

FINAL DRAFT

July 9, 2024



MAJOR TRANSPORTATION CORRIDORS PLAN (MTCP)



Contents

Chapter 1. Introduction.....	1
About El Paso County, Colorado.....	1
Purpose of the Plan.....	3
Colorado Transportation Policies.....	3
Related Plans & Studies.....	4
Transportation Goals.....	5
Chapter 2. Community Engagement.....	7
Engagement Overview.....	7
Phase 1 Public Engagement (June to September 2022).....	7
Phase 1.5 Public Engagement Highlights (January to February 2023).....	9
Phase 2 Public Engagement Highlights (March to April 2023).....	9
Phase 3 Public Engagement Highlights (January to February 2024)	11
Second Draft MTCP Review	11
Stakeholder Engagement.....	13
Chapter 3. Existing Conditions.....	14
Travel Patterns.....	14
Roadway Network.....	15
Multimodal Transportation.....	23

Crash History.....	29
Chapter 4. Growth in the County.....	31
Existing Land Uses & Demographics.....	31
Chapter 5. 2045 Plan Recommendations.....	37
Roadway Plan.....	37
Multimodal Plan.....	65
Transit Plan.....	71
Freight Plan.....	73
Chapter 6. Corridor Preservation Plan.....	77
Right-of-Way Preservation.....	77
2065 Travel Demand Forecasts Development.....	78
2065 Corridor Preservation Plan.....	78
Chapter 7. Implementation Plan.....	85
Transportation Funding.....	85
Safety: Strategies & Recommendations	91

List of Figures

Figure 1. Study Area	2
Figure 2. MTCP Transportation Goals	5
Figure 3. Goal Ranking Exercise Results	9
Figure 4. Project Commenting Map Results.....	10
Figure 5. How Community Members Spent \$100	10
Figure 6. Commuter Transportation Mode	14
Figure 7. El Paso County H+T Data	15
Figure 8. Existing Traffic Volumes (Paved Roads).....	16
Figure 9. Levels of Congestion.....	17
Figure 10. Level of Service for Existing Unincorporated El Paso County Roads.....	18
Figure 11. Existing Number of Lanes	20
Figure 12. Existing Traffic Volumes (Gravel Roads).....	22
Figure 13. Bicycle & Pedestrian Low Stress Network	24
Figure 14. Transit Services within El Paso County	28
Figure 15. Fatalities & Serious Injuries	29
Figure 16. Bicyclist/Pedestrian Fatalities & Serious Injuries - Incorporated and Unincorporated EPC (2015-2019)	30
Figure 17. County TAZ Land Use Forecasts	33
Figure 18. 2045 Household Estimates	34
Figure 19. 2045 Employment Estimates	35
Figure 20. Paved Road Conditions & Ratings	40
Figure 21. Gravel Road Conditions & Ratings	41
Figure 22. 2045 Roadway Functional Classifications.....	44
Figure 23. 2045 Lane Requirements	46
Figure 24. 2045 Roadway Plan Daily Traffic Forecasts	48
Figure 25. Level of Congestion Comparison.....	49
Figure 26. 2045 Roadway Plan Levels of Congestion.....	50
Figure 27. MTCP Projects	53
Figure 28. Rural County Road Upgrades.....	55
Figure 29. Urban County Road Upgrades.....	57
Figure 30. Gravel Road Upgrade Projects	59

Figure 31. County Road Widening Projects	61
Figure 32. New Road Connection Projects.....	63
Figure 33. Unincorporated El Paso County Targeted Sidewalk Gap Analysis	67
Figure 34. ConnectCOS Transit Vision Network (2023).....	71
Figure 35. Existing Fountain Municipal Transit Service Map.....	72
Figure 36. FRPR Alignment Under Consideration	72
Figure 37. Truck Routes.....	75
Figure 38. 2065 Traffic Volume Forecast.....	79
Figure 39. 2065 Corridor Preservation Plan	80
Figure 40. 2065 Through Lane Requirements	82
Figure 41. Estimated PPRTA Revenue, El Paso County Portion.....	87
Figure 42. Budgeted DPW Revenue to Fund Road & Bridges Program.....	88
Figure 43. Annual Consumer Price Index.....	89
Figure 44. Colorado Construction Cost Index	89
Figure 45. Road Impact Fee Revenue Since 2012.....	90

List of Tables

Table 1. Gravel Roads Level of Service	22
Table 2. Vulnerable Populations	32
Table 3. Land Use Forecasts	33
Table 4. Rural Road Design Elements	38
Table 5. Urban Road Design Elements	38
Table 6. Rural County Road Upgrades	54
Table 7. Urban County Road Upgrades	56
Table 8. Gravel Road Upgrades	58
Table 9. County Road Widening Projects	60
Table 10. New Road Connections.....	62
Table 11. Improvements to Regional Freight Network.....	74
Table 12. MTCP Program Estimated Costs	85
Table 13. CDOT Transportation Formula Programs.....	86
Table 14. Priority Safety Strategies & Recommendations.....	91

Acronyms & Abbreviations

AAA	Area Agency on Aging
AADT	Average Annual Daily Traffic
ADA	Americans with Disabilities Act
ADT	Average Daily Traffic
AVE	Avenue
BLVD	Boulevard
BNSF	Burlington Northern Santa Fe
CCI	Construction Cost Index
CDOT	Colorado Department of Transportation
CDP	Census Designated Place
CML	consolidated main line
CNT	Center for Neighborhood Technology
CO	Colorado; Colorado State Highway
COS	Colorado Springs
DPW	Department of Public Works
DPW SP	Department of Public Works Strategic Plan
DR	Drive
DTC	Denver Tech Center
ECM	Engineering Criteria Manual
EPC	El Paso County
EV	electric vehicles
FHWA	Federal Highway Administration
FRPR	Front Range Passenger Rail
GHG	greenhouse gas
H+T	Housing + Transportation
HB	House Bill
HUTF	Highway Users Tax Fund
I	Interstate
ID	identification number
IGA	Intergovernmental Agreement
KSI	Killed and Severely Injured
LEHD	Longitudinal Employer-Household Dynamics
LTS	Level of Traffic Stress



M	million
MAMSIP	Military Access, Mobility, and Safety Improvements Projects
MMOF	Multimodal and Mitigation Options Fund
MMT	Mountain Metro Transit
MP	Your El Paso County Master Plan
MPO	Metropolitan Planning Organization
MTCP	Major Transportation Corridors Plan
MUTCD	Manual of Uniform Traffic Control Devices
NCHRP	National Cooperative Highway Research Program Report
O/D	origin/destination
PCI	Pavement Condition Index
PPACG	Pikes Peak Area Council of Governments
PPRTA	Pikes Peak Rural Transportation Authority
PPSC	Pikes Peak State College
RD	Road
ROW	Right-of-Way
RPP	Regional Priority Program
RSA	Road Safety Audit
SB	Senate Bill
SCRCP	Southern Colorado Rail Park
SFB	Space Force Base
STBG	Surface Transportation Block Grant
TAP	Transportation Alternatives Program
TAZ	transportation analysis zones
TMP	Transportation Master Plan
TPR	Transportation Planning Region
UP	Union Pacific
UPRR	Union Pacific Railroad
US	United States
ZEB	zero emission buses





Chapter 1. Introduction

About El Paso County, Colorado

Colorado's El Paso County (EPC) varies significantly in land form, from a forested and mountainous western edge featuring world-renowned Pikes Peak and tourist destinations to the urban and suburban areas of Colorado Springs, surrounding municipalities, and military installations. The County continues eastward to wide-open agricultural and sparsely populated rural areas.

The county has a quadrangular form spanning 2,130 square miles. El Paso County is larger than the state of Delaware. Unincorporated land makes up 89 percent (1,891 square miles) of the County, found predominantly within the rural east and the protected mountainous areas of the west. **Figure 1** shows the study area included in this Major Transportation Corridors Plan (MTCPP).

Of the eight incorporated communities within El Paso County, only two are located within the eastern half. Colorado Springs, the state's second largest city behind Denver, lies at the heart of the County, to which a large part of the County's population commutes to daily from outlying areas for work. There are several unincorporated communities in the County, as well as five military installations in the Pikes Peak region that contribute significantly to the region's population, employment base, and travel patterns.

Based on the latest United States (US) Census Bureau Decennial Survey (2020), El Paso County is Colorado's most populous county, with a population of 730,395. Incorporated communities represent two thirds of the county population (498,373), resulting in a population of 232,022 in unincorporated areas of the county.

Incorporated Communities

Calhan, Colorado Springs, Fountain, Green Mountain Falls, Manitou Springs, Monument, Palmer Lake, Ramah

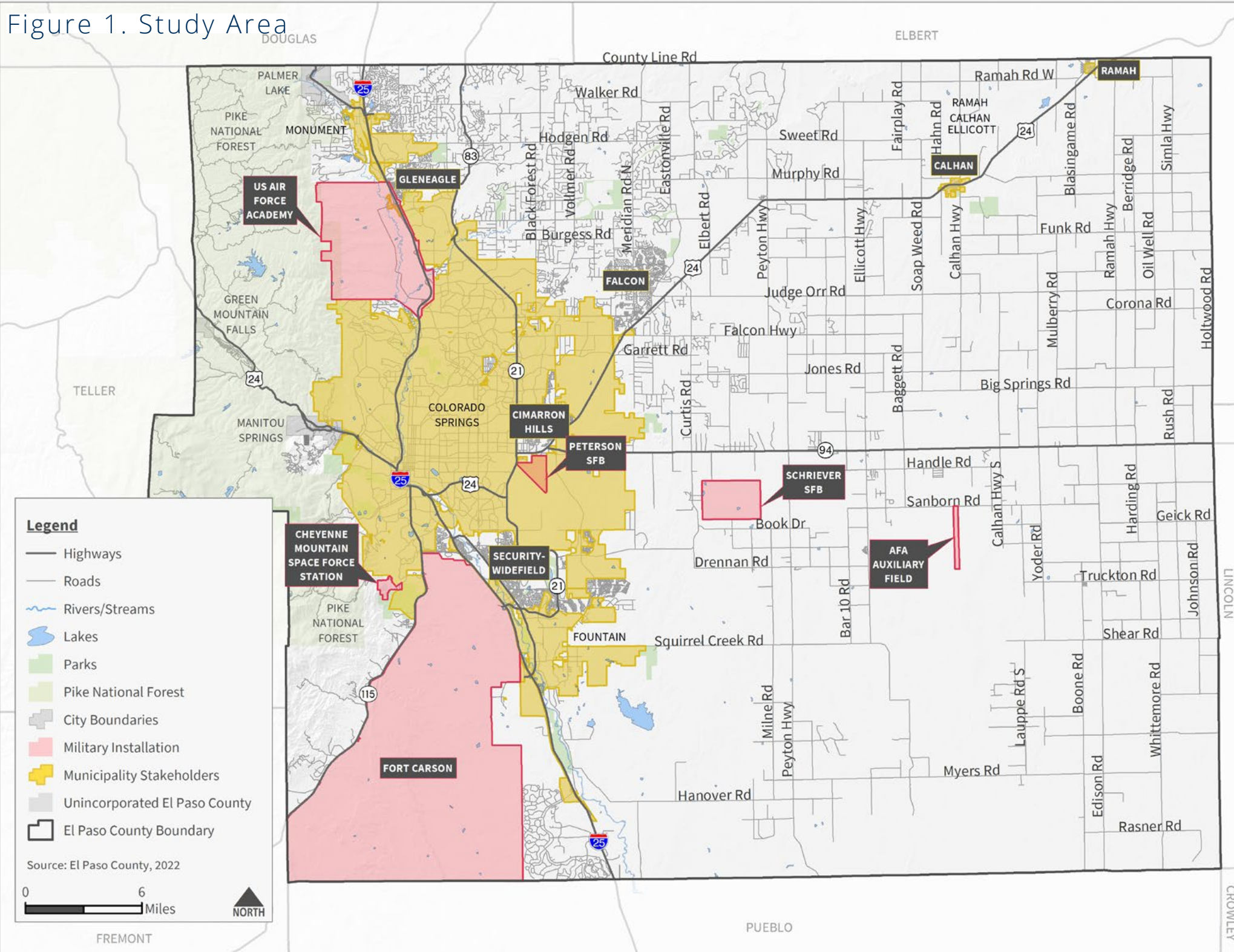


The State Demographer's Office projects the County to grow at an annual rate of 1.15 percent over the next 10 years



Overall population is expected to approach 1 million by year 2050.

Figure 1. Study Area





Purpose of the Plan

The MTCP is the guiding document for the transportation network in unincorporated El Paso County. This plan documents the vision for transportation and provides a list of needed improvements, a funding plan, and a long-term right-of-way preservation plan, as well as policies and strategies to implement the plan.

The fundamental goal of the MTCP is to identify the roadway improvements needed to safely handle current and future traffic. Also serving as the basis for the County's Road Impact Fee program, the MTCP updates the methodology to ensure that new development helps fund roadway infrastructure improvements needed to accommodate growth from residential and commercial development. The MTCP is updated regularly to keep pace with everchanging growth, safety, and travel needs.

Colorado Transportation Policies

In recent years, the State of Colorado has been emphasizing transportation investments that address and consider greenhouse gas (GHG) emissions and disproportionately impacted communities. The state has also implemented new fees since the adoption of the 2016 updated MTCP. Several new rules, bills, and policies have gone into place since 2016, and have altered the framework of how transportation systems are planned, approved by the State, and implemented, and how funds are distributed to local communities in Colorado.

HB 19-1261

House Bill (HB) 19-1261 defines statewide GHG reduction goals for 2025 (26 percent reduction), 2030 (50 percent reduction), and 2050 (90 percent reduction) based on a 2005 GHG benchmark. HB 19-1261 requires the consideration of air quality improvements in transportation solutions, outlines the benefits of emissions reductions, notes the capital costs of compliance, and defines opportunities to incentivize clean energy in transitioning communities.

The bill resulted in the creation of the Greenhouse Gas Pollution Reduction Roadmap based on the GHG reduction targets. The Roadmap defines how emissions may be reduced within the set timeframes and includes strategies such as accelerating the transition to wind and solar power in the electricity generation sector and minimizing direct emissions — such as methane leaks from the fossil fuel industry and other sources. Several other rulings and policies that provide more tangible restrictions on emissions or create new incentives to reduce transportation emissions have resulted from this bill and aid the implementation of solutions that work towards the GHG reduction targets.

SB 21-260 and CDOT's GHG Pollution Reduction Planning Standard

Senate Bill (SB) 21-260 creates new state enterprises and sources of dedicated funding to promote a sustainable transportation system by preserving, improving, and expanding existing transportation infrastructure and developing infrastructure to support the widespread adoption of electric vehicles (EVs). Through these transportation improvements,

SB 21-260's goal is to mitigate adverse environmental and health impacts of the transportation system.

Funds will be raised via general fund transfers and new fees on gasoline, diesel, and electric vehicles, residential deliveries, and rideshare trips. The bill also creates three new enterprises to aid vehicular electrification:

- Community Access Enterprise (\$310 million (M) fund) to support EV infrastructure
- Clean Fleet Enterprise (\$289M fund) to support commercial vehicular electrification
- Clean Transit Enterprise (\$134M fund) to support electric transit, such as Zero Emissions Buses (ZEBs).

SB 21-260 allocates more than \$450M for the Multimodal and Mitigation Options Fund (MMOF) to improve access to multimodal transportation and \$115M for the Revitalizing Main Street program which aims to improve pedestrian and bicycle infrastructure.

SB 21-260 works in tandem with the new Colorado Department of Transportation (CDOT) rule, the GHG Pollution Reduction Planning Standard. This ruling will require CDOT and local planning regions to model GHG emissions from the transportation sector so that the projects selected would meet the goals of the GHG Roadmap. If local planning regions cannot model projects to reduce GHGs, then most sources of federal transportation funding that local governments use will be restricted to only projects that do reduce GHG, such as trails, sidewalks, bike lanes, and transit. The ruling is also one of several transportation strategies identified in the state's GHG Pollution Reduction Roadmap.



Related Plans & Studies

The MTCP process must be effectively coordinated with state, regional, and other county and city planning efforts. Of particular interest is the purpose of each plan, the goals, and project recommendations, such as those calling for new roadway connections, roadway widenings, and changes in intersection traffic control such as signalization. More than 20 plans and studies and nearly 30 El Paso County capital investment projects were scanned. Many of these plans can be accessed via links below or at Road & Bridge Planning - El Paso County Public Works. This MTCP adopts by reference any relevant plans not previously formally adopted by the County, unless marked Draft.

- [El Paso County Strategic Plan 2017-2021 \(2017\)](#)
- [El Paso County Master Plan \(2021\)](#)
- [El Paso County Parks Master Plan \(2022\)](#)
- [El Paso County Local Road Safety Plan \(2023\)](#)
- [Colorado State Access Code \(2002\)](#)
- [El Paso County Highway 105 Corridor Study \(2012\): Part 1, Part 2, Part 3](#)
- [State Highway 94 Access Management Plan \(2012\)](#)
- [Hodgen Road Corridor Plan \(2007\)](#)
- [Hodgen Road Access Management Plan](#)
- [Marksheffel Road Corridor Study \(2007\)](#)
- [Meridian Road \(North\) Corridor Plan \(2009\)](#)
- [Military Access, Mobility, and Safety Improvements Projects \(MAMSIP\) \(2019\)](#)
- [El Paso County Projects: Short Term Maintenance and Long Term Projects](#)
- [El Paso County Road and Bridge Planning](#)
- [CDOT State Highway 83 \(CO 83\) Access Control Plan](#)
- [Draft Colorado Department of Transportation US 24 Access Control Plan Update](#)

- [El Paso County Briargate Pkwy / Stapleton Dr Corridor Study and Access Control Plan](#)
- [Project: Peyton Drainage & Transportation Master Plan](#)
- [Eastonville Road Traffic Study](#)
- [Draft South Powers Boulevard Extension Study](#)
- [Woodmen Road Access Management Plan](#)

Plans not adopted by reference:

- [Statewide Transportation Plan \(2020\)](#)
- [Central Front Range 2045 Regional Transportation Plan \(2020\)](#)
- [Pikes Peak Area Council of Governments \(PPACG\) 2045 Long Range Transportation Plan \(2020, amended 2021\)](#)
- [PPACG Tri-County Study \(2022\)](#)
- [City of Colorado Springs, PlanCOS \(2019\)](#)
- [City of Colorado Springs, ConnectCOS \(2023\)](#)
- [AnnexCOS IGA](#)
- [City of Fountain Transportation Impact Fee \(2022\)](#)
- [City of Fountain Transportation Master Plan \(2022\)](#)
- [Town of Monument Comprehensive Plan \(2017\)](#)



Transportation Goals

Your El Paso Master Plan, the County's Master Plan (MP), adopted in 2021, set a vision for a more livable and prosperous county for the next 30 years. Values such as responsible development, complete communities, advancement of established industries, regional and national access, coordination and collaboration with military installations and local governments, connectivity and preserving natural beauty are central to the Master Plan.

In addition, the Master Plan focuses on ten core principles, including one directly related to the transportation system and mobility. Core Principle 4, Transportation and Mobility, is to connect all areas of the County with a safe and efficient multimodal transportation system. Its four goals are as follows:

- **Goal 4.1** - Establish a transportation network that connects all areas to one another, emphasizing east-west routes, reducing traffic congestion, promoting safe and efficient travel.
- **Goal 4.2** - Promote walkability and bikability where multimodal transportation systems are feasible.
- **Goal 4.3** - Foster transit-supportive development and coordinate to expand public transportation options.
- **Goal 4.4** - Develop a sustainable funding mechanism for transportation infrastructure and maintenance.

The Master Plan also includes principles to address land use and development, housing

and communities, economic development, community facilities and infrastructure, military installations, recreation and tourism, community health, environment and natural resources, and resiliency and hazard mitigation.

MTCP Goals

The MTCP lays out the next 20 years of transportation improvements in El Paso County and brings to life the mobility goals, ideas, and values established by the Your El Paso Master Plan process. The MTCP will work in coordination with the goals outlined in the Master Plan to ensure cooperation between the two plans for project development and implementation. These goals will drive the vision of El Paso County and aid the development of a list of needed improvements, funding mechanisms, and a long-term right-of-way preservation plan, as well as policies and strategies to implement the plan. The MTCP also works in tandem with the Department of Public Works (DPW) Strategic Plan (SP), which sets forth a vision for public service throughout the County.

The MTCP establishes six goal areas to add depth to the Master Plan principles, and to reflect community and stakeholder priorities and concerns. These goals guide the overarching vision for the transportation network in unincorporated El Paso County.

Figure 2 shows how the public ranked the draft transportation goals, which are shown in full on the following page.

