allison Corridor	$55,000,000	$9,000,000	$46,000,000
CR77 - 'Becenti Trail Road & Bridges Improvements	McKinley County	DOT, LFUNDS, IA,	Churchrock	CR 77 Becenti Trail	$7,690,500	$2,800,000	$4,890,500
CR19 Intersection and Rail Crossing Improvements	McKinley County	CAP, DOT, NMEDD,	Prewitt	CR19 & NM122 Intersection	$1,650,000	$0	$1,650,000
Hassler Valley Road Extension Project	McKinley County	DOT	Gallup	207 W. Hill Avenue	$3,000,000	$0	$3,000,000
Pinehaven Road Improvements	McKinley County	CAP, DOT,	Pinehaven	Pinehaven Road	$6,172,179	$480,869	$5,691,310
Rock Springs Road Extension	McKinley County	DOT	McKinley County	Carbon Coal Road	$1,000,000	$0	$1,000,000

II. PROJECTS ON COUNTY ROADS (MCKINLEY COUNTY IS NOT THE FUNDED ENTITY)

After reviewing ICIPs from all entities in McKinley County, there are roughly 14 transportation projects, that involve County roads, and are in need of funding between 2025 and 2028. These projects are summarized in Table 21. 12 of the Funded Entities for these projects are Navajo Nation Chapters, and two are the City of Gallup. These projects will involve County staff working closely with the Navajo Nation Chapters and City of Gallup. Three of these projects have already started.

Project improvements involve acquiring right of way, constructing new road segments, resurfacing, replacement of curb, gutter structure, and water lines, constructing a bridge, right of way fencing and sidewalks, installing cattle guards, turnouts, culverts, and gates. Studies and assessments include legal surveys, feasibility studies, archaeological studies, environmental assessments, drainage studies, planning, and design. Project goals include improving a major school bus route, improving drainage, and increasing access and safety.

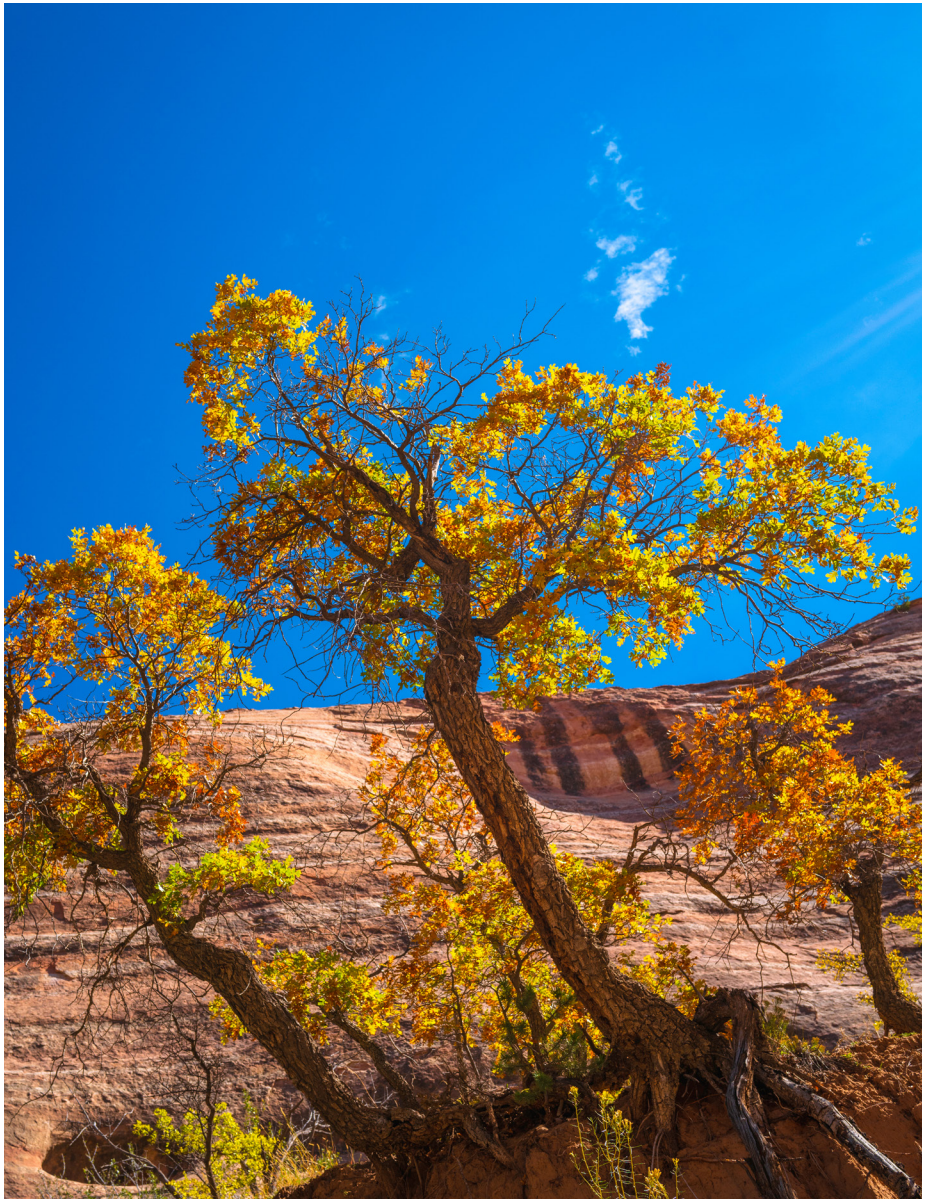


Table 21: ICIP Projects - County Roads (County is not Funded Entity)

Project Title	Entity	Funding Sources	City	Location	Total Project Cost	Funded to Date	Not Yet Funded
Baahaali Chp Blue Medicine Well Road Improvement	Baahaali (Breadsprings) Chapter	CAP, OR, SGRANT,	Red Rock	C7C6+Q2	$1,050,000	$50,000	$1,000,000
Baahaali Chp Pinehaven Road Improvement	Baahaali (Breadsprings) Chapter	LFUNDS, CAP, SGRANT, DOT	Vanderwagen	Baahaali Chapter	$4,675,000	$675,000	$4,000,000
Chichiltah Chp Road Improvement	ChiChiltah Chapter	LFUNDS, CAP, LFUNDS, IA	Vanderwagen	Chichiltah Chapter property.	$1,189,180	$89,180	$1,100,000
CR 15 Road Reroute Project	Churchrock Chapter	CAP, DOT, LFUNDS,	Churchrock	County Road 15	$1,350,000	$0	$1,350,000
Crownpoint Chp Church Road Improvements	Crownpoint Chapter	CAP, IA, OR,	Crownpoint	MRMQ+8P	$900,000	$0	$900,000
Mentmore Road	Gallup	LGRANT	Gallup	Mentmore Road (County Road No. 1) within city limit	$5,000,000	$0	$5,000,000
Hasler Valley Road extension to RRP	Gallup		Gallup	TBD	$15,000,000	$0	$15,000,000

Project Title	Entity	Funding Sources	City	Location	Total Project Cost	Funded to Date	Not Yet Funded
Lobo Valley Road Improvement	Pinedale Chapter	NMFA, LFUNDS, FGRANT	Pinedale	Lobo Valley Road	$5,500,000	$0	$5,500,000
Challenger and Telstar Road Improvements	Churchrock Chapter	CAP, LFUNDS, OR, IA	Churchrock	57 Telestar Road	$1,500,000	$0	$1,500,000
Pinedale Chp Rainbow Trail Road Improvements	Pinedale Chapter	LFUNDS, CAP, IA, OR	Churchrock	857HJHG6+RW	$3,500,000	$0	$3,500,000
Rock Springs Chp Upgrade Francisco Pond Rd Bridge	Rock Springs Chapter	CAP, LFUNDS, IA, FGRANT	Rock Springs	Francisco Pond Road Bridge	$2,430,000	$0	$2,430,000
Rock Springs Chp McKinley County Road Improvements	Rock Springs Chapter	LFUNDS, CAP	Rock Springs Chapter	Rock Springs Chapter	$2,750,000	$0	$2,750,000
Thoreau Chp County Road 51 Improvements	Thoreau Chapter	CAP, LFUNDS	Thoreau	County Road 51	$350,000	$0	$350,000
Whitehorse Lake Chp County Rd 19 ROW Assessments	White Horse Lake	DOT, CAP, LFUNDS, IA, CDBG	Cuba	East of Whitehorse Lake Chapter House	$8,600,000	$0	$8,600,000

III. PROJECTS ON ROADS THAT WOULD NEED TO BE OWNED OR MAINTAINED BY COUNTY (NOT ON COUNTY ROADS)

There are roughly ten (10) transportation projects included in ICIPs that need funding between 2025 and 2028 that are not on County roads, however the County may be asked to own and maintain the roads. These projects are summarized in Table 22. The Funded Entities for all these projects are Navajo Nation Chapters. Half of these projects have already started.

Project improvements involve acquiring right of way, constructing chip seal of a dirt road, replacement of box culverts, constructing gravel road and dirt roads utilized as a school bus routes and emergency access roads, installing street signage, drainage systems, Studies and assessments include legal surveys, environmental assessments, archaeology studies, drainage studies, planning, and design. Project goals include improving ride quality, fuel economy, appearance of roads, and addressing flooding, drainage, and erosion.



Table 22: ICIP Projects - To be Owned and Maintained by County (not on County Roads)

Project Title	Entity	Funding Sources	City	Location	Total Project Cost	Funded to Date	Not Yet Funded
Baca/Prewitt Chp Corner Mesa Road Improvement	Baca Chapter	IA	Prewitt	Bluewater Lake Area	$865,000	$0	$865,000
Becenti Chp NM Highway 371/N7120 Turn Lane	Becenti Chapter	DOT, CAP	Crownpoint	Becenti Chapter Compound	$2,500,000	$0	$2,500,000
Coyote Canyon Chp N-96 Chip/Seal Road Improvement	Coyote Canyon Chapter	IA, LFUNDS, CAP,	Brimhall	Located 9 miles east of SR 491; on Rt. 9 mile marker 9 North a stretch of road 5 miles long.	$4,010,000	$260,000	$3,750,000
Iyanbito Chp Upgrade Roads	Iyanbito Chapter	LFUNDS, CAP, OR, FGRANT	Iyanbito	211A Iyanbito Road	$12,735,820	$55,320	$12,680,500
Manuelito Chp Manuelito Canyon Road Improvement	Manuelito Chapter	SGRANT, LGRANT, IA, DOT	Manuelito	Manuelito Chapter - Manuelito Canyon Road	$4,100,000	$3,200,000	$900,000
Manuelito Chp Rocky Point Valley Road Improvement	Manuelito Chapter	SGRANT, LFUNDS, DOT,	Manuelito	Sky City Road within Manuelito Community	$625,000	$10,000	$615,000
Mexican Springs Chp Barney Rd Improvement	Mexican Springs Chapter	CAP, IA, LFUNDS,	Mexican Springs	Mexican Springs Chapter	$500,000	$0	$500,000
Mexican Springs Chp Deer Springs Road Improvement	Mexican Springs Chapter	IA, CAP, LFUNDS	Mexican Springs	Deer Springs Road	$4,083,500	$2,076,265	$2,007,235
Rock Springs Chp North Chapel Hill Loop Phase II	Rock Springs Chapter	LFUNDS, CAP	Rock Springs Chapter	Rock Springs Chapter	$310,000	$0	$310,000
Tse Lichii Chp Uprooted Tree Road Improvement	Tse Lichii (Red Rock) Chapter	CAP, LFUNDS, SGRANT,	Red Rock Chapter	South of Red Rock Chapter	$900,000	$0	$900,000

IV. PROJECTS THAT REQUIRE COUNTY COORDINATION (NO COUNTY OWNERSHIP)

There are roughly seven (7) transportation projects included in ICIPs that need funding between 2025 and 2028 and require coordination with the County but will not be owned by the County. These projects are summarized in Table 23. The Funded Entities for five (5) of these projects are Navajo Nation Chapters, one is the Gamerco Water and Sanitation District, and one is the Yah-ta-hey Water and Sanitation District. Three (3) of these projects have already started.

Project improvements involve bio-soil treatments, improvement to drainage, obtaining right of way, widening a road, earthwork, installing warning light, streetlights, and speed limit signs, grading and drainage structures, chip-seal, fencing, cattle guards, signing, striping, curb, and gutter, and constructing an exercise trail. Studies and assessments include archaeological and environmental studies, flood and erosion control studies, road construction cost, and survey. Project goals include improving safety, reducing high speed traffic, addressing flooding, improving road conditions for school buses, senior center transit and emergency response.

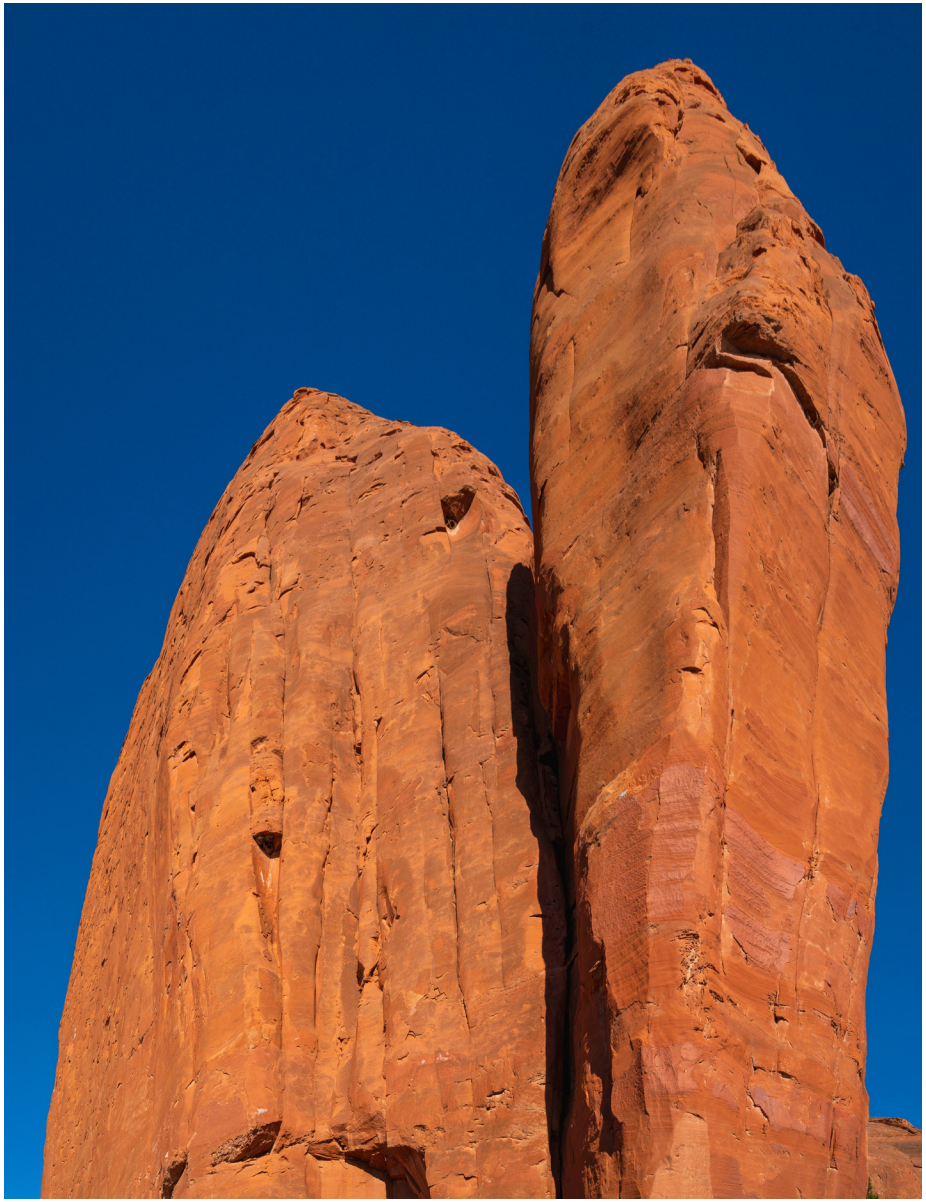


Table 23: ICIP Projects - Require County Coordination (No County Ownership)

Project Title	Entity	Funding Sources	City	Location	Total Project Cost	Funded to Date	Not Yet Funded
Baca/Prewitt Chp Residential Road Improv.	Baca Chapter	IA	Prewitt	PO Box 563	$1,200,000	$0	$1,200,000
Churchrock Chp NM-118 Road Improvements	Churchrock Chapter	SGRANT, LFUNDS, DOT	Churchrock	NM State Highway 118	$2,556,000	$56,000	$2,500,000
Gamerco Subdivision Roads Improvements	Gamerco WSD	CDBG, CAP, DOT, DFA, OR, NMEDL	Gamerco	1 Komfala Drive	$1,550,000	$0	$1,550,000
Manuelito Chp Tsa Da Tah Road Improvements	Manuelito Chapter	DOT, LGRANT, SGRANT, LFUNDS	Manuelito	Manuelito Chapter - Tse Da Tah Road	$1,075,000	$75,000	$1,000,000
Manuelito Chp New Walking Trail	Manuelito Chapter	CAP, ALTSD	Manuelito	Within Manuelito Chapter community.	$150,000	$0	$150,000
Pinedale Chp N7054 Road Improvements	Pinedale Chapter	OR, IA, CAP, FGRANT	Pinedale	Navajo Road 7054 in Pinedale, NM	$25,700,000	$5,400,000	$20,300,000
Yahtahey Road Improvements	Yah-ta-hey WSD	CAP, OR, DOT, CDBG	Gamerco	1 Komfala Drive	$1,350,000	$0	$1,350,000

REGIONAL TRANSPORTATION IMPROVEMENT PROGRAM RECOMMENDATIONS (RTIPR)

The Regional Transportation Improvement Program Recommendations (RTIPR) is a prioritized list of projects that each of the Regional Transportation Planning Organizations (RTPOs) develops on a regularly scheduled basis for possible inclusion in the Statewide Transportation Improvement Program (STIP), and is developed in accordance with New Mexico State Transportation Commission Policy 68. RTIPRs should be completed at least every other year and the RTIPR development schedule must be outlined in the RTIPR section of the RWP. The specific process for development of the RTIPR varies slightly among each RTPO, as does the project ranking criteria. However, the role of the RTIPR generally follows the Standardized RTIPR Process.

Historically, the RTIPR was a list of prioritized projects that were eligible for federal funding, however, the creation of the Transportation Project Fund (TPF) has resulted in the RTIPR to become more comprehensive and can list projects on local streets under the TPF category.

The STIP is a federally mandated, fiscally constrained, four-year planning document that lists all regionally significant and federally funded projects. This document is approved by the Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) every four years, and all projects awarded to Tribal and Local Public Agencies are required to be in the STIP.

Table 24 shows all the projects submitted by McKinley County and approved by the Northwest New Mexico RTPO (NWNMRTPO) to be included in the region's 2024 RTPT.

Table 24: McKinley County RTIPR Projects

LEAD ENTITY	TITLE	PROJECT TYPE	Funding Type	Needed Investment	STATUS	RTP/NMTP Goal
McKinley County	CR-1 Mentmore Road - Carbon Coal South	Road - Reconstruction (6)	Roadway	$25,000,000	Active, Not Funded	3 - Asset Management
McKinley County	Prewitt Interchange	Bridge - Replace + Add Capacity (10)	Bridge	$40,000,000	Active, Not Funded	1 - Operational Capacity
McKinley County	Thoreau Interchange	Bridge - Replace + Add Capacity (10)	Bridge	$40,000,000	Active, Not Funded	1 - Operational Capacity
McKinley County	CR19 Intersection & Rail Crossing	Rail/Highway Crossing (22)	Planning	$500,000	Active, Not Funded	2 - Safety
McKinley County	Twin Springs Trail	Other Trails (40)	RTP	$2,500,000	Active, Not Funded	4 - Mobility & Accessibility
McKinley County	High Desert Trailhead Relocation	Other Trails (40)	RTP	$800,000	Active, Not Funded	4 - Mobility & Accessibility
McKinley County	CR-1 Mentmore Road - Carbon Coal South	Bridge - Replace + Add Capacity (10)	TPF	$3,000,000	Active, Not Funded	4 - Asset Management

FUNDING SOURCES

State Transportation Improvement Program

The State Transportation Improvement Program (STIP) is a capital improvement program for the whole state. The STIP is managed by NMDOT and identifies transportation projects that will receive district-level funding. Funding programs include the following:

- National Highway Performance Program (NHPP)
- Surface Transportation Program (STP)
- Highway Safety Improvement Program (HSIP)
- Railway-Highway Crossings Programs – Hazard Elimination / Protective Devices
- Congestion Mitigation & Air Quality Improvement (CMAQ)
- Transportation Alternatives Program (TAP)
- State Planning and Research (SPR)
- Research, Development, and Technology Transfer (RD&T)
- Certain Safety Projects (GRC)
- Pavement Preservation Program (PPP)

To be included in the STIP, projects must take place on roadways that are designated as major collectors or arterials and are considered to be of regional significance.

Regional Planning Organizations also manage a region-level program called the Transportation Improvement Program (TIP). Inclusion in the TIP is required for inclusion in the STIP.

How projects are selected in the TIP varies by region and funding source. County Roads are generally not included in the STIP unless the project constitutes a statewide benefit. In order to elevate McKinley County roads to the STIP, staff can highlight the economic effect of the project and document benefits to New Mexico as a whole.

Transportation Alternatives Program

For projects that increase non-motorized mobility and access, prioritizing modes such as walking, biking, and rolling, the Transportation Alternatives Program (TAP) can provide reimbursement. Administered by the Federal Government as a set-aside from the Surface Transportation Block Grant (STBG) Program, this program can be used in a variety of ways. Aside from pedestrian and bicycle facilities, it can also be used to fund safe streets to school projects, turnouts and viewing areas, historic preservation, environmental mitigation, and safety assessments for vulnerable road users (VRUs).

Table 25: Set-Aside Funding FY22-FY26

Fiscal Year	Transportation Alternatives Set-Aside Funding (23 U.S.C. 133(h))
2022	$1,383,540,438
2023	$1,411,211,247
2024	$1,439,435,472
2025	$1,468,224,182
2026	$1,497,588,662

Recreational Trails Program

The Recreational Trails Program (RTP) is a Federal reimbursement program that can be used to fund trail-related projects. Types of trails eligible for funding include those used for hiking, biking, horseback riding, and motorized driving. The Bipartisan Infrastructure Law of 2021 reauthorized this program for Fiscal Years 2022-2026. The program is a set aside of the TAP, which is itself a set-aside of the STBG. Funds from this program can be used to maintain and restore existing plans, develop and maintain trailside and trailhead facilities, purchase equipment for construction and maintenance equipment, construct new trails, assess trail condition, and outdoor and environmental education programs.

A recent example of the RTP in action in McKinley County is the McKenzie Ridge Trail Connector. Located southeast of Gallup, this project constructed a new 22-mile link between the Hilso (McGaffey) and Twin Springs Trail systems, expanded the existing Zuni Mountain Trail Project and completed a regional trail between Cibola and McKinley county.

Funding for NMDOT Facilities

County roads are often at a disadvantage when it comes to inclusion in the STIP, and there are several programs targeted at State-owned facilities and roads that are have "arterial" or "collector" as their functional classification. However, improvements to these roads can benefit McKinley County, even if the funding it's directly targeted to county-owned roads. McKinley County and NMDOT can coordinate on projects that impact the county and greater region, and that improve mobility for McKinley County residents.

PAVEMENT PRESERVATION PROGRAM

The Pavement Preservation Program (PPP) is targeted toward extending the lifespan of interstates and state highways. It is a district level funding program and is not applicable to county-owned roads. McKinley county can provide input on which roads to include in the PPP through SERTPO boards and committees.

HIGHWAY SAFETY IMPROVEMENT PROGRAM

The Highway Safety Improvement Program (HSIP) is targeted toward increasing safety and reducing fatalities and serious injuries on roadways. This program is administered by NMDOT through the RTPO. An estimated $22 million in funding from this program is apportioned to New Mexico each year. Some of this funding is available for non-state-owned facilities.

NMDOT Local Government Road Fund Program

The NMDOT Local Government Road Fund Program consists of four programs: The County Arterial Program, the Cooperative Agreement Program, the Municipal Arterial Program, and the School Bus Routes Program. Together these programs fund district-prioritized projects for municipalities and can be utilized for construction, reconstruction, maintenance, repair, and right-of-way acquisition. 75% of the funding comes from NMDOT, with the remaining 25% provided by municipalities. Projects involving the construction of new highways or the widening of existing highways are required by state law to consider the inclusion of pedestrian, bicycle, and equestrian facilities in the project design.

COUNTY ARTERIAL PROGRAM

The County Arterial Program (CAP) disburses funds from the State Highway Trust Fund to each county as a function of roadway lane miles. McKinley County is responsible for these funds, and controls how they will be used. See the table below for the formula determining funding levels.

Table 26: CAP Road Mileage Category Based on Number of Miles Maintained

Road Mileage by County	CAP Funding Level
400 miles or fewer	$250 per miles
401 to 800 miles	$100,000 plus $200 for each mile over 400 miles
801 to 1200 miles	$180,000 plus $150 for each mile over 800 miles
1201 to 1600 miles	$240,000 plus $100 for each mile over 1200 miles
1601 miles or more	$300,000 plus $50 for each mile over 1600 miles

COOPERATIVE AGREEMENT PROGRAM

The Cooperative Agreement Program distributes money to fund district-prioritized projects for counties, municipalities, school districts, and others. 42% of the Local Government Road Fund goes to this program as follows:

- 33% for agreements with counties
- 49% for agreements with municipalities
- 14% for agreements with school districts
- 4% for agreements with other entities

MUNICIPAL ARTERIAL PROGRAM

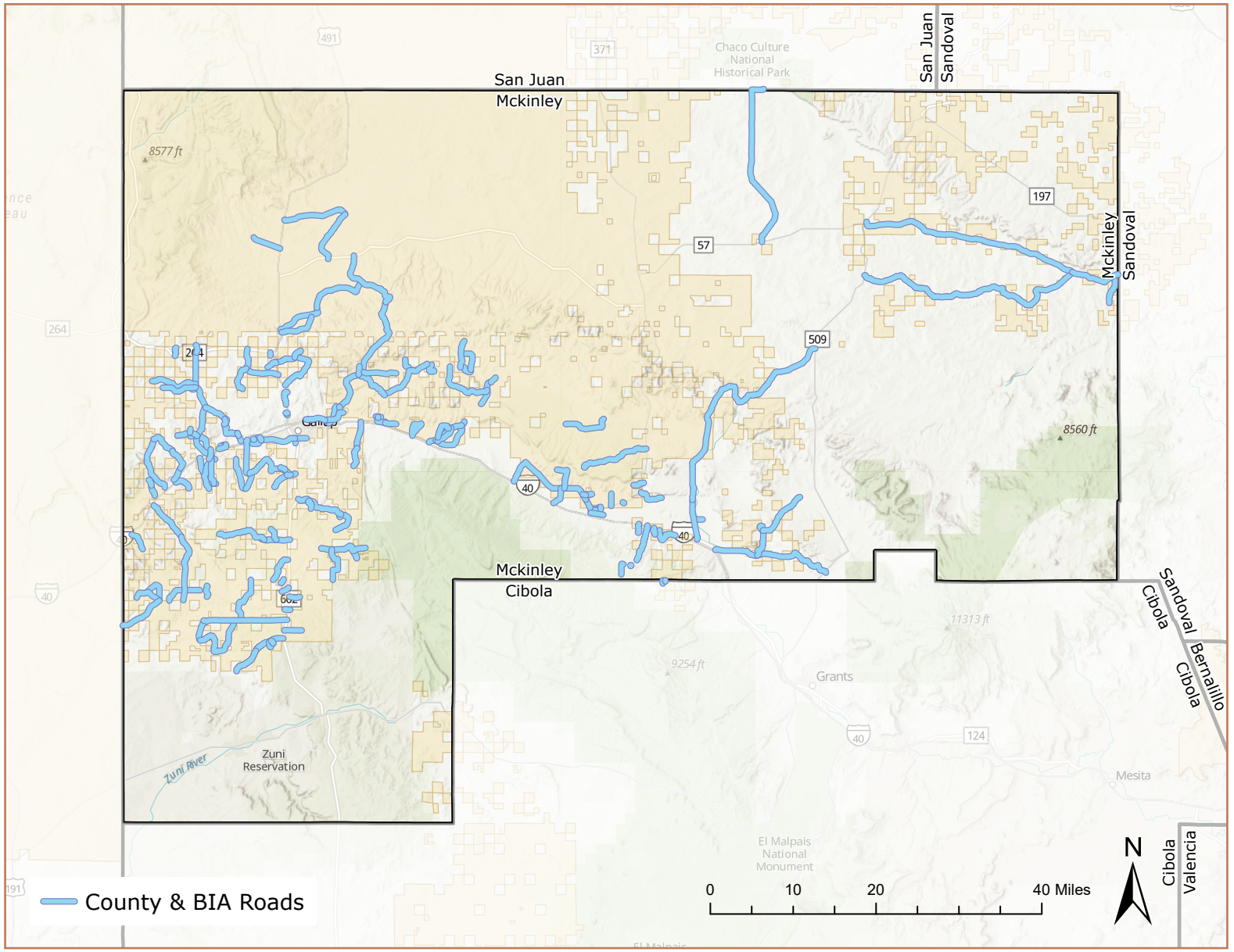
The Municipal Arterial Program (MAP) allocates funding for arterials within city limits, targeting roadways that are rural state highway extensions and other county roads. 16% of the Local Government Road Program goes to this program. These funds cannot be used for drainage and/or sewer infrastructure.

The MAP presents and opportunity for McKinley County to work together with Gallup and other municipalities on projects that support regional mobility and county transportation needs.

SCHOOL BUS ROUTES PROGRAM

The School Bus Routes Program (SB) accounts for 16% of the Local Government Road Program and provides funds for projects where counties partner with school districts for construction or maintenance projects on roadways that serve school bus routes.

Appendix A: Road Names


San Juan
Mckinley
San Juan
Sandoval
Chaco Culture National Historical Park
Mckinley
Sandoval
Mckinley
Cibola
Sandoval
Cibola
Bernalillo
Cibola
Cibola
Valencia
Zuni Reservation
Zuni River
Grants
Mesita
El Malpais National Monument
8577 ft
8560 ft
11313 ft
9254 ft
0
10
20
40 Miles
N
County & BIA Roads

COUNTY DATABASE	DIR	BIA DATABASE
COUNTY ROAD	S	1ST CANYON RD
COUNTY ROAD	S	ALPHA ST
COUNTY ROAD	W	BETA ST
COUNTY ROAD	E	BLACK HAT RD
COUNTY ROAD	S	BLACKWATER RD
COUNTY ROAD	N	COVE RD
COUNTY ROAD	S	D & S TRAILER RANCH RD
COUNTY ROAD	S	DELTA ST
COUNTY ROAD	S	EAGLE ROOST RD
COUNTY ROAD	W	EAST NAVARRE BLVD
COUNTY ROAD	S	EAST TSE YAH TOH RD
COUNTY ROAD	W	ELYSE DR
COUNTY ROAD	W	FALLEN MAPLE CANYON RD
COUNTY ROAD	W	FALLEN MAPLE CANYON RD
COUNTY ROAD	W	FRANCISCO POND RD
COUNTY ROAD	S	GAMMA ST
COUNTY ROAD	E	HUNTING CANYON RD
COUNTY ROAD	E	JAKE RD
COUNTY ROAD	W	JESSICA LN
COUNTY ROAD	S	LOS ESQUIVELES DR
COUNTY ROAD	W	LYNX RD
COUNTY ROAD	W	MEXICAN SPRINGS RD
COUNTY ROAD	W	MIDWAY DR
COUNTY ROAD	W	NIZHONI BLVD

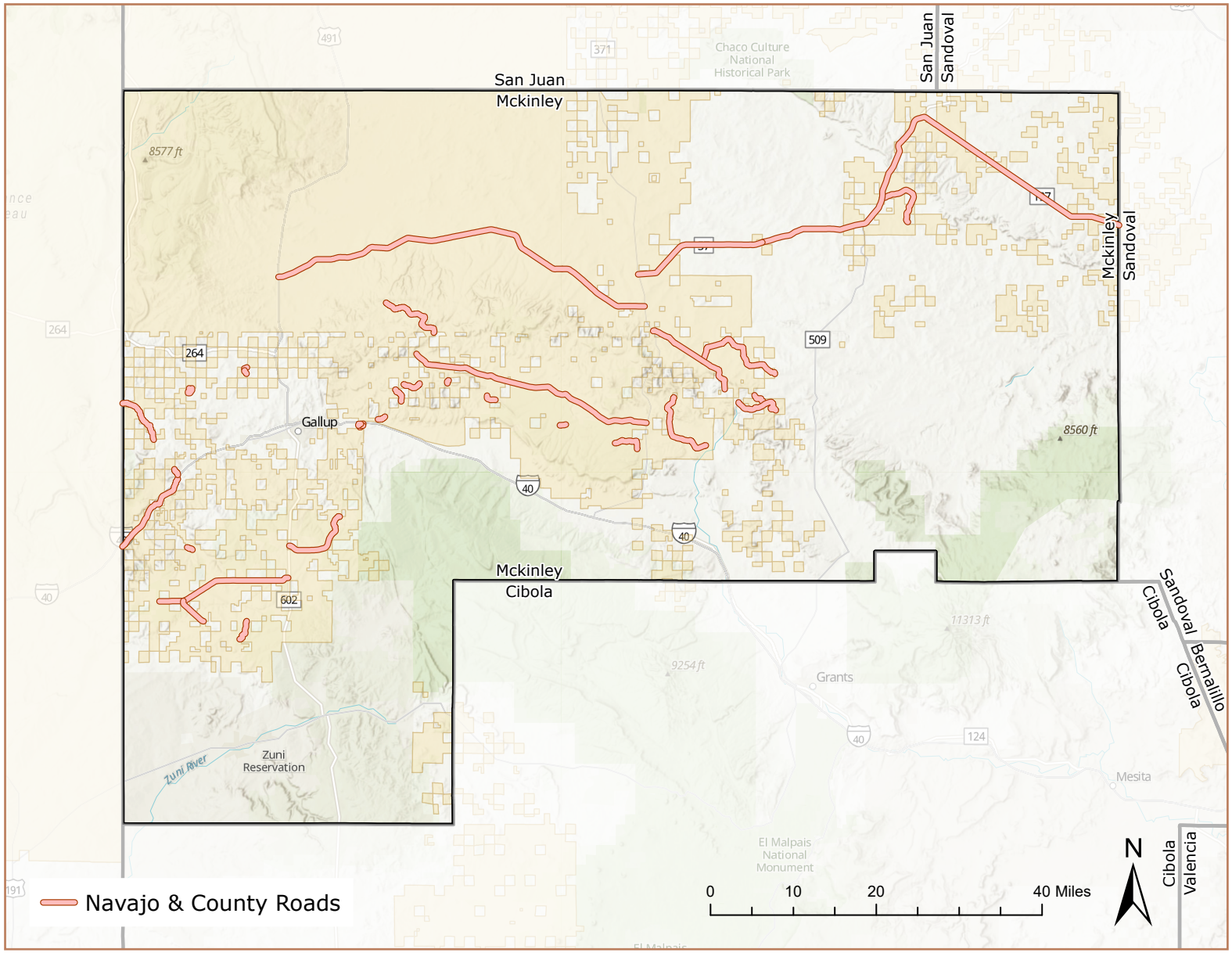
COUNTY DATABASE	DIR	BIA DATABASE
COUNTY ROAD	E	RED MESA BLUFFS DR
COUNTY ROAD	N	RED ROCKS AVE
COUNTY ROAD	W	REMNANT MESA RD
COUNTY ROAD	S	SADDLE RIDGE RD
COUNTY ROAD	E	SALT WATER WASH RD
COUNTY ROAD	E	SOUTH CIPRIANO ST
COUNTY ROAD	S	SOUTH LA BAH DR
COUNTY ROAD	E	SPENCER VALLEY RD
COUNTY ROAD	W	SUNRISE DR
COUNTY ROAD	W	TSE YA TOH LOOP
COUNTY ROAD	W	WEST DEFIANCE RD
COUNTY ROAD	W	WILLIAMS ACRES DR
COUNTY ROAD	S	ZETA ST
COUNTY ROAD 1	N	MENTMORE RD
COUNTY ROAD 1	N	MENTMORE RD
COUNTY ROAD 100A	W	SOUTH CHAVEZ LOOP
COUNTY ROAD 100B	W	WOODVIEW DR
COUNTY ROAD 100D	E	OLD WINDMILL TRL
COUNTY ROAD 10A	E	PINEHAVEN RD
COUNTY ROAD 10C	W	R. CHAVEZ RD
COUNTY ROAD 110A	E	BLUEJAY RD
COUNTY ROAD 120B	S	TSE DE TAH CANYON RD
COUNTY ROAD 130A	W	BROKEN ARROW RD
COUNTY ROAD 140A	E	CHACO CANYON RD
COUNTY ROAD 14A	E	SEEWALD DR
COUNTY ROAD 15	E	2 ND CANYON RD

COUNTY DATABASE	DIR	BIA DATABASE
COUNTY ROAD 15A	E	UP HILL RD
COUNTY ROAD 15B	S	OLD CHURCH ROCK MINE RD
COUNTY ROAD 16A	W	SUNDANCE COAL MINE RD
COUNTY ROAD 16A	W	SUNDANCE COAL MINE RD
COUNTY ROAD 180A	W	HAMILTON RD
COUNTY ROAD 19A	N	COUNTY ROAD 19
COUNTY ROAD 19A	E	COUNTY ROAD 19
COUNTY ROAD 19B	E	OLD LANDFILL RD
COUNTY ROAD 19C	E	HOSPAH RD
COUNTY ROAD 1A	N	DEFIANCE DRAW RD
COUNTY ROAD 1C	W	WEST TSE YAH TOH RD
COUNTY ROAD 1D	W	MENTMORE RD
COUNTY ROAD 1F		CHAPTER RD
COUNTY ROAD 1G	W	SUNSET VALLEY RD
COUNTY ROAD 20A	S	TWIN BUTTES RD
COUNTY ROAD 220A (NAVAJO/BIA ROAD 491)	W	WOLF CANYON RD
COUNTY ROAD 23A	E	HAYSTACK RD
COUNTY ROAD 23C	E	RED MOUNTAIN RD
COUNTY ROAD 23D	E	BLACKWOOD RD
COUNTY ROAD 240/WEST NIZHONI	W	ARMAND ORTEGA RD
COUNTY ROAD 240/WEST NIZHONI	W	MENDOZA BLVD
COUNTY ROAD 24A	W	BEAN FARM RD
COUNTY ROAD 26A	S	CRESTVIEW RD

COUNTY DATABASE	DIR	BIA DATABASE
COUNTY ROAD 27A	W	COUNTY ROAD 27
COUNTY ROAD 27C	E	CASTLE ROCK RD
COUNTY ROAD 2A	W	REFUGE ROCK RD
COUNTY ROAD 2B	W	INDIAN SUMMER RD
COUNTY ROAD 300	E	CHALLENGER RD
COUNTY ROAD 300	E	CHALLENGER RD
COUNTY ROAD 300	E	GLOBAL CT
COUNTY ROAD 300	E	TELSTAR RD
COUNTY ROAD 300	E	TELSTAR RD
COUNTY ROAD 300	E	TELSTAR RD
COUNTY ROAD 32A	S	CEDAR BLUFF RD
COUNTY ROAD 32B	S	PURTY ROCK RD
COUNTY ROAD 32B	S	PURTY ROCK RD
COUNTY ROAD 32D	E	SALT WATER WASH RD
COUNTY ROAD 32E	E	RED BEARD RD
COUNTY ROAD 33A	E	TURTLE BUTTE CIR
COUNTY ROAD 34A	W	SKEETS RD
COUNTY ROAD 34C	W	BIG FALLS RD
COUNTY ROAD 35A	E	SWEETWATER RD
COUNTY ROAD 35B	E	IYANBITO RD
COUNTY ROAD 35C	E	BURNT CORN RD
COUNTY ROAD 35D	E	DAKOTA LOOP
COUNTY ROAD 37A	E	RED WILLOW RD
COUNTY ROAD 37B	E	RED WILLOW RD
COUNTY ROAD 390G	E	1ST AVE
COUNTY ROAD 4	N	LEO CANYON RD
COUNTY ROAD 4	N	LOW MESA RD

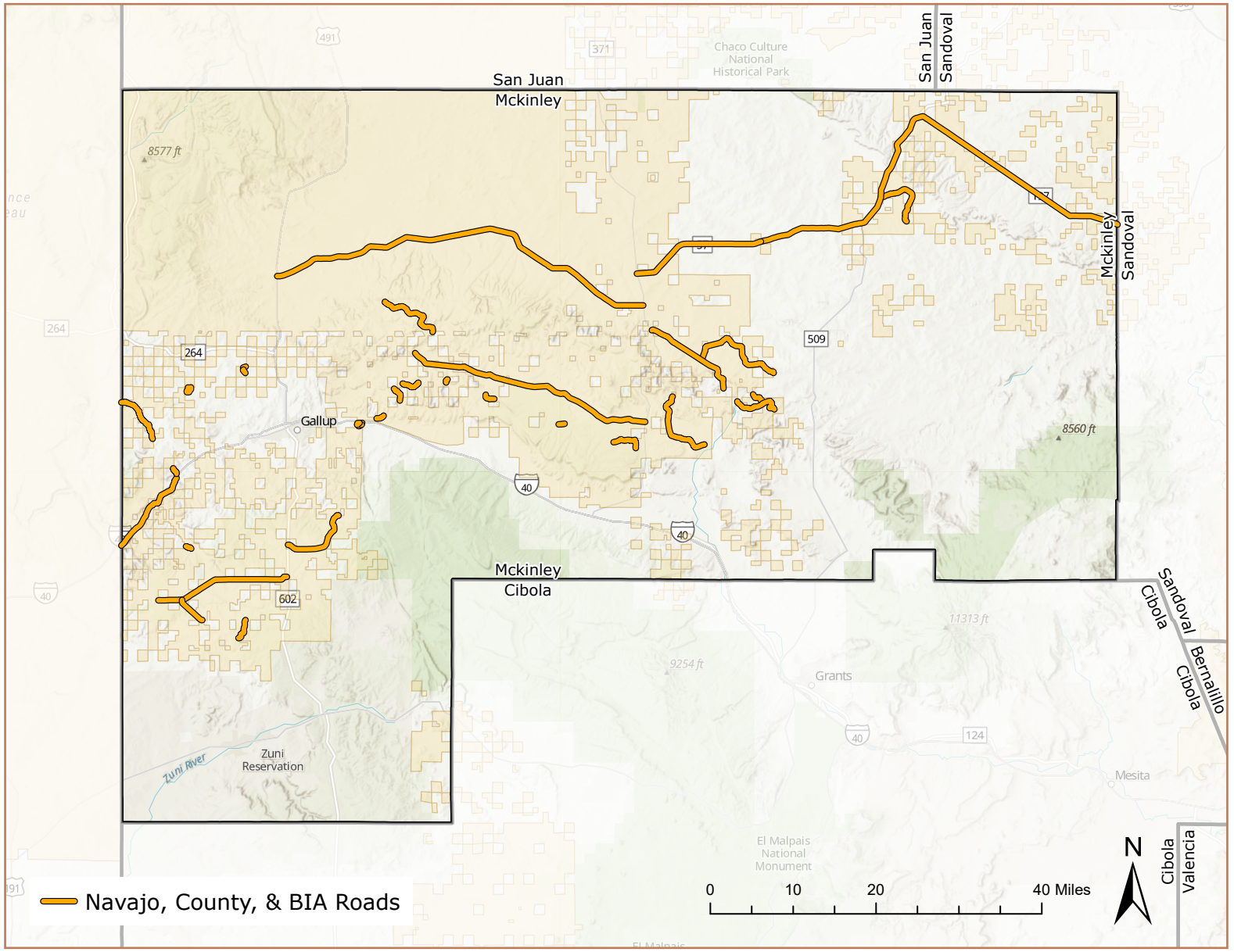
COUNTY DATABASE	DIR	BIA DATABASE
COUNTY ROAD 43	E	HASLER VALLEY RD
COUNTY ROAD 43A	E	SUPERMAN CANYON RD
COUNTY ROAD 43B	E	HASLER VALLEY RD
COUNTY ROAD 43C	N	WHITE CLIFFS RD
COUNTY ROAD 43D	N	ROCK FLATS RD
COUNTY ROAD 46A	E	BLUE MEDICINE WELL RD
COUNTY ROAD 46C		BITTERSPRINGS RD
COUNTY ROAD 46D	E	RODEO RD
COUNTY ROAD 49A	E	LOBO VALLEY RD
COUNTY ROAD 49B	N	RAINBOW TRL
COUNTY ROAD 49C	E	PINEDALE LOOP
COUNTY ROAD 4A	N	LOW MESA RD
COUNTY ROAD 4C	N	HUNTERS POINT RD
COUNTY ROAD 4D	N	LEO CANYON RD
COUNTY ROAD 4E	N	LEO CANYON RD
COUNTY ROAD 50	W	MT. POWELL RD
COUNTY ROAD 51A	E	COUNTY ROAD 51
COUNTY ROAD 51D		LARGO RANCH(SOUTH)
COUNTY ROAD 51E	W	OLD GRAVEL RD
COUNTY ROAD 55	E	COUNTY ROAD 55
COUNTY ROAD 55	E	COUNTY ROAD 55
COUNTY ROAD 55A	E	TOHLAKAI RD
COUNTY ROAD 57A	N	CHINA SPRINGS LOOP
COUNTY ROAD 57B	E	NORTH WHITE SMOKE HILL RD
COUNTY ROAD 5A	S	MANUELITO CANYON RD

COUNTY DATABASE	DIR	BIA DATABASE
COUNTY ROAD 5A	S	MANUELITO CANYON RD
COUNTY ROAD 5B	W	FOUR CORNERS RD
COUNTY ROAD 5C	W	JONES RANCH RD
COUNTY ROAD 5D	W	FOX RD
COUNTY ROAD 5E	W	BADGER RD
COUNTY ROAD 60A	W	COAL BASIN RD
COUNTY ROAD 61	N	COUNTY ROAD 61B
COUNTY ROAD 61A	E	COUNTY ROAD 61
COUNTY ROAD 6A	W	COUSINS RD
COUNTY ROAD 6B	W	TWO WELLS RD
COUNTY ROAD 6C	W	SMOOTH MOUNTAIN RD
COUNTY ROAD 6D	E	OAK MESA RD
COUNTY ROAD 7004	E	RINCON MARQUEZ RD
COUNTY ROAD 7004	E	RINCON MARQUEZ RD
COUNTY ROAD 77A	W	BECENTI TRAIL
COUNTY ROAD 77B	N	HARD GROUND CANYON RD
COUNTY ROAD 77C	N	HARD GROUND CANYON RD
COUNTY ROAD 7A	E	CHINO LOOP
COUNTY ROAD 8	W	BOSSON WASH RD
COUNTY ROAD 8A	W	BOSSON WASH RD
COUNTY ROAD 9	W	ROCK SPRINGS RD
COUNTY ROAD 9	S	ROCK SPRINGS RD
COUNTY ROAD/BLUEWATER	N	WINDSONG AVENUE


San Juan
Mckinley
San Juan
Sandoval
Mckinley
Sandoval
Mckinley
Cibola
Sandoval
Cibola
Bernalillo
Cibola
Valencia
Gallup
Grants
Mesita
Zuni Reservation
Zuni River
Chaco Culture National Historical Park
El Malpais National Monument
8577 ft
8560 ft
11313 ft
9254 ft
264
509
40
602
124
491
371
191
Navajo & County Roads
0
10
20
40 Miles
N

NAVAJO DATABASE	DIR	NAVAJO DATABASE	COUNTY DATABASE
NAVAJO / BIA ROUTE	N	BIG ROCK CANYON RD	BIG ROCK CANYON RD
NAVAJO ROUTE 7062	E	BREAD SPRINGS RD	BREAD SPRINGS RD
NAVAJO/BIA ROAD	S	BLACKFOOT RD	BLACKFOOT RD
NAVAJO/BIA ROAD	E	CARDINAL DR	CARDINAL DR
NAVAJO/BIA ROAD	E	COUGAR RD	COUGAR RD
NAVAJO/BIA ROAD	E	FALCON RD	FALCON RD
NAVAJO/BIA ROAD	S	HAPPY VALLEY RD	HAPPY VALLEY RD
NAVAJO/BIA ROAD	W	HORSESHOE POND RD	HORSESHOE POND RD
NAVAJO/BIA ROAD	N	HUNTERS POINT RD	HUNTERS POINT RD
NAVAJO/BIA ROAD	W	MIDGET MESA RD	MIDGET MESA RD
NAVAJO/BIA ROAD	W	PITTSBURGH LOOP	PITTSBURGH LOOP
NAVAJO/BIA ROAD	E	RED TOP RD	RED TOP RD
NAVAJO/BIA ROAD	W	ROADRUNNER DR	ROADRUNNER DR
NAVAJO/BIA ROAD	E	SOLAR RD	SOLAR RD
NAVAJO/BIA ROAD	W	STONEHENGE RD	STONEHENGE RD
NAVAJO/BIA ROAD	S	SUNDANCE LOOP	SUNDANCE LOOP
NAVAJO/BIA ROAD	E	SUNNYSIDE RANCH RD	SUNNYSIDE RANCH RD
NAVAJO/BIA ROAD	E	WASHINGTON POND RD	WASHINGTON POND RD
NAVAJO/BIA ROAD 473	E	WHITE MESA RD	WHITE MESA RD
NAVAJO/BIA ROAD 48	E	BORREGO PASS RD	BORREGO PASS RD
NAVAJO/BIA ROAD 482	E	WHITE RIDGE RD	WHITE RIDGE RD
NAVAJO/BIA ROAD 483	E	STAR POND RD	STAR POND RD
NAVAJO/BIA ROAD 485	S	CASAMERO LAKE LOOP	CASAMERO LAKE LOOP
NAVAJO/BIA ROAD 489	N	STACK WOOD RD	STACK WOOD RD
NAVAJO/BIA ROAD 491	W	WOLF CANYON RD	WOLF CANYON RD
NAVAJO/BIA ROAD 7041	W	COUSINS RD	COUSINS RD
NAVAJO/BIA ROAD 7046	W	JONES RANCH RD	JONES RANCH RD

NAVAJO DATABASE	DIR	NAVAJO DATABASE	COUNTY DATABASE
NAVAJO/BIA ROAD 7140	W	LUPTON RD	LUPTON RD
NAVAJO/BIA ROAD 9	E	EAST ROUTE 9	EAST ROUTE 9
NAVAJO/BIA ROAD 9	E	EAST ROUTE 9	EAST ROUTE 9
NAVAJO/BIA ROAD 9	E	WEST ROUTE 9	WEST ROUTE 9
NAVAJO/BIA ROAD 9658	W	RED WATER POND RD	RED WATER POND RD
NAVAJO/BIA ROAD N 11-49	E	HIGHWAY N 11- 49	HIGHWAY N 11- 49