Figure 2. MTCP Transportation Goals

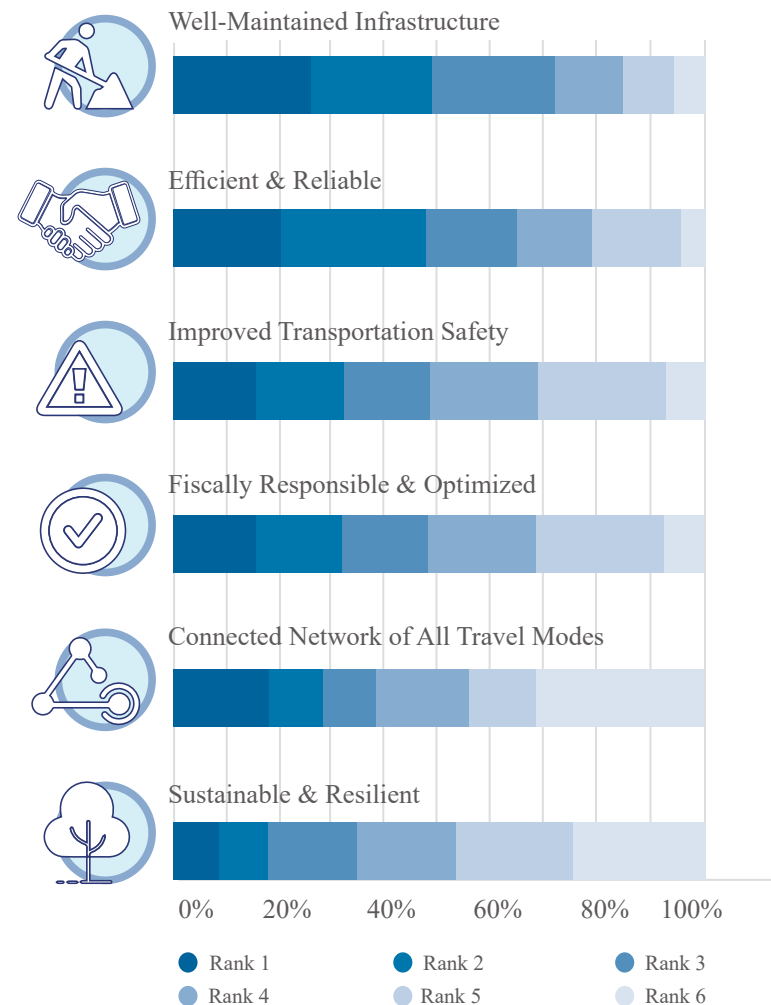


Figure 2. An interactive exercise asked community members to rank goals from highest priority (Rank 1) to lowest priority (Rank 6). For more information on the results of engagement, see "Engagement" section.



1



Fiscally Responsible & Optimized

El Paso County is a good steward of public funds and leverages grant and other funding sources and opportunities to optimize transportation infrastructure for the public benefit.

MP ☑: *Community & Facilities*

DPW SP ☑: *Invest in community to improve county infrastructure, seek additional resources, and identify unmet needs.*

2



Improved Transportation Safety

People of all ages and abilities feel safe when traveling by their choice mode.

MP ☑: *Community Health*

DPW SP ☑: *Promote an environment that enhances safety for employees and citizens.*

3



Connected Network of All Travel Modes

Travel mode networks (bike, walk, transit, and vehicles) are well-connected and facilitate travel options for people, goods, tourism, and military from where they are to where they need to go.

MP ☑: *Land Use & Development; Housing & Communities; Military Installations*

DPW SP ☑: *Provide insight on future operational programs and capital projects.*

4



Efficient & Reliable

Travel times and distances are reliable and efficient with land use efficiencies, a redundant roadway network, and innovative technologies to improve mode/route options and traffic flow.

MP ☑: *Land Use & Development*

DPW SP ☑: *Set a course of continuous improvement dedicated to delivering innovative and professional service across all operational areas; Update equipment with modern technologies to promote safer operation and maximize efficiencies.*

5



Well-Maintained Infrastructure

The County maintains existing assets to reduce the need for expensive major roadway reconstruction to be good stewards of public infrastructure and trust.

MP ☑: *Community & Facilities*

DPW SP ☑: *Update equipment with modern technologies to promote safer operation and maximize efficiencies; Plan for future operational needs now.*

6



Sustainable & Resilient

Use policies and proven technologies to sustain the transportation system, reduce transportation-related emissions and environmental impacts, and assist the community in recovering from natural disasters.

MP ☑: *Environmental & Natural Resources; Resiliency & Hazard Mitigation*

DPW SP ☑: *Maintain a high state of readiness for Department of Public Works response to emergencies, natural disasters, and weather-related events.*



Chapter 2. Community Engagement

Engagement Overview

Outreach to the public and key stakeholders is essential to understanding the transportation needs, issues, and values of those who live, work, and recreate in El Paso County. The project team sought input from the public in multiple phases as well as from stakeholders. Each phase of public engagement involved opportunities to comment on various aspects of the transportation system to understand stakeholder and community priorities, needs, and concerns for transportation. The sections below summarize each phase and highlight the results. The final section of this chapter summarizes outreach to various stakeholders, including municipal representatives, military personnel, developers, and other transportation advocates.

Phase 1 Public Engagement (June to September 2022)

Phase 1 engagement focused on listening to the public via digital and virtual engagement techniques and listening to stakeholders through a series of interviews. In addition, Phase 1 engagement established a qualitative understanding of mobility needs, issues, and opportunities to inform the MTCP's vision, goals, corridor needs, and support project development and prioritization. The project website, press releases, social media, *The Roadway* newsletter, and email blasts were used to solicit feedback.

Phase 1 Engagement Opportunities

Survey: A brief survey was conducted to get a better understanding of community preferences. The survey asked respondents about their current perceptions of the El Paso County transportation system as well as what they identified as topics of concern.

Idea Wall: The Idea Wall allowed the public to post general input about transportation in the County. The Idea Wall was crafted so that comments would be categorized by mode: Roads/Traffic, Transit, Biking, Walking, Safety, Other. Participants could “like” and “dislike” comments and reply with additional comments to further inform overall community sentiment.

Commenting Map: To complement the Idea Wall, the Social Pinpoint platform featured an online interactive commenting map where the public could provide location-specific comments about transportation issues, ideas, and concerns in El Paso County. Comment categories were as follows: Roadway Widening, Traffic Control, Paving Needs, Transit, Biking, Walking, and Safety. Participants could “like” and “dislike” comments and reply with additional comments to indicate consensus or not. In addition, the map featured an icon labeled “Maintenance” to allow participants to directly request maintenance help via a link to DPW’s online customer request form to facilitate a convenient and timely entry into DPW’s maintenance request system.



Engagement Audience by the Numbers

21K	Facebook followers	840	Total Social Pinpoint visits
11.5K	Twitter followers	280	Unique users
~ 500	People via email	90	Comments



Results

The following themes emerged from the three online engagement tools:



Roads/Traffic (11 comments):

Major themes include traffic congestion and safety. The intersection of Highway 105 and Roller Coaster Rd was identified as a particularly problematic intersection. Multiple comments described intense traffic delays (multiple signal cycles to go through) around areas of heavy commuter traffic and the need to plan in anticipation of rapid development and ensuing traffic increases.



Safety (12 comments):

Safety comments mentioned unsafe grades and that vehicle speeds are too high in a location with bicyclists and pedestrians. Several safety comments focused on concerns over drivers ignoring the speed limits (speeding). Overall, many comments touched on safety even if they chose another category to submit their comment in. This was a top priority across all modes of travel.



Roadway Widening/ Traffic Control (21/12 comments):

Several comments addressed major concerns over roadway capacities around areas of high, continued development (i.e., Monument, Falcon). Additional comments addressed the need to widen roads for traffic capacity, but also multimodal options such as bike lanes. Community members also expressed a desire to add streetlights to higher traffic intersections and around schools (e.g., Del Rio and Eastonville is specified as an area of concern). Other comments mentioned that proposed developments will increase traffic, and suggested ways to alleviate this potential congestion.



Transit/Biking/ Walking (11/8/6 comments):

Various locations were pointed out as needing Park and Rides built (along County Line Rd, CO 83, and I-25). The public identified a lack of infrastructure for both biking and transit. Particularly for biking, there are complaints that many roads are not suitable for biking due to safety reasons. Respondents also suggested that increased biking connections and safety are needed, including bike lanes throughout the county and bike crossings across I-25. In addition, community members suggested that increased pedestrian trail and sidewalk connectivity is needed around parks/golf courses and new development areas.



Paving Needs (5 comments):

Respondents mentioned that the road to the landfill has high truck volumes and needs to be paved. In addition, paved roads in specific areas would improve alternative routes and intersection flows.





Phase 1.5 Public Engagement Highlights (January to February 2023)

Phase 1.5 of outreach involved additional community engagement to garner input on the prioritization of the MTCP draft goals and to reconnect with the public between Phase 1 (Summer 2022) and Phase 2 (Spring 2023) of public engagement.

Engagement Opportunities

Community members were asked to rank the relative importance of the draft MTCP transportation goals. The goals can be found in the Transportation Goals section of this report on page 6.

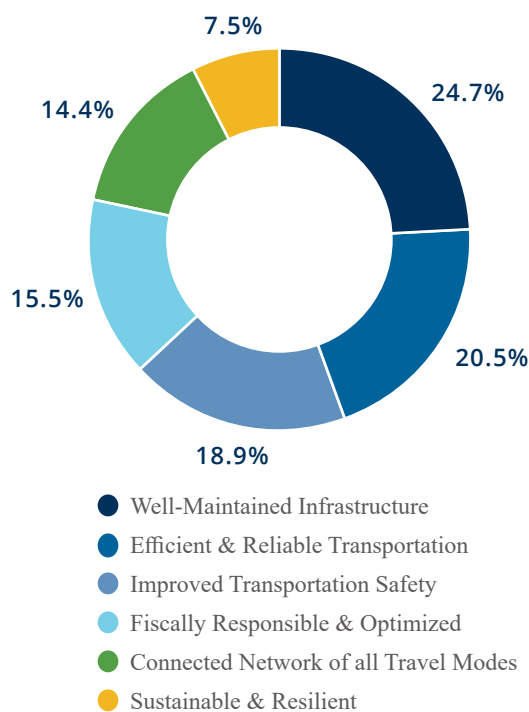
Results

“Well-Maintained Infrastructure” was the highest ranked goal among community members. “Efficient and Reliable Transportation” was the second highest ranked goal, “Improved Transportation Safety” was the third highest goal, and “Fiscally Responsible and Optimized” was the fourth highest goal. “Connected Network of all Travel Modes” was the fifth highest ranked goal, and “Sustainable and Resilient” was the lowest ranked goal, with nearly half of respondents ranking it as their fifth or sixth (out of 6) priority.

In addition, community members were given the opportunity to add their own goals in Question 2. Forty-six people entered text in the data field. Many provided commentary or suggested an action rather than a goal. Approximately 37 percent of these Question 2 responses listed action items, such as maintenance needs or where roads needed to be upgraded or widened.

Approximately 24 percent of responses provided additional commentary or context on goals, 15 percent of comments mentioned transit needs, 8 percent provided no comment. The remaining 15 percent suggested other goals. **Figure 3** shows these survey results.

Figure 3. Goal Ranking Exercise Results



Phase 2 Public Engagement Highlights (March to April 2023)

Understanding the trade-offs and costs of transportation investments informs decision making. The purpose of Phase 2 was to present alternatives and consult the public on prioritization.

Phase 2 of Public Engagement was promoted through email blasts to subscribers, *EPC Courier* and *The Roadway* newsletter articles, outreach to committees and commissions, and project website announcements.

Engagement Opportunities

El Paso County posted an online Project Commenting Map to gather input on projects proposed in past and current transportation plans and studies. The map featured more than 200 planned/recommended projects. Community members could comment on the following categories: Existing Roadway Improvements, Roadway Capacity, Paving/Gravel, Safety, Bike/Pedestrian, and Other.

El Paso County also posted a Budget Exercise to gather input on how community members would prioritize transportation spending. The interactive tool asked respondents to identify how they would spend \$100 on a variety of categories: Upgrade County Roads, Improve Intersections, Expand Multimodal Options, Pave Gravel Roads, Add New Roadway Connections or Widen Roads, Incorporate Innovative Technologies, Improve Safety for All Modes, and Focus Improvements for People with Disabilities.



Phase 2 Engagement Audience by the Numbers

210

comments on the Project Commenting Map

113

comments on the Budget Exercise

Results

Figure 4 shows the following themes that emerged from the two online engagement tools:



Safety

Safety included safety at intersections and the need for improved turn lanes, as well as the need for speed reduction measures and traffic calming.



Bike/Pedestrian

Bike/Pedestrian included adding new bike and pedestrian facilities, such as dedicated bike paths, connections between neighborhoods, schools, and existing bike/pedestrian infrastructure via safe routes.



Roadway Capacity

Roadway Capacity included improvements and maintenance, the need to improve, continue construction on, or fund efforts related to several key highways and major roadways. Community members also mentioned the need for connection between roadways, improved intersections, and widening the roads.



Existing Roadway Improvements

Existing Roadway Improvements included intersection improvements, the need for capital maintenance such as resurfacing and widening.

There was a fair amount of variety in terms of comments in the “Other.” Nearly half mentioned the need for various new park-n-ride locations. It is important to note that while the number of comments per category provides a snapshot of interest, seeing where people want to spend money can be more telling of actual priorities, as shown in Figure 5.

Figure 4. Project Commenting Map Results

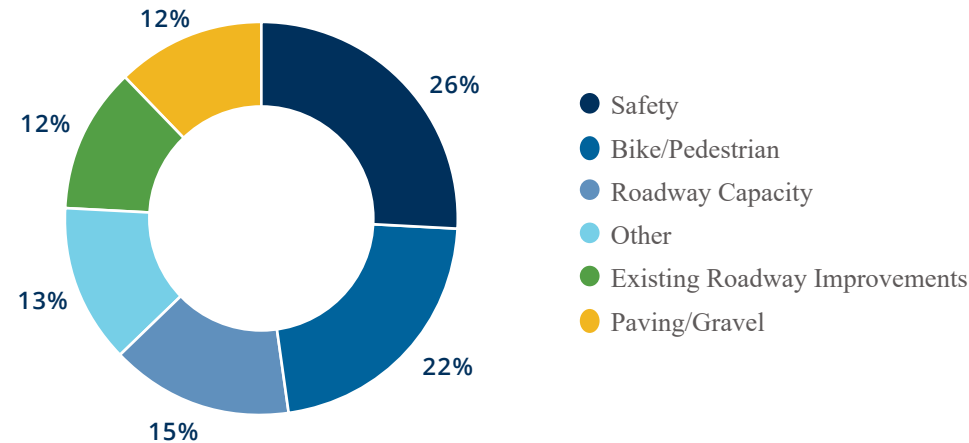
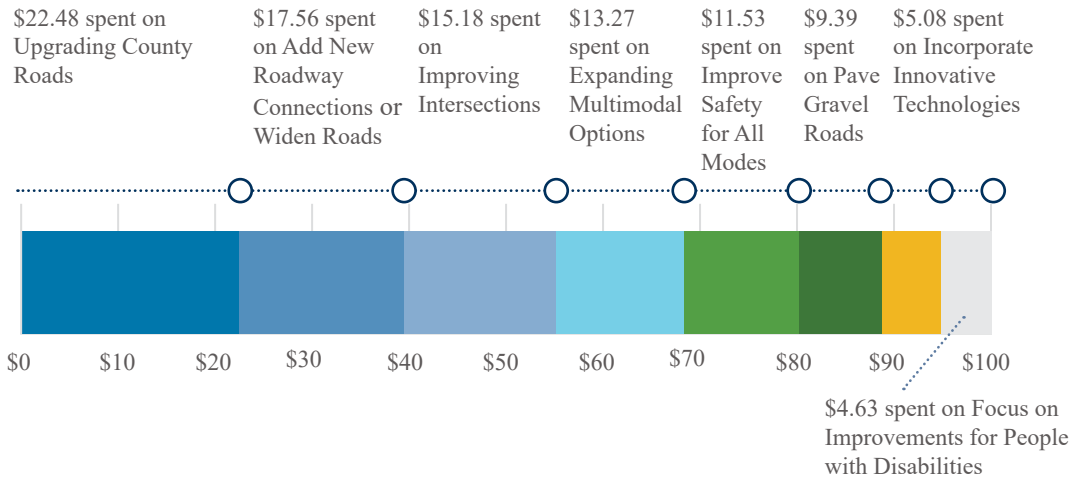


Figure 5. How Community Members Spent \$100





Phase 3 Public Engagement Highlights (January to February 2024)

Phase 3 of outreach provided the opportunity for the public to review and give feedback on the draft MTCP and recommended projects. Phase 3 of Public Engagement was promoted through email blasts to subscribers, outreach to committees and commissions, social media, project website announcements, and ads and a article in the region's largest circulation newspaper, *The Gazette*.

Engagement Opportunities

The engagement opportunities included the ability to comment on an online map of the draft plan's recommended projects, answer a survey question and further express support or concerns about the MTCP, and submit review comments to the project team.

Results

As shown to the right, an extensive engagement process throughout the project resulted in more than 139,000 contacts with the public and transportation stakeholders, such as municipalities, military installations, advocacy organizations, and PPACG and County commissions and committees. During Phase 3, more than 400 comments were received via the three methods of engagement. Feedback in support of the draft plan noted the various recommendations to improve safety, areas of growth, roadways, roadway connectivity, and connections to public transportation and park-n-rides.

While the majority of comments in opposition of the draft plan were related to a specific project (#167), additional concerns expressed a desire for more walkability, bikeability, and public transportation as well as a focus on care and maintenance of existing roads.

Second Draft MTCP Review (May 2024)

Following the review of Phase 3 engagement, a revised Draft MTCP was posted online for an additional review opportunity. An email blast was sent to project subscribers. During this review period, 42 comments were received, mostly in support of the plan.



Phase 3 Engagement Audience by the Numbers

183

comments on the Project
Commenting Map

166

survey comments



More than **139k** Community & Stakeholder Engagement Contacts throughout the Project

10 email blasts to more than **500** project
subscribers each time

623 comments via interactive online
tools, such as commenting maps, idea wall,
goal ranking, and budget exercise

Social media posts to El Paso County's
Nextdoor account, **21k** Facebook
followers, and **11.5k** Twitter followers

EPC Courier Newsletter articles

Ads and article in *The Gazette*, with more
100k print and digital readers

12 meetings with **many** transportation
stakeholders, municipalities, commissions,
and committees





Stakeholder Engagement

It is important to coordinate with appropriate agencies, municipalities, relevant advisory committees, military bases, and the public throughout the entire MTCP process as stakeholders are essential to create a broad vision of transportation needs in El Paso County that can be used to help guide the planning for future roadways, connectivity, and their classifications. Stakeholders also provide input into how to best preserve the function of roadways over time through the development of goals and strategies.

Several major themes emerged during stakeholder outreach:

- Need for connections among the airport, existing roadways, neighborhoods, key destinations, and activity centers, and more by both car and multimodal options.
- Multimodal routes (trails and on-street) must be connected, accessible, and safe.
- Transit should be considered in the plan (Mountain Metro Transit (MMT), Bustang, and even Front Range Passenger Rail) even if not under EPC jurisdiction. Transit options are needed for commuters.
- Road improvements must coincide with development, particularly in mountainous towns. Multimodal travel within and between towns must be a feasible transportation option for those residents who choose to and are able to do so.
- Lack of east-west mobility across the county is a concern.
- Keep safety as a priority: reduce speeding and consider more acceleration or deceleration lanes.
- Improve pedestrian and bike path crossings.
- Park-n-rides must be planned, particularly in east EPC where developments are being built.
- Funding should come from federal sources as well as internal “county” sources.
- Prioritize maintenance on existing roadways.
- Any updated roadway standards must bring older rural roads up to date, consider existing and obtainable right-of-way (ROW), and promote safe travel. Roads over capacity facing increasing congestion should be the focus of improvements.

Chapter 3. Existing Conditions

Travel Patterns

Mode Share

Figure 6 shows that most residents in El Paso County travel to work by vehicle, more than the statewide average. Commuting distances to the urban areas can be lengthy, and there are few transit options in the unincorporated areas of the County. Most county residents drive to work, and nearly 10 percent of workers worked from home pre-COVID 19 pandemic.