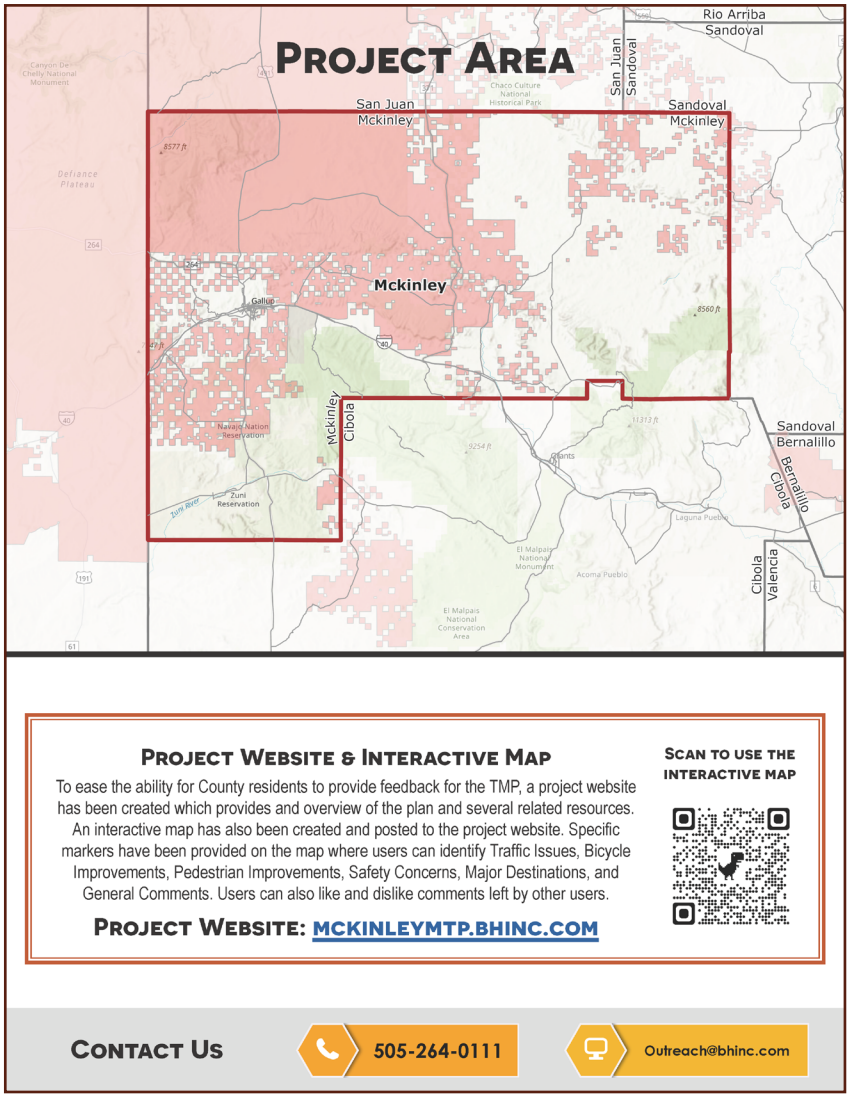

San Juan
Mckinley
San Juan
Sandoval
Mckinley
Sandoval
Mckinley
Cibola
Sandoval
Cibola
Bernalillo
Cibola
Valencia
Gallup
Grants
Mesita
Zuni Reservation
Zuni River
Chaco Culture National Historical Park
El Malpais National Monument
8577 ft
8560 ft
11313 ft
9254 ft
264
509
40
602
124
491
371
0
10
20
40 Miles
N
Navajo, County, & BIA Roads

NAVAJO DATABASE	DIR	BIA DATABASE	COUNTY DATABASE
NAVAJO / BIA ROUTE	N	BIG ROCK CANYON RD	BIG ROCK CANYON RD
NAVAJO ROUTE 7062	E	BREAD SPRINGS RD	BREAD SPRINGS RD
NAVAJO/BIA ROAD	S	BLACKFOOT RD	BLACKFOOT RD
NAVAJO/BIA ROAD	E	CARDINAL DR	CARDINAL DR
NAVAJO/BIA ROAD	E	COUGAR RD	COUGAR RD
NAVAJO/BIA ROAD	E	FALCON RD	FALCON RD
NAVAJO/BIA ROAD	S	HAPPY VALLEY RD	HAPPY VALLEY RD
NAVAJO/BIA ROAD	W	HORSESHOE POND RD	HORSESHOE POND RD
NAVAJO/BIA ROAD	N	HUNTERS POINT RD	HUNTERS POINT RD
NAVAJO/BIA ROAD	W	MIDGET MESA RD	MIDGET MESA RD
NAVAJO/BIA ROAD	W	PITTSBURGH LOOP	PITTSBURGH LOOP
NAVAJO/BIA ROAD	E	RED TOP RD	RED TOP RD
NAVAJO/BIA ROAD	W	ROADRUNNER DR	ROADRUNNER DR
NAVAJO/BIA ROAD	E	SOLAR RD	SOLAR RD
NAVAJO/BIA ROAD	W	STONEHENGE RD	STONEHENGE RD
NAVAJO/BIA ROAD	S	SUNDANCE LOOP	SUNDANCE LOOP
NAVAJO/BIA ROAD	E	SUNNYSIDE RANCH RD	SUNNYSIDE RANCH RD
NAVAJO/BIA ROAD	E	WASHINGTON POND RD	WASHINGTON POND RD
NAVAJO/BIA ROAD 473	E	WHITE MESA RD	WHITE MESA RD
NAVAJO/BIA ROAD 48	E	BORREGO PASS RD	BORREGO PASS RD
NAVAJO/BIA ROAD 482	E	WHITE RIDGE RD	WHITE RIDGE RD
NAVAJO/BIA ROAD 483	E	STAR POND RD	STAR POND RD
NAVAJO/BIA ROAD 485	S	CASAMERO LAKE LOOP	CASAMERO LAKE LOOP
NAVAJO/BIA ROAD 489	N	STACK WOOD RD	STACK WOOD RD
NAVAJO/BIA ROAD 491	W	WOLF CANYON RD	WOLF CANYON RD
NAVAJO/BIA ROAD 7041	W	COUSINS RD	COUSINS RD
NAVAJO/BIA ROAD 7046	W	JONES RANCH RD	JONES RANCH RD

NAVAJO DATABASE	DIR	BIA DATABASE	COUNTY DATABASE
NAVAJO/BIA ROAD 7140	W	LUPTON RD	LUPTON RD
NAVAJO/BIA ROAD 9	E	EAST ROUTE 9	EAST ROUTE 9
NAVAJO/BIA ROAD 9	E	EAST ROUTE 9	EAST ROUTE 9
NAVAJO/BIA ROAD 9	E	WEST ROUTE 9	WEST ROUTE 9
NAVAJO/BIA ROAD 9658	W	RED WATER POND RD	RED WATER POND RD
NAVAJO/BIA ROAD N 11-49	E	HIGHWAY N 11- 49	HIGHWAY N 11- 49

Appendix B: Community Engagement







Meet and Greet

Come Learn About the McKinley County TMP!

Do you live or work in McKinley County? We want to hear from you! The McKinley County TMP project team will be hosting a table at the Gallup Arts Crawl to discuss the upcoming Transportation Master Plan. Come find us and share any safety or congestion issues you encounter. Your input will help the County prioritize projects and improvements over the next 20 years.

When
April 13th, 7:00 - 9:00 pm

Where
Gallup Arts Crawl, Downtown Gallup

Want to learn more? Head to the project website:
MCKINLEYMTP.BHINC.COM

Contact Us
505-264-0111
Outreach@bhinc.com

Social Media Toolkit

The McKinley County MTP Social Media toolkit provides draft text copy for Instagram, Facebook, and Twitter highlighting the project, the project website and interactive map. BHI will update and refine draft text copy for the community survey and the public meetings once developed/dates identified.

Instagram/Facebook/Twitter Copy

Plan/Project Website Post –

McKinley County is excited to announce the start of the planning process for the County's Master Transportation Plan update! The McKinley County Master Transportation Plan will evaluate transportation needs and strengthen existing programs to assist local decision-making processes in the coming decades.

For additional information, interactive project materials, and more visit our project website at: https://mckinleymtp.bhinc.com/

Interactive Map Post –

Check out our interactive map on the McKinley County Master Transportation Plan website! Do you have specific locations in the county that you'd like to share your thoughts on? You now have the opportunity to drop pins concerning traffic issues, areas for bicycle improvements, safety concerns, etc. while also being able to view other's comments.

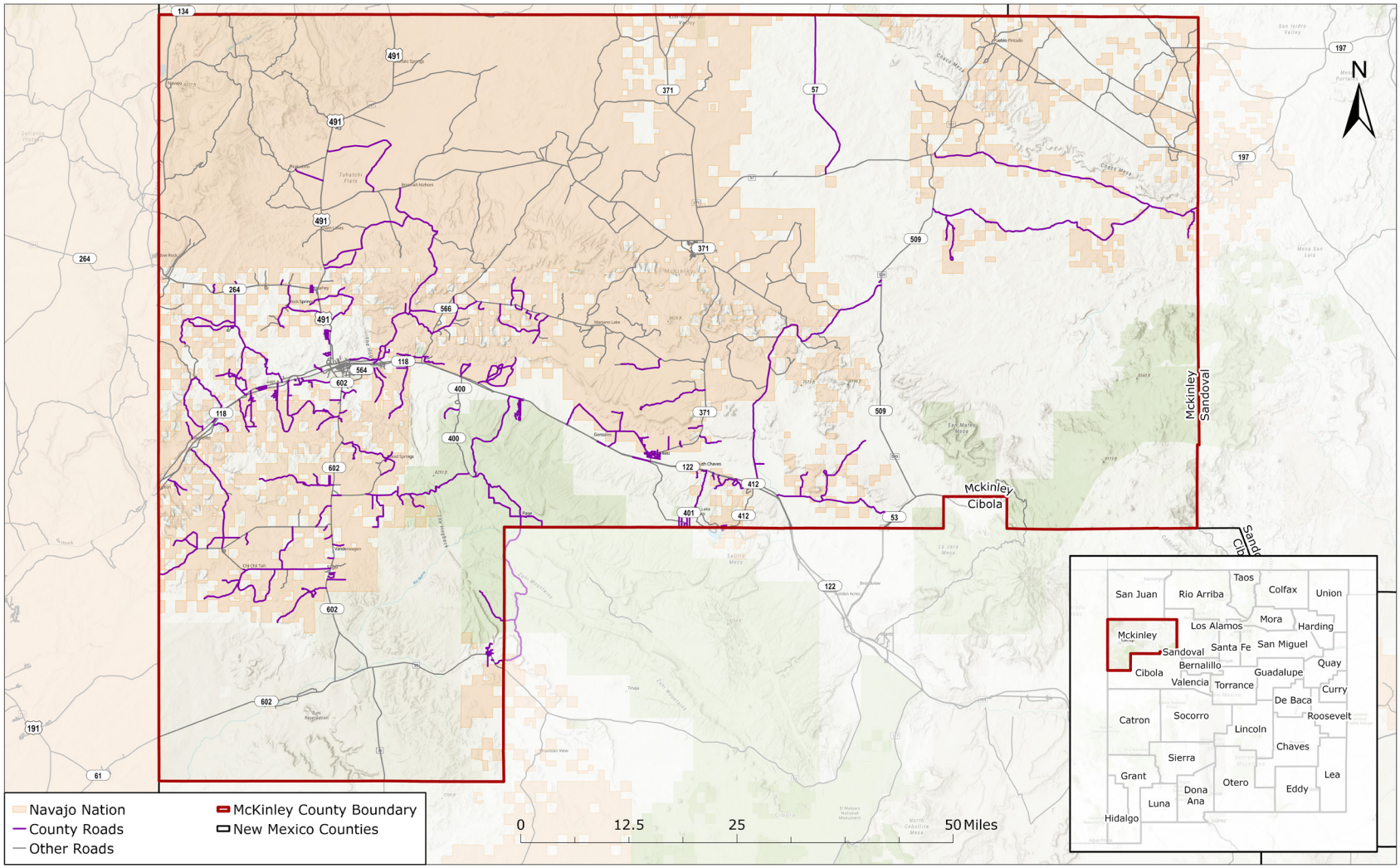
To get started today, head to the project website at: https://mckinleymtp.bhinc.com/

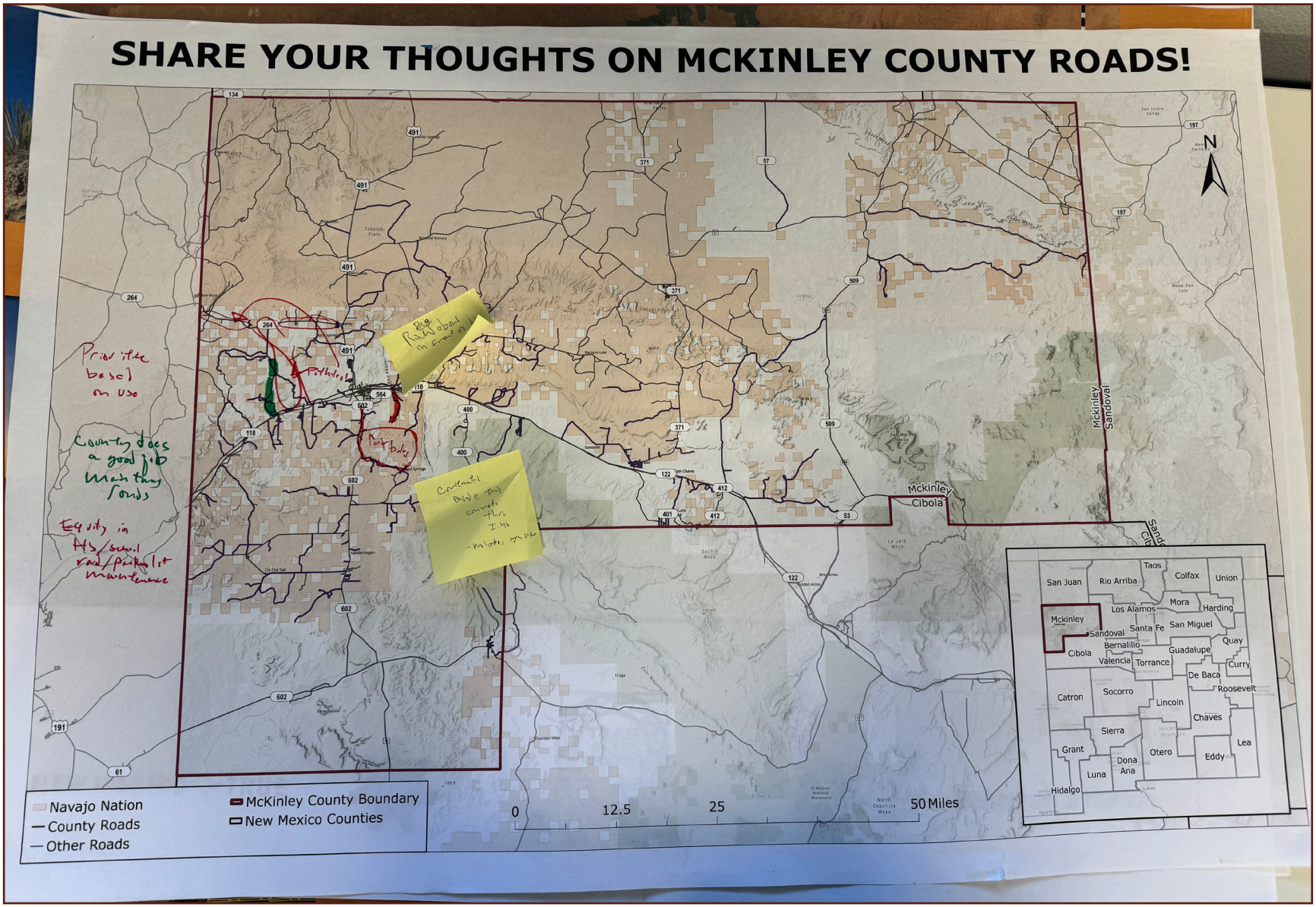
Public Event #1 Post –

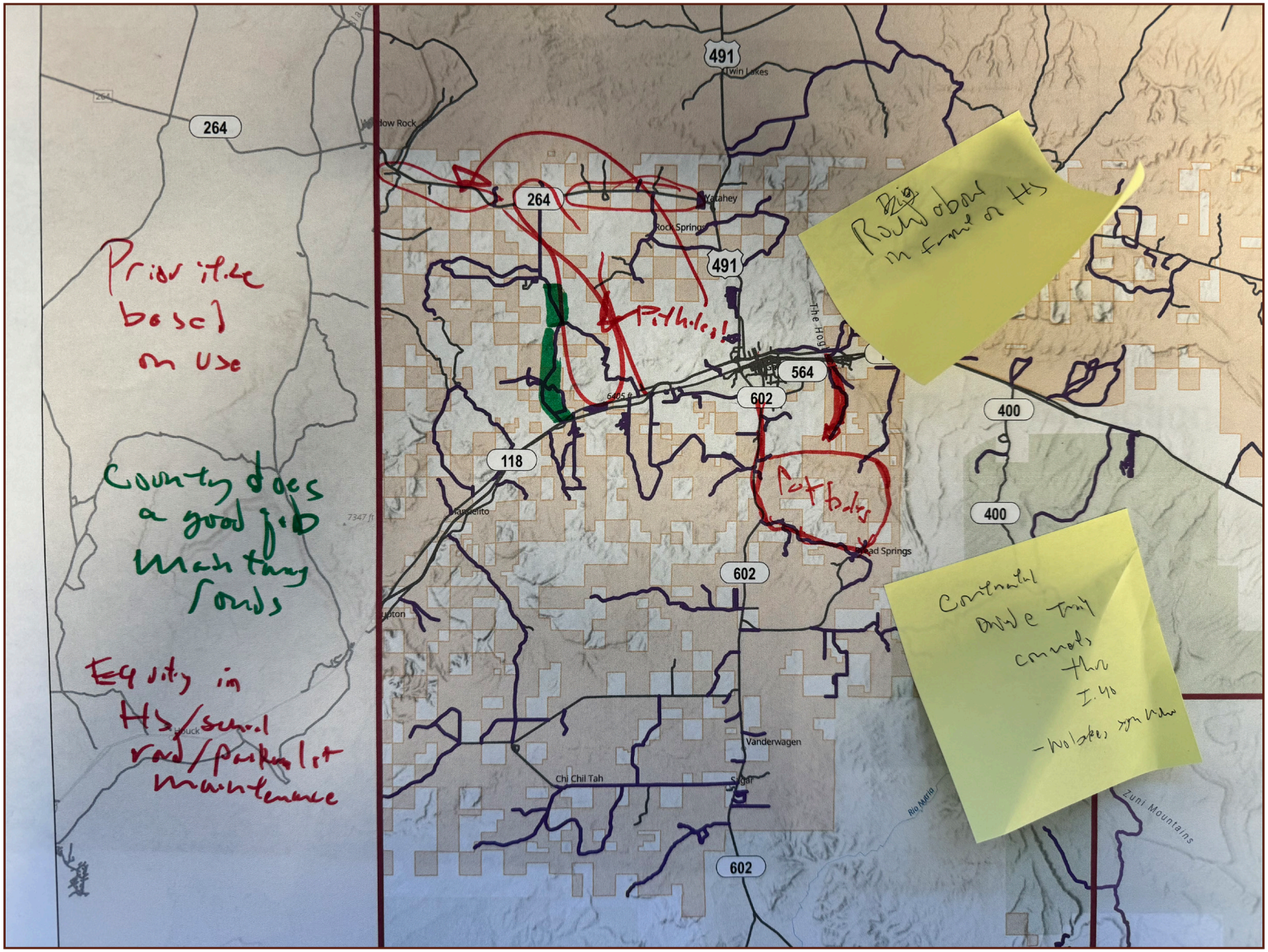
Do you live or work in McKinley County? We want to hear from you! The McKinley County TMP project team will be hosting a table at the Gallup Arts Crawl on Saturday, April 13th, 7-9pm, to discuss the upcoming Transportation Master Plan. Come and share any safety or congestion issues you encounter. Your input will help the County prioritize projects and improvements over the next 20 years.

To keep up to date with the process and participate in plan engagement opportunities, please visit: https://mckinleymtp.bhinc.com/. We look forward to working with you on this important project for the County! Hope to see you on April 13th, at 7:00PM at the Gallup Arts Crawl.

SHARE YOUR THOUGHTS ON MCKINLEY COUNTY ROADS!




SHARE YOUR THOUGHTS ON MCKINLEY COUNTY ROADS!
Navajo Nation
County Roads
Other Roads
McKinley County Boundary
New Mexico Counties
0
12.5
25
50 Miles
N
Mckinley
Sandoval
Cibola
San Juan
Rio Arriba
Taos
Colfax
Union
Los Alamos
Mora
Harding
Santa Fe
San Miguel
Bernalillo
Valencia
Torrance
Guadalupe
Quay
Curry
De Baca
Roosevelt
Catron
Socorro
Lincoln
Chaves
Sierra
Grant
Otero
Eddy
Lea
Dona Ana
Luna
Hidalgo


Prioritize based on use
County does a good job maintaining roads
Equity in HS/school road/parking lot maintenance
Pothole!
Pothole
Roundabout in front of HS
Continental Divide Trail connects thru I-40
- Wolakes sign here
264
491
564
602
118
400
Twin Lakes
Window Rock
Yatahey
Rock Springs
Mandelito
Vanderwagen
Chi Chil Tah
Sagar
Zuni Mountains
Rio Maria

Bohannan Huston

COUNTY COMMISSION MEETING - JULY 23, 2024

McKinley County Transportation Master Plan

Comprehensive Safety Action Plan Component

Quick Agenda

1. **Transportation Master Plan**
   Progress Update (High Level)
2. **Comprehensive Safety Action Plan**
   Component Requirements and Connection to the TMP
3. **McKinley County Crash/Safety Snapshot**
   Framing the need
4. **Vision Zero**
   Leadership Commitment and Goal Setting Considerations
5. **Wrap Up**

TMP Project Progress/Components



Safety Action Plan Components

- **Leadership commitment and goal setting**
  An official public commitment by a governing body to an eventual goal of zero roadway fatalities and serious injuries.
- **Planning structure**
  A committee, task force, implementation group, or similar body charged with oversight of the Action Plan development, implementation and monitoring.
- **Safety analysis**
  Analysis of existing conditions and historical trends that provides a baseline level of crashes involving fatalities and serious injuries across a jurisdiction.
- **Engagement and collaboration**
  Robust engagement with the public and relevant stakeholders that allows for both community representation and feedback.
- **Equity considerations**
  Plan development using inclusive and representative processes.
- **Policy and process changes**
  Assessment of current policies, plans, guidelines, and/or standards to identify opportunities to improve how processes prioritize transportation safety.
- **Strategy and project selections**
  Identification of a comprehensive set of projects and strategies, shaped by data, the best available evidence and noteworthy practices, as well as stakeholder input and equity considerations that will address the safety problems described in the Aciton Plan.
- **Progress and transparency**
  Method to measure progress over time after an Action Plan is developed or updated, including outcome data.

MCKINLEY COUNTY TRANSPORATION MASTER PLAN STAKEHOLDER COMMITTEE MEETING #2

AGENDA

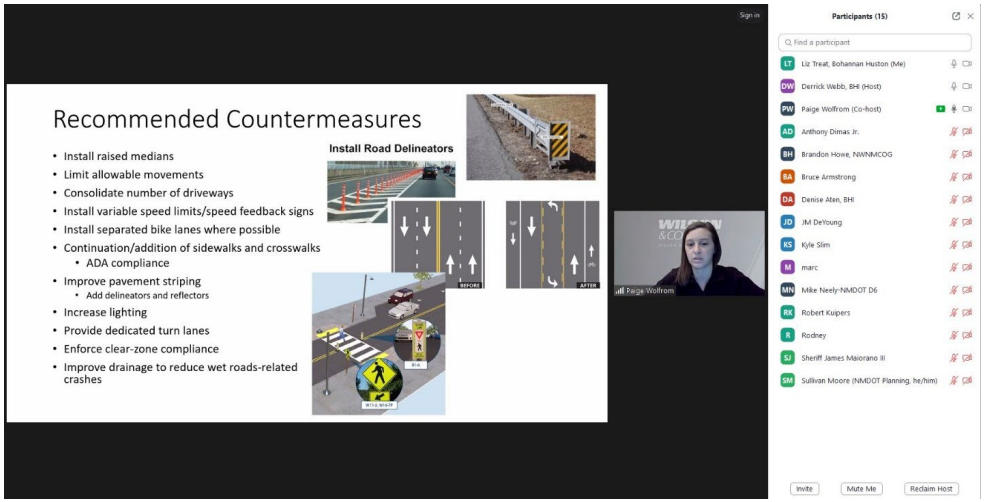
April 9, 2024

1. Progress Update
    a. Existing Conditions
    b. Identified Projects
    c. I-40 Corridor Subarea Plan/Considerations
    d. Alternative Fueling Infrastructure
    e. Freight and Rail
2. Community and Stakeholder Engagement
3. Safety Action Plan
4. Project Prioritization Framework
    a. Bus routes, roadway conditions, current and proposed land use, safety, etc.
5. Meeting Wrap Up

Mckinley TMP Stakeholder Meeting 2

April 9th, 2024 10-11am on Zoom

-10 participants



Sheriff James Maiorano III

-Many of the pedestrian involved crashes are from intoxicated people crossing I-40 at inappropriate locations (not using crosswalks). Not many of them involve bicyclists.

-Many crashes are due to the vehicle speed being too high for the weather conditions such as rain.

-Please do not recommend a countermeasure that will inhibit the flow of traffic or law enforcement during a crash.

-Some county roads are dirt roads

-Give special attention to intersections such as those along 122, 118, 612, etc.

-Anthony Dimas Jr. shared that the most important criteria when prioritizing a road project is whether the County owns the ROW and what is the land status.

-Brandon shared that connectivity would be a criterion for prioritizing new corridors.


April 9, 2024
MCKINLEY COUNTY
TMP STAKEHOLDER
MEETING #2
McKINLEY COUNTY
NEW MEXICO
2024
TRANSPORTATION MASTER PLAN



AGENDA

1. Progress Update
2. Stakeholder and Community Engagement
3. Safety Action Plan
4. Project Prioritization Framework

PROGRESS UPDATE

Sept - Dec	Jan - March	Apr - June	July - Sept
Project Kickoff	Stakeholder Engagement: RTPO, County Commission	Engagement: Community Meet and Greet, Stakeholder Meeting 3	Engagement: Community Open House, Stakeholder Meeting 4, RTPO, County Commission
Stakeholder Meeting 1	Existing Conditions: Demographic Overview Household Statistics, Forecasts, Bridges, Transit, Safety	Land Use	Recommendations: Project Prioritization Framework, Comprehensive Solutions
Project Website, Interactive Map	Identified Projects: ICIP, RTPR	Roadway Network: Roadway Capacity, Jurisdiction Coordination, Connection to Gallup TMP	Funding/Financial Plan
Existing Conditions: Roadways, Functional Classification, Road Ownership, Crashes, Traffic Volume, Trails	I-40 Corridor Overview	Future Impacts and Opportunities: Traffic, Freight and Rail	Transportation Master Plan
	Alternative Fueling Infrastructure: Charging Stations, Autonomous Vehicles, Super Truck Center, Inland Port		Comprehensive Safety Action Plan

STAKEHOLDER AND COMMUNITY ENGAGEMENT

Comprehensive Outreach Effort

- Project branding and website
- Interactive Map
- Stakeholder Meetings
- RTPO and County Commission
- Overview and outreach flyers
- Community Meet and Greet
  - Apr 13th, Gallup Arts Crawl

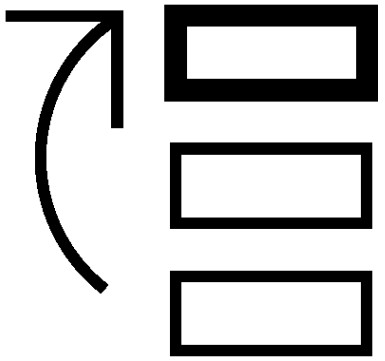


SAFETY ACTION PLAN PROGRESS UPDATE

PROJECT PRIORITIZATION FRAMEWORK

What is this?

- A framework for identifying transportation needs and appropriate projects to prioritize in the McKinley County TMP and in the future.
- The prioritization process is based on a collection of quantitative and qualitative criteria that can be easily applied by County staff in infrastructure decision-making



Stakeholder Committee Meeting #2

04/09/2024 6

PROJECT PRIORITIZATION FRAMEWORK

When prioritizing transportation projects in the County how many points would you allow for the following criteria?

Roadway Conditions
Roadway Type
Pavement Condition
Traffic Volume

Safety
Total Crashes
Roadway Design

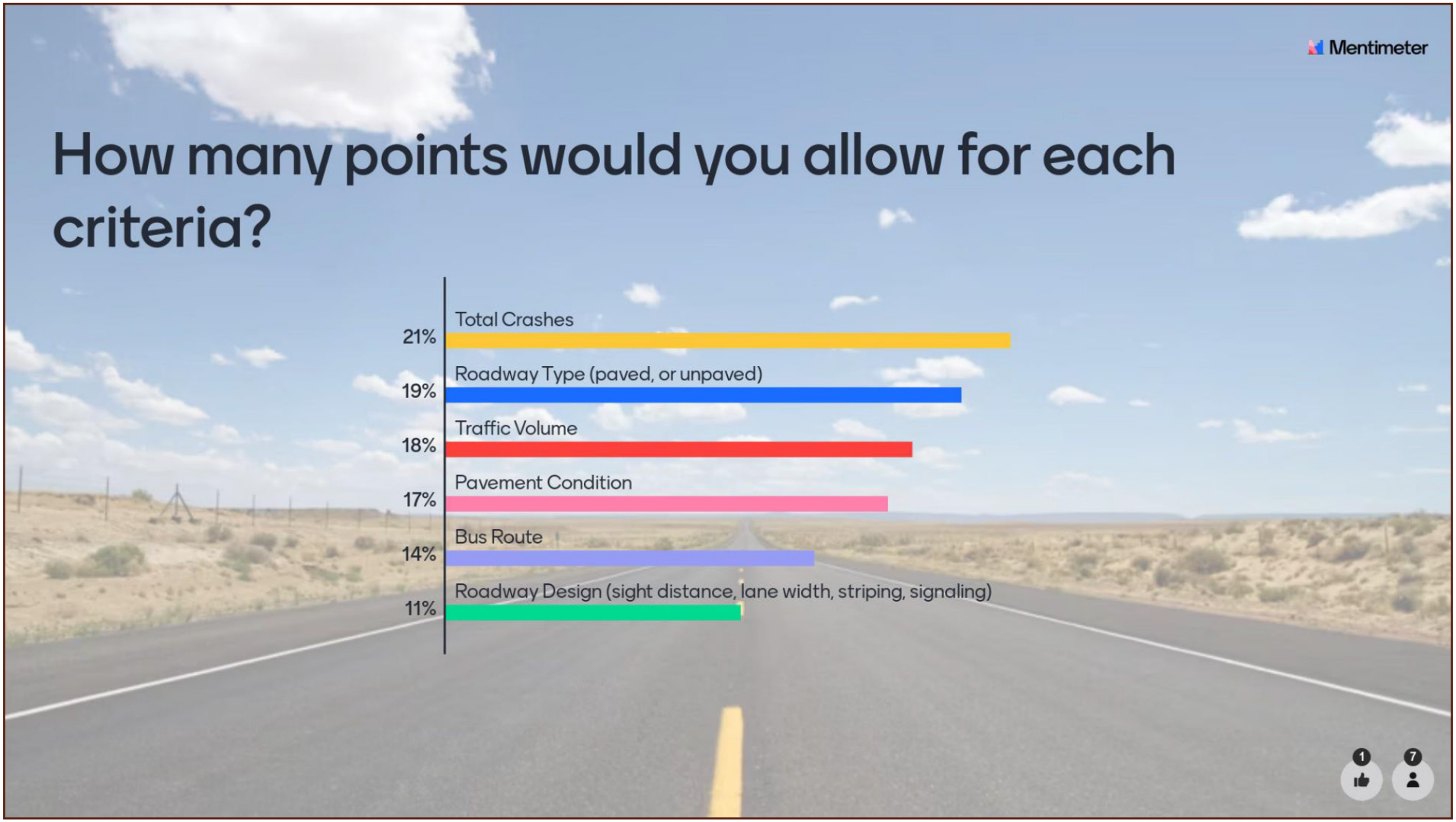
Land Use
Current Land Use
Proposed Land Use

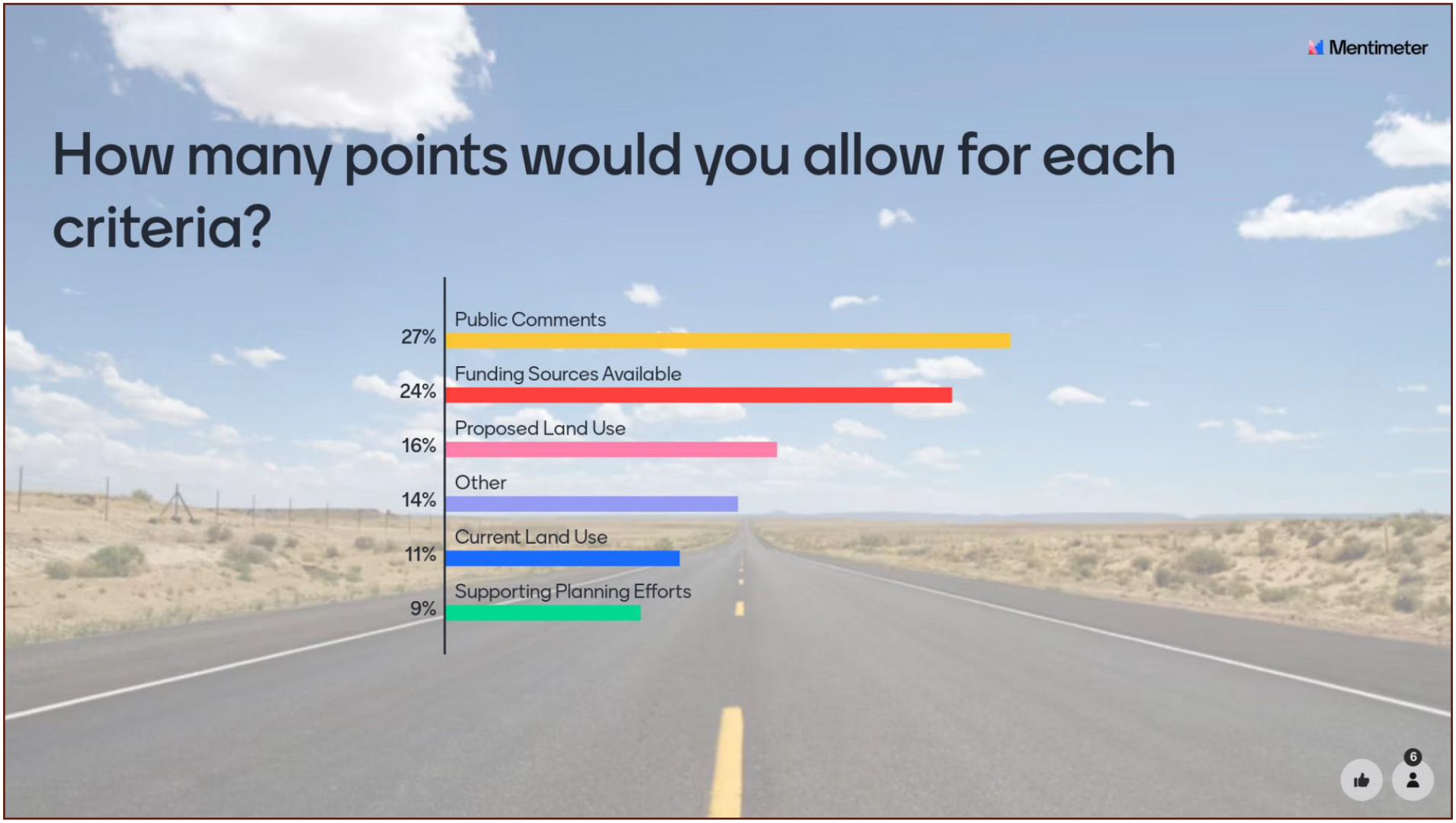
Bus Routes

Funding Sources Available

Project Coordination
Public Comments
Supporting Planning Efforts

Other


Mentimeter
How many points would you allow for each criteria?
21%
Total Crashes
19%
Roadway Type (paved, or unpaved)
18%
Traffic Volume
17%
Pavement Condition
14%
Bus Route
11%
Roadway Design (sight distance, lane width, striping, signaling)
1
7


Mentimeter
How many points would you allow for each criteria?
27%
Public Comments
24%
Funding Sources Available
16%
Proposed Land Use
14%
Other
11%
Current Land Use
9%
Supporting Planning Efforts
6

CONTINUED INPUT

Project Website:
https://mckinleymtp.bhinc.com/

Email: **outreach@bhinc.com**

Phone Number: *(505) 264-0111*




THANK YOU
FLAGSTAFF
174 MILES
L.A
558 MILES
Derrick Webb, AICP | dwebb@bhinc.com
720.587.2654
Liz Treat | ltreat@bhinc.com
505.923.3341
Stakeholder Committee Meeting #2
04/09/2024
11

Bohannan Huston
great people supporting great communities

New Mexico:
Albuquerque | Las Cruces
Colorado:
Denver | Grand Junction
800.877.5332
bhinc.com

NMRTPO MEETING NOTES

January 10, 2024

RTPO Members:

- Pueblo of Acoma: Raymond Concho - Vice Chair, Dennis Felipe (RConcho@poamail.org / dhfelipe@poamail.org / 505-552-6604)
- Pueblo of Laguna: Anne Oandasan, Star Cheromiah (aoandasan@pol-nsn.gov / scheromiah@pol-nsn.gov / 505-552-1201 / -1216)
- Pueblo of Zuni: Royce Gchachu (Royce.gchachu@ashiwi.org / 505-782-7116)
- City of Grants: Shannon Devine (specialprojects@grantsnm.gov / 505-290-3722 / 505-287-7927 ext. 2001)
- Cibola County: Joseph Baca (Joseph.baca@co.Cibola.nm.us / 505-285-2573)
- McKinley County: Rodney Skersick / Yvonne Tso (Rodnew.Skersick@co.mckinley.nm.us / 505-722-2303)
- Missing members: Navajo Nation - Margie Begay (mbegay@navajodot.org / 505-371-8312), Ramah Navajo - Dorothy Claw RTPO Chair - (DorothyClaw@ramahnavajo.org / 505-876-9677), City of Gallup - Clyde Strain / Alicia Santiago (cstrain@gallupnm.gov / asantiago@gallupnm.gov / 505-863-1290).

NMDOT Staff:

- NMDOT RTPO Liaison: Sullivan Moore (Sullivan.moore@dot.nm.gov / 505-467-9392)
- NMDOT District 5: Amanda Nino (San Juan County) (Amanda.Nino@dot.nm.gov / 505-231-1139)
- NMDOT District 6: Bill Santiago, Michael Neely, Kyle Slim (McKinley & Cibola Counties) (Bill.Santiago@dot.nm.gov / 505-290-9631) (Michael.Neely@dot.nm.gov / 505-240-1669 / 287-1628) (kyle.slim@dot.nm.gov)
- NMDOT Tribal Liaison: Ron Shutiva (Ron.Shutiva@dot.nm.gov / 505-827-5547 / 505-670-5465)
- NMDOT: Emily Dossett

Guests:

- Priscilla Otter-Pilot
- Nadine Kowice

Prioritizing Plan Elements

- Royce (Zuni) agreed with the prioritization of plan elements; **safety and connectivity**.
- Raymond (Cibola County) added that sometimes I-40 shuts down due to weather and traffic gets diverted to NM 124 and Acoma Pueblo roadway.
- Bob Kuipers noted that Gallup only has so many North/South bridges, they get packed with traffic at 5pm, they've been discussing adding another North/South option
- **Maintenance** is an important element due to all the trucks.

Frustrations with County Roads

- Bob agreed with the frustrations that the stakeholders shared.
- Raymond (Cibola County) noted that instead of "too much red tape", the frustration is actually "too much white tape".
- Annie (Laguna) observed that most of the frustrations listed by stakeholders fall under the maintenance category, so maybe that should be elevated.

Need for better **Communication/Coordination**

- Bob noted that it is difficult to engage the BIA.
- Ron Shutiva (DOT Tribal Liaison) shared his thoughts on needing more buy in from Navajo, they need to be a part of the discussion, buy in from upper level of government, Navajo Tribal Council, is needed. Navajo should be a big stakeholder in the plan, hearing from the small Navajo communities, looking into the bus system for example. Navajo comments are usually last, after much of the discussion has taken place.

Trails

- Bob mentioned that they are working on 200 trails in the Zuni mountains. He said he will coordinate with the person at the COG who can provide maps.

Land Use

- Bob mentioned that there are 2 potential industrials areas, the former Gamerco mine area, and the Pruitt area. They can create hundreds of jobs.

Revised: November 10, 2023

Social Media Toolkit

The McKinley County MTP Social Media toolkit provides draft text copy for Instagram, Facebook, and Twitter highlighting the project, the project website and interactive map. BHI will update and refine draft text copy for the community survey and the public meetings once developed/dates identified.

Instagram/Facebook/Twitter Copy

Plan/Project Website Post –

McKinley County is excited to announce the start of the planning process for the County's Master Transportation Plan update! The McKinley County Master Transportation Plan will evaluate transportation needs and strengthen existing programs to assist local decision-making processes in the coming decades.

For additional information, interactive project materials, and more visit our project website at: https://mckinleymtp.bhinc.com/

Interactive Map Post –

Check out our interactive map on the McKinley County Master Transportation Plan website! Do you have specific locations in the county that you'd like to share your thoughts on? You now have the opportunity to drop pins concerning traffic issues, areas for bicycle improvements, safety concerns, etc. while also being able to view other's comments.

To get started today, head to the project website at: https://mckinleymtp.bhinc.com/

Public Event #1 Post –

Do you live or work in McKinley County? We want to hear from you! The McKinley County TMP project team will be hosting a table at the Gallup Arts Crawl on Saturday, April 13th, 7-9pm, to discuss the upcoming Transportation Master Plan. Come and share any safety or congestion issues you encounter. Your input will help the County prioritize projects and improvements over the next 20 years.

To keep up to date with the process and participate in plan engagement opportunities, please visit: https://mckinleymtp.bhinc.com/. We look forward to working with you on this important project for the County! Hope to see you on April 13th, at 7:00PM at the Gallup Arts Crawl.

Bohannan Huston

Revised: November 10, 2023

Public Event #2 Post – future post

McKinley County invites invite you to attend the second public meeting on the McKinley County Master Transportation Plan on XXXXX, October XX, 2024 at XX:00PM. Come hear the project team provide an update on the plan and share the proposed recommendations and transportation improvements. A Q&A segment will follow.

To keep up to date with the process and participate in plan engagement opportunities, please visit: https://mckinleymtp.bhinc.com/. We look forward to working with you on this important project for the County! Hope to see you on October XX, at XX:00PM at XXXXX.

General Project Post (Website) –

Stay up to date on the latest information for the ongoing McKinley County Master Transportation Plan by visiting https://mckinleymtp.bhinc.com/.

General Project Post (Interactive Map) –

Just a reminder to share your thoughts on the McKinley County Master Transportation Plan interactive map! To get started today, head to the project website at: https://mckinleymtp.bhinc.com/

General Project Post (Website/Map) –

Do you have any questions or comments on the McKinley County Master Transportation Plan? Check out the project website and provide comments on the interactive map at: https://mckinleymtp.bhinc.com/

General Project Post (Website) –

To keep up to date with the process and participate in plan engagement opportunities, please visit the McKinley County Master Transportation Plan website at https://mckinleymtp.bhinc.com/.

General Project Post (Interactive Map) –

You can still add comments and pins to the McKinley County Master Transportation Plan's interactive map! Do you have specific locations in the county that you'd like to share your thoughts on? You now have the opportunity to drop pins concerning traffic issues, areas for bicycle improvements, safety concerns, etc. while also being able to view other's comments.

To get started today, head to the project website at: https://mckinleymtp.bhinc.com/

Bohannan Huston

Bohannan Huston

McKinley County – Transportation Master Plan, Engagement Plan

Overall Approach

BHI is proposing a multi-faceted community engagement effort that will take a comprehensive approach to public and stakeholder engagement for the McKinely County Transportation Master Plan to create a consistent and easily identifiable brand for the project and ensure the McKinley community has a wide variety of opportunities to participate in a meaningful way through the planning process. BHI proposes using a suite of tools that will create a solid foundation to carry out outreach efforts that include the following:

- Project Logo
- Project Email
- Project Website
- Online Interactive Map
- Online and/or Interactive Poling
- Visual Story Telling – examples include typical sections, maps, and other graphics
- In-Person and/or Virtual Public Engagement
- Social Media Toolkit

All engagement activities will be fully documented, and summaries will be shared with County Staff and incorporated into the final plan.

Stakeholder Committee

With the support of County staff, members of the Stakeholder Committee will be established to include agency partners and local organizations. The goal will be to create a committee with less than 15 members total including key project team members. This Committee will function as a working group and provide an opportunity to workshop issues and recommendations. BHI proposes to manage communication with key stakeholders throughout the process on pertinent items and provide opportunities for draft plan feedback prior to review by Board of County Commissioners.

Proposed Meetings and Tentative Agendas

Public Events identified in the scope of work for the project are detailed below with tentative dates– one (1) kickoff meeting, four (4) stakeholder committee meetings, up to four (4) presentations for County Commissioners/COG Board Members, and two (2) public events focusing on general transportation goals and community values and vision. The public will be invited to share their thoughts on existing conditions, draft vision and goals, and proposed elements of the plan to further refine the TMP. The proposed set of meetings is listed below.

Stakeholder Committee Meetings (2 in-person and 2 virtual)

Bohannan Huston

Note: in-person stakeholder meetings will be coordinated with planned in-person public meetings. Meetings will be separate but scheduled on the same day. Stakeholder meetings will also incorporate specific objectives tied to SS4A requirements.

- December 2023
  - Introductions and contact/communication clarifications
  - Project overview
  - Current progress
  - Project support
    - Ongoing feedback
    - Resource generation
  - Ongoing expectations
- April 2024
  - Share transportation network analysis
  - Discuss identified gaps and deficiencies
- June 2024
  - Share/cultivate initial recommendations and transportation improvement projects
  - Discuss initial prioritization process development and obtain feedback
- August 2024
  - Share final draft of recommendations and solicit feedback
  - Share other pertinent information regarding the final draft plan

Public Events (2 in-person)

Note: in-person public meetings will be coordinated with planned in-person stakeholder meetings. Meetings will be separate but scheduled on the same day. Public meetings will also incorporate specific objectives tied to SS4A requirements.

If possible, BHI will coordinate with McKinley County/NWNMCOG staff to leverage events and/or meetings already taking place within the County. This tactic, if possible, will allow staff to meet the community where they are.

- January/February 2024
  - Project team meet and greet.
  - Project overview
  - Current progress
  - Identification of Issues and Priorities discussion
    - Develop/review Goals and Objectives and Vision statement
  - Identification of safety related issues and opportunities for improvement
  - Next Steps
- July 2024
  - Provide overview of transportation network analysis
  - Share identified gaps and deficiencies
  - Share incorporation of previous public comment

1/2/2025

DRAFT

Bohannan Huston

- Share drafted recommendations and transportation improvement projects
- Outline safety related implementation strategies and associated SS4A requirement outcomes.
- Provide opportunity for feedback via interactive activities

County Commission (2nd and 4th Tuesdays) **and COG Board Meetings** (Oct 2023, Jan, Apr, Aug 2024)

(4 total - virtual)

- January 12th, 2024 (COG)
  - Introductions and contact/communication clarifications
  - Project overview
  - Current progress
  - Project support
    - Ongoing feedback
    - Resource generation
  - Ongoing expectations
- February 2024 (Commission)
  - Introductions and contact/communication clarifications
  - Project overview
  - Current progress
  - Project support
    - Ongoing feedback
    - Resource generation
  - Ongoing expectations
  - Share transportation network analysis
  - Discuss identified gaps and deficiencies
- July 2024 (Commission)
  - Share/cultivate initial recommendations and transportation improvement projects
  - Discuss initial prioritization process development and obtain feedback
- August 7th, 2024 (COG)
  - Share final draft of recommendations and solicit feedback
  - Share other pertinent information regarding the final draft plan and review

Note: the tentative dates indicated above are meant to be flexible and able to adapt to the needs of the planning process. The schedule will ultimately be coordinated with the project team as progress is made on the project.

Project Logo Details

BHI, in coordination with McKinley County/NWNMCOG, will develop an initial set of logo options for the County to choose from. Utilizing McKinley County's website, this logo will incorporate key features of the County's brand – such as colors and typographic

DRAFT

Bohannan Huston

elements to maintain brand recognition and identification for the Transportation Master Plan. Initially developed logos are provided below. These items will be used in all project communication including plan documents, project flyers, project website, and associated social media communications.



Project Website/Interactive Map Details

BHI, in coordination with McKinley County/NWNMCOG, will develop a project website, in both English and Spanish, utilizing the branding selected above to engage with the public and stakeholders virtually. The project website will include:

- Project background – including the project schedule
- Project updates
- Public meeting materials
- Draft documents – approved chapters and maps
- Links to the interactive map
- Public engagement summaries

In order to increase awareness of the project and the project website, BHI proposes that the County create a "current projects" (or similar) space on their current website and link out to the project website. The project website will also include a project email address (example: McKinleyTMP@bhinc.com) and a phone number to provide an additional opportunity to gather input.

The interactive map will be developed to focus community comments within the County limits. The map provides markers that can be placed on the current roadway network to identify items such as: Major Destinations, Safety Concerns, Traffic Issues, Bicycle Improvements, Pedestrian Improvements, and Other comments.

Marketing Materials

BHI will work with McKinley County/NWNMCOG to support the development of flyers and website information as necessary. Staff can support the development of narrative for:

DRAFT

Bohannan Huston

- Newspaper ads (as necessary/appropriate)
- Local newsletters
- Other communication methods as needed

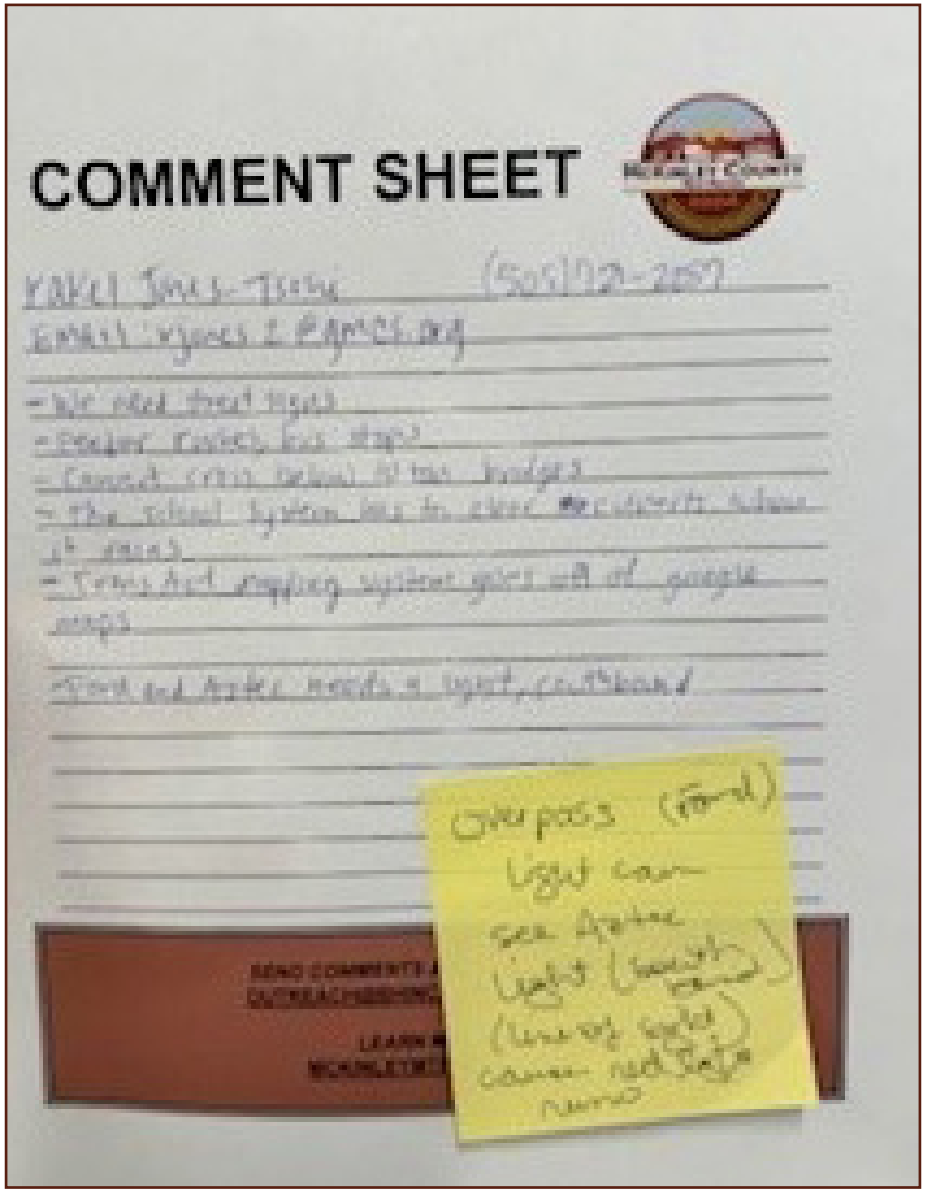
Social Media Coordination

BHI will work with the McKinley County/NWNMCOG to provide the necessary information and materials to develop a social media toolkit and schedule to provide pertinent information and updates regarding the planning process to the County's virtual audience. Most social media outreach items are anticipated to focus on the following and be included in platforms such as Twitter, Facebook (https://www.facebook.com/mckinleycounty/) and Instagram:

- Building initial plan interest/excitement
- Announcing engagement opportunities
- Announcing public event details
- Driving interactive map comments and project website traffic
- Announcing surveys for opportunities to provide comments and feedback.