Commuter Inflow & Outflow

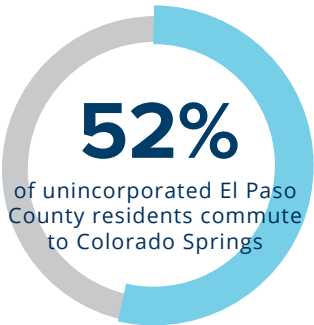
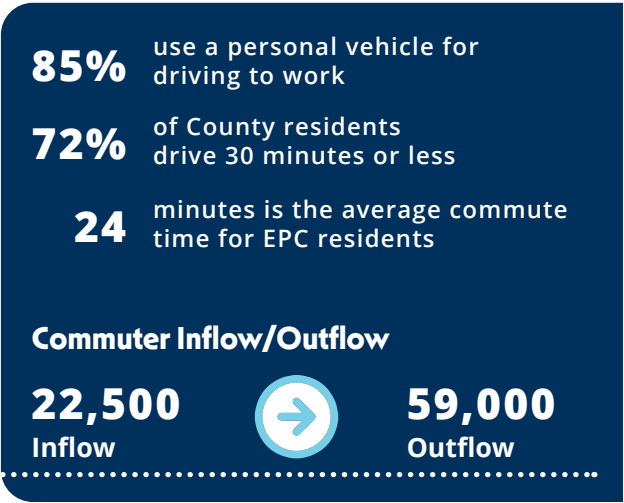
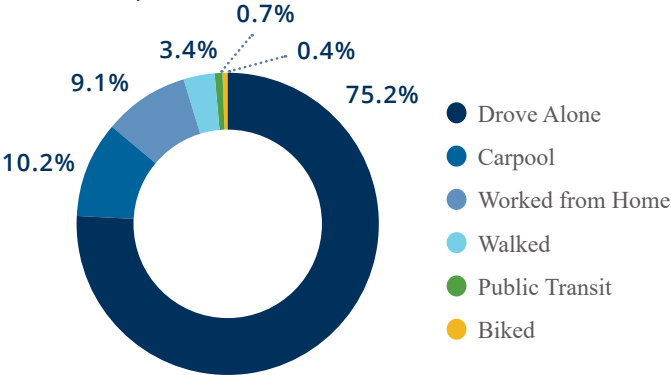
Using the US Census Bureau Longitudinal Employer-Household Dynamics (LEHD) data, travel patterns were calculated for unincorporated El Paso County residents. Inflow and outflow travel-patterns show that unincorporated areas of the County experience a significant outflow, approximately 59,000 of 69,000, daily because of people commuting to the urban areas and city for work.

Where do Residents Commute?

Most unincorporated EPC residents commute to Colorado Springs (51.8 percent). The next most common job destinations, including cities and census designated places (CDP), for residents include Denver (5.8 percent), Aurora (2.8 percent), Cimarron Hills (2.1 percent), and Fountain (2.0 percent).

Specific areas within the County have higher concentration of jobs: Northgate, Colorado Springs Airport, and Stratmoor/Downtown Colorado Springs. There are some rural areas that also have higher job concentrations, especially along US 24 and CO 94, due to Schriever SFB.

Figure 6. Commuter Transportation Mode



Transportation Costs

The Center for Neighborhood Technology (CNT) has developed the housing and transportation index (H+T), a useful metric to assess the true affordability of a community. The H+T affordability index is the percentage of income that a household spends on housing and transportation combined and is used to understand how transportation costs impact communities and how communities can plan for more equitable and affordable options. Transportation, including the costs of vehicle ownership (financing, insuring, licensing, registration, fuel, taxes, and maintenance), is typically the second largest expenditure for households.

In El Paso County, transportation represents 22 percent of residents' expenditures and housing expenditures are, on average, 28 percent of a resident's income (**Figure 7**). Transportation and housing costs in El Paso County are relatively high. Households spend approximately half of their income on housing and transportation combined, above the threshold of 45 percent, which is considered affordable.

Transportation costs tend to be higher as households are located further away from urban areas. The estimated annual transportation cost is \$12,876 per household. With this amount of income being spent on transportation and housing, residents have less disposable income for other financial demands. The data also reveal higher vehicle ownership in communities farther from the urbanized area. Overall, there are 1.8 vehicles per household in El Paso County.

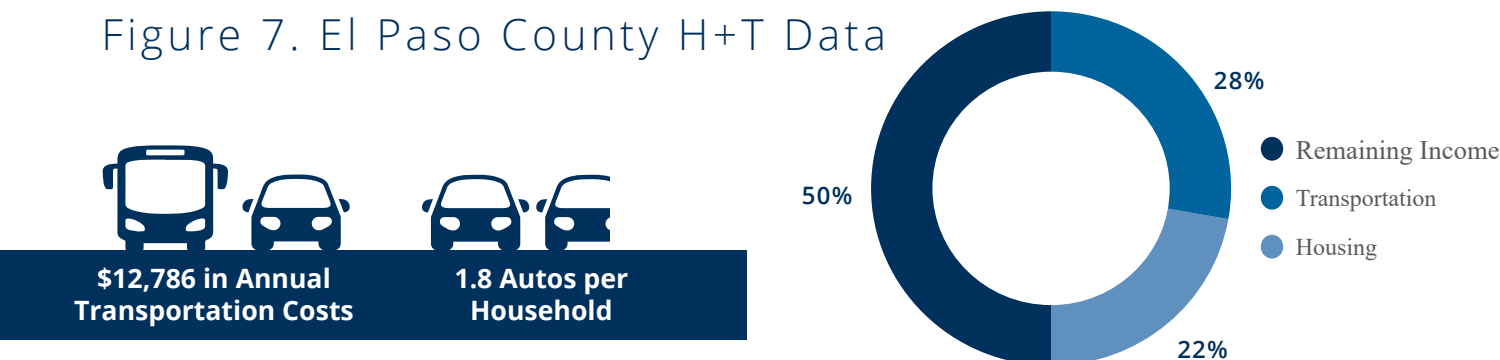
Roadway Network

Roadways generally provide two important functions: access and mobility. Each roadway type is specifically designed to operate with certain characteristics based on the adjacent land uses, level of continuity, transportation modes served, and proximity and connections to other facilities. The functional classification of a roadway describes these characteristics and reflects its role in the network and relationship with adjacent land use. A roadway's functional classification considers attributes such as continuity, connectivity, traffic volumes and speeds, and relationship to adjacent land use. A roadway's classification also forms the basis for access.

Traffic Volumes

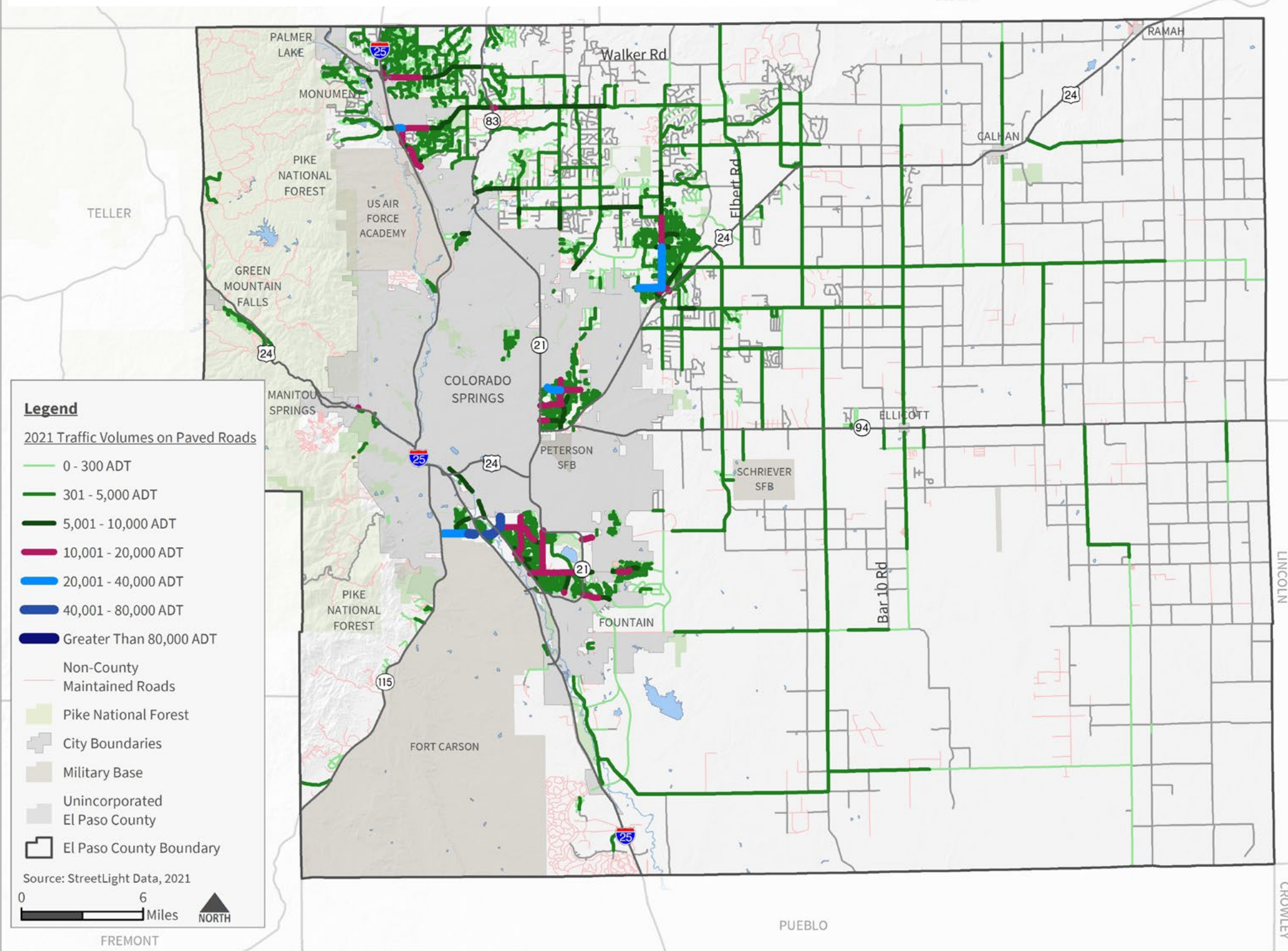
Traffic counts, which can be reported as annual average daily traffic (AADT), are a transportation planning tool that provides insight such as travel patterns, roadway performance, and peak hours of travel. **Figure 8** shows the existing estimated traffic volumes on the El Paso County road network in 2021.

Figure 7. El Paso County H+T Data



Source: CNT H+T Affordability Index

Figure 8. Existing Traffic Volumes (Paved Roads)



Levels of Congestion

Estimated existing traffic volumes were compared to planning level roadway capacity thresholds to predict levels of congestion and identify the potential need for additional capacity. Roadway capacity is defined as the maximum traffic volume that a road can carry at a desired level of service. Capacities tend to vary by number of lanes and by roadway functional classification. **Figure 9** provides a visual representation of congestion and a brief description of roadway capacity levels: uncongested, congesting, near congesting, and congested.

Figure 9. Levels of Congestion

When evaluating levels of congestion, daily traffic volumes are compared to approximate roadway capacities. When traffic volumes are significantly less than capacity, the condition is uncongested. As volumes increase, the level of congestion increases until the roadway is at or over its capacity and reaches the level of “congested.”

It is important to note that roadway capacity thresholds are generalized and intended to provide planning-level evaluation of roadway congestion and needs. When a specific roadway improvement project is being considered and developed, a traffic analysis should be performed at a detailed level with consideration for characteristics such as the existence and width of multiuse shoulders, peak hour intersection turning movements, intersection turn lanes, and the mix of vehicle types.

Figure 10 shows the level of service based on volume to capacity ratios for existing volumes.

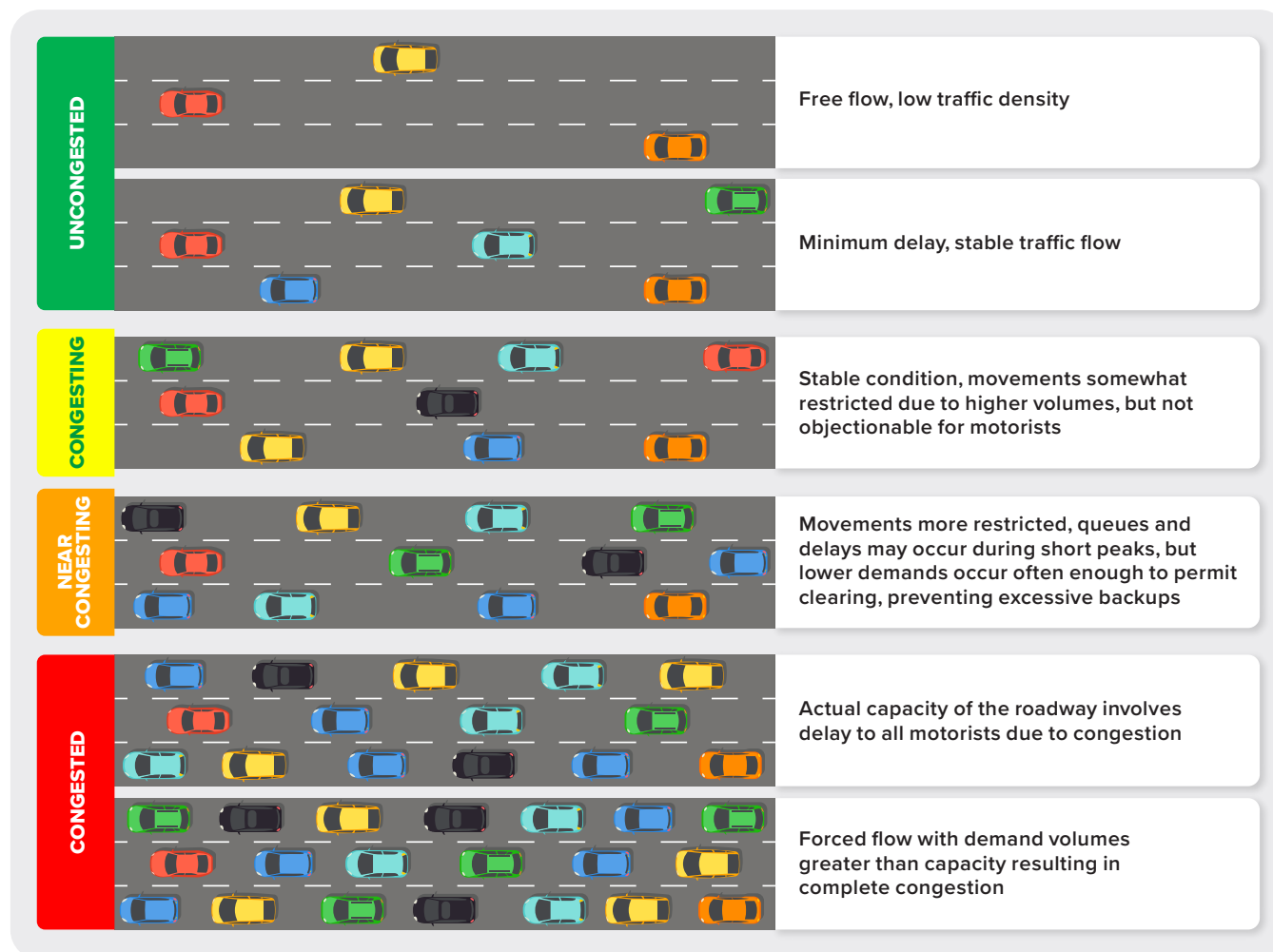
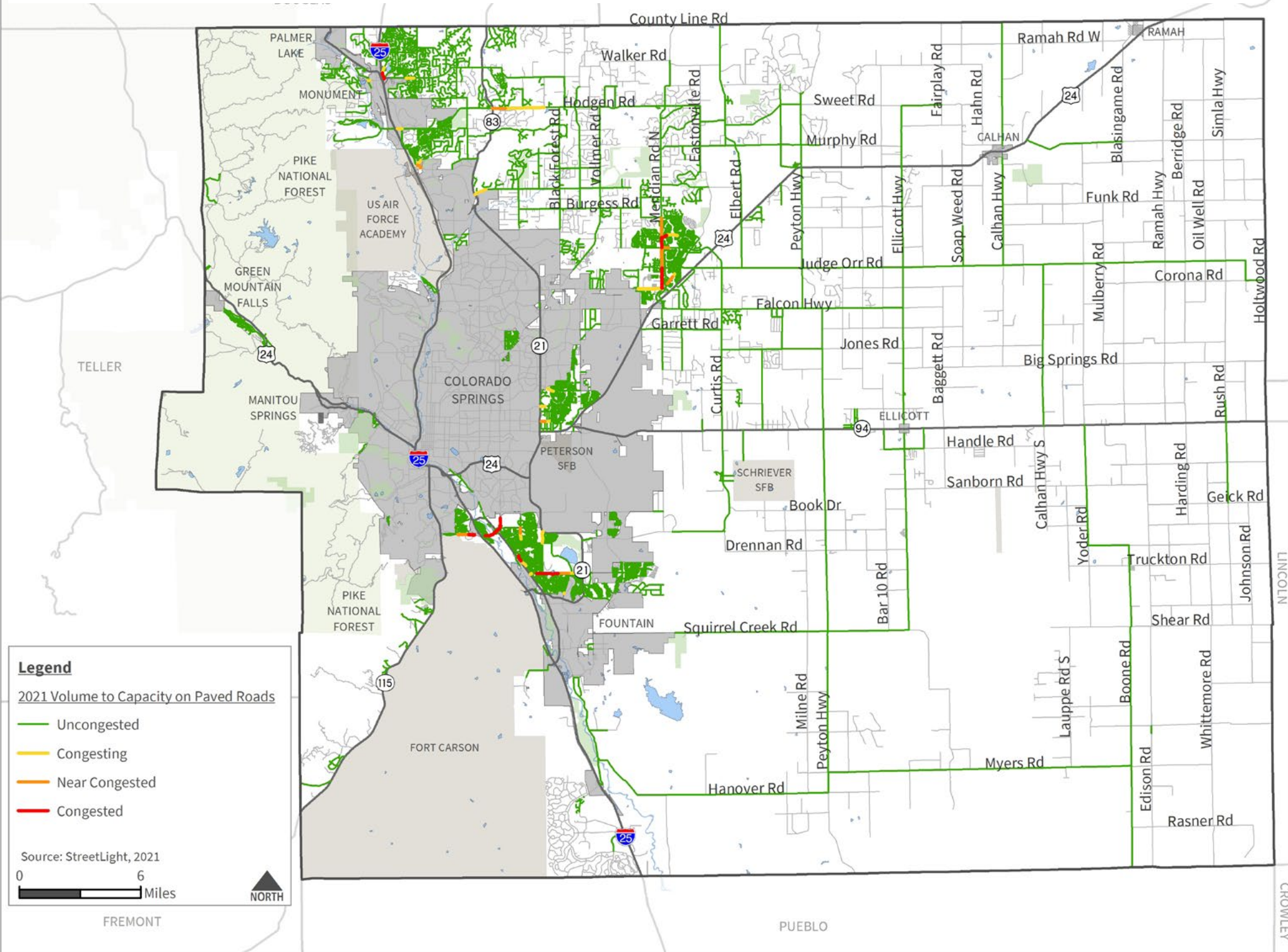


Figure 10. Level of Service for Existing Unincorporated EPC Roads



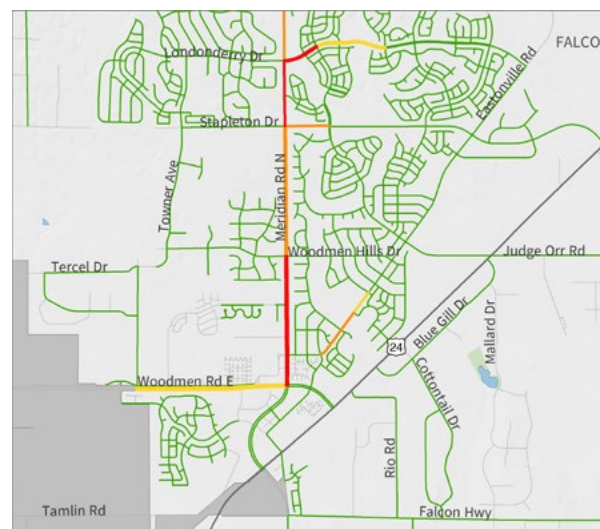
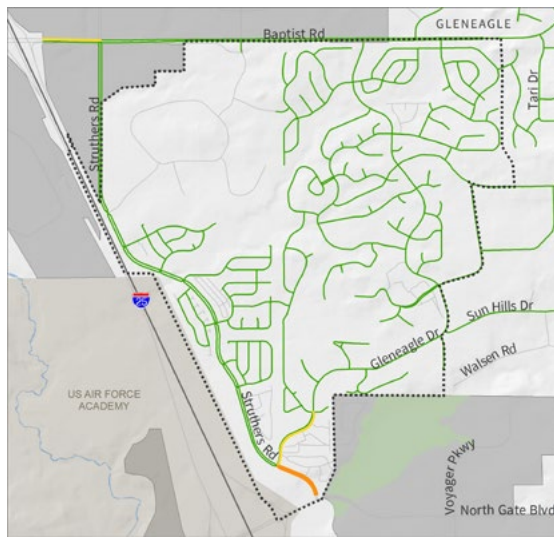