DRAFT

1/2/2025


COMMENT SHEET

Contribution ID	Date Submitted	Your comment	Screen name	Email address	Traffic Issue	Bicycle Improvement	Ped. Improvement
206	Mar 19, 2024, 10:34 AM	Possible new road to connect CR19 to NM371 to increase connectivity but to also support economic development at the Prewitt Industrial Park and support Regional Solid waste authority	Brandon H	bhowe@nwnmcog.org			
205	Mar 19, 2024, 10:32 AM	Major Bridge Crossing - needs replacement	Brandon H	bhowe@nwnmcog.org			
204	Mar 19, 2024, 10:30 AM	REalignment - CR1 west to eliminate the bridge crossing to the southwest	Brandon H	bhowe@nwnmcog.org			
203	Mar 19, 2024, 10:29 AM	Connectivity - potential for extension from Carbon Coal Road to Rock Springs Road. Increases connectivity	Brandon H	bhowe@nwnmcog.org			
202	Mar 19, 2024, 08:52 AM	Possible extension from White Cliffs to Red Rock Park to alleviate traffic during events at Red Rock Park	Brandon H	bhowe@nwnmcog.org	1		
201	Mar 19, 2024, 08:48 AM	Need better and safer intersection as NM602 is a high volume corridor.	Brandon H	bhowe@nwnmcog.org			
200	Mar 19, 2024, 08:40 AM	"No sidewalks but not sure if there is the ability and room to add sidewalks. Also Elementary school to the north and School to the east which increases vehicular and pedestrian traffic"	Brandon H	bhowe@nwnmcog.org			1
199	Mar 19, 2024, 08:37 AM	Rail Road Crossing - Freight traffic has limited room and has to line up on NM122 which creates safety hazard.	Brandon H	bhowe@nwnmcog.org			
198	Mar 14, 2024, 02:55 PM	Used for recreation, it is a forest rd, should be maintained for safety and ease of use	Brandon				
197	Mar 14, 2024, 02:54 PM	Prewitt interchange, county project	Brandon				
196	Mar 14, 2024, 02:53 PM	Thoreau interchange, county project	Brandon				

Safety Concern	Major Destination	Project Coordination	Other Comment	Address	Latitude	Longitude	IP Address
			1	Prewitt, New Mexico 87045, United States	35.41729486	-108.1004519	0dd902a11eb2106b
1				County Road 23, Prewitt, New Mexico 87045, United States	35.34540638	-107.8725691	0dd902a11eb2106b
			1	Mentmore Road, Gallup, New Mexico 87301, United States	35.53346978	-108.857317	0dd902a11eb2106b
			1	469 Rock Springs Road, Gamerco, New Mexico 87317, United States	35.57737197	-108.8369205	0dd902a11eb2106b
				Padre Canyon Road, Gallup, New Mexico 87322, United States	35.5426137	-108.638757	0dd902a11eb2106b
1				8 Cousins Road, Vanderwagen, New Mexico 87326, United States	35.25012272	-108.7592095	0dd902a11eb2106b
				15 Elnor Avenue, Thoreau, New Mexico 87323, United States	35.40401377	-108.2262847	0dd902a11eb2106b
1				County Road 19, Prewitt, New Mexico 87045, United States	35.36456592	-108.0439903	0dd902a11eb2106b
			1	County Road 50, McGaffey, New Mexico 87316, United States	35.33686954	-108.472029	0e8702f11b71161a
			1	New Mexico Highway 412, Prewitt, New Mexico 87045, United States	35.36404508	-108.0522084	0e8702f11b71161a
			1	61 1st Avenue, Thoreau, New Mexico 87323, United States	35.40107694	-108.2194664	0e8702f11b71161a

Contribution ID	Date Submitted	Your comment	Screen name	Email address	Traffic Issue	Bicycle Improvement	Ped. Improvement
196	Mar 14, 2024, 02:53 PM	Thoreau interchange, county project	Brandon				
195	Mar 14, 2024, 02:52 PM	Highlight rail crossings in the plan	Brandon				
194	Mar 14, 2024, 02:51 PM	Reconstructing Rt 1, targeting passenger vehicles, limiting truck traffic	Brandon		1		
193	Mar 14, 2024, 02:50 PM	East and west interchanges	Brandon		1		
192	Mar 14, 2024, 02:49 PM	Allison corridor phases should be highlighted	Brandon				
191	Mar 14, 2024, 02:42 PM	Trying to do exel and decel lanes to accesss local school, traffic picks up in the school zone, on a hill	Priscilla				
190	Mar 14, 2024, 02:41 PM	Flooding issues	Priscilla				
189	Mar 14, 2024, 02:40 PM	Excel and decel lanes, and maybe center turn lanes reaching Navajo chapters to increase safety	Bob				
188	Mar 14, 2024, 02:35 PM	No frontage road for emergency vehicles, they've been requesting an overpass	Priscilla				
187	Mar 14, 2024, 02:34 PM	Flooding creates sediment buildup.	Bob				

Safety Concern	Major Destination	Project Coordination	Other Comment	Address	Latitude	Longitude	IP Address
			1	61 1st Avenue, Thoreau, New Mexico 87323, United States	35.40107694	-108.2194664	0e8702f11b71161a
			1	73 Defiance Draw Road, Gallup, New Mexico 87301, United States	35.48825738	-108.9031812	0e8702f11b71161a
				Gallup, New Mexico 87301, United States	35.51520854	-108.8533066	0e8702f11b71161a
				Interstate 40, Gallup, New Mexico 87347, United States	35.52964975	-108.7459619	0e8702f11b71161a
		1		Interstate 40, Gallup, New Mexico 87347, United States	35.52194228	-108.7812435	0e8702f11b71161a
1				516 US Route 491, Gamerco, New Mexico 87301, United States	35.58621642	-108.7669046	0e8702f11b71161a
1				US Route 491, Gamerco, New Mexico 87301, United States	35.62525327	-108.7807548	0e8702f11b71161a
1				Navajo Route 9551, Gallup, New Mexico 87375, United States	35.71147098	-108.7772382	0e8702f11b71161a
1				County Road 27, Gallup, New Mexico 87301, United States	35.50499249	-108.5026615	0e8702f11b71161a
			1	Interstate 40, Gallup, New Mexico 87347, United States	35.51118379	-108.5400993	0e8702f11b71161a

Contribution ID	Date Submitted	Your comment	Screen name	Email address	Traffic Issue	Bicycle Improvement	Ped. Improvement
186	Mar 14, 2024, 02:32 PM	Provide traffic udpates to let people know how to get around it.	Priscilla		1		
185	Mar 14, 2024, 02:31 PM	Heavy rainfall, damage to the bridge, detour through Arizona. County has lack of emergency response.	Priscilla				
184	Mar 14, 2024, 02:30 PM	Heavy traffic	Priscilla		1		
183	Mar 14, 2024, 02:24 PM	Heavy truck traffic	Bob		1		
182	Mar 14, 2024, 02:22 PM	Improve with passing lanes at major intersections. Excel and decel lanes at intersection. There is only one.	Royce				
181	Mar 14, 2024, 02:22 PM	Increased traffic volume increasing safety issues - people passing on paved shoulders. Need accel/decel lanes	BHI staff	Dwebb@bhinc.com			
180	Mar 14, 2024, 02:18 PM	rd reconstruction, new base cores, new storm drain pipes	Royce				
179	Mar 14, 2024, 12:29 PM	Substantial development opportunity being planned and facilitated by Gallup Land Partners in the GELP area. Has the potential for substantial roadway network impacts as development takes place in the future.	BHI Staff	dwebb@bhinc.com			
178	Mar 14, 2024, 12:27 PM	Westward connection identified here in the Gallup TMP. Added benefits shown in the TDM and opportunity for coordination/partnership in the future.	BHI staff	dwebb@bhinc.com			

Safety Concern	Major Destination	Project Coordination	Other Comment	Address	Latitude	Longitude	IP Address
			1	New Mexico Highway 602, Gallup, New Mexico 87301, United States	35.44787368	-108.7453058	0e8702f11b71161a
				New Mexico Highway 264, Gallup, New Mexico 87301, United States	35.64793816	-109.0332416	0e8702f11b71161a
				Interstate 40, Gallup, New Mexico 87347, United States	35.46458711	-108.4048103	0e8702f11b71161a
1				New Mexico Highway 602, Vanderwagen, New Mexico 87301, United States	35.31431749	-108.757745	0e8702f11b71161a
1				New Mexico Highway 602, Gallup, New Mexico 87301, United States	35.42245586	-108.7380953	1259038a7c8b4e37
			1	111 Route 301 South, Zuni, New Mexico 87327, United States	35.06726206	-108.8254795	0e8702f11b71161a
	1			Gamerco, New Mexico 87375, United States	35.55899324	-108.8445425	1259038a7c8b4e37
		1		High Range Road, Gallup, New Mexico 88055, United States	35.47965264	-108.7588069	1259038a7c8b4e37
1				County Road 27, Gallup, New Mexico 87301, United States	35.50499249	-108.5026615	0e8702f11b71161a

Contribution ID	Date Submitted	Your comment	Screen name	Email address	Traffic Issue	Bicycle Improvement	Ped. Improvement
177	Mar 14, 2024, 12:25 PM	"New road connection between Boardman to the South of I-40 up to the north and west over connecting to 491 near Carbon Coal. Substantial benefit modeled in the TDM for the Gallup Plan. Elevated coordination/partnership opportunity into the future."	BHI staff	dwebb@bhinc.com			
176	Mar 14, 2024, 12:23 PM	Identified as a priority corridor in the Gallup TMP as an opportunity for future improvement/partnership coordination	BHI staff				
175	Mar 14, 2024, 12:22 PM	Identified as a priority corridor in the Gallup TMP as an opportunity for future improvement/partnership coordination	BHI Staff	dwebb@bhinc.com			
171	Feb 26, 2024, 01:33 PM	"1. The volume of traffic on NMSH602 has more than tripled since 1980 and there is a tremendous need to add a turning lane on major turn-offs from Gallup to NMSH53. 2. NMSh264 needs to be repaved and upgraded Tse Bonito. The volume of traffic on this road has increased tremendously. 3. Exit 33 East & West Bound on I-40 needs big improvements and something has to be done about flooding during the monsoon season. 4. NMSH341 needs a complete overhaul of improvements from Thoreau Chapter House to where the county line ends."	baahaali@navajochapters.org	gmskeet@nnchapters.org	1		

Safety Concern	Major Destination	Project Coordination	Other Comment	Address	Latitude	Longitude	IP Address
		1		706 Mission Street, Gallup, New Mexico 87301, United States	35.54079837	-108.734318	1259038a7c8b4e37
		1		North 9th Street, Gamerco, New Mexico 87301, United States	35.54947248	-108.7552011	1259038a7c8b4e37
		1		New Mexico Highway 602, Gallup, New Mexico 87301, United States	35.47191981	-108.7429804	1259038a7c8b4e37
				New Mexico State Highway 36, Zuni, New Mexico 87327, United States	35.08635557	-108.6925815	0d1002a1f03649eb

Contribution ID	Date Submitted	Your comment	Screen name	Email address	Traffic Issue	Bicycle Improvement	Ped. Improvement
170	Feb 20, 2024, 01:41 PM	Uphill Road from Navajo Route 11-49 to NM State Highway 566 needs major improvement. The road washed away and was not accessible due to the flood. Also road can be very muddy, especially from the Pinedale entrance.	Titus Nez	titusnez@pinedalegov.org			
169	Feb 20, 2024, 01:39 PM	Rainbow Trail Road and Lobo Valley Road both need major repairs. Road has not been maintain for years.	Pinedale Chapter	titusnez@pinedalegov.org			
167	Dec 11, 2023, 03:20 PM	High traffic one way in one way out roadway. Looking at an alternate ingress/egress for emergency use would be a joint effort between County, Navajo Nation/BIA Eastern Agency, and possibly NMDOT.	AEM	adam.berry@co.mckinley.nm.us			
166	Dec 11, 2023, 03:18 PM	If the Interstate is closed for MVC, weather, etc. there is no alternate route for all vehicle types to go east or west from Exit 39. A service road needs to be developed between the 37mm and 47mm that can be used when I-40 is shutdown or backed up. Not having a secondary route is a safety concern for citizens of Whispering Cedars/Jamestown area as well as public safety responding to emergencies in the area.	AEM	adam.berry@co.mckinley.nm.us			
165	Dec 11, 2023, 03:15 PM	There is currently only one viable way in and out of Whispering Cedars. This could be problematic during a major emergency. This isn't a quick fix, but is something to discuss in future planning.	AEM	adam.berry@co.mckinley.nm.us			

Safety Concern	Major Destination	Project Coordination	Other Comment	Address	Latitude	Longitude	IP Address
1				541 Uphill Road, Gallup, New Mexico 87301, United States	35.61093156	-108.5205541	0d670297a84c2d64
			1	County Road 49, Gallup, New Mexico 87311, United States	35.6204009	-108.4363103	0d670297a84c2d64
1				County Road 27, Gallup, New Mexico 87301, United States	35.50403344	-108.5099331	0da502a517387053
1				3900 Interstate 40, Gallup, New Mexico 87347, United States	35.48030698	-108.4368944	0da502a517387053
1				Whispering Cedars Road, Jamestown, New Mexico 87347, United States	35.47949794	-108.4407411	0da502a517387053

Contribution ID	Date Submitted	Your comment	Screen name	Email address	Traffic Issue	Bicycle Improvement	Ped. Improvement
164	Dec 11, 2023, 03:12 PM	Timberlake Rd can be difficult to access during winter and monsoon months which can lead to public safety response delays and emergency evacuation issues. A collaborative effort between McKinley County, Cibola County, and the HOA to chip seal or pave the road could benefit the safety of the community. Also, looking for a potential secondary evacuation route to NM 53 or NM 602 would benefit the community during major emergencies.	AEM	adam.berry@co.mckinley.nm.us			
163	Dec 11, 2023, 02:54 PM	Truck speeds	TMPsarecool				

Safety Concern	Major Destination	Project Coordination	Other Comment	Address	Latitude	Longitude	IP Address
1				34 Canyon Rd. - Forest Road 157, Ramah, New Mexico 87321, United States	35.12444027	-108.471082	0da502a517387053
1				US Route 491, Gallup, New Mexico 87301, United States	35.81468899	-108.7672427	0e8702f11b71161a

Appendix C: Right-of-Way Mapping Workflow

Right-of-Way Mapping Workflow

This workflow provides a step-by-step process for digitizing right-of-way easement records in ArcGIS Pro. The workflow uses real right-of-way easement records from McKinley County as an example. The example is of a right-of-way easement that is 60 feet wide and 2.8 miles long on County Road 46D (CR46D) in the Bread Springs Chapter, as shown in Figures 2-3.

Step 1.

Load ArcGIS Pro with the three layers listed below. Figure 1 shows ArcGIS Pro with the layers loaded.

1. McKinley County Boundary
2. County Roads
3. Section, Township, & Range

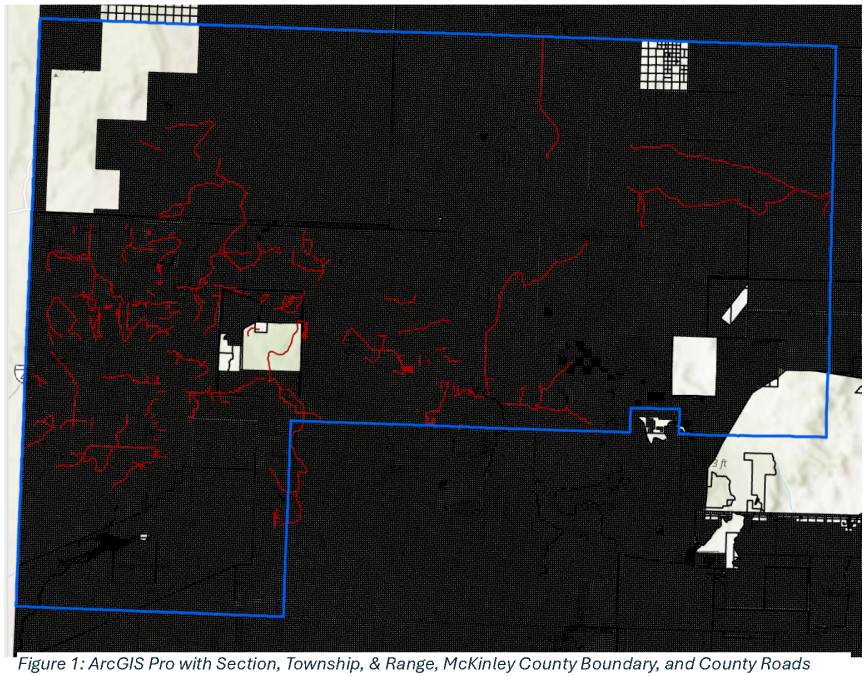
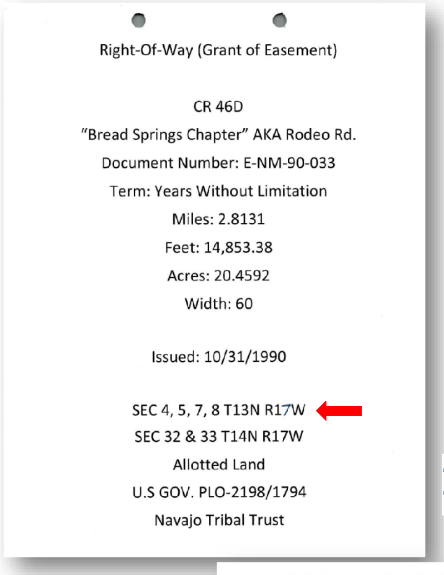


Figure 1: ArcGIS Pro with Section, Township, & Range, McKinley County Boundary, and County Roads



Step 2.

From the ROW easement record (Figure 2), identify one section, township, and range line at a time. This example will use the top line.

Figure 2: Right-of-Way Easement on CR 46D (Page 1)

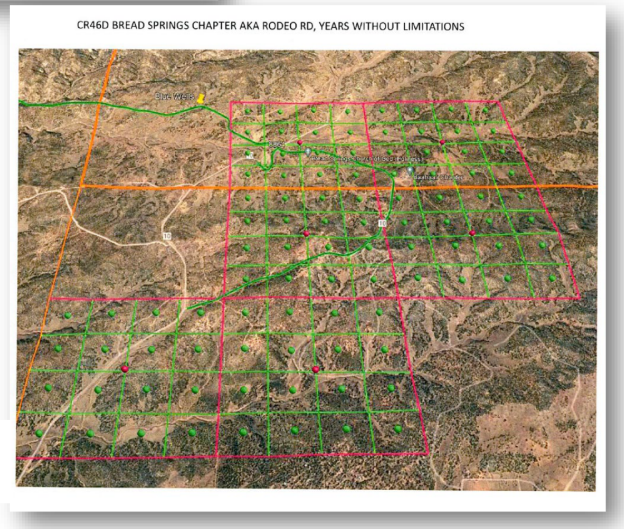


Figure 3: KMZ image for Right-of-Way Easement on CR46D (Page 2)

Step 3.

Open *Select by Attributes*. Select Township, Range, & Section, as shown in Figure 4.

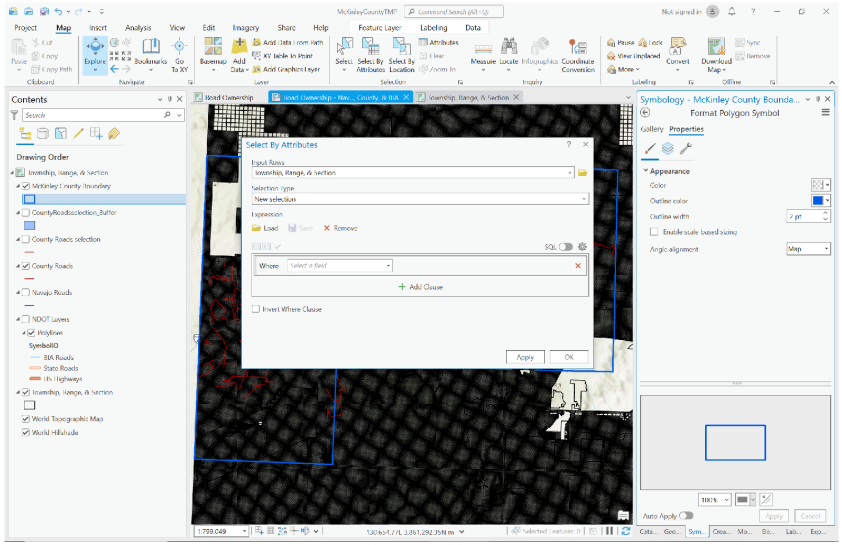


Figure 4: ArcGIS Pro - Select by Attributes

Step 4.

See Figure 5.

1. Where Section Number includes the value [select all section numbers that apply]
2. Same for Township and Range numbers and direction
3. Use "And" not "Or"

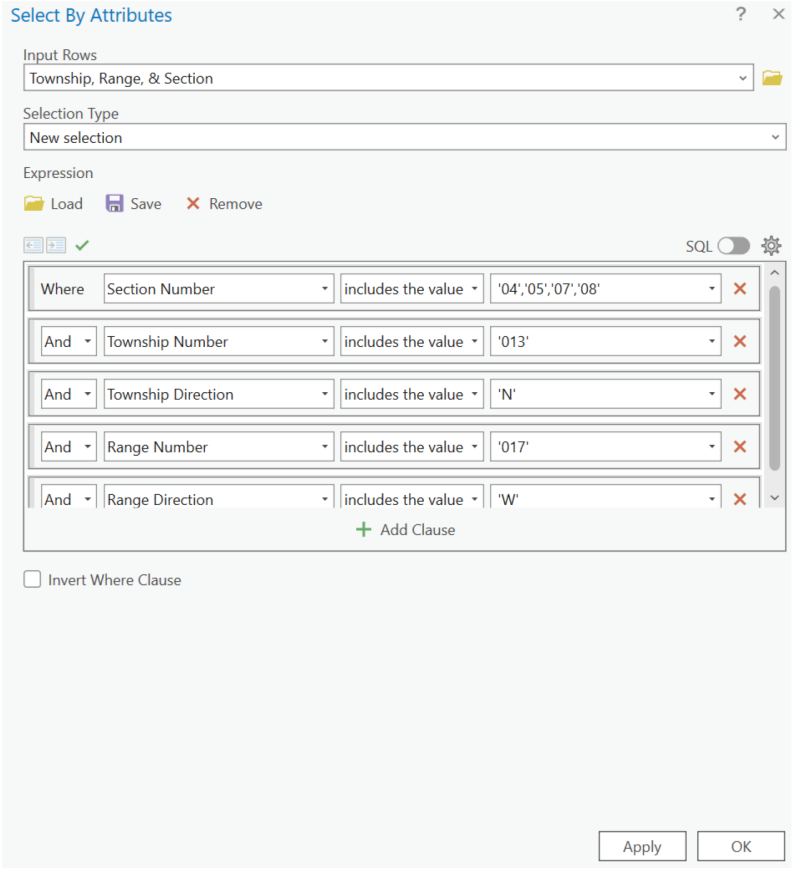


Figure 5: ArcGIS Pro - Select appropriate sections, township and range

All section, township, and ranges selected will be highlighted in bright blue (Figure 6).

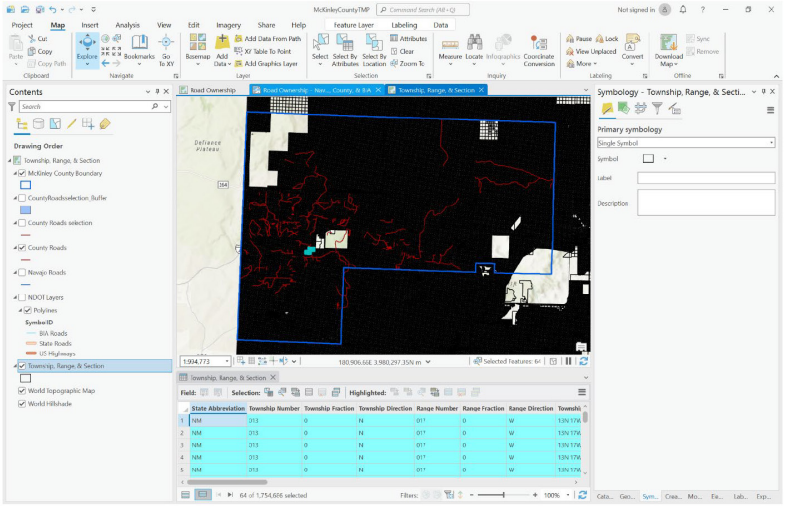


Figure 6: ArcGIS Pro - Sections, township, range selected

Step 6.

Zoom to the selected attributes on the map (Figure 7).

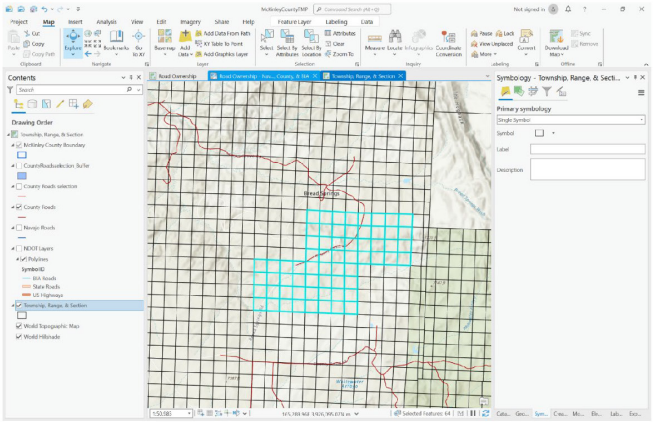


Figure 7: ArcGIS Pro - Zoomed into the selected attributes

Step 7.

1. Identify which County Road goes through the selected section, township, and range.
2. Clear selected attributes in the Map ribbon's Selection tab.
3. Using the Select button on the top Map ribbon, Shift Click all road segments of the County Road until the whole road is highlighted bright blue (Figure 8).

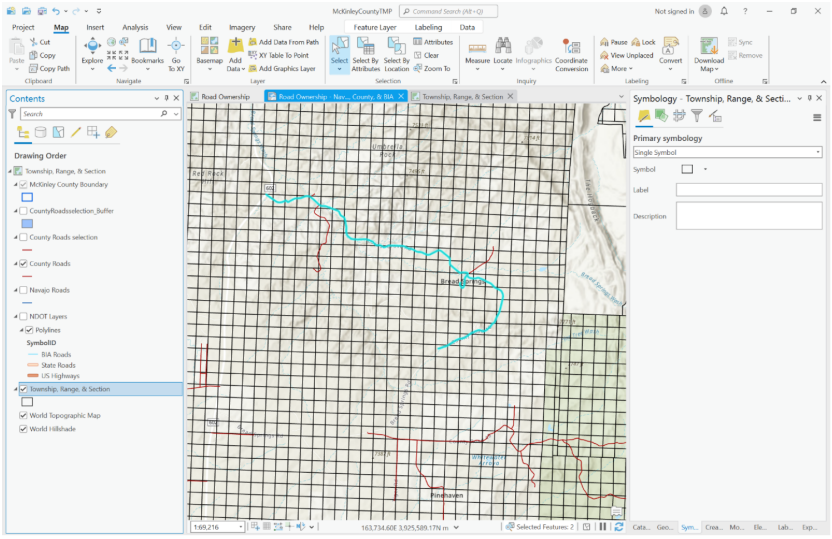


Figure 8: ArcGIS Pro - Section of road highlighted blue

Step 8.

In the Data top ribbon, click "Layer From Selection". This will pull out the highlighted County Road on its own, as shown in Figure 9.

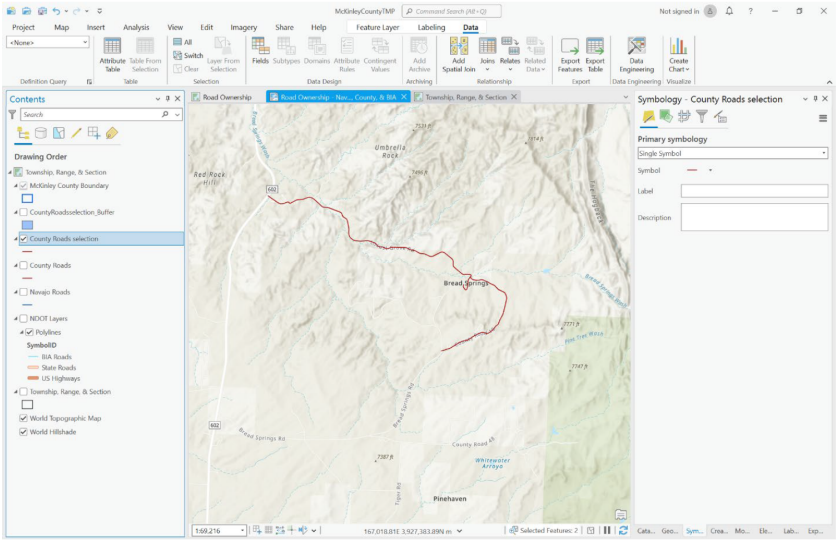


Figure 9: ArcGIS Pro - Road section pulled out

Step 9.

1. Clear selected attributes.
2. In Geoprocessing Tools, search "Buffer" select the Buffer tool from the tool list (Figure 10).
3. Input Features = county road selection.
4. Distance = half of what the designated ROW is on the easement (see first picture on page 1) – this example's ROW was 60 ft, so I have a distance of 30 US Survey Feet inserted in the tool.
5. Linear Unit / US Survey Feet.
6. Geodesic (shape preserving).
7. No Dissolve.
8. Click "Run".

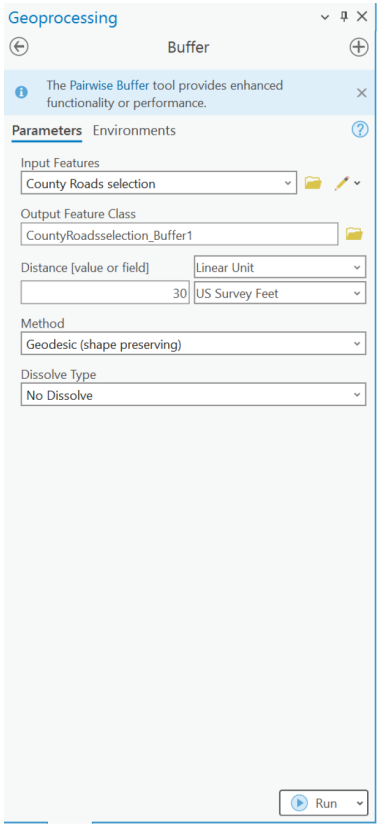


Figure 10: ArcGIS Pro – Buffer

Step 10.

1. The tool will create a buffer that contains the easement's ROW (Figure 11). Repeat with all sections, townships, and ranges listed on easement record (Figure 2). Compare to Plat Map if one was provided (Figure 3).

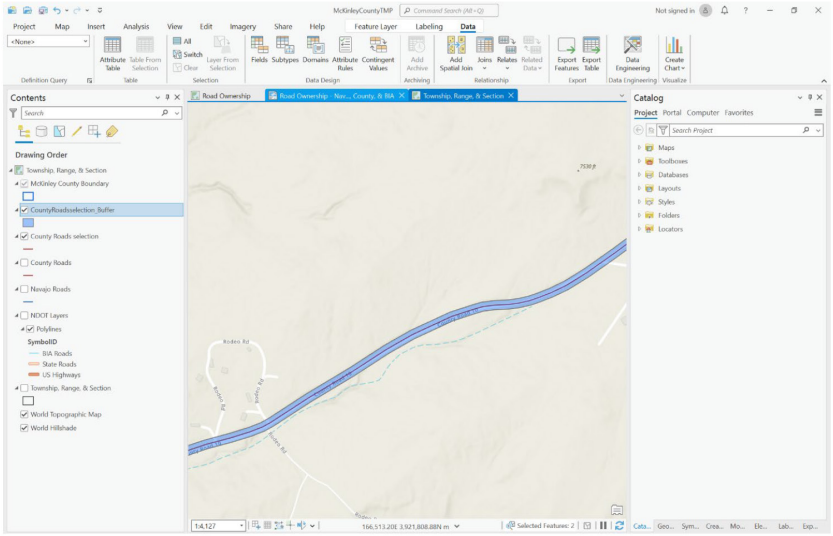


Figure 11: ArcGIS Pro - ROW Easement

Appendix D: Prioritization Process

Prioritization Process

The method of prioritization described in this here involves a series of criteria that can be easily applied to any project or infrastructure decision under consideration. The criteria are both qualitative and quantitative and are informed by recognized best practices, other data gathered for this plan, and public input from McKinley County residents. These criteria include land use, safety, pavement conditions, and others, and follow Federal requirements related to data-driven project selection processes.

This prioritization process requires the participation of stakeholders. To evaluate projects and infrastructure, data must be collected and analyzed, and the public must be engaged, to ensure prioritization remains in line with residents' transportation needs over time. This approach ensures a coordinated, transparent, and accountable process.

This process only identifies the infrastructure that has the greatest need, not necessarily what intervention should be applied. The investment could be applied to maintenance or a complete redesign. This tool, then, can be used in two ways:

- Evaluation of potential projects
- Identification of locations in need of intervention

Process

The prioritization process proceeds through 11 scoring criteria in 5 categories. By using these criteria, the evaluator can assure a balanced approach to prioritization that weighs all the factors that go into the County's needs. Not all projects or infrastructure will score highly in every category, but in this way projects that address different needs and benefits can still be compared to one another in an objective way.

Table 1 shows the prioritization process criteria by category and outlines the maximum score possible for each one. Figure 1 depicts the distribution of these points across all five categories. The evaluator assigns points based on factual conditions within the boundaries of the project area or on a particular segment of infrastructure such as a roadway. The conditions indicated by data collected about the area correspond with a score for each criterion. Each one is scored on a scale from 0 to the maximum number of possible points. A higher score indicates a greater need for that criterion.

These criteria are complementary to one another, and relationships between criteria can result in higher overall scores. For instance, a roadway with poor pavement conditions but with low overall traffic counts will score lower than a roadway with poor pavement conditions and high traffic counts. The greater need is judged, using this tool, to exist where there is more demand. However, if the lower traffic road has a high number of serious crashes, the two areas may have similarly high scores.

Evaluators should not only review projects based on their overall score, but also investigate the scores for individual criteria to understand how the total score was calculated. There can also be a mismatch between the proposed project and what the need of that roadway was. For instance, a road widening project might receive a high score due to the quantity of serious crashes, but widening a roadway doesn't necessarily do anything to address safety.

Category	Criteria	Maximum Points
Roadway Characteristics	Roadway Type	5
	Pavement Condition	10
	Traffic Volume	8
	Alternative Modes	8
Safety	Design Standards	11
	Severe Crashes	14
Land Use	Current Land Use	8
	Proposed Land Use	3
Funding	Funding Source Available	8
Planning Considerations	Public Support	8
	Plan Consistency	6
	Disposition	11
Total		100

Table 1: Scoring Criteria Maximum Points

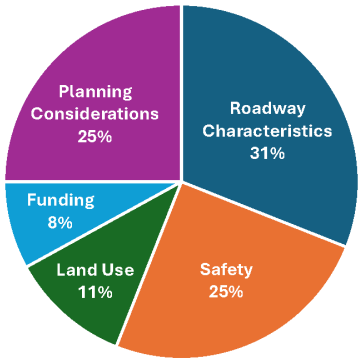


Figure 1: Point Distribution

Prioritization Criteria

The prioritization process requires data inputs to determine scores. Data that is collected and made available as inputs must be updated routinely to ensure timely and high-quality results. Scores captured by an evaluator represent a snapshot in time. Scores may change as new data becomes available, as traffic counts are updated, and new crash data are published. New development in the project area may shift scores around land use, and public support may increase or decrease as conditions change. What follows is a description of each criterion and sources for data.

Roadway Characteristics

Roadway Type

Roadway type is scored based on whether a road segment is paved, unpaved, or new. McKinley County staff maintain a road inventory, which indicates roadway type, linked to McKinley County's website here.

Pavement Condition

Roadways in the worst condition receive the highest score for this measure. Pavement condition is typically measured using a tool called Pavement Composite Index (PCI). An inventory of conditions is not kept by McKinley County, so the data will have to be collected.

Traffic Volume

Traffic Volume is measured by Annual Average Daily Traffic (AADT) data. NMDOT operates a Traffic Monitoring Program which collects traffic data using a combination of manual counts as well as portable and permanent counters. This data is made publicly available on NMDOT's website through software called MS2.

Alternative Modes

Projects with incorporate design elements or connections for alternative modes of travel receive three points per mode. "Alternative modes" includes walking, biking, and public transportation.

Safety

Design Standards

To complement crash data, roadway characteristics that are associated with more danger are also considered. Design considerations may include line of sight, roadway and/or intersection geometry, lane width, signalization, and other factors. Because roadways vary significantly and there are many factors to consider, County Engineering staff must apply professional judgement to score this criterion. Roadways will be sorted into 3 tiers based on need, high, medium, and low, with high priority receiving the highest score.

Additionally, if projects address a functionally obsolete bridge, then the project receives the maximum number of points in this category.

Severe Crashes

Crash data is typically sorted in classes by severity: property damage only, possible injuries, minor injuries, serious injuries, and fatal. "Severe crashes" refers here to crashes that result in serious injuries and deaths. Roadways with even one fatal crash receive the highest score for this criterion. If there are no fatal crashes, the highest number of serious injury crashes, followed by minor injury, possible injury, and property damage only crashes. The rationale behind this is that property damage only crashes maybe be an indication of safety, in that vehicles are moving slowly enough to not cause any serious harm, whereas serious and lethal injuries are considered unacceptable. Crash data for New Mexico are available on The University of New Mexico's website.

Land Use

Current Land Use

The purpose of this criteria is to assess the role a specific project plays in the overall transportation network and how specific uses—industrial, commercial, residential—will be supported. Connections to educational, medical, and community facilities are scored

highest, but industrial uses can also score high due to the enormous impact freight travel has on infrastructure and communities. The evaluator conducts this assessment based on land use inventory by parcel.

Proposed Land Use

Ongoing planning efforts may identify new opportunities for development and economic activity. Projects can anticipate future needs based on plans created by McKinley County staff.

Funding

Funding Sources Available

Committed funds help take projects from concept through to design toward their full realization.

Planning Considerations

Public Support

Data on public support can be gathered through participation in public hearings, surveys, input from committees, consultation with stakeholders, and solicitation of public comments online. This measure should not only consider how much engagement there is (i.e. a count of comments) but also the character of the engagement (is it supportive, non-supportive, or mixed?).

Plan Consistency

Projects that are supported by references in other County/local plans receive more points on this criterion.

Disposition

Projects that take place on roadways where the county owns the right of way receive more points.

Category	Criteria	Maintenance / Expansion	New Road	Transit	Bicycle	Bridge
Roadway Characteristics	Roadway Type	☑	☑	☑	☑	☑
	Pavement Condition	☑	☑	☒	↔	☑
	Traffic Volume	☑	↔	☑	↔	☑
	Alternative Modes	☑	☑	☑	☑	☑
Safety	Design Standards	☑	☑	☒	☑	☑
	Severe Crashes	☑	↔	☑	↔	☑
Land Use	Current Land Use	☑	☑	☑	☑	☑
	Proposed Land Use	☑	☑	☑	☑	☑
Funding	Funding Available	☑	☑	☑	☑	☑
Planning Considerations	Public Support	☑	☑	☑	☑	☑
	Plan Consistency	☑	☑	☑	☑	☑
	Disposition	☑	☑	☑	☑	☑

☑ - Directly Applicable

☒ - Not Applicable

↔ - May use parallel roadway

Table 2: Application of prioritization process to different types of projects

Prioritization Considerations by Project Type

New Roads

Road maintenance or reconstruction projects are more common than the construction of new roads, but this process can also be applied to new roads as well.

There are a few different reasons why a new road might be constructed. The two primary reasons are to provide access to a place, and to attempt to relieve congestion on another road. For both types of new roads, they can be evaluated on their proposed design, type, and adjacent land uses.

For new roads constructed to alleviate congestion, crash data and traffic counts can be taken from a parallel road. Other measures such as traffic volume projections, traffic impact studies, or travel demand modeling can also be used to evaluate the benefits of a new facility. Funding, public support, and planning considerations can all be evaluated in the same way as an existing road.

Public Transit and Bicycle Facilities

One of McKinley County's Comprehensive Plan goals is to encourage transportation alternatives including public transit. It is likely that such projects will involve close collaboration with Navajo Transit, GMCS, Gallup Express, and A:Shiwi Transit. New service or new facilities can be evaluated using the features of the roadway the effected route(s) service. The Comprehensive Plan's goal to encourage transportation alternatives also includes bicycle facilities.

Prioritization and Plan Goals

A prioritization method is more useful if it is aligned with overarching objectives and goals. Prioritization criteria were specifically chosen to align with McKinley County's vision for its transportation system.

Goal	Connection to Prioritization Process	Relevant Criteria
Safety	Safety is directly addressed by the prioritization process, placing emphasis on preventing fatal and serious injury crashes, also includes bridge quality	• Design Standards • Serious Crashes
Connectivity	Land use is considered by the prioritization process, considering how projects will affect access to vital amenities and utilities	• Current Land Use • Proposed Land Use
Efficiency	By considering AADT, roadways that have the most traffic will be more likely to be prioritized	• Roadway Type • Traffic Volume • Alternative Modes
Maintenance	Pavement condition is an explicit criterion considered by the prioritization process.	• Pavement Condition
Multimodal/Complete Streets	By including alternative modes as a prioritization criterion, the county can help nudge forward projects that include options for non-motorists/non-motorized trips.	• Design Standards • Alternative Modes

Table 3: Links between plan goals and prioritization process

Guide to the implementation process

When to use

As discussed in a previous section, there are two main uses of this prioritization process. First, evaluating a proposed project. Second, identifying facilities that need intervention. For both uses, the information in this chapter provides a method for weighing all the different factors to inform sound decision-making.

As county staff evaluate projects to include in the ICIP, this tool may be used to guide recommendations to decision makers to refine the list of proposed projects to the final list. The data collected and analyzed during this process will be invaluable in choosing the projects that represent the largest potential for benefit for the County's residents, workers, and visitors. When data isn't available for any of the criteria, county staff should exercise professional judgement to make the best estimation possible.

By using this process as a screening tool across county facilities, county staff can anticipate transportation needs and identify areas for further investigation. Some of the criteria may not be applicable for a facility rather than a project (funding, for instance), but it still can be effective for determining what areas need more study, or what areas new projects should target.

Role of McKinley County Staff

This process is intended for use by McKinley County staff. The criteria are designed in a way that many of the scores can be calculated by querying a GIS database. Some will require manual determination, which is discussed below. Once all the scores have been calculated, a ranked list of projects can be generated. From there, projects in the list can be evaluated for feasibility and funding opportunities.

Criteria requiring manual input from McKinley County staff are:

1. **Alternative Modes**: requires staff to evaluate whether a project involves expanding, improving, or increasing safety for modes other than private vehicles.
2. **Proposed Land Use**: requires staff to identify proposed and pending development in the project area.
3. **Funding Source**: requires staff to identify financial resources that can be applied to the project under assessment.
4. **Supporting Plans**: requires staff to identify references supporting the project in existing plans.
5. **Design Standards:** requires engineering staff to apply professional judgement based on roadway characteristics such as width, speed, turning radius, signalization, and other features.

Criteria	Characteristics	Max Score
Roadway Characteristics		
Roadway Type	New Road	4
	Paved	4
	Unpaved	7

	Max	**7**
Pavement Condition	Excellent (91-100)	0
	Good (76-90)	3
	Fair (51-75)	6
	Poor 26-50)	9
	Very Poor (0-25)	11
	New Road - Unpaved	3
	New Road - Paved	6
	Max	**11**
Traffic Volume (AADT)	2500+ AADT	9
	1500-2499 AADT	7
	1000-1499 AADT	6
	500-999 AADT	4
	0-499 AADT	0
	Max	**9**
Alternative Modes	1 Alternative Mode	3
	2 Alternative Modes	6
	3 Alternative Modes	8
	Max	**8**
Safety		
Design Standards	Functionally Obsolete Bridge	11
	High	11
	Medium	8
	Low	4
	New Road	6
	Max	**11**
Severe Crashes	Fatal Crash	14
	Serious Injury Crash	14
	>10 Crashes (non-severe)	8
	6-10 Crashes (non-severe)	6
	3-5 Crashes (non-severe)	4
	1-2 Crashes (non-severe)	2
	0 crashes / new road	0
	Max	**14**
Land Use		
Current Land Use	Commercial Only	2
	Residential Only	3
	Residential / Commercial Mix	5
	Industrial (Low Intensity)	5
	Industrial (High Intensity)	7
	Educational / Medical / Community	8
	Max	**8**
Proposed Land Use	N/A	0
	Residential - Proposed	1
	Commercial/Industrial – Proposed	2
	Educational /Medical / Community - Proposed	3
	Max	**3**
Funding		
Funding Source Available	Greater than 50% of total project cost	8
	25.1-50% identified	5
	<25% identified	2
	No funding source	0
	Max	**8**
Planning Consideration		
Public Support	High Support	8
	Medium Support	5
	Low Support	2
	No Support	0
	Max	**8**
Plan Consistency	Yes	6
	No	0
	Max	**6**
Disposition	ROW owned by County	11
	ROW not owned by County	0
	Max	**11**
Total		**100**

Appendix E: Countermeasures

Countermeasures

A countermeasure is an intervention applied to a street segment or intersection with the goal of improving safety in that location. This intervention may be applied reactively to address a crash hotspot or proactively to mitigate known unsafe conditions or other safety concerns. Places where latent demand for pedestrian crossing or access may exist may present an opportunity for mode shift.

Countermeasures can be applied with different objectives, such as reducing the likelihood of a crash or limiting the severity of a crash when it does occur. In some areas, too much emphasis on the latter could create an atmosphere that the roadway is so safe, motorists feel no need to exercise caution while driving. Somewhat counterintuitively, friction and discomfort can be good qualities of a roadway because they result in higher safety for all users.

The following countermeasures are divided into rural and urban non-interstate roads but should not be considered to be exclusive to that roadway type. In certain circumstances a countermeasure designated here as rural may make sense for an urban road and vice versa. For instance, an enhanced crosswalk treatment could be placed on a rural road where there is a trail crossing or where pedestrians access amenities, or chevron signs could be installed along a sharp curve on an urban road. As an additional note: all countermeasures listed in the rural non-interstate roads section have no effect on emergency vehicle response times. Urban non-interstate road countermeasures include a discussion of emergency vehicle response times where appropriate.

Countermeasures for Rural Non-Interstate Roads



Adobe Stock

SIGN AND MARKING IMPROVEMENTS

This includes placing signs at all intersection approaches indicating to drivers the location of stop signs and what type of intersection they are about to encounter (4-way intersection, T-intersection, private driveway, etc.). An inventory of signs at intersections in the county could be paired with crash location data to determine areas for prioritization for this countermeasure.



FHWA



Idaho DOT

WARNING BEACONS

These can be placed on the roadside or overhead and consist of a flashing beacon ahead of a stop sign to warn drivers that they must prepare to stop. These beacons are highly visible during the day and night and can be solar-powered.



FHWA

DYNAMIC WARNING SIGN

These signs are activated by a vehicle already present in an intersection in areas where visibility is low due to intersection geometry, speed, topography, or trees. An approaching vehicle will be warned that there is a vehicle at or in the intersection they are approaching. One disadvantage to consider for any intersection where this countermeasure is being considered is whether motorists will develop the habit of running the stop sign if the warning sign has not been activated.



Adobe Stock

RUMBLE STRIPS

Grooves etched into the edge of the roadway emit a loud sound and cause the vehicle to vibrate when the wheels travel over them. This intervention may be helpful either at the edge of a road or in the center in areas where travel lane departure is a problem or concern. Another advantage of rumble strips is that if road markings in the center or edge of a road are painted over them, they increase the visibility of the line in wet or dark conditions.



Adobe Stock

TRANSVERSE RUMBLE STRIPS

Same as a rumble strip on the side of a roadway to avert road departures, except these are installed across the driving lane ahead of a stop sign to warn a driver that a stop sign is approaching. Rumble strips have the advantage of using different sensory input (other than sight) to alert drivers that may be fatigued or distracted.



FHWA

EXTENSION OF THE THROUGH EDGE LINE

Helps drivers stop closer to the intersection so that they can be easily seen by other drivers that may be entering the intersection.



USDOT

RETROREFLECTIVE STRIPS

These strips, when applied to existing road signs can help them be more noticeable and help drivers see them at night.



FHWA

BREAKAWAY OBJECTS

Signs, mailboxes, and other objects can be designed so that they easily break away when struck, protecting the driver of the vehicle.

SPEED FEEDBACK SIGNS



Adobe Stock

These signs display a readout of a vehicle's speed as it approaches the sign. The sign flashes if a motorist approaches the sign at a speed that is above the speed limit, warning the driver to slow down. At speeds significantly above the speed limit, the sign can flash more quickly or with different colors to issue a more urgent warning. One consideration for Speed Feedback Signs is that drivers have been shown to habituate to them, causing them to lose effectiveness over time. One way to prolong or sustain their effectiveness is by occasionally moving them to new locations even along the same road segment, interrupting the process of habituation. This can also be used to call attention to a particular segment or corridor that has a speeding problem to help build support for physical improvements such as right-sizing, lane narrowing, or adding speed humps. These can also be used to alert drivers to an area of transition from a high-speed limit to a low-speed limit, such as when a rural highway enters a town.


Adobe Stock

CHEVRON SIGNS

Chevron signs can be installed around a curve in a rural road to help drivers see the curve at night and in conditions that reduce visibility. These signs can be accompanied by warning signs ahead of the curve and by retroreflective materials to boost their visibility.



FHWA

HIGH FRICTION SURFACE TREATMENTS (HFST)

This treatment is applied to the road surface to increase the friction between the pavement and the tires of a vehicle. Higher friction helps cars grip the road surface in slippery conditions like rain, or over tight corners where a known safety issue exists due to geometry or excessive speeds through the curve.



FHWA

MAINTAINED CLEAR ZONES

A clear zone is an area alongside the roadway that is kept clear of fixed obstacles that reduce the severity of a collision should a car depart the roadway. This area also gives the driver an opportunity to regain control of their vehicle and return it to the roadway. Note that research exists that suggests that more tree canopy and objects in the clear zone increase safety, as expressed by a decrease in total crashes as well as severe crashes. This may seem counterintuitive, but one explanation for this may be that the spectacular provision of safety represented by a well-maintained clear zone gives drivers a false sense of security, resulting in higher speeds and less attention toward the task of driving. Further study is required to determine this interventions appropriateness for any specific roadway.



Adobe Stock

TRAVERSABLE ROADSIDE SLOPES

Highways with wide shoulders help drivers recover safely when they depart the roadway. Adding or widening shoulders to highways that do not have them can be an effective countermeasure. Shoulders can be used for other purposes too such as a place to pull off in an emergency and in some cases, a place to walk, run, or bike. Slopes at the edge of a road can be flattened to reduce the grade, making an incident of running off the road more forgiving.



New Mexico Nomad

COMMUNITY GATEWAY SIGNS

One common issue with rural highways occurs when they enter rural communities and the speed limit drops, sometimes significantly. Many drivers fail to comply with the slower speed limits or fail to notice the changing speed limit. This poses a risk to local pedestrians and motorists. Gateways can be added in these areas to provide an additional visual cue to drivers that they are entering a new context. These signs can be placed close to the roadway or arch overhead. These can be branded to welcome people to the community and create a sense of enclosure that inspires additional caution in drivers, slowing them down.