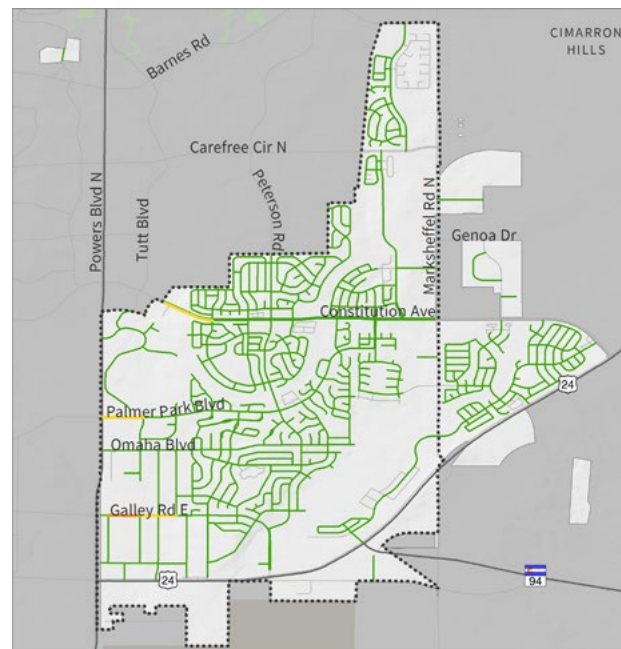
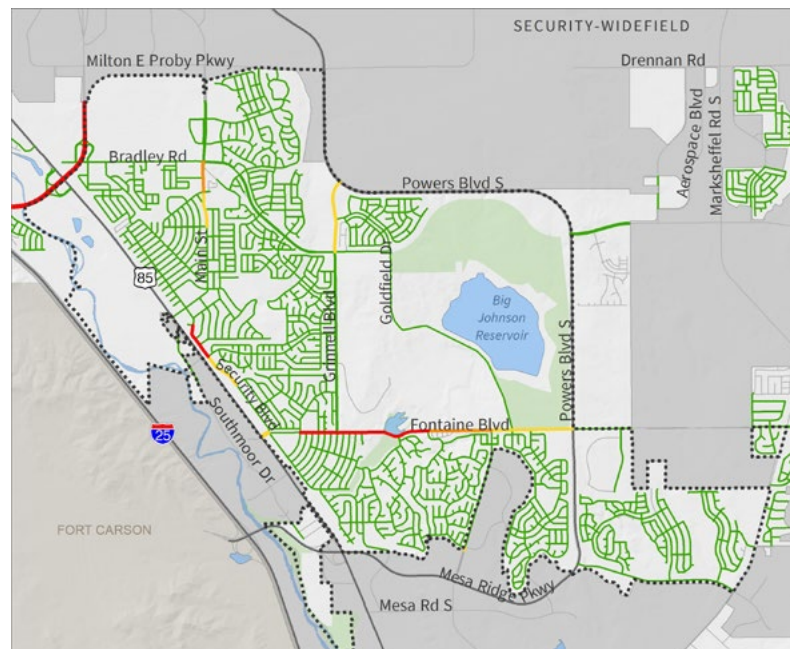
Figure 10, continued, Levels of Service for Existing Unincorporated EPC Roads focus areas:

Gleneagle (upper left)

Falcon (upper right)

Security-Widefield (lower left)

Cimarron Hills (lower right)



Legend

2021 Volume to Capacity on Paved Roads

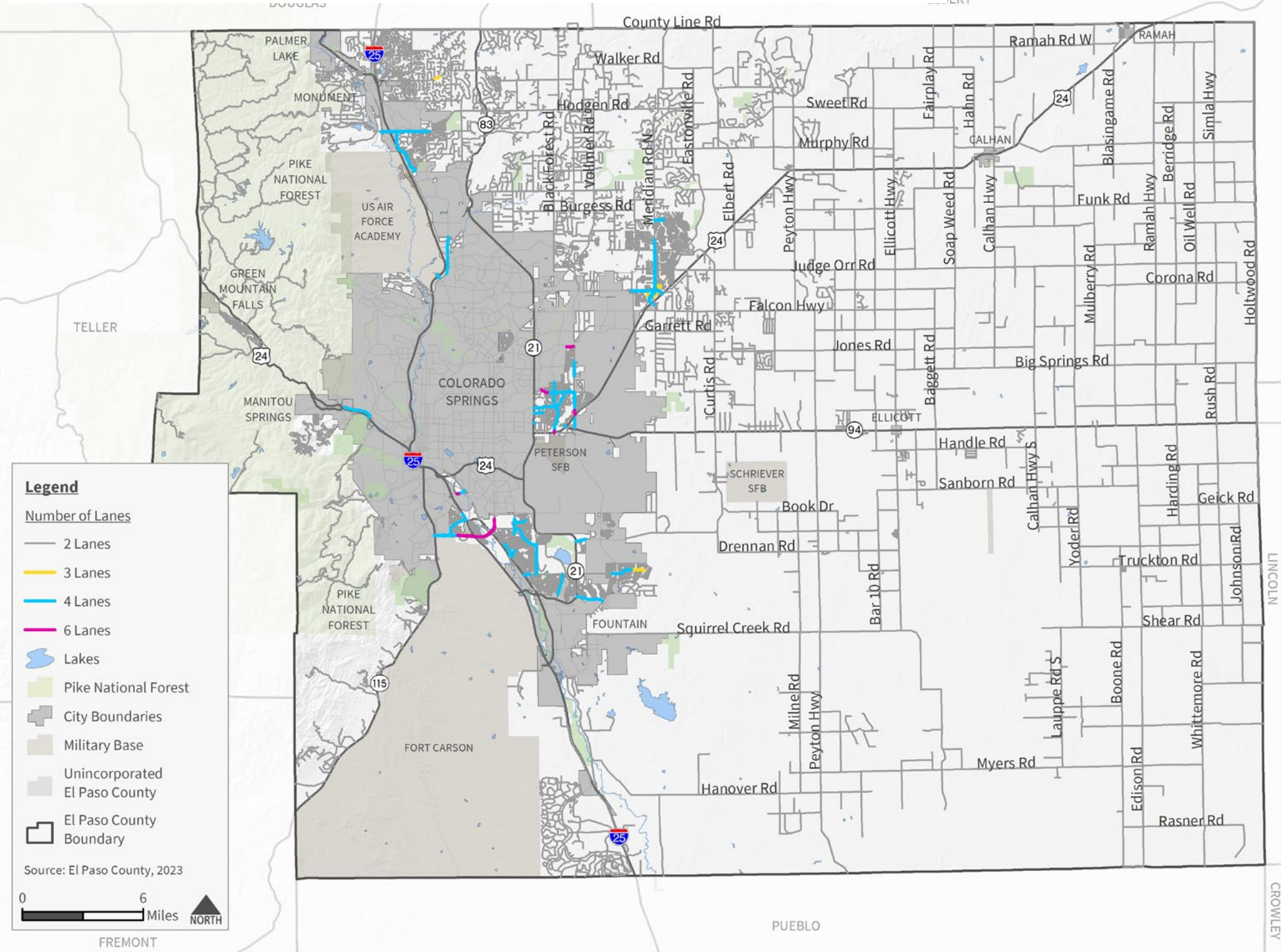
- Uncongested
- Congesting
- Near Congested
- Congested

Source: StreetLight, 2021

0 6 Miles



Figure 11. Existing Number of Lanes



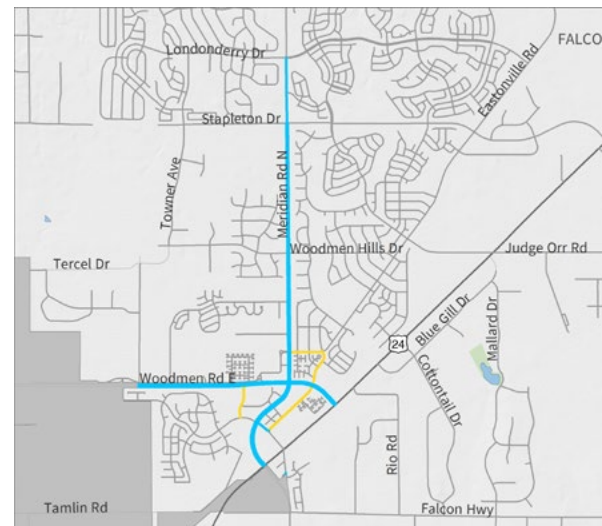
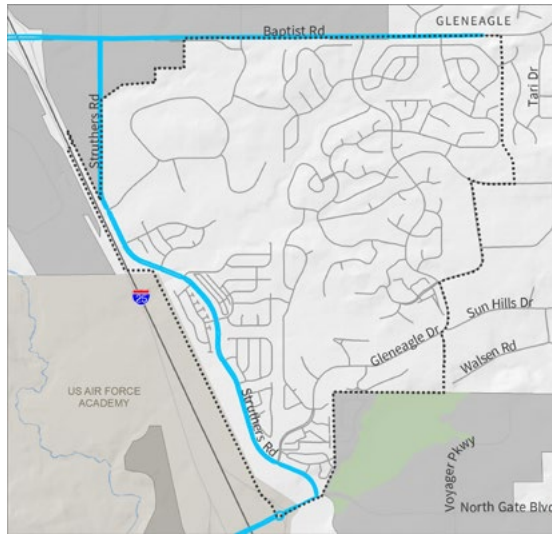


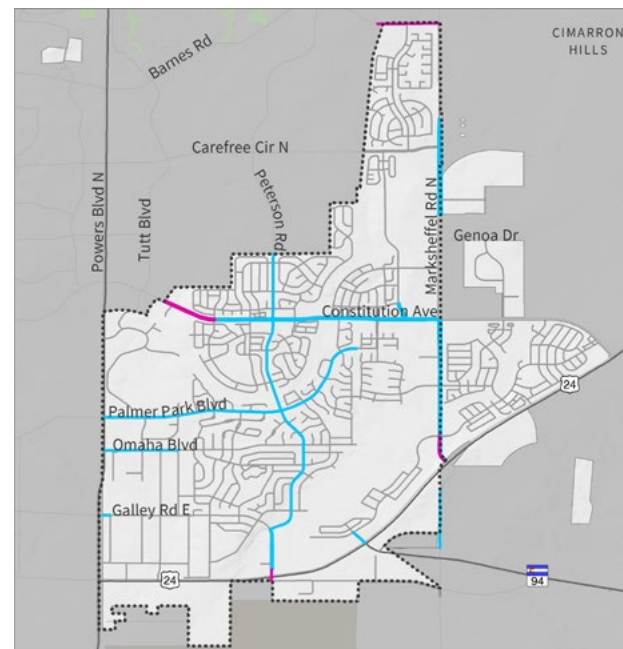
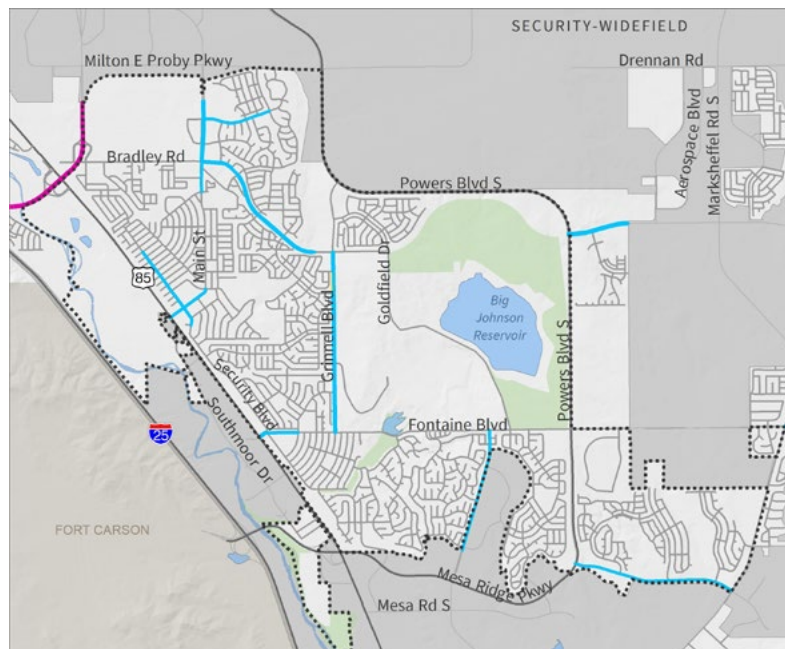
Figure 11, continued, Existing Number of Lanes focus areas:

Gleneagle (upper left)

Falcon (upper right)

Security-Widefield (lower left)

Cimarron Hills (lower right)



Legend

Number of Lanes

- 2 Lanes
- 3 Lanes
- 4 Lanes
- 6 Lanes

- Lakes
- Pike National Forest
- City Boundaries
- Military Base
- Unincorporated El Paso County
- El Paso County Boundary

Source: El Paso County, 2023

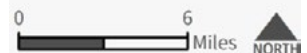


Figure 12. Existing Traffic Volumes (Gravel Roads)

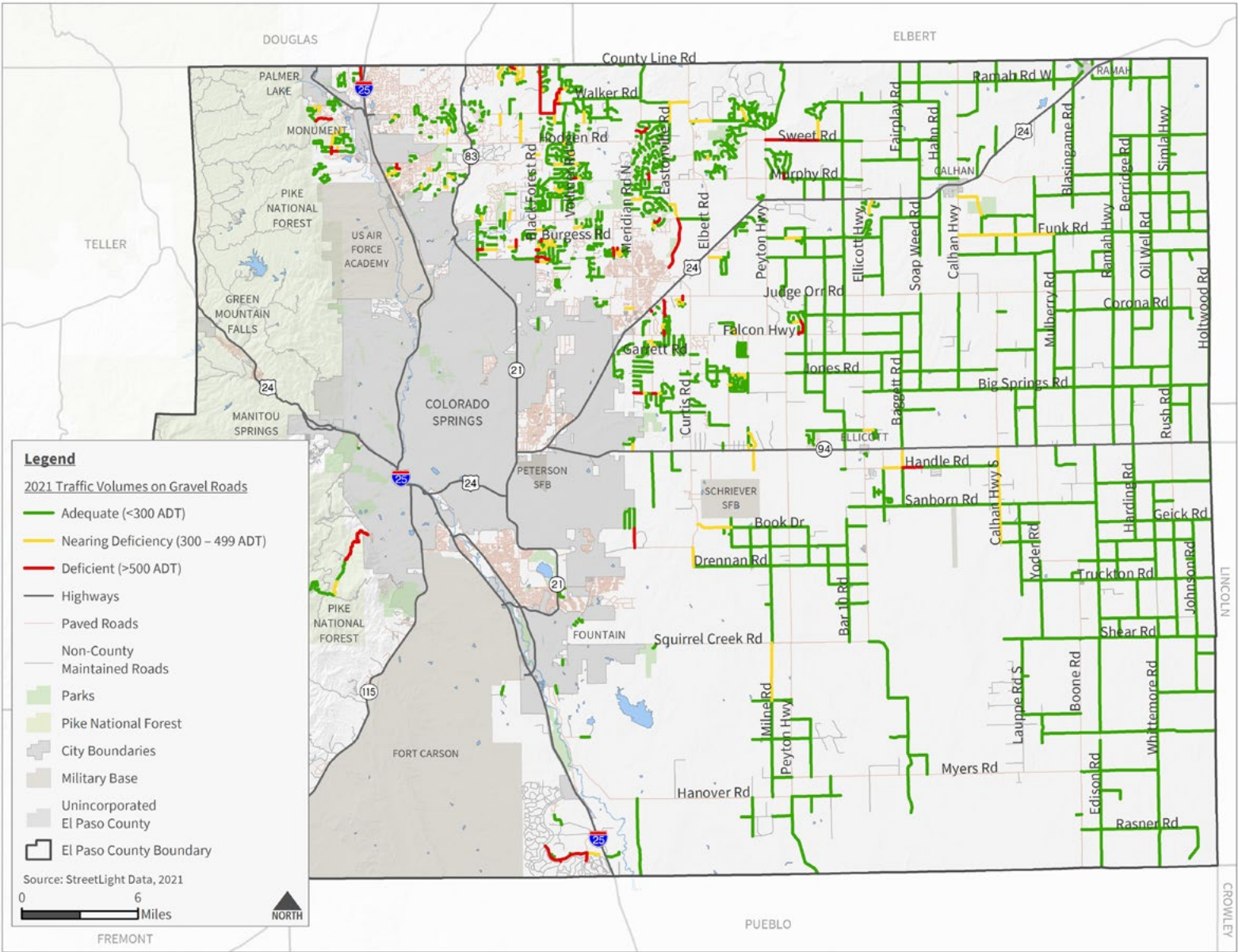
Gravel Road Analysis

For calculating daily traffic volumes, Streetlight Data 2021 AADT was used as the traffic count resource, with a few local roads adjusted based on available traffic count data.

All gravel roads were analyzed using the 300 ADT threshold. About 29 miles (or 2.7 percent) of the existing network have paving needs and about 56 miles (or 5.3 percent) are approaching 500 ADT threshold (Table 1). The existing traffic volumes for gravel roads is shown on Figure 12.

Table 1: Gravel Roads Level of Service

Gravel Roads (2021)		
Adequate <300 ADT	962 mi	92%
Nearing Deficiency 300 to 499 ADT	56 mi	5.3%
Deficient >500 ADT	29 mi	2.7%



Multimodal Transportation

Bicycle Facilities

El Paso County has a well-established network of off-street trails that include federal, state, and local trails. Numerous major regional trails in unincorporated areas of the County include Bear Creek Regional Trail, Fox Run Regional Trail, Fountain Creek Regional Trail, New Santa Fe Regional Trail, Palmer Divide Regional Trail, Rock Island Regional Trail, and Ute Pass Regional Trails and others. Other smaller but relevant trails include Crews Gulch Trail, Homestead Ranch Trail, and Cathedral Pines Trail. Ten trailheads are distributed throughout the region with five for New Santa Fe Regional Trail, two for Fountain Creek Regional Trail, and one each for Rock Island Regional Trail, Palmer Divide Regional Trail, and Ute Pass Regional Trail.

In addition to the off-street trails, there is an on-street bicycle route network, often using multiuse shoulders, within El Paso County. On-street bicycle facilities that are disjointed, not continuous, or with high traffic and speed environments can create a high stress condition for bicyclist and result in lower bikeability for a community; thus, areas with several high stress routes may have a low Bike Score. [Bike Score](#) is a quantitative measure that assesses the bikeability of a community based on four components: presence of bike lanes, topography, connectivity to major destinations, and bicycle mode share for commuting.

Bike lane or trail conditions, interactions with traffic, or facility type can impact who chooses to ride bikes. Research shows the general population can be classified into four types of cyclists based on their attitudes toward cycling: “Strong & Fearless,” “Enthusied & Confident,”

“Interested but Concerned,” and “No Way, No How.” The primary factors that decide into which of the four categories an individual falls include comfort level with various bicycle facility types and traffic levels and degree of experience with cycling ([Revisiting the Four Types of Cyclists](#), Dill and McNeil).

[Level of Traffic Stress \(LTS\)](#) provides an additional measure of the comfort level associated with cycling on specific on street facilities. A measure of LTS uses roadway characteristics, including traffic speeds and volumes, number of through lanes, and, if applicable, bike lane/shoulder width, to calculate a grade on a scale of 1 to 4. Providing low-stress alternatives to streets with high speeds and traffic volumes is a vital attribute of a bicycle network that attracts a range of ages and abilities, including those who are “Interested but Concerned” in bicycling. Currently, El Paso County’s network of low-stress streets is in urbanized areas and spread sporadically throughout the County with minimal continuity. Most of the County’s arterials have speeds and/or volumes too high to provide comfortable cycling conditions without improvements. Most arterials in the County received an LTS score of 4.

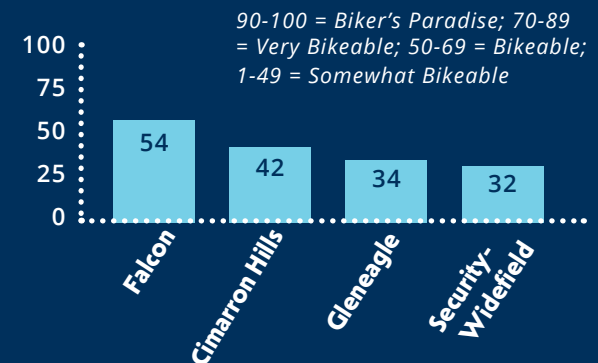
Arterials with high LTS are not uncommon since traffic volume and speed are major components in determining the level of traffic stress, and very few arterial streets in El Paso County have bicycle facilities. Because trails are separated from vehicular traffic, all trails in the County can be classified as low stress (LTS 1).

Additionally, although not analyzed, the local streets in El Paso County generally carry low traffic volumes with low speeds and can also be considered a part of the existing low-stress network. Roads with shoulders greater than four feet were classified as multiuse facilities. The low stress network for bicycling and walking is shown on [Figure 13](#).



135 miles of trails
400 miles of roadway bike facilities

Bike Scores for Urbanized Communities



Types of Bikers in the General Population

Strong & Fearless: 4 - 7%



includes everyday bicycle commuters and most elite athletes. Will ride in almost any condition

Enthusied & Confident: 5 -9%



are comfortable in most conditions but prefer to use designated bicycle facilities rather than mixing with vehicle traffic.

Interested but Concerned: 51 -56%



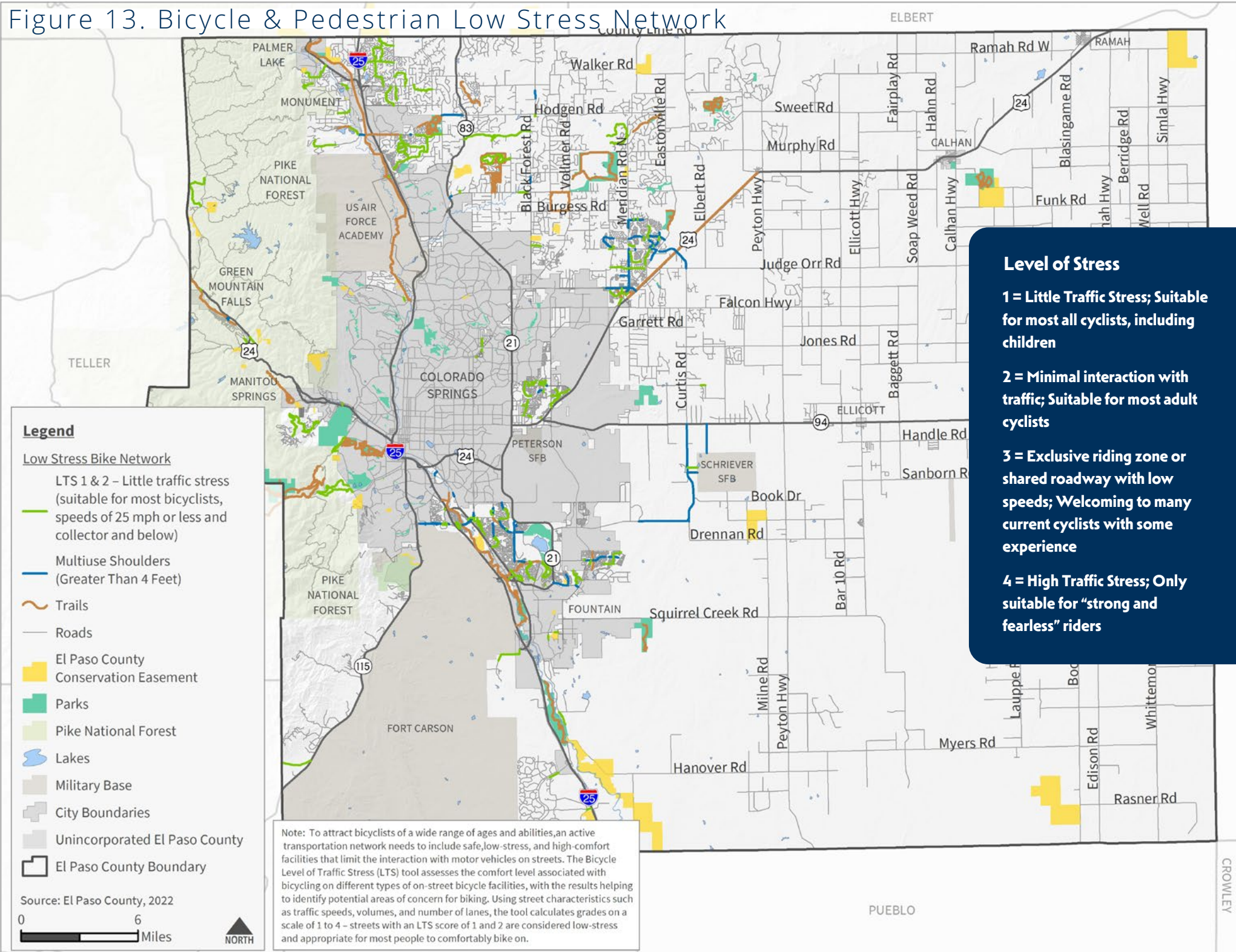
would like to bicycle more but have significant safety concerns and are hesitant to share the road with vehicles

No Way, No How: 31-37%



will not bike under any condition

Figure 13. Bicycle & Pedestrian Low Stress Network



Pedestrian Facilities

Pedestrians in El Paso County use sidewalks or off-street trails in urban areas and multiuse shoulders in rural areas. The comfort of the 540 miles of sidewalks in unincorporated El Paso County can be measured via a [Walk Score](#), a metric for multimodal accessibility, including proximity, comfort, and ease of travel to nearby destinations. Missing sidewalks or sidewalks in poor or substandard condition can reduce the Walk Score of a community and can limit the ease of mobility of pedestrians, including persons with disabilities.

Examples of sidewalk deficiencies include missing sidewalks, missing accessible curb ramps at street crossings, poor sidewalk condition, missing or inadequate crossings, narrow widths, and/or lack of buffer between sidewalk and street. Identified sidewalk gaps provide an opportunity for improvement in critical areas of communities, such as near employment centers, schools, and commercial locations. Origin and destination trip data presented previously in this report supports the improvement of facilities where there is high demand of trips and missing facilities. Commercial and employment locations on Powers Blvd in Cimarron Hills, Meridian Rd in Falcon, and Woodmoor Dr/Misty Acres Blvd east of Monument are examples of locations for potential improvements.



540 miles

of sidewalks in unincorporated El Paso County. Most of these sidewalks as attached facilities.

375 miles

of missing sidewalks in Gleneagle, Cimarron Hills, Security-Widefield, Falcon, and near Monument.

Approximately 84 miles

of sidewalks are detached from the curb. Little separation between vehicles and pedestrians on 85 percent of sidewalks.



Transit

Mountain Metropolitan Transit

The main transit service provider in El Paso County is MMT, which provides fixed-route transit and paratransit service (Metro Mobility ADA) for the region. MMT is the primary source of public transportation services within the urbanized area of El Paso County. In addition to bus routes within the City of Colorado Springs, MMT provides service west to Manitou Springs, north to the Chapel Hills Mall, and south into the unincorporated area of Widefield. The City of Fountain also provides fixed-route bus service with one route covering the majority of the city at a 45-minute frequency. **Figure 14** illustrates existing transit services in El Paso County.

Interregional Services – Bustang and Bustang Outrider

Interregional services include CDOT Bustang and Bustang Outrider. CDOT's Bustang South Line provides regional service between Colorado Springs and Denver daily, year-round (except major holidays). Current scheduled service provides six round trips in each direction on weekdays, with a focus on peak hour travel, and two round trips on the weekends. CDOT's Bustang Denver Tech Center (DTC) Line provides regional service between Colorado Springs and the Denver Tech Center only weekdays, year-round (except major holidays). Current scheduled service provides two round trips, leaving Colorado Springs in the morning and returning late afternoon from the DTC area. CDOT's Outrider service operates between Lamar, Pueblo, and Colorado Springs daily, year-round (except major holidays). Current scheduled service provides one roundtrip departing early morning from Lamar and departing early afternoon for the return trip to Pueblo and Lamar.

Bustang South Line ridership dropped significantly during the COVID-19 pandemic. Given the nature of the service, many South Line riders were commuters and commuter travel patterns are currently at 32 percent of pre-pandemic levels. Outrider ridership has returned to pre-pandemic levels; it is currently at 102 percent, when measured quarterly.

Overview of MMT Operations

32 routes, approximately 6 am to 9pm, during the weekday and with some reductions during the weekend.

10,500 Pre-COVID 19 Boardings per Weekday

5,800 2021 Boardings per Weekday

4,800 2022 Boardings per Weekday

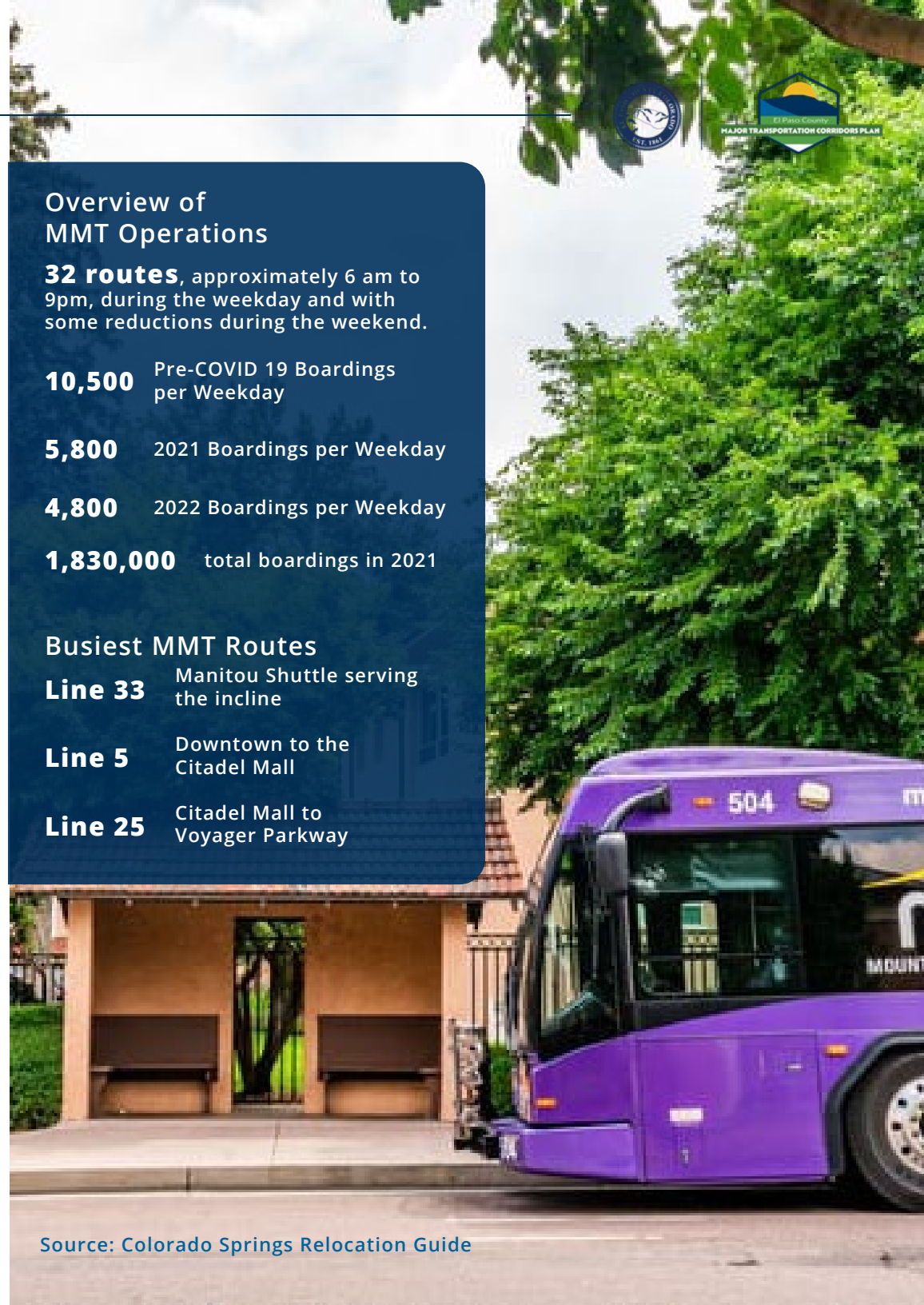
1,830,000 total boardings in 2021

Busiest MMT Routes

Line 33 Manitou Shuttle serving the incline

Line 5 Downtown to the Citadel Mall

Line 25 Citadel Mall to Voyager Parkway

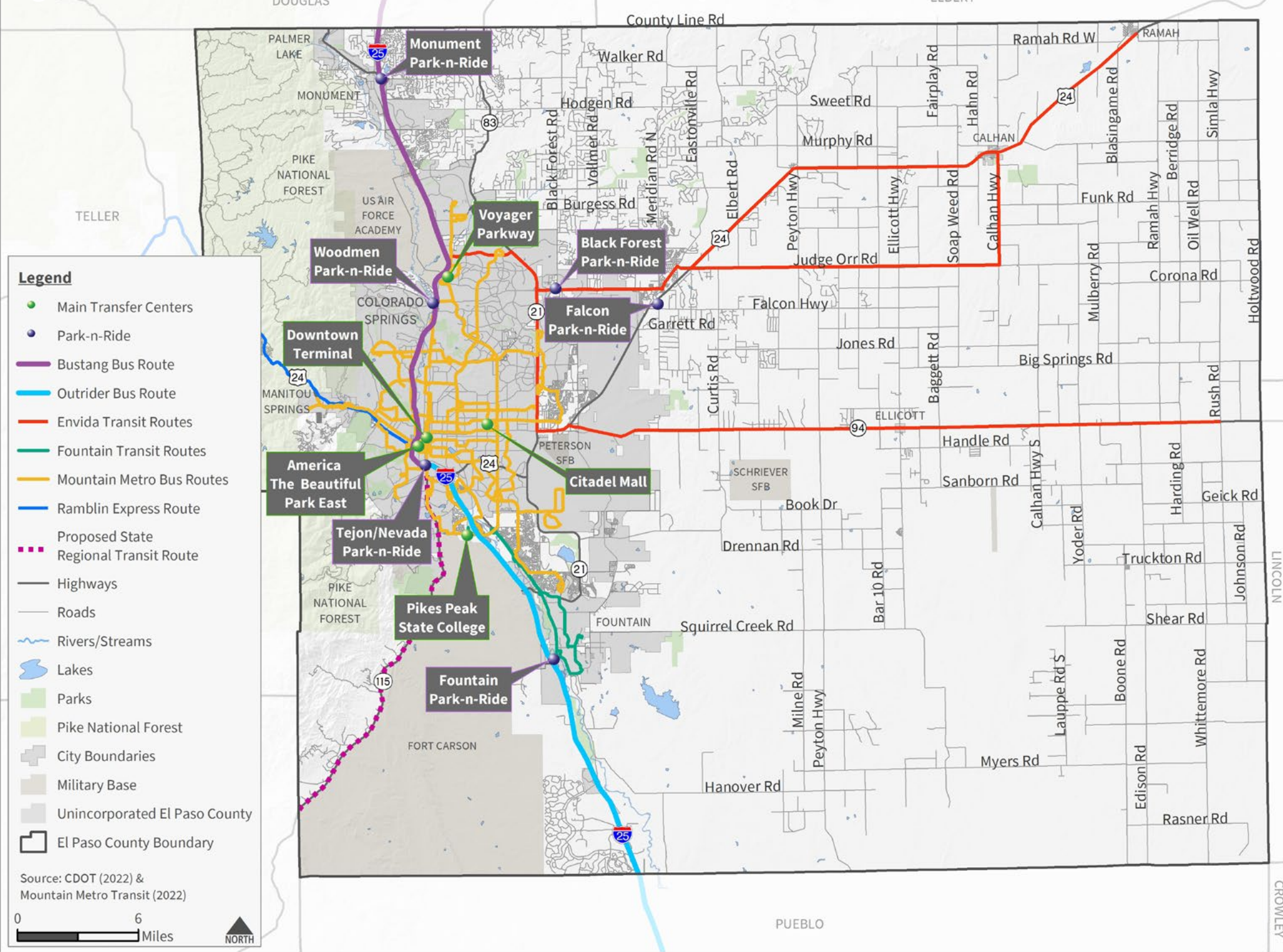




Other Transit Services

- Four park-n-rides have bus service (Bustang/Outrider and MMT) and two park-n-rides (Black Forest and Falcon) on the northeast side of the county provide carpool and vanpool parking.
- Mountain Metro Rides offers free ride matching services through a carpool and schoolpool program, designed to match people who want to share a ride. People can also subscribe to a vanpool program where MMT will provide the van and passengers pay a monthly subscription.
- Pikes Peak Cog Railway is the only passenger rail line in service within El Paso County, providing a recreational service from Manitou Springs to Pikes Peak. The line is 9 miles long.
- Front Range Passenger Rail is being studied to eventually provide regional passenger rail service from Fort Collins to Pueblo. All current alternative alignments parallel I-25 within El Paso County and include a stop in Colorado Springs.
- Mountain Metro Mobility provides demand-response service for individuals with mobility needs that prevent them from using the fixed-route bus system. Per ADA requirements, Mountain Metro must “provide complementary paratransit service to origins and destinations within corridors with a width of three-fourths of a mile on each side of each fixed route.” Riders must qualify for the service based on the criteria set by ADA. Mountain Metro Mobility is available during the same days/ hours as the local fixed-route system.
- Human Services: Envida MOVES is a transportation service that uses Area Agency on Aging (AAA) Medicaid, and grant funding to provide rides for people with disabilities, older adults, and the economically disadvantaged within El Paso County. Envida service in eastern El Paso County is open to the public, providing service along US 24 and CO 94 four days a week to Calhan, Ramah, Ellicott, Yoder, and Rush. The service connects with in-town transit providing rural residents access to services in Colorado Springs. Within Colorado Springs, Envida service is available only to people unable to access Mountain Metro Mobility services or people that cannot use MMT’s public transit. The service regularly transports older adults under the Older Americans Act.

Figure 14. Transit Services within El Paso County



Crash History

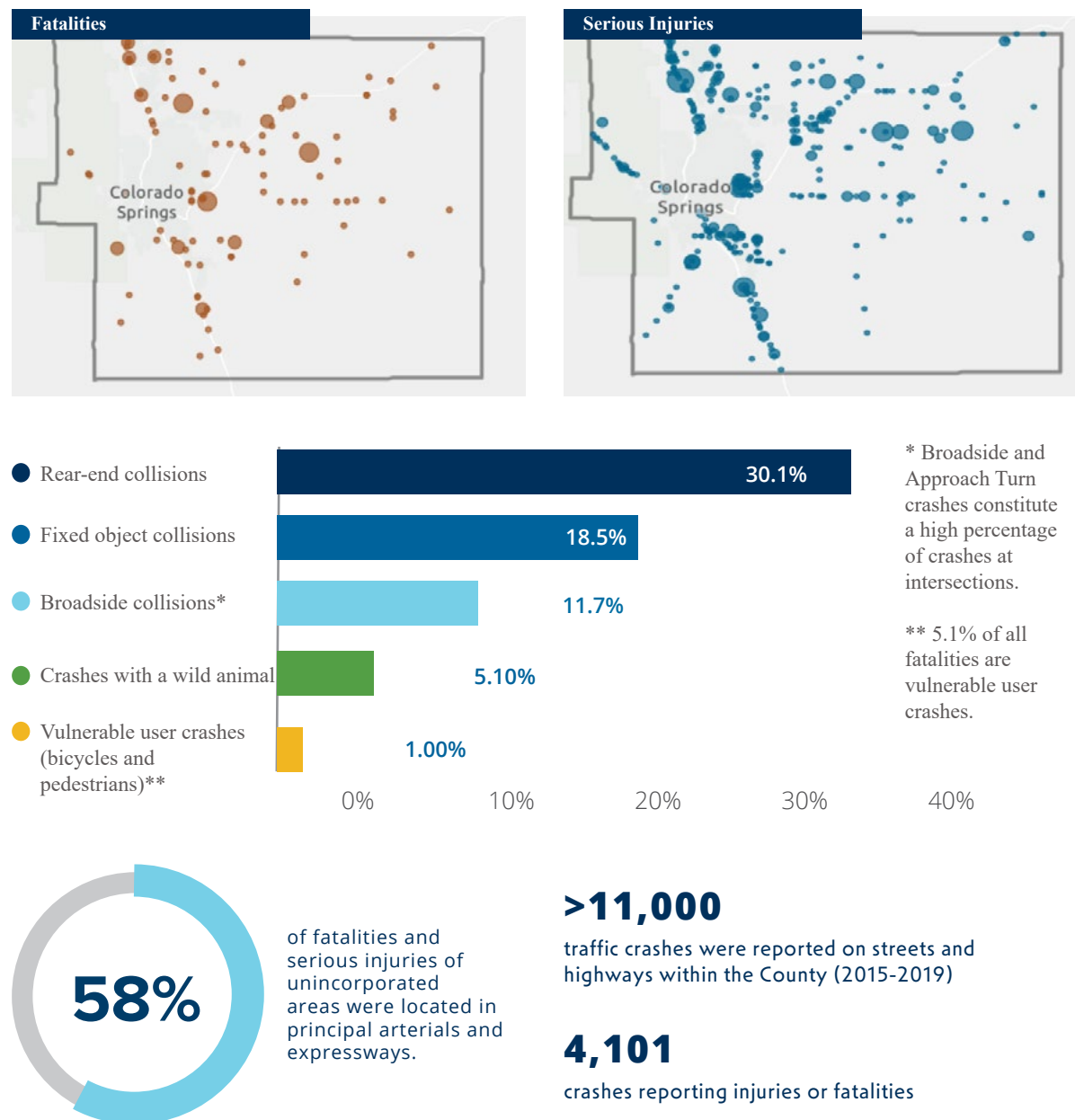
Roadway safety can be characterized by the ability of a person to travel along a roadway network freely without injury or death. It is usually assessed through a qualitative and quantitative evaluation of crash histories by mode of travel. This evaluation sheds light on crucial information such as locations with an over-representation of crashes, crash types and crash severity issues. Under programs such as Vision Zero, severity concerns are often subject to formal safety evaluations such as Road Safety Audits (RSA) after the initial identifications of areas of concern.