Countermeasures for Urban Non-Interstate Roads



NACTO



NACTO

CURB EXTENSION / BULBOUT / NECKDOWN

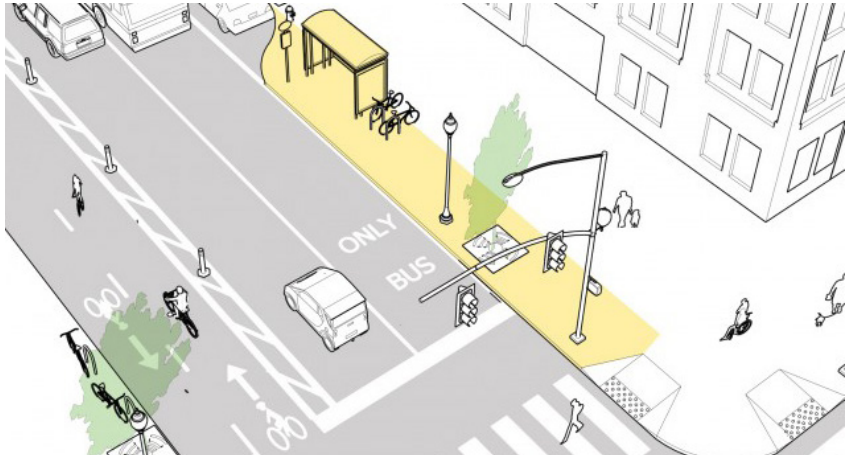
Curb extensions can be applied to intersections with high pedestrian volume and meet three goals simultaneously. First, they slow traffic by narrowing the roadway which increases a driver's sense of caution. Second, they decrease the crossing distances for pedestrians. Third, they often increase the turning radius of an intersection which forces vehicles to slow down more to make a right turn. This intervention can be accomplished with low-cost and temporary materials such as flex-posts, making it fast and simple to roll out and test this intervention at an intersection before applying a more expensive, permanent intervention complete with concrete, landscaping, and drainage. This intervention can also be used as a gateway, indicating to drivers that they are leaving one area and entering another such as a transition between a commercial corridor and a residential road. For intersections that must accommodate a larger design vehicle (such as an emergency response vehicle, the permanent intervention can be a partially raised 'apron' rather than a full-sized curb. This will maintain the smaller turning radius for everyday passenger vehicles but allow emergency vehicles to safely pass over them when needed.



NACTO

CHOKER / PINCHPOINT

A choker or pinchpoint is a similar to a curb extension except they are applied mid-block on a road segment rather than at an intersection. Again, they can be used to improve the safety for crossing pedestrians by narrowing the roadway to slow drivers and decrease crossing distances. This intervention is best applied in areas where mid-block crossings are common or where there is demand for crossings such as the entrance to a school, by a bus stop that is not near an intersection crossing, public library, grocery store, or any other area heavily trafficked by people walking. These can also be designed in a way that allowed emergency vehicles to mount them.



NACTO

BUS BULBS

A bus bulb is a curb extension located at a bus stop. One advantage of this intervention is that it can greatly reduce bus dwell time. With a bus bulb, the bus does not have to pull out of the travel lane to pick up or drop off passengers and then wait to merge with traffic. Rather, the bus stops at the bus bulb and any traffic behind the bus must stop until the bus continues. This also prevents cars from parking at the bus stop. To minimize delays for motor traffic, this intervention can be combined with a bus lane or measures to further reduce dwell time like off-vehicle fare collection. Research has shown that a more pleasant environment for transit stops such as the presence of tree cover reduces rider's perception of how long they waited for a transit vehicle. Additionally, emergency vehicles can use bus lanes, potentially reducing their response time.



NACTO

CHICANE AND LATERAL SHIFT

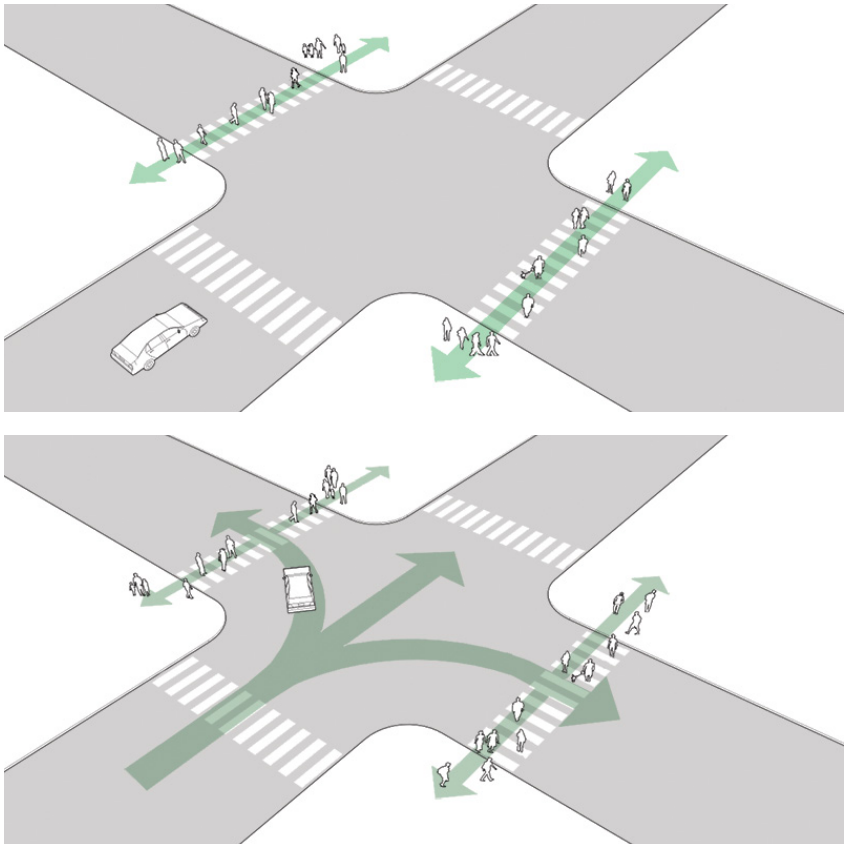
This intervention changes the configuration of the roadway by installing temporary or permanent barriers to give the travel lanes a curved or serpentine shape. This has the effect of greatly slowing vehicle speeds by forcing drivers to navigate the new curved configuration. These interventions are best applied to residential or other low-traffic roads, or on roads where the county wishes to minimize cut-through traffic.



NACTO

PEDESTRIAN REFUGE ISLAND

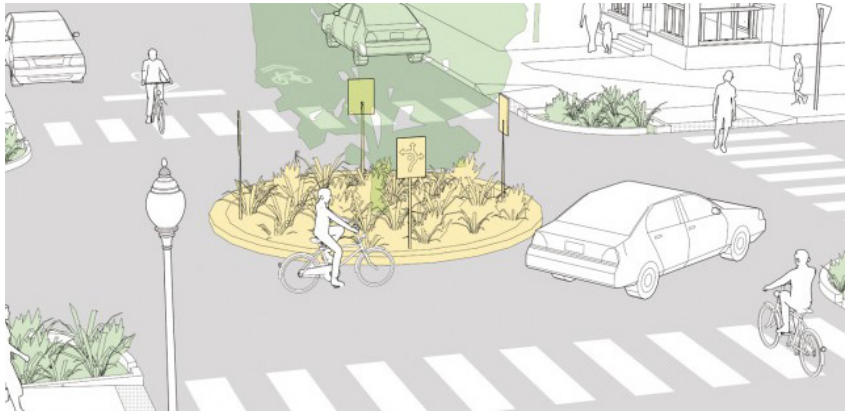
These safety islands reduce exposure of pedestrians in an intersection. They are best applied wherever crossing is prohibitive due to long distances due to higher lane counts or where there are high vehicle speeds and/or volumes. Pedestrians who have difficulty crossing the entire street at once can wait on the island for the traffic signal to cycle to another crossing phase before they cross the rest of the way.



NACTO

LEADING PEDESTRIAN INTERVAL (LPI)

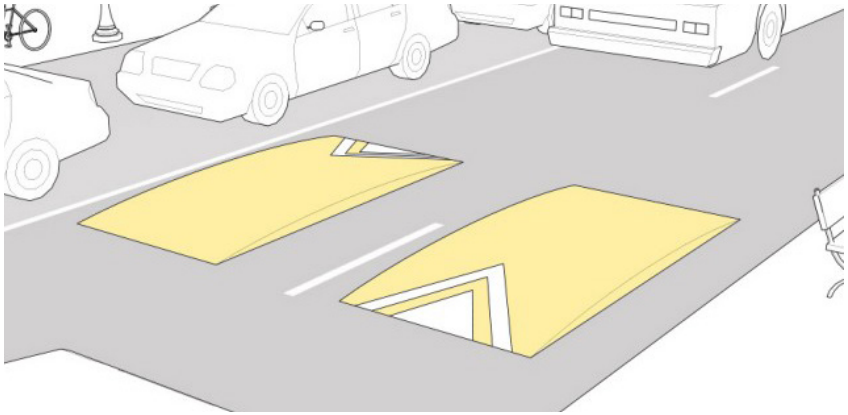
At signalized intersections, the LPI gives the crossing phase a 3-7 head start before vehicles are given a green light. This helps at intersections where motorists fail to yield right of way to pedestrians while turning right or while making unprotected left turns through a crosswalk. This intervention can be paired with curb-extensions or pedestrian refuge islands to increase their effectiveness.



NACTO

ROUNDABOUT

Small roundabouts can increase safety and lower vehicle speeds at unsignalized intersections by creating a obstacle that drivers must consciously navigate. Roundabouts can be as simple as a painted circle with signs, a raised curb, or can be landscaped. Intersections where this intervention is applied should also include crosswalks to communicate clearly to pedestrians where they should cross and where drivers can expect them to be when they are present. These can be designed with an apron or softer edges to allow emergency vehicles to pass over them rather than go around them.



NACTO

SPEED HUMP / SPEED CUSHION / SPEED TABLE

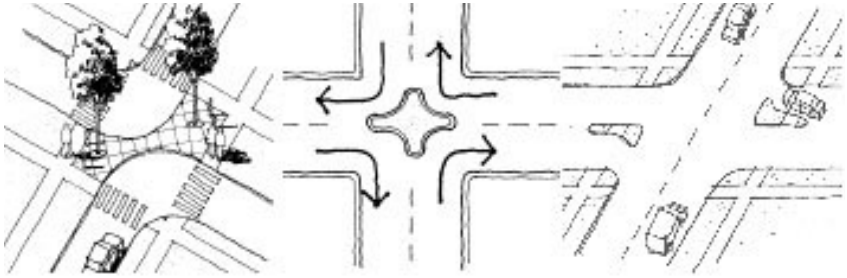
Collectively and colloquially: speed bumps. A speed hump is a bump that cars must slow down to go over in the middle of a roadway. They often to not extend curb to curb, but end at the gutter so they don't impede drainage. A speed cushion is a much narrower speed bump that can be placed on roads that are traveled by larger vehicles like trucks, buses, and larger emergency vehicles. The wider wheels allow these vehicles to pass over the speed cushion unaffected, while smaller passenger cars will have to slow down. A speed table is similar to the above except it raises the wheelbase for a greater length and often extends curb to curb. These are often combined with mid-block crossings, as discussed below.



NACTO

RAISED CROSSWALK

A raised crosswalk is a speed table that also allows pedestrians to cross a street at the same grade as the sidewalks. This has benefits for accessibility, but the crosswalk can also be decorated or otherwise differentiated from the roadway to give drivers an additional cue that they are entering pedestrians pace. These can be placed mid-block but also in intersections or inside slip-lanes to increase safety. Slip lanes and other channelized lanes are often treacherous for pedestrians, so these make a good option for improving them (if their removal or reconfiguration is not feasible).



FHWA

DIVERTERS

A diverter is a piece of infrastructure that blocks or forces certain movements for motorists and/or serves as a modal filter, allowing pedestrians and cyclists through but not cars. This breaks up the street grid and reduces speed. It can be used strategically to concentrate automobiles on streets where there are fewer bicycles and pedestrians.



Adobe Stock

ON-STREET PARKING

On street parking can have the same visual effect of curb extensions by narrowing a driver's field of view and decreasing speeds. Also, the added activity of cars parking and leaving spaces serves as a cue for drivers to pay extra attention.





FHWA

RIGHT-SIZED ROADS

Also sometimes called a road diet, this is an intervention that reduces the number of lanes on a road to match the surrounding context or functional classification of the road. For example, a four-lane road in a residential area might be reduced to two lanes with parking on both sides. The space allocated away from automobile travel lanes can be allocated toward other road users or economic purposes instead.

CROSSWALK WARNING BEACON OR RECTANGULAR RAPID FLASHING BEACON (RRFB)



Adobe Stock

Anywhere there is a midblock crosswalk or area where pedestrian or bicycle traffic crosses an unsignalized intersection against through traffic that doesn't have to stop. They are also most effective at crossings where gaps in traffic are not common or where children frequently cross the street as children have greatly diminished ability to judge the speed and distance of oncoming traffic compared to adults. These are free-standing beacons will solar powered LED lights that flash when activated by a pedestrian or cyclist who wishes to cross. As the lights flash, the drivers are alerted to the presence of a pedestrian, and slow down and stop to allow the pedestrian or cyclist to safely cross. One consideration is the placement of the button that activates the beacon. A button located on the sidewalk allows pedestrians to easily activate it, but cyclists may have difficulty. Placing a button by the curb can allow cyclists to easily activate the beacon without having to move their bike onto the sidewalk. As an additional note, studies have shown that the roadway context affects the effectiveness of this treatment. Drivers are more likely to yield to pedestrians at crosswalks with RRFBs when the crossing distance is shorter rather than longer, with fewer lanes, when there is a pedestrian refuge island, and on roadways that do not have channelized turn lanes (slip lanes).



FHWA

HAWK BEACON

HAWK Beacons, also known as Hybrid Pedestrian Beacons, operate like a crossing at an intersection but at mid-block. Pedestrians press a button to indicate they wish to cross, and after a few moments an overhead signal will turn red, obligating drivers to stop and allow the pedestrian to cross. These signals are more expensive and have a higher impact on traffic than flashing warning beacons but can help pedestrians cross safely at roads that have higher traffic volumes, higher vehicle speeds, farther crossing distances, or have populations that may take more time to cross the street like seniors, children, or people with disabilities such as near senior housing, schools, hospitals, and other similar facilities.



Adobe Stock

SIDEWALKS

Many communities across the county lack complete sidewalk networks, even in key areas like access points to transit stops. A sidewalk inventory can be completed for urban areas followed by a gap analysis to identify areas that lack sufficient space for pedestrians and prioritize remedies.

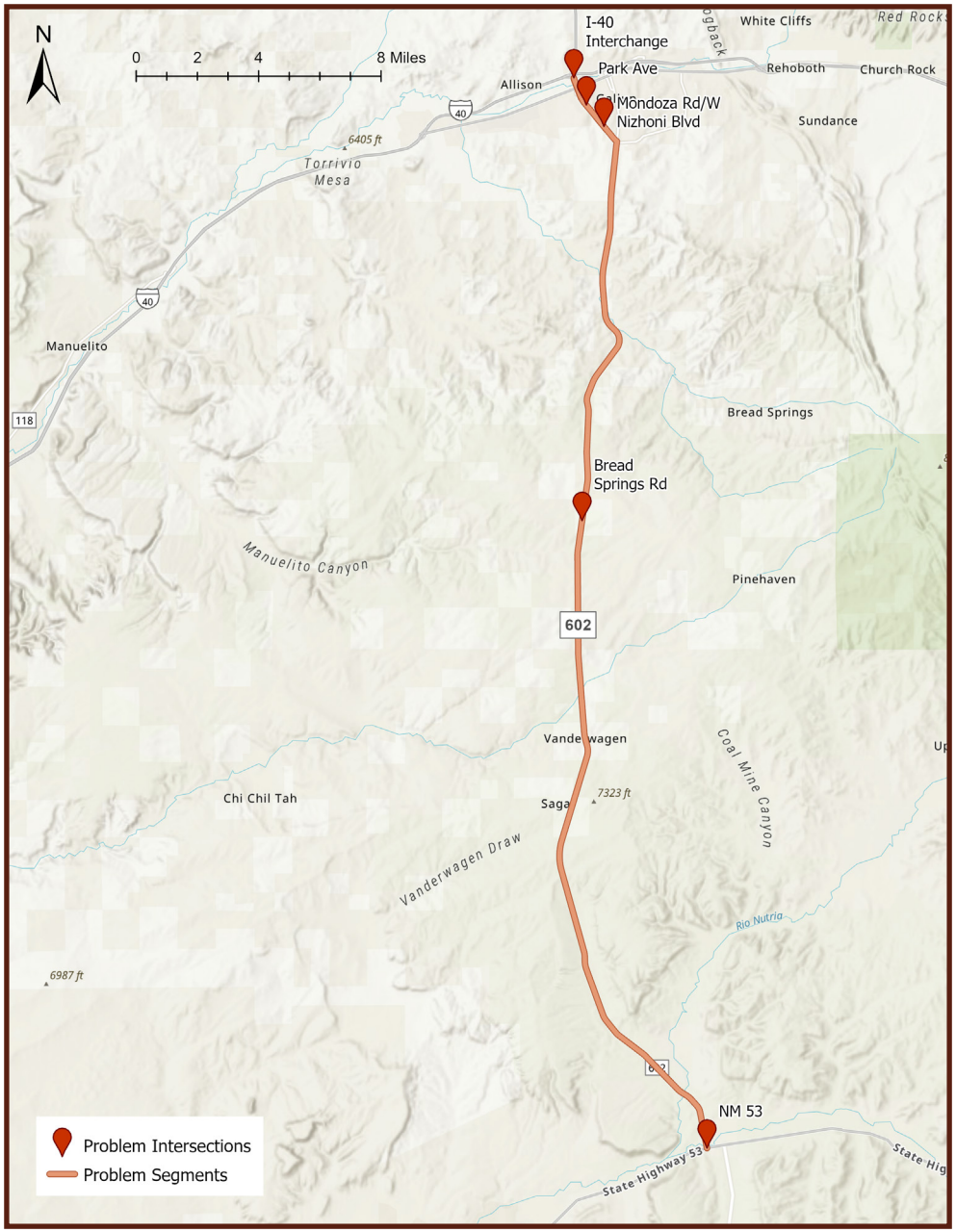


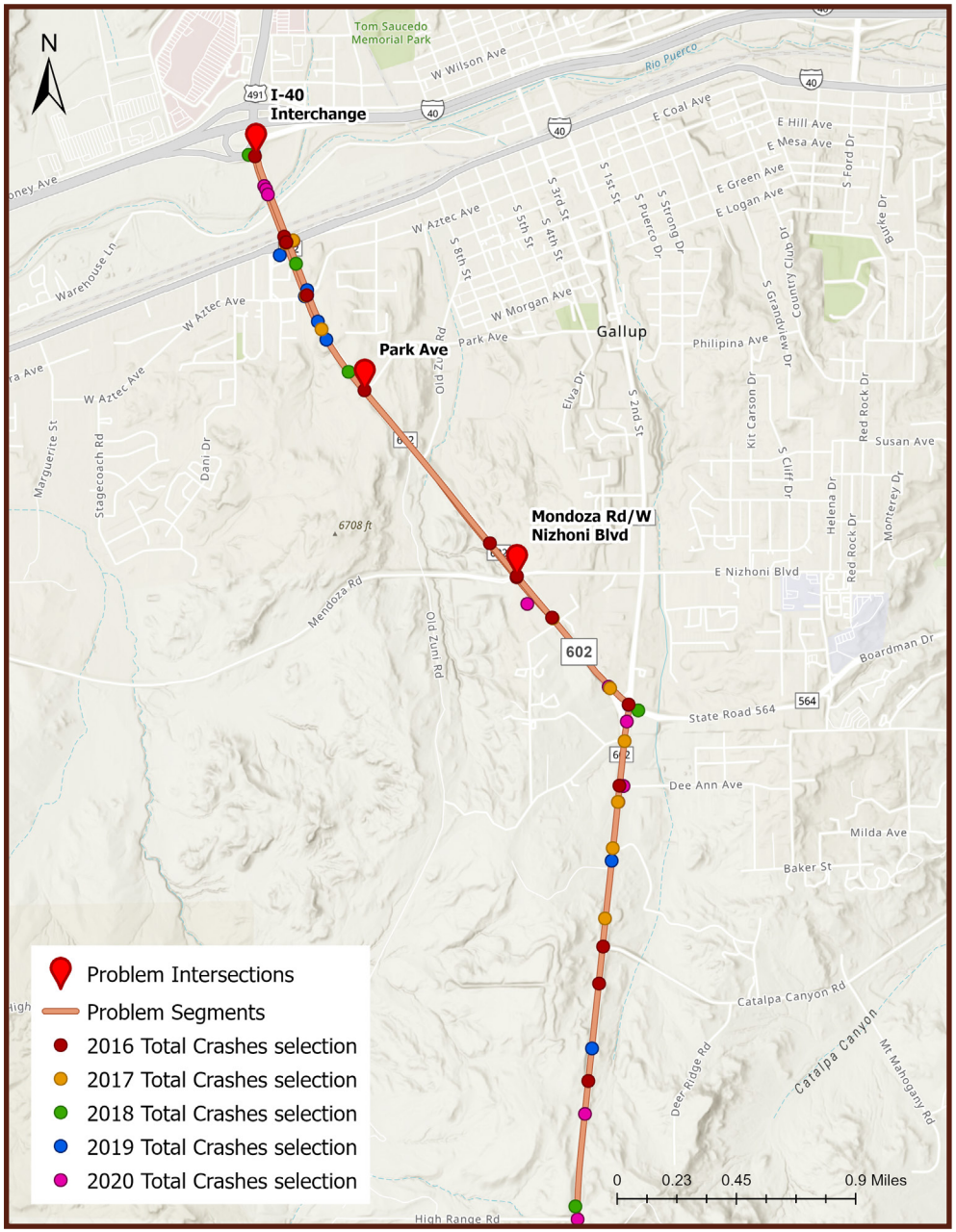
Adobe Stock

SIGNAL PROGRESSION

By tuning the signal times to the desired speed for a corridor, urban areas can discourage speeding in a non-punitive manner.

Appendix F: NM 602 Countermeasure Detail

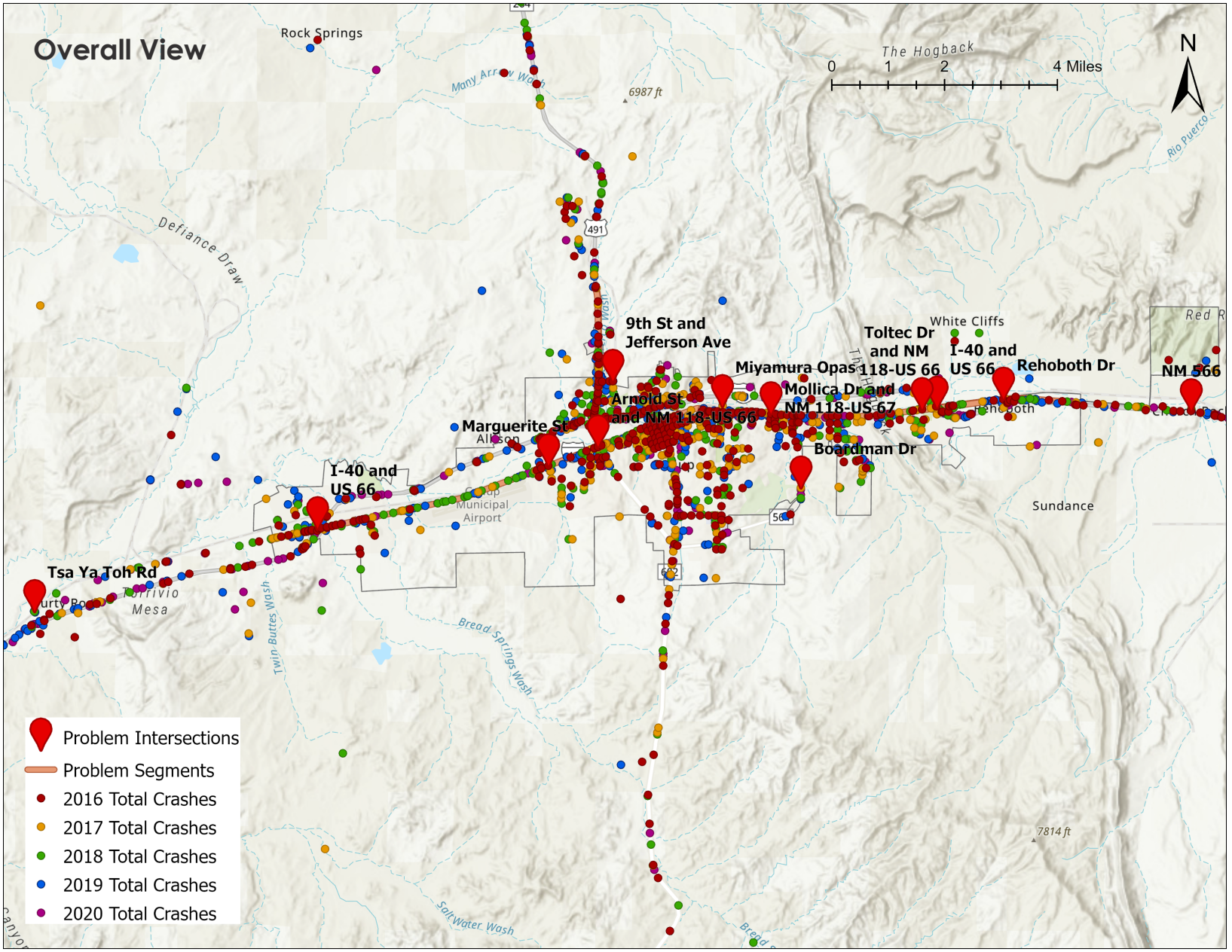

N
0 2 4 8 Miles
I-40 Interchange
Park Ave
Mondoza Rd/W Nizhoni Blvd
Allison
White Cliffs
Red Rocks
Rehoboth
Church Rock
Sundance
6405 ft
Torrivio Mesa
Manuelito
118
40
Bread Springs
Bread Springs Rd
Manuelito Canyon
Pinehaven
602
Vande wagen
Chi Chil Tah
Saga
7323 ft
Coal Mine Canyon
Vanderwagen Draw
Rio Nutria
6987 ft
NM 53
State Highway 53
Problem Intersections
Problem Segments