In early 2023, El Paso County adopted an updated [Road Safety Plan](#) along with Vision Zero/Towards Zero Deaths strategies to reduce road related fatalities. The plan's analysis identified data trends in fatalities and serious injuries, including locations and crash types.

Figure 15 shows the fatalities and serious injuries crash density maps from the Road Safety Plan's analysis of crash data (2015-2019). Data analysis provides insights into the corridors with safety issues and possible correlation with high-speed segments of major arterials and expressways. Speed related involvement, intersection design, lane departure and restraints not used by occupants are the four major factors contributing to injury severity.

High severity crashes include crashes involving Killed and Severely Injured (KSI) crashes. Overturning and fixed object tend to be of more concern in rural areas; broadside KSI crashes are more common in urban areas. Further analysis of the PPACG crash data revealed that almost 23 percent of all KSI crashes happen at nighttime at unlighted locations, and more than 35 percent of all KSI crashes happen at intersections.

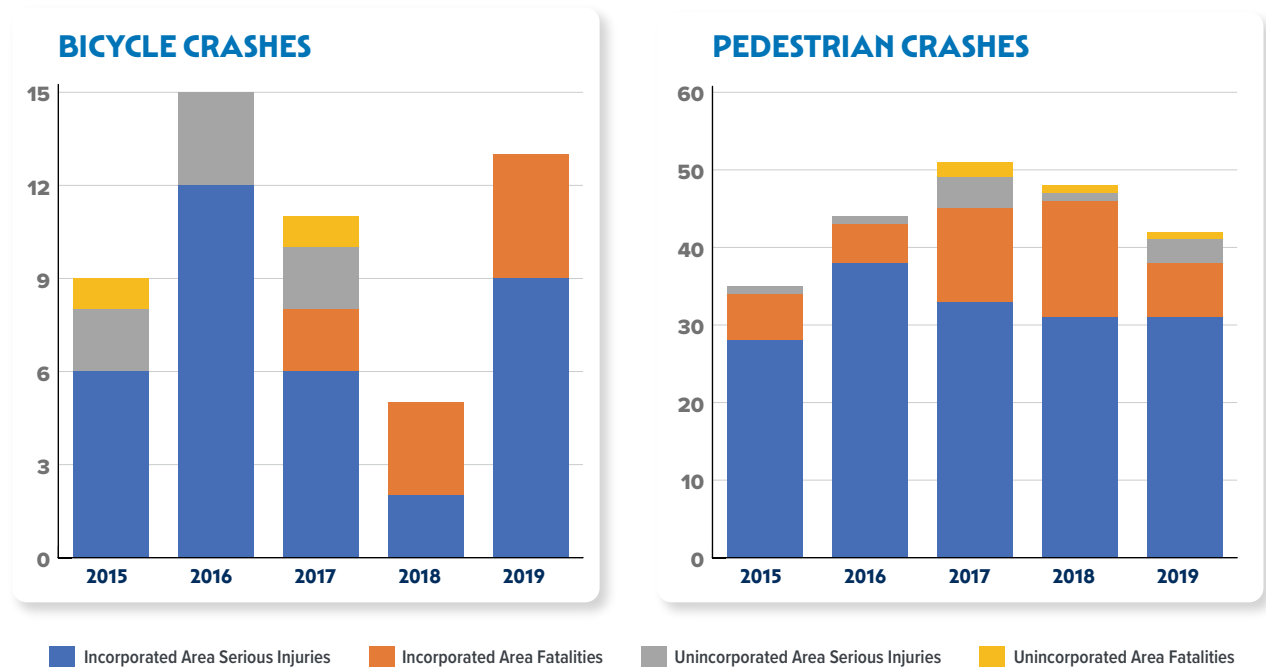
Figure 15. Fatalities & Serious Injuries



Elimination of KSI crashes is a priority for the County and for potentially establishing an approach to eliminate traffic fatalities and severe injuries. In addition, identifying crashes involving vulnerable users (pedestrians and bicyclists) is key to creating a safer, more equitable transportation system. There were 273 vulnerable user crashes in El Paso County between 2015 and 2019, of which 59 crashes involved a pedestrian, 48 involved an injury, and there were 4 pedestrian fatalities. Similarly, 51 crashes involved a bicyclist, of which 39 involved an injury and 1 was a fatal crash. There is a higher concentration of crashes in urban areas, as there is also more population and multimodal users. **Figure 16** compares the frequency of bicycle and pedestrian crashes by incorporated (shown in blue and orange) and unincorporated (shown in gray and yellow) areas of the County. The number of bicycle and pedestrians crashes is significantly lower in unincorporated areas.

Vision Zero/Toward Zero Deaths includes strategies and safety approaches that seeks to eliminate all traffic fatalities and severe injuries through a safe systems approach, while increasing safe, healthy, equitable mobility for all road users. After completing further analysis in four emphasis areas (unrestrained occupants, intersection related, lane departure, and speeding), the County incorporated a Best Practices Toolkit into the Road Safety Plan, which also incorporates the application of the five Es of transportation planning — Engineering, Education, Encouragement, Evaluation, and Enforcement — into the project planning process. The priority safety strategies are provided in Chapter 7.

Figure 16. Bicyclist/Pedestrian Fatalities & Serious Injuries - Incorporated and Unincorporated El Paso County (2015-2019)





Chapter 4. Growth in the County

Existing Land Uses & Demographics

Based on the latest US Census Bureau Decennial Survey (2020), El Paso County is Colorado's most populous county, with a population of 730,395. Incorporated communities represent two thirds of the county population, with the remaining third living in unincorporated areas of the county. The State Demographer's Office projects the County to grow at an annual rate of 1.15 percent over the next 10 years. The MTCP model, which aligns with the Master Plan, projects the unincorporated growth to be more than double the growth in the County's incorporated areas for the next 10 years. Overall population is expected to grow to close to a million by year 2050.

Household, employment and population growth is anticipated between 2018 and 2050, with over 250,000 residents, 175,000 jobs and over 90,000 households being added to the county. With five military installations, the U.S. military continues to employ more than 25 percent of the county's workforce. This number includes 57,000 military personnel and civilian contractors employed by the Department of Defense and 50,000 indirect and induced jobs.

Demographics

Based on US Census Bureau data, a detailed demographic assessment was performed to understand the composition of El Paso County residents. This assessment is key for understanding the use of the transportation system and where new and/or improved transportation facilities and services may be needed. In addition, vulnerable populations are important to consider when analyzing county-wide demographics because they may have unique transportation needs compared to other groups. **Table 2** provides an overview of the County's vulnerable populations, which includes older adults (65 and older), youth (younger than 15), people with disabilities, minorities, low-income populations, and zero-vehicle households.

Population Fast Facts

730,395
residents in El Paso County

Source: US Census Bureau Decennial Survey (2020)



1.15%

Population growth over the next 10 years



Nearly 1 million

residents by 2050, adding approximately 256,000 residents

Employment Fast Facts



425,447

jobs in El Paso County (2018)



600,025

jobs in El Paso County by 2050

Households Fast Facts



260,851

households in El Paso County

Source: Your El Paso Master Plan

Military Fast Facts



107,000

residents employed by the US Military in El Paso County (25% of all jobs)

Source: Your El Paso Master Plan

Table 2. Vulnerable Populations

Older Adults (65 and older) 13% of residents	A growing interest in independent living among older adults and providing services and amenities to allow older adults to age in place have increased the focus on providing more accessible transportation services to support older adult lifestyles.
Youth (younger than 15) 20% of residents	Children under the legal driving age and without a driver's license must rely on walking, biking, or those who can drive to meet their transportation needs. Additionally, safe routes to walk and bike can encourage more active lifestyles that contribute to improved health.
People with Disabilities 12% of residents	Persons with disabilities who are unable to drive must rely on other forms of transportation, such as walking, transit, paratransit or others who can drive to meet their transportation needs. Some persons with disabilities may require the use of a mobility aid (e.g., wheelchair).
Minorities 34% of residents	Minority populations have historically been underserved communities throughout the United States.
Low-income populations 9.8% of residents	Low-income populations often have limited financial means to afford a vehicle and may rely on lower-cost transportation options such as walking, biking, transit or carpooling with others to meet their transportation needs.
Zero-vehicle households 1.4% of residents	Residents with limited or no access to a vehicle rely on others or on other transportation modes for daily trips and errands, including walking, transit, biking, or carpooling.



Land Use Forecasts

Household and employment growth tend to cause future traffic and will drive a need for new roads and improvements in future years. The MTCP uses modeling to forecast future traffic patterns, but laying a reliable foundation of how land use patterns are likely to change over time is a key step in ensuring that the future improvements suggested by the Traffic Demand Model are reasonable. For this plan, scenarios for the distribution of jobs and households in El Paso County were developed for 2020 (base year), every 5 years between 2025 and 2045, and 2065 (long range build-out).

Based on the methodology in the Technical Memorandum, **Table 3** summarizes the final population, household, and employment projections for city and county transportation analysis zones (TAZs). **Figure 17** shows the growth within the County TAZs. **Figure 18** and **Figure 19** show the forecasted 2045 household and employment, respectively, by TAZ.

Table 3. Land Use Forecasts

	2020	2025	2030	2035	2040	2045	2065
City TAZs							
Population	494,190	537,361	578,218	630,547	659,673	680,603	832,125
Households	204,484	221,199	236,786	257,701	269,520	278,687	338,061
Employment	304,824	326,743	359,055	393,513	410,027	430,652	531,326
County TAZs							
Population	189,004	216,747	256,333	280,874	315,838	326,368	388,831
Households	70,294	81,893	99,024	107,663	121,178	125,521	150,791
Employment	88,651	89,606	96,398	98,093	105,227	107,510	122,590
Total							
Population	683,194	754,108	834,551	911,421	975,511	1,006,971	1,220,956
Households	274,778	303,092	335,810	365,364	390,698	404,208	488,852
Employment	393,475	416,349	455,453	491,606	515,254	538,162	653,916

Figure 17. County TAZ Land Use Forecasts

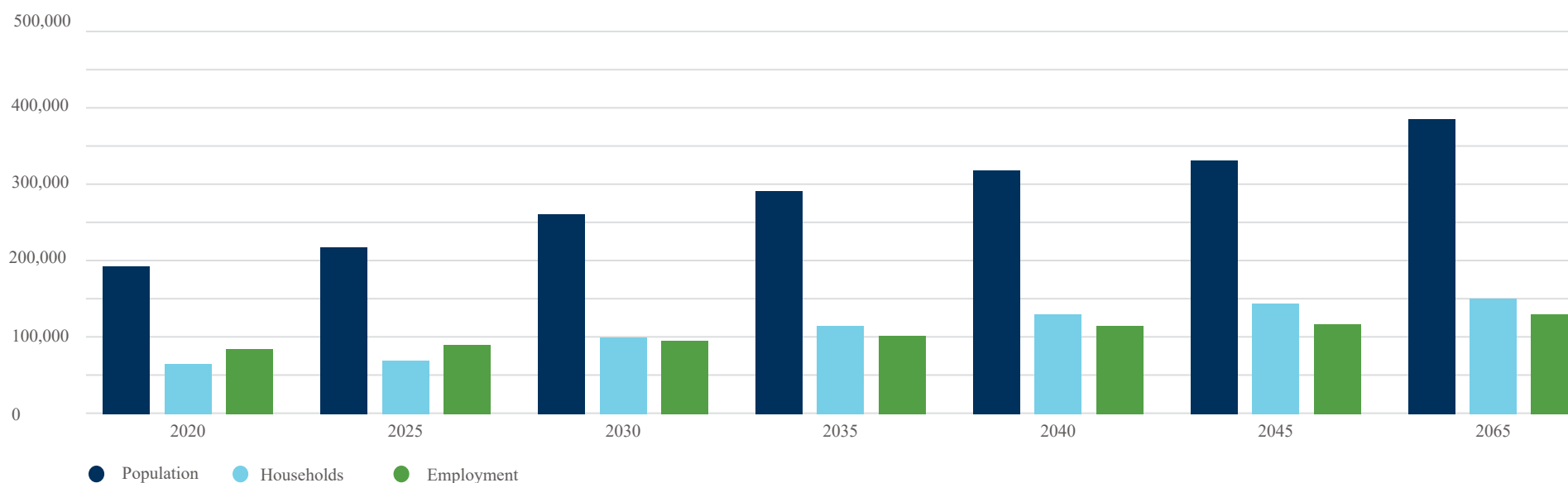


Figure 18. 2045 Household Estimates

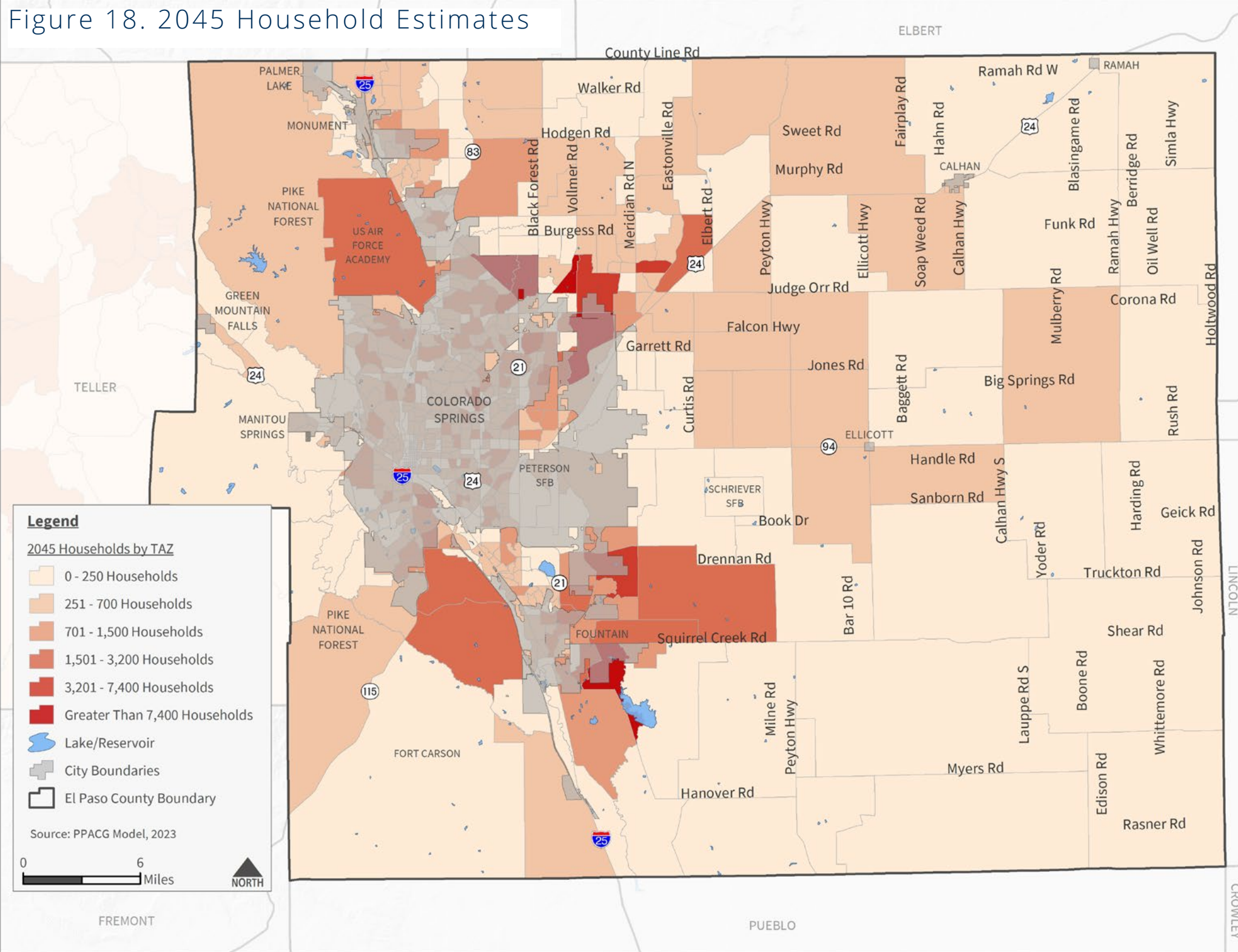
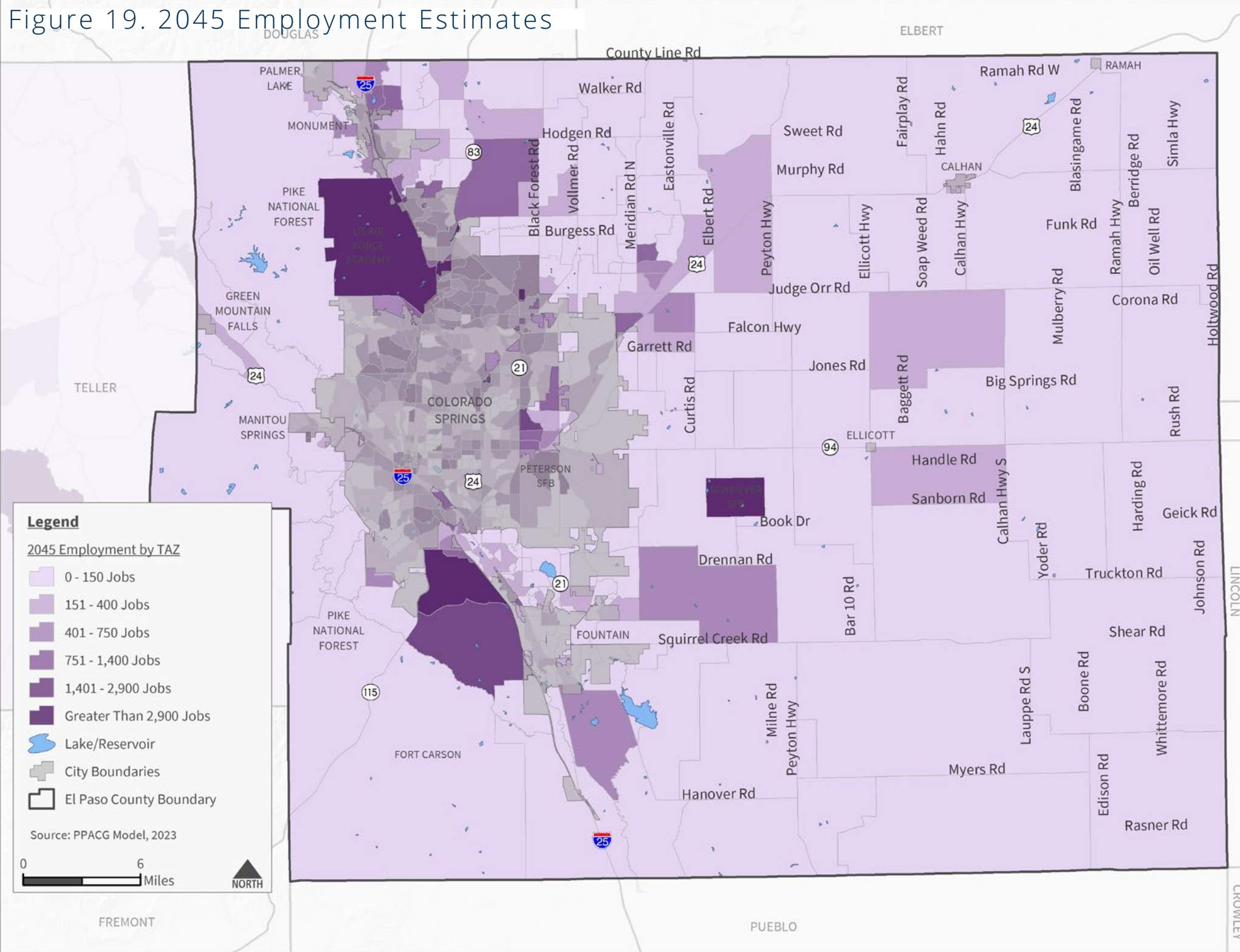


Figure 19. 2045 Employment Estimates





THIS
**EL PASO
COUNTY**
PROJECT

MADE POSSIBLE
WITH YOUR TAX
DOLLARS

www.PPRTA.com

SPEED
LIMIT
55

SCHOOL
BUS STOP
AHEAD



Chapter 5. 2045 Plan Recommendations

Throughout the MTCP process, input from the public and transportation stakeholders revealed a preference for the County to address all modes of travel. This chapter recommends improvements to the transportation system in unincorporated El Paso County, beginning with the roadway plan, which is the foundation of the County's transportation system. While multimodal, transit, and freight networks are more thoroughly planned by related documents, it is important to incorporate each of these modes early in transportation planning and support partnering agencies as appropriate to the needs of the unincorporated County's residents and workforce.