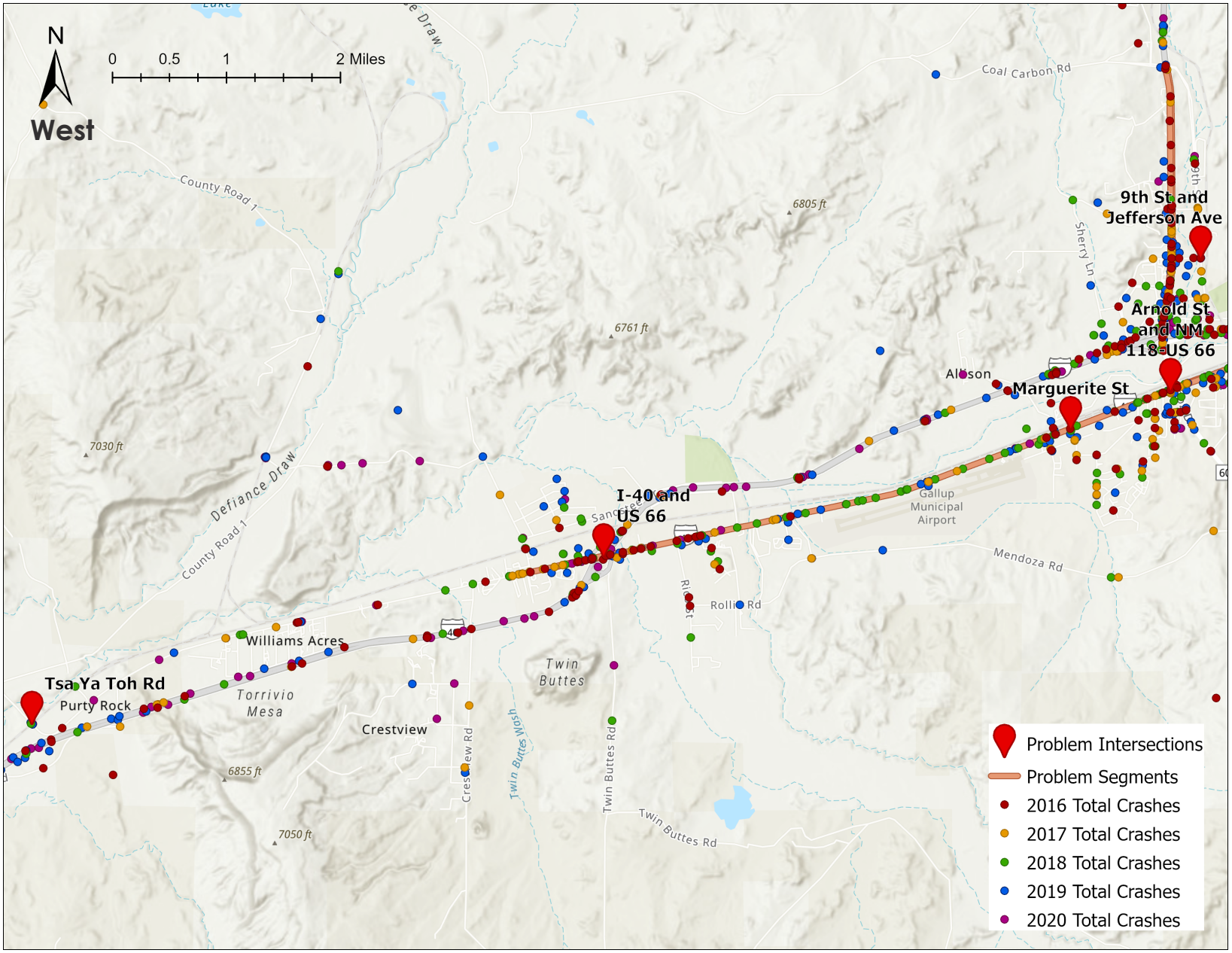

N
I-40 Interchange
Park Ave
Mondoza Rd/W Nizhoni Blvd
Tom Saucedo Memorial Park
W Wilson Ave
Rio Puerco
E Coal Ave
E Hill Ave
E Mesa Ave
E Green Ave
E Logan Ave
W Aztec Ave
W Morgan Ave
Gallup
Philipina Ave
Warehouse Ln
Marguerite St
Stagecoach Rd
Dani Dr
Old Zuni Rd
Elva Dr
S 2nd St
Kit Carson Dr
S Cliff Dr
Helena Dr
Red Rock Dr
Monterey Dr
Susan Ave
6708 ft
Mendoza Rd
E Nizhoni Blvd
602
Boardman Dr
State Road 564
564
Dee Ann Ave
Milda Ave
Baker St
Catalpa Canyon Rd
Deer Ridge Rd
Mt Mahogany Rd
High Range Rd
Problem Intersections
Problem Segments
2016 Total Crashes selection
2017 Total Crashes selection
2018 Total Crashes selection
2019 Total Crashes selection
2020 Total Crashes selection
0 0.23 0.45 0.9 Miles

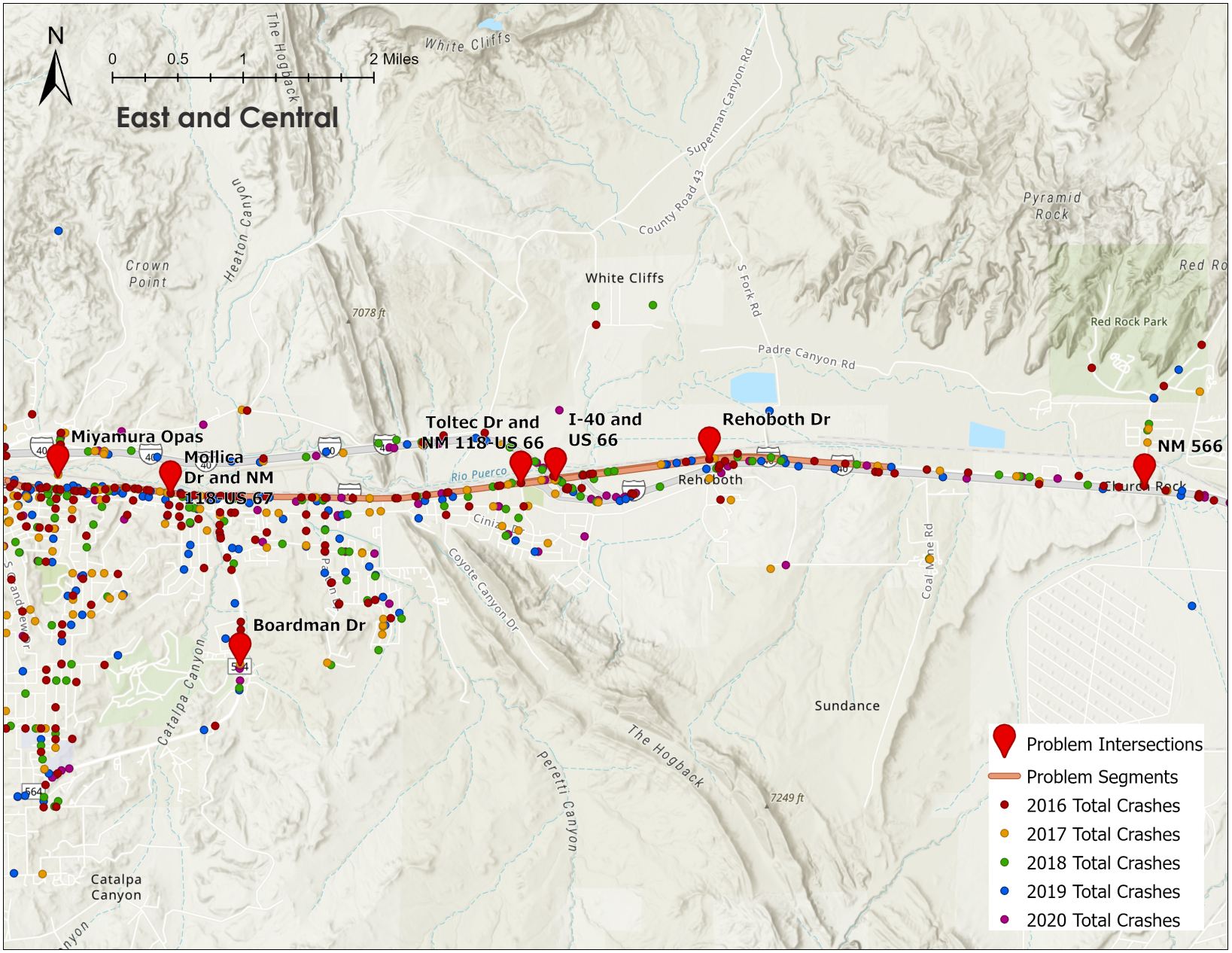
	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
4. Visibility Improvements									
4.1c	Increase Stop Control Visibility - Stop Lines	Intersection at NM 602 / Park Avenue	Short	$300/intersection		X		X	
4.1i	Increase Stop Control Visibility - Stop Lines	Intersection of NM 602 / NM 53	Short	$300/intersection		X		X	
4.1j	Increase Stop Control Visibility - Stop Lines	Intersection of NM 602 / Bread Springs Roads	Short	$300/intersection		X		X	
4.2c	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of NM 602 / Mendoza Road-Nizhoni Boulevard	Medium	$11,000/each		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
9. Roadway Departure and Cross-Median Crashes									
9.2	Shoulder widening and/or adding longitudinal rumble strips (shoulder and/or centerline), where applicable	Rural highway segments (NM 53, NM 118, NM 371, NM 400, NM 602, NM 612, Navajo Service Route 11)	Long	$1,001,000/mi	X			X	
13. Infrastructure to Protect Vulnerable Road Users									
13.6c	Install high-visibility crosswalk	Intersection of NM 602 / Mendoza Road-Nizhoni Boulevard	Short	$11,000/each		X	X	X	X
15. Countermeasures to Reduce Truck Accidents									
15.1	Truck-focused safety improvements	I-40 Ramp intersections at NM-118 (exits 16 & 26), NM-602 (especially the WB Terminal), and Maverick Road	Long	-		X	X	X	
15.2	Shoulder widening		Long	$1,001,000/mi		X	X	X	

Appendix G: NM 118 (Route 66) Countermeasure Detail


Overall View
Rock Springs
The Hogback
0 1 2 4 Miles
N
6987 ft
Many Arrow Wash
Rio Puerco
Defiance Draw
491
9th St and Jefferson Ave
Toltec Dr and NM 118-US 66
White Cliffs
I-40 and US 66
Rehoboth Dr
NM 566
Red R
Miyamura Opas
Mollica Dr and NM 118-US 67
Arnold St and NM 118-US 66
Marguerite St
Allison
Boardman Dr
I-40 and US 66
Municipal Airport
Sundance
Tsa Ya Toh Rd
Torrivio Mesa
Twin Buttes Wash
Bread Springs Wash
7814 ft
Salt Water Wash
Problem Intersections
Problem Segments
2016 Total Crashes
2017 Total Crashes
2018 Total Crashes
2019 Total Crashes
2020 Total Crashes


N
West
0
0.5
1
2 Miles
9th St and Jefferson Ave
Arnold St and NM 118-US 66
Marguerite St
I-40 and US 66
Tsa Ya Toh Rd
Purty Rock
Williams Acres
Torrivio Mesa
Crestview
Twin Buttes
Allison
Gallup Municipal Airport
Mendoza Rd
Rolling Rd
Coal Carbon Rd
County Road 1
Defiance Draw
Twin Buttes Rd
Crestview Rd
Twin Buttes Wash
6805 ft
6761 ft
7030 ft
6855 ft
7050 ft
Problem Intersections
Problem Segments
2016 Total Crashes
2017 Total Crashes
2018 Total Crashes
2019 Total Crashes
2020 Total Crashes


N
0
0.5
1
2 Miles
East and Central
White Cliffs
The Hogback
Superman Canyon Rd
County Road 43
Heaton Canyon
Crown Point
Pyramid Rock
Red Rock Park
S Fork Rd
Padre Canyon Rd
7078 ft
Miyamura Opas
Mollica Dr and NM 118-US 67
Toltec Dr and NM 118-US 66
I-40 and US 66
Rehoboth Dr
NM 566
Rio Puerco
Rehoboth
Church Rock
Coyote Canyon Dr
Coal Mine Rd
Boardman Dr
Catalpa Canyon
Sundance
Peretti Canyon
7249 ft
Problem Intersections
Problem Segments
2016 Total Crashes
2017 Total Crashes
2018 Total Crashes
2019 Total Crashes
2020 Total Crashes

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
4. Visibility Improvements									
4.1a	Increase Stop Control Visibility - Stop Lines	Intersection at NM 566 / NM 118-U.S. 66	Short	$300/intersection		X		X	
4.2b	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of I-40 / NM 118-U.S. 66	Medium	$11,000/each		X	X	X	X
4.2d	Increase Stop Control Visibility - Stop Lines / Intersection Improvements - Enhance pedestrian infrastructure	Intersection of Marguerite Street / NM 118-U.S. 66	Medium	$11,000/each		X	X	X	X
6. Overturning Crashes									
6.2	Delineation Treatment - Install chevron signs on horizontal curves on rural two-lane undivided roads, where applicable	Rural highway segments (NM 53, NM 118-U.S. 66, NM 197, NM 371, U.S. 491, NM 509)	Medium	$1,060,000/mile	X			X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
8. Crashes Along Curves									
8.1b	Install Advance Curve Sign (W1-2) and Guard Rail	NM 118 near Tsa Ya Toh Road	Medium	$505,500/mile				X	
9. Roadway Departure and Cross-median Crashes									
9.1	Install targeted Curve Advanced delineation/ barriers, longitudinal rumble strips, median barriers, safetyEdge, and wider edge lines	Rural highway segments (NM 53 near MP 16, NM 118 near Tsa Ya Toh Road)	Long	$3,828,000/mile	X			X	
9.2	Shoulder widening and/or adding longitudinal rumble strips (shoulder and/or centerline), where applicable	Rural highway segments (NM 53, NM 118, NM 371, NM 400, NM 602, NM 612, Navajo Service Route 11)	Long	$1,001,000/mile	X			X	
10. Access Control Plan									
10.4a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with I-40 and Rehoboth Drive	Medium	-		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
10.4b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Rehoboth Drive at Comfort Inn, La Quinta, Speedway Access Drives	Medium	-	X			X	
10.5a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with Industry Road and Armando Ortega Boulevard	Medium	-		X	X	X	X
10.5b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Armando Ortega Boulevard at Western Skies Drive, USA RV / Howard Johnson Access Drives	Medium	-	X			X	
10.6a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with Ford Drive and Boardman Drive	Medium	-		X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
10.6b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Boardman Drive at Valentina Drive, Verdi Drive, and Will Drive	Medium	-	X			X	
10.7	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with NM 602 / 8th Street	Medium	-		X	X	X	X
10.8a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between intersection with I-40 and Rico Street	Medium	-		X	X	X	X
10.8b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of Rico Street at Best Western, Shell, Motel 6 / One 9, Rodeway / Microtel Access Drives; and Plaza Avenue	Medium	-	X			X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
10.9a	Implement Access Management - Driveway closure/ relocation/ consolidation	NM 118-U.S. 66 between Crestview Rd and I-40	Medium	-		X	X	X	X
10.9b	Create directional median openings to allow left turns and U-turns	NM 118-U.S. 66 West of I-40 at Sunset Memorial Park / Kachina Rentals, Armored Electric / Trails West Mobile Home Park, TA Truck Stop / Bombay Restaurant, and Loves Access Drives; Mentmore Avenue and Cam D Monte Sol	Medium	-	X			X	
11. Roundabouts and Stop Controlled Intersections									
11.1b	Consider Roundabout or All Way Stop Control (AWSC)	Intersection of U.S. 66 and Miyamura Opas	Long	$5,742,000/ roundabout	X	X	X	X	X

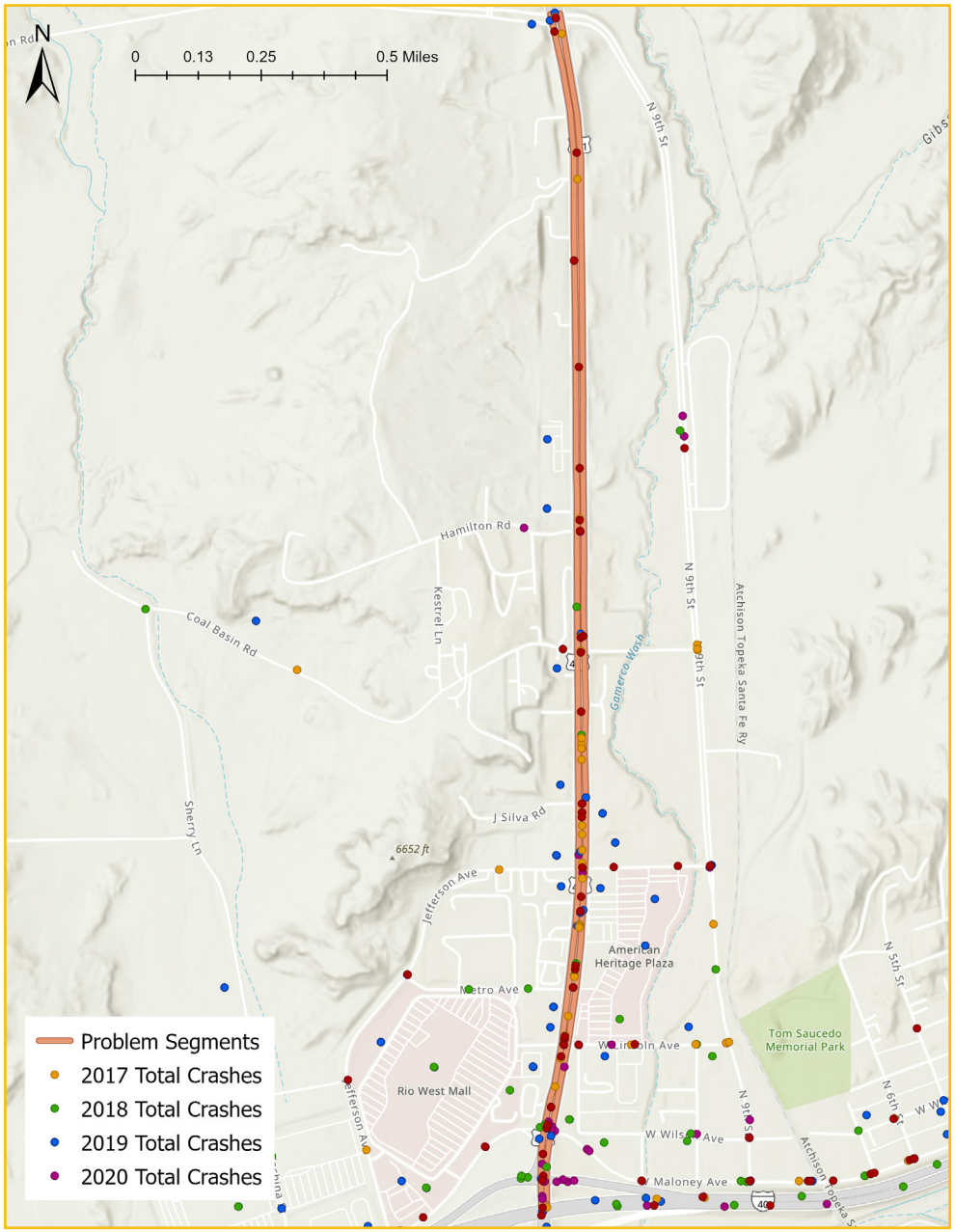
	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
12. Traffic Signal									
12.2a	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/or implementing flashing yellow arrow)	Intersection of 9th Street and Jefferson Avenue	Long	$20,600/ intersection	X	X	X	X	
12.2b	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/or implementing flashing yellow arrow)	Intersection of Arnold Street and NM 118-U.S. 66	Long	$20,600/ intersection	X	X	X	X	
12.2c	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/or implementing flashing yellow arrow)	Intersection of Toltec Drive and NM 118-U.S. 66	Long	$20,600/ intersection	X	X	X	X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
12.2d	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/or implementing flashing yellow arrow)	Intersection of Mollica Drive and NM 118-U.S. 67	Long	$20,600/ intersection	X	X	X	X	
12.2e	Enhance existing traffic signal to bring up to standards (modifying the left-turn phasing, and/or implementing flashing yellow arrow)	Intersection of Boardmand Drive and NM 118-U.S. 68	Long	$20,600/ intersection	X	X	X	X	
13. Infrastructure to Protect Vulnerable Road Users									
13.1	Implement Multimodal Infrastructure	Gallup Focus Areas, NM-53 Between and Including Zuni Pueblo and Black Rock, NM-118 in Gallup, NM-53 Between and Including Zuni Pueblo and Black Rock	Medium	-	X	X	X	X	X

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
13.5	Enforce ADA Compliance (fix sidewalk cracks, remove trees from sidewalks)	Gallup Focus Areas, NM-118 in Gallup	Long	1,060,000/mile		X	X	X	X
13.6b	Install high-visibility crosswalk	Intersection of I-40 / NM 118-U.S. 66	Short	$11,000/each		X	X	X	X
13.6d	Install high-visibility crosswalk	Intersection of Marguerite Street / NM 118-U.S. 66	Short	$11,000/each		X	X	X	X
13.7	Install pedestrian countdown timer	Gallup Focus Areas, NM-118 in Gallup	Medium	$20,600/ intersection		X	X	X	X
13.9	Comprehensive corridor-wide pedestrian improvements	U.S. 66 corridor (22% of pedestrian crashes 2017-2022 occurred along U.S. 66)	Medium	-	X	X	X	X	X
15. Countermeasures to Reduce Truck Accidents									
15.1	Truck-focused safety improvements	I-40 Ramp intersections at NM-118 (exits 16 & 26), NM-602 (especially the WB Terminal), and Maverick Road	Long	-		X	X	X	
15.2	Shoulder widening		Long	$1,001,000/mi		X	X	X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
17. Education, Enforcement, Communication									
17.4	Implement Speed Management and install Share the Road signs to reduce motorcycle involved crashes	Interstate locations throughout; NM-491 Northbound North of the Interstate / Southbound approaching Gallup; NM-118 leaving I-40 Interchanges towards downtown (exits 16 & 26); NM-53 EB & WB approaching Zuni Pueblo/ Black Rock	Medium	$6,900/each	X	X	X	X	

Appendix H: NM 491 Countermeasure Detail


N
0
0.13
0.25
0.5 Miles
Problem Segments
2017 Total Crashes
2018 Total Crashes
2019 Total Crashes
2020 Total Crashes
Hamilton Rd
Coal Basin Rd
Kestrel Ln
N 9th St
Gomerco Wash
Atchison Topeka Santa Fe Ry
J Silva Rd
Sherry Ln
6652 ft
Jefferson Ave
American Heritage Plaza
Metro Ave
Rio West Mall
Tom Saucedo Memorial Park
N 5th St
N 6th St
W Wilson Ave
W Maloney Ave

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
3. U.S. 491 Access Control, Road Diet, and Alternative Modes Improvements									
3.1	Roadway Configuration - Design and Implement Road Diet	U.S. 491, Gallup focus area	Long	$61,000	X	X	X	X	X
3.2	Speed Management - Reduce Speed Limit	U.S. 491, Gallup focus area	Short	$6,900/each	X	X			
3.3	Implement Access Management - Install raised median	U.S. 491, Gallup focus area	Short	$1,378,000/mile	X	X	X	X	
3.4	Implement Access Management - Driveway closure/ relocation/ consolidation	U.S. 491, Gallup focus area	Medium	-		X	X	X	X
3.5	Implement Access Management - Limit allowable movements	U.S. 491, Gallup focus area	Short	$306,000/mile		X	X	X	X
3.6	Implement Access Management - Provide turn lanes	U.S. 491, Gallup focus area	Medium	$163,000/each		X	X	X	X
3.7	Multimodal Facilities - Add Bike Lanes	U.S. 491, Gallup focus area	Medium	$1,327,800/mile		X	X		

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
3.8	Pedestrian Facilities - Install Pedestrian Hybrid Beacons	U.S. 491, Gallup focus area	Short	$41,300/each		X	X	X	X
3.9	Install Bump Outs (Curb Extensions)	U.S. 491, Gallup focus area	Short	$196/ft	X	X	X	X	X
3.10	Enforce ADA Compliance (fix sidewalk cracks, remove trees from sidewalks)	U.S. 491, Gallup focus area	Short	$1,060,000/mile		X	X		X
3.11	Intersection Improvements - Enhance pedestrian infrastructure, where applicable	U.S. 491, Gallup focus area	Medium	$11,000/each	X	X	X	X	X
4. Visibility Improvements									
4.1f	Increase Stop Control Visibility - Stop Lines	Intersection of U.S. 491 / China Springs Loop	Short	$300/intersection		X		X	

	Action	Location	Timeframe	Planning Level Cost	Challenges Addressed				
					Speed Limit Compliance	Multimodal Safety	Multimodal Accessibility	Traffic Control Device Compliance	ADA Compliance
6. Overturning Crashes									
6.2	Delineation Treatment - Install chevron signs on horizontal curves on rural two-lane undivided roads, where applicable	Rural highway segments (NM 53, NM 118-U.S. 66, NM 197, NM 371, U.S. 491, NM 509)	Medium	$1,060,000/mile	X			X	
7. Sideswipe Crashes									
7.1a	Roadway Configuration - Add Acceleration Lane	U.S. 491, just north of Chee Dodge Elementary School for the commercial parcels)	Long	$488,000/each	X			X	
10. Access Control Plan									
10.1	Install raised median	Rural highway segments (U.S. 491)	Medium	$1,378,000/mile	X			X	
13. Infrastructure to Protect Vulnerable Road Users									
13.10	Restripe Crosswalk with high visibility paint, add HAWK or Rapid Flashing Beacon if warranted	Intersection of U.S. 491 / Tohatchi Drive	Medium	$134,000/each	X	X	X	X	X

Appendix I: I-40 East/West Interchanges: Preferred Alternatives

Section Held for Future Information

Contact Us

207 West Hill Ave

Gallup, NM 87301

Phone : (505) 863-1400

WWW.CO.MCKINLEY.NM.US

McKINLEY COUNTY
NEW MEXICO
2025
TRANSPORTATION MASTER PLAN