Roadway Plan

This section describes the roadway system in unincorporated El Paso County, evaluates current and future demands on the roadway system, and identifies roadway improvement needs to accommodate future travel.

Roadway Functional Classifications

Roads generally provide two important functions: mobility and land access. The County's roadway system consists of a hierarchy of road types ranging from freeways that primarily provide a mobility function to local street that primarily provide an access function.

The classification of a roadway reflects its role in the County's street and highway system and forms the basis for street design guidelines and standards. The roadway functional classes in the MTCP represent a desired function based on the character of service they are intended to provide for the year 2045. The character of service

includes attributes such as traffic volumes, trip lengths, speeds, and relationship to adjacent land use. Existing roadways may not meet all the desired characteristics implied by their function, but strategic improvements can serve to fulfill the vision over time.

The following roadway classifications reflect El Paso County's definitions ([El Paso County Engineering Criteria Manual](#) [ECM]) and are different from those identified by the Federal Highway Administration (FHWA). Furthermore, a road's functional classification may be either current, future, or both, recognizing that roads can change function to some degree as improvements are made. The MTCP focuses on El Paso County maintained roads with functional classification of Major Collector and higher. There are no expressways recommended in the MTCP at this time.

Functional Classification Definitions

Expressways: Roadways that serve high-speed and high-volume traffic over long distances. Access to an Expressway will be highly controlled and may have both grade-separated interchanges and signalized intersections. Adjacent land uses, both existing and future, shall be served by other network roadways, and no direct parcel access is permitted.

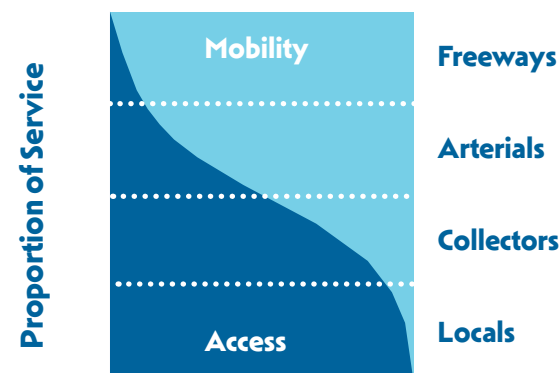
Principal Arterials: Roadways that serve high-speed and high-volume traffic over long distances. Access is highly controlled with a limited number of intersections, medians with infrequent openings, and no direct parcel access. Adjacent land uses shall be served by other network roadways and service roads.

Minor Arterials: Roadways that currently serve

high-speed and high-volume traffic over medium distances or are anticipated to serve this kind of traffic within a twenty-year period. Access is restricted through prescribed distances between intersections, use of medians, and no or limited direct parcel access. Minor arterial status is assigned to rural roadways where the probability of significant travel demand in the future is high.

Collectors: Roadways that serve as links between local access and arterial facilities over medium-to-long distances, outside of or adjacent to subdivision developments. Collectors are managed to maximize the safe operation of through movements and to distribute traffic to local access. Collectors can be further designated as Major Collector or Minor Collector, and Residential or Non-Residential (in the urban context).

Locals: Roadways that provide direct access to lots and connect travel to collector roadways.





Urban vs. Rural

El Paso County's functional classification system also distinguishes between urban and rural roads, based on the existing and planned land use adjacent to the road. Urban roads are generally in areas within the FHWA Urban Area and/or the US Census Urbanizing Area designations. The County's Master Plan identifies PlaceTypes that require curb and gutter, including Employment Centers, Regional Centers, Suburban Residential, and Urban Residential. Roadways within these PlaceTypes are also categorized as urban. The ECM defines the roadway standards based on functional classification and urban vs. rural context. A primary difference is the presence of curb and gutter and sidewalks on urban roadways, versus roadside ditches and multiuse shoulders on rural roadways.

Design Standards

The detailed design standards for each functional classification are documented in the ECM. [Table 4](#) and [Table 5](#) highlight some of the key cross-section and access spacing elements for each functional classification in the rural and urban context, respectively.

Table 4. Rural Road Design Elements

	Principal Arterial		Minor Arterial	Major Collector	Minor Collector	Local	Local Gravel
	6 Lane	4 Lane					
Design Speed/Posted Speed	70/65	70/65	60/55	50/45	40/35	30/30	50/45
Right-of Way Width	210'	180'	100'	90'	80'	70'	70'
Number of Through Lanes	6	4	2	2	2	2	2
Paved Shoulder Width	10'	10'	8'	4'	4'	2'	0'
Sidewalk Width	n/a	n/a	n/a	n/a	n/a	n/a	n/a
Driveway Access Permitted	No	No	No	No	Yes	Yes	Yes
Intersection Spacing	½ mile	½ mile	¼ mile	¼ mile	660'	330'	330'

Reference: Table 2-4 and Table 2-5 of the El Paso County Engineering Criteria Manual for more detail

Table 5. Urban Road Design Elements

	Expressway		Principal Arterial		Minor Arterial	Collector		Local	Local (low volume)
	6 Lane	4 Lane	6 Lane	4 Lane		Major Collector	Minor Collector		
Design Speed/Posted Speed	60/55	60/55	50/45	50/45	40/35	40/35	40/35	25/25	20/20
Right-of Way Width	160'	140'	160'	130'	100'	80'	60'	60'	60'
Number of Through Lanes	6	4	6	4	4	2	2	2	2
Paved Shoulder Width	8'	8'	8'	8'	n/a	6'	6'	n/a	n/a
Sidewalk Width	6' detached	6' detached	6' detached	6' detached	6' detached	5' detached	5' detached	5' attached	5' attached
Driveway Access Permitted	No	No	No	No	No	No	No	Yes	Yes
Intersection Spacing	1 mile	1 mile	½ mile	½ mile	¼ mile	660'	660'	175'	175'

Reference: Table 2-6 and Table 2-7 of the El Paso County Engineering Criteria Manual for more detail



Travel Demand Forecasting

As the metropolitan planning organization for the Pikes Peak Region, PPACG maintains a regional travel model as a tool to forecast travel demand in the region. The 2045 fiscally-constrained model was used as the basis to develop traffic forecasts for the MTCP plan year 2045. The PPACG household and employment forecasts were adjusted in the 2045 travel demand model as appropriate for the unincorporated County based on the land use and socioeconomic forecasting described in Chapter 4. In addition to socioeconomic forecast changes, modifications were also made to better reflect existing access configurations.

Traffic Forecasts

The travel demand model process used a comparison of existing 2021 traffic counts, gathered through StreetLight Data, with the 2020 base year model volume to adjust the 2045 model forecasts according to procedures described in the National Cooperative Highway Research Program Report (NCHRP) 765. The methodology involves comparing the base year model traffic estimate with a traffic count at the same location. The delta and the ratio between the two are calculated, and both are applied to the 2045 traffic forecast at the same location. The average of the two (delta adjustment and ratio adjustment) is used as the final adjusted 2045 traffic forecast.

Future Levels of Congestion

The 2045 traffic forecasts were compared to planning level roadway capacity thresholds to predict levels of congestion and identify the potential need for additional capacity. Roadway

capacity is defined as the maximum traffic volume that a road can carry at a desired level of service. Roadway capacities vary by roadway functional classification, number of through lanes, and presence or absence of multimodal facilities. Since higher classification roads (like Principal Arterials and Minor Arterials) are designed for higher speeds with fewer intersections, they can carry a higher number of vehicles compared to Local roads and Collectors. Consistent with the existing levels of congestion shown in Chapter 3, a color scale ranging from green to red is used to depict road segments that are uncongested, congesting, near congested, and congested.

Iterative Travel Demand Modeling Process

The PPACG model (with the refined land use forecasts for the MTCP) was applied iteratively to inform the development of the MTCP. An initial model run was completed using the 2045 fiscally-constrained network. The initial model results (2045 traffic forecasts and level of congestion analysis) were used to identify candidate improvement projects. A second model run was completed using all candidate improvement projects identified from the initial congestion analysis and through previous planning efforts. This model run also included new roadway connections that were identified previously (in development plans, corridor studies, or other County and regional planning efforts) or through the MTCP network evaluation. The model results from this second model run (2045 traffic forecasts and level of congestion analysis) were used to confirm the capacity needs by 2045. In some cases, the widening of existing roads, or construction of new four-lane roadway connections, were

determined to not be needed by 2045. These improvements were deferred to the 2065 plan, as described in Chapter 6.

Needs Assessment

Capacity Deficiencies

Major Capacity Needs

Using the travel demand model iterative process, as described above, roadway segments needing additional through lanes (major capacity) to handle the traffic forecasts associated with the 2045 land use growth were identified.

Minor Capacity Needs

Many of the County's roads are two-lane rural roads with minimal or no shoulders and no turn lanes at intersections. The extensive road inventory completed as part of the MTCP was combined with the travel demand model results to identify county roads in need of minor capacity improvements (shoulders, turn lanes, and other improvements) to accommodate the anticipated growth and associated traffic forecasts.

New Road Connections

New roadway connections will also serve to expand the overall capacity of the County's roadway network. The travel demand model helps to assess how much traffic these new roadway connections are likely to attract, and the degree to which they might relieve parallel routes.

Paving Needs

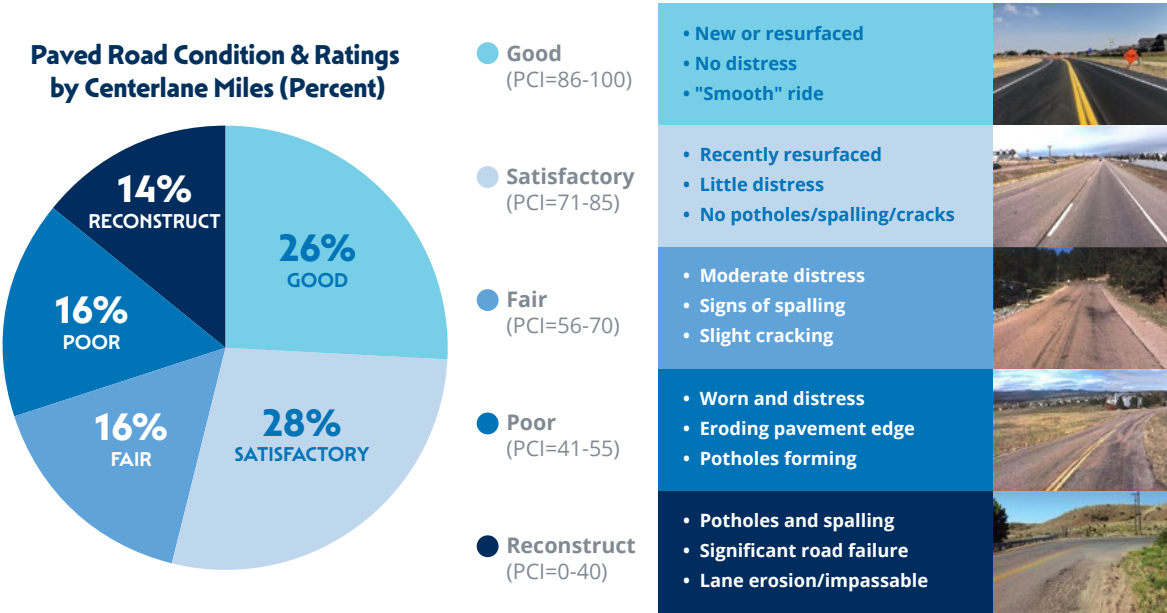
Paved Road Condition & Ratings

Since the previous MTCP was adopted in 2016, the County implemented a new pavement management system and has obtained newly surveyed roadway data. The data collection process assesses the condition of roadways and helps inform the prioritization of roadway maintenance and projects. Pavement Condition Index (PCI) is a numerical index between 0 and 100.

Pavement maintenance should occur generally every 7 to 10 years. This would be approximately 70 to 100 miles of paved road per year, or about 10 percent of paved roads per year. In the last ten years, we overlaid an average of 29 centerline miles or 2.5 percent of our paved roads per year. In 2022 and 2023, the Board of County Commissioners provided additional funding for road maintenance. In the last two years, 94 miles of road were treated with overlays costing \$53M. This extra funding allowed DPW to overlay 8 percent of our paved roads in two years, or an average of 47 miles of road or 4 percent of paved roads per year. The cost to overlay one mile of pavement in 2023 was about \$630,000.

Figure 20 shows the condition and ratings of paved roads by percentage of centerline miles. DPW works hard to keep the high-volume roads in good, satisfactory, and fair condition. Twenty-one percent are in poor condition, which may require maintenance to avoid further deterioration. Roads evaluated as reconstruct have deteriorated to the point where maintenance alone is not feasible to return the road to a good or satisfactory condition. These projects can be very expensive, often costing millions of dollars per mile to fix.

Figure 20. Paved Road Conditions & Ratings



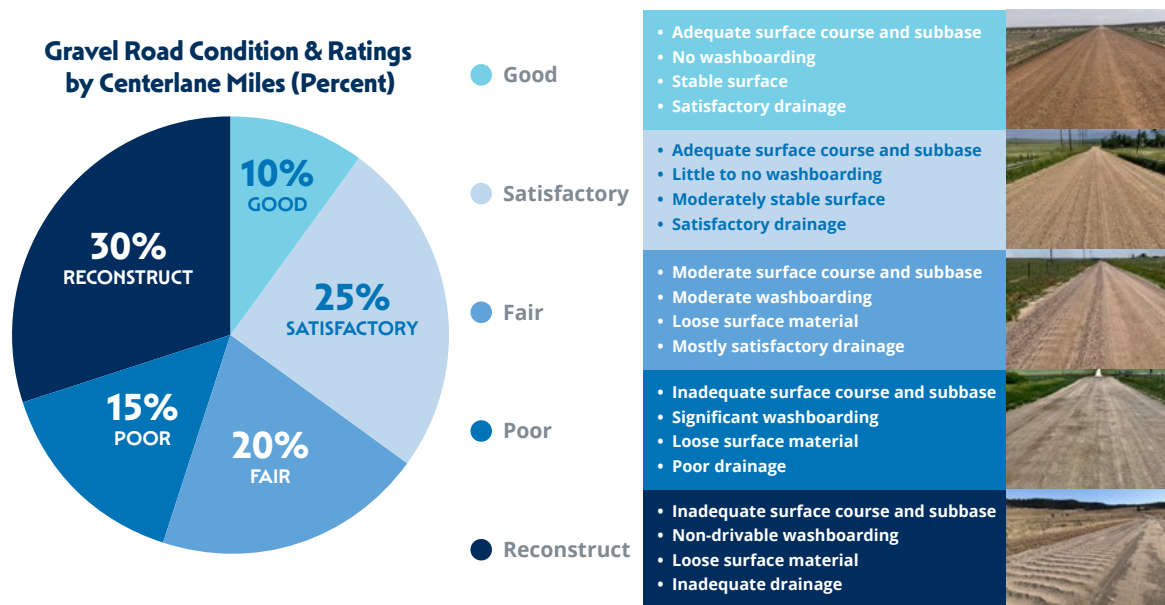
Gravel Road Condition & Ratings

Likewise, the County assesses the condition of gravel roads to maintain an accurate inventory and to plan and prioritize maintenance and paving projects.

Figure 21 shows the condition and ratings of gravel roads in the County, by centerline miles. At 35 percent, more than one-third of gravel roads are in good or satisfactory condition. Twenty percent are in fair condition, where moderate washboarding and loose surface material is present. Nearly half of all gravel roads, 45 percent, are rated poor or reconstruct, with loose surface material and significant or non-drivable washboarding.

Condition is one factor that could prompt a gravel road improvement project. Safety, drivability, lost surface, traffic volumes, and dust mitigation are other factors that influence the need for gravel road improvements along with available funding.

Figure 21. Gravel Road Conditions & Ratings







Roadway Plan

This section presents the 2045 roadway improvement plan that was developed to address the congestion and conditions identified in the needs assessment process. **Figure 22** presents the 2045 Roadway Functional Classifications, and **Figure 23** presents the 2045 Lane Requirements needed to meet the demands on the County roads anticipated in 2045.

The MTCP update process included an extensive evaluation of the County's Roadway Functional Classifications to verify the accuracy of the urban versus rural designation, and to identify roads that are either under-classified or over-classified based on connectivity, traffic volumes, and speeds. The MTCP utilized two sets of Roadway Functional Classifications: 2045 for improvements and 2065 for corridor preservation.

- **2045 Functional Classification** – This system describes the roadway functional classifications needed to accommodate the growth, travel demands, and road infrastructure associated with the year 2045. The design for all road improvements, as well as the County's Road Impact Fee, shall be based on the standards associated with the 2045 Functional Classification.
- **2065 Functional Classification** – This system identifies the functional classification needs to meet the growth and travel demand associated with the buildout of El Paso County. Right-of-way preservation along El Paso County roads shall be based on the 2065 Functional Classification (presented in Chapter 6).

Rural Functional Classification

- Rural Expressway
- Rural Principal Arterial
- Rural Minor Arterial
- Rural Major Collector
- Rural Minor Collector
- Rural Local

Urban Functional Classification

- Urban Expressway
- Urban Principal Arterial
- Urban Minor Arterial
- Urban Non-Residential Collector (Major Collector)
- Urban Residential Major Collector
- Urban Residential Minor Collector
- Urban Local

Figure 22. 2045 Roadway Functional Classifications

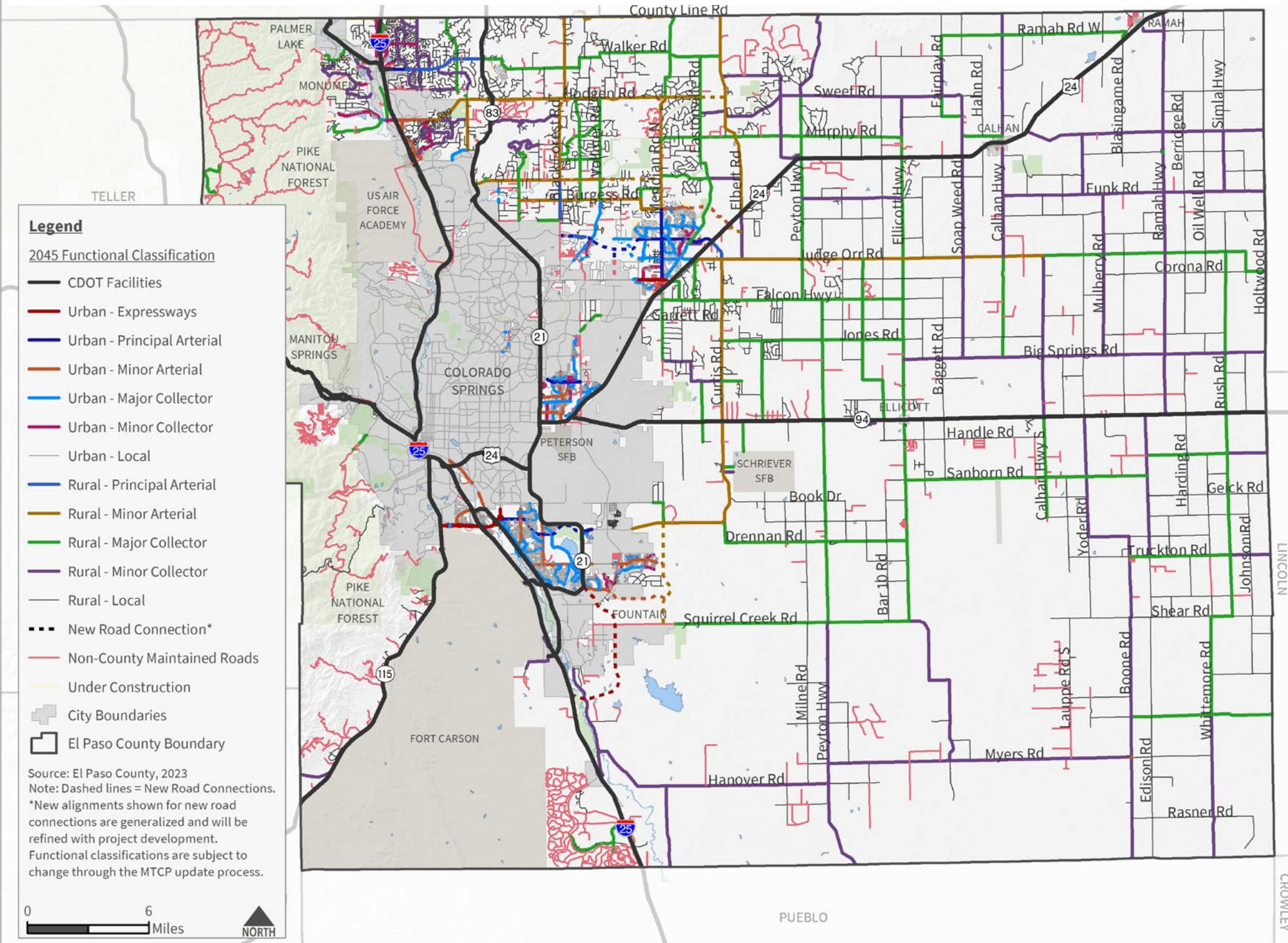


Figure 22. 2045 Roadway Functional Classifications (continued)

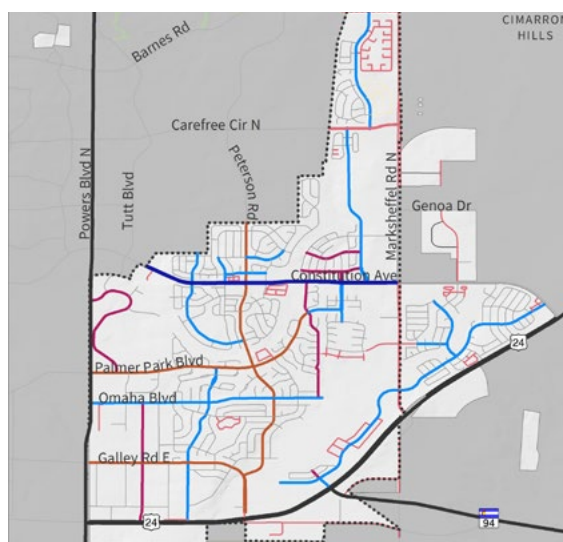
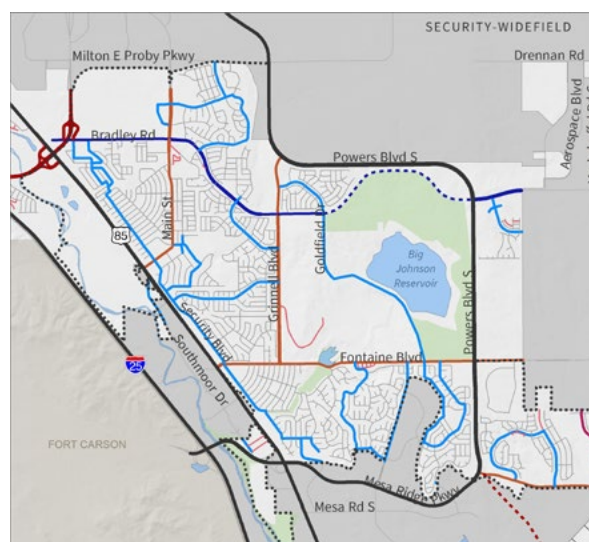
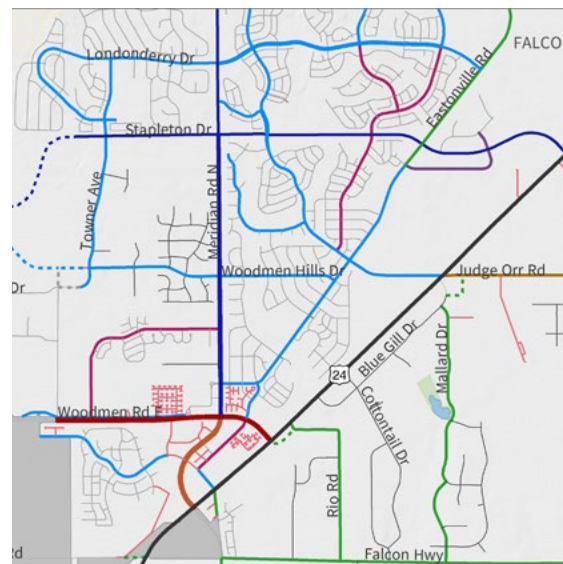
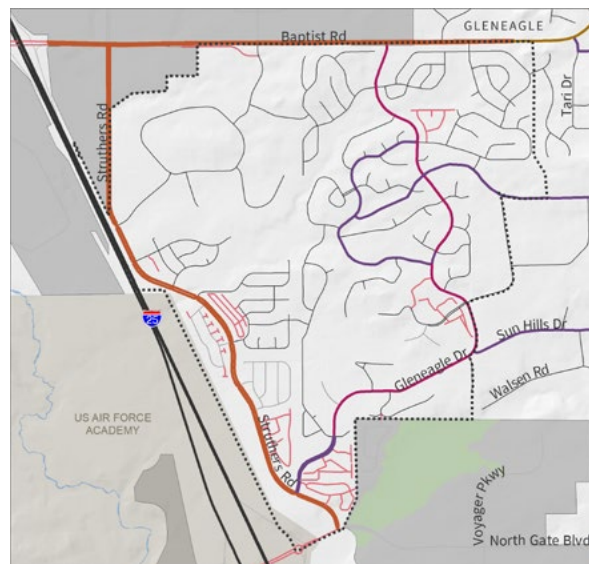


Figure 22, continued, 2045 Functional Classification focus areas:

Gleneagle (upper left)

Falcon (upper right)

Security-Widefield (lower left)

Cimarron Hills (lower right)

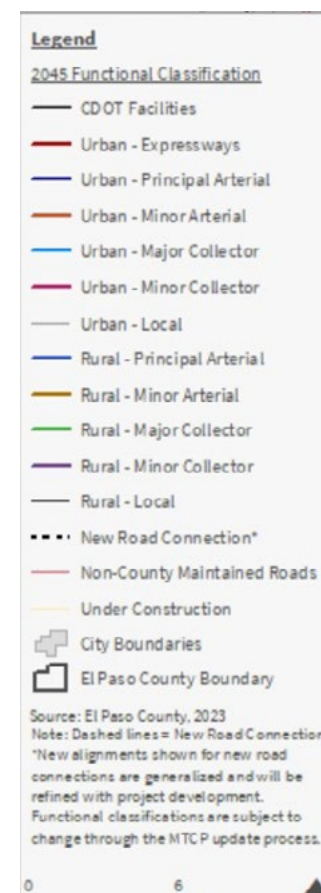


Figure 23. 2045 Lane Requirements

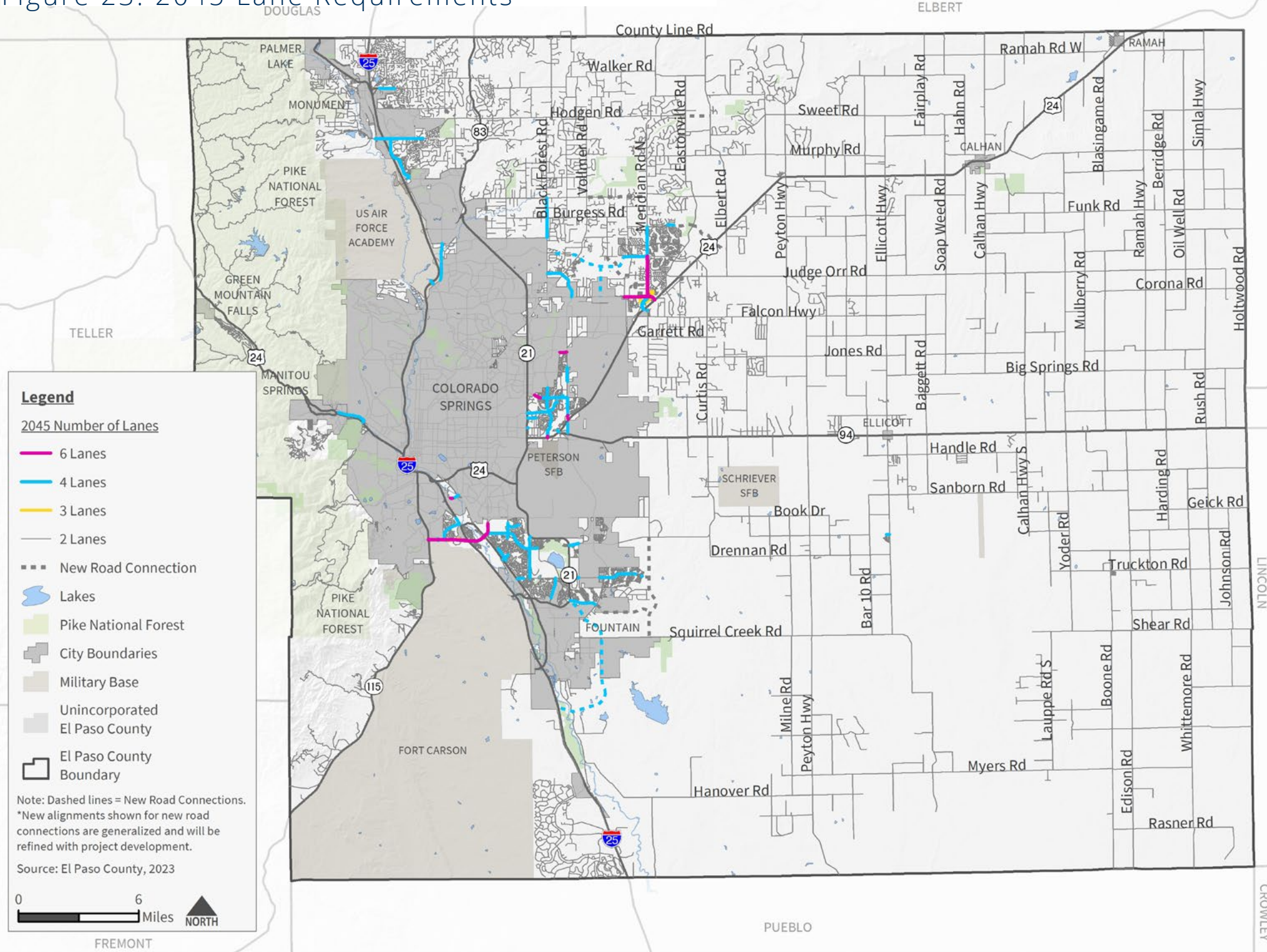


Figure 23. 2045 Lane Requirements (continued)

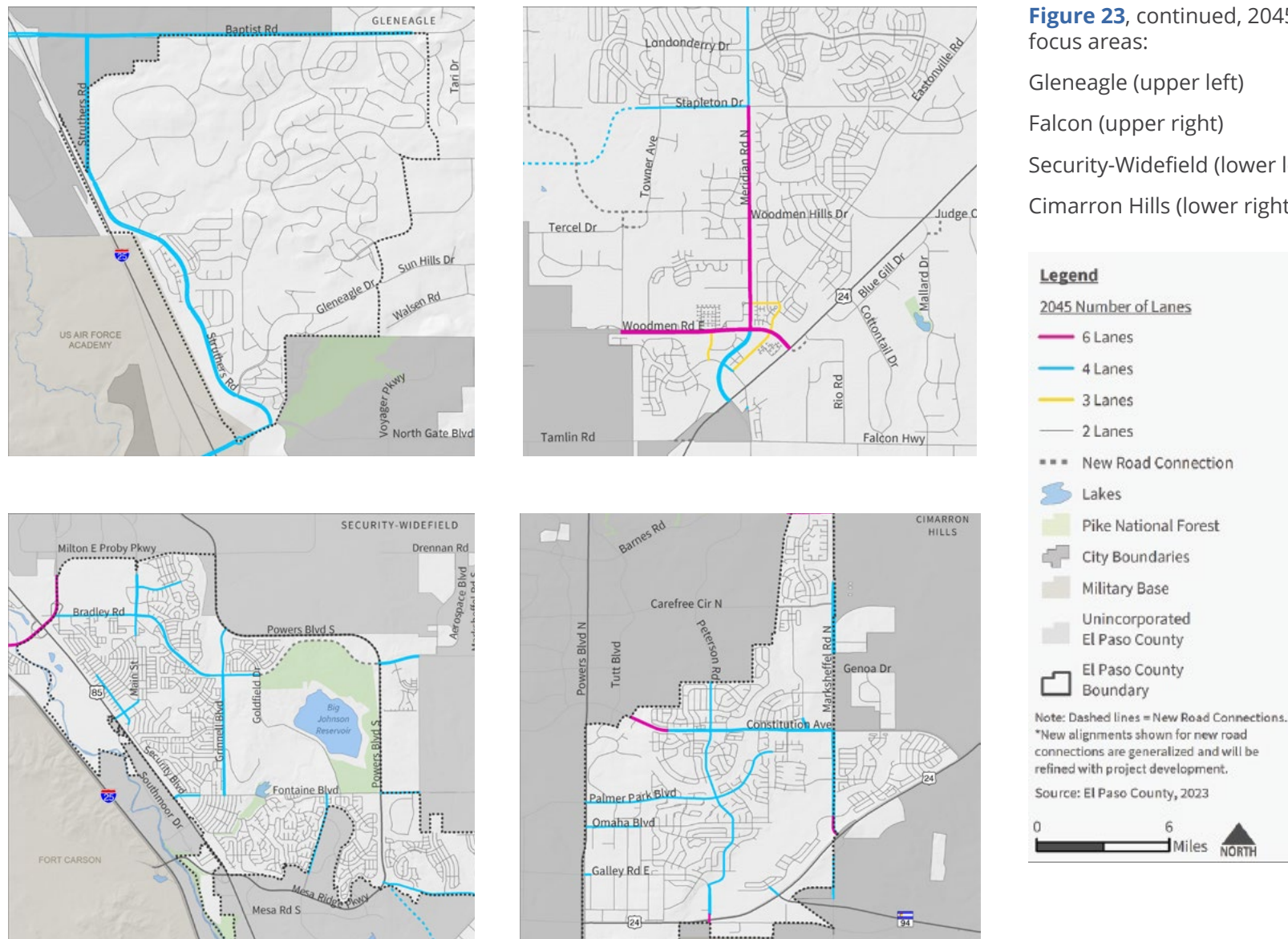


Figure 24. 2045 Roadway Plan Daily Traffic Forecasts

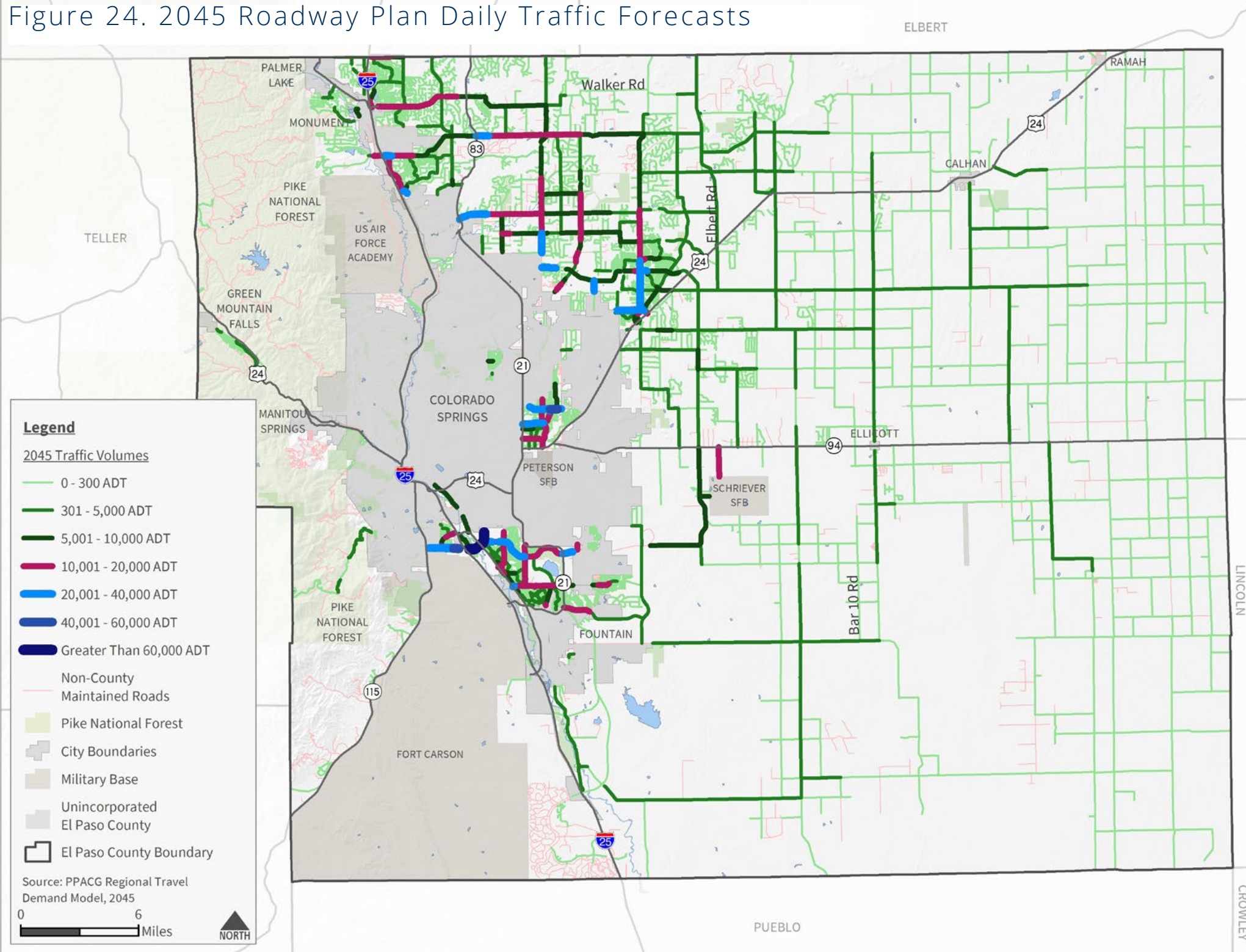




Figure 24 shows the 2045 daily traffic forecasts.

Figure 25 presents a comparison of the current and future (2045) levels of congestion. The 2045 levels of congestion are shown for the initial model run (PPACG fiscally constrained model with minimal improvements in the unincorporated County) and with the improvements associated with the MTCP 2045 Roadway Plan. The Roadway Plan improvements are expected to reduce the miles of congested roads from 16 percent down to 11 percent.

Figure 26 shows the resulting forecast levels of congestion.

Figure 25. Level of Congestion Comparison

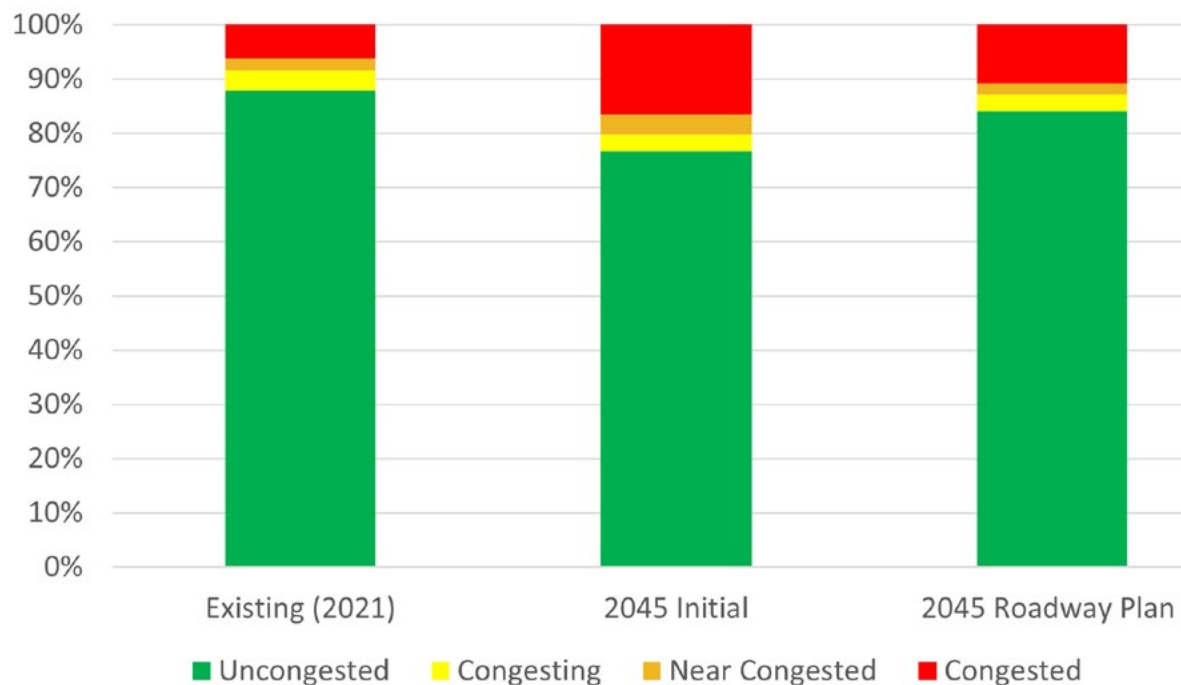


Figure 26. 2045 Roadway Plan Levels of Congestion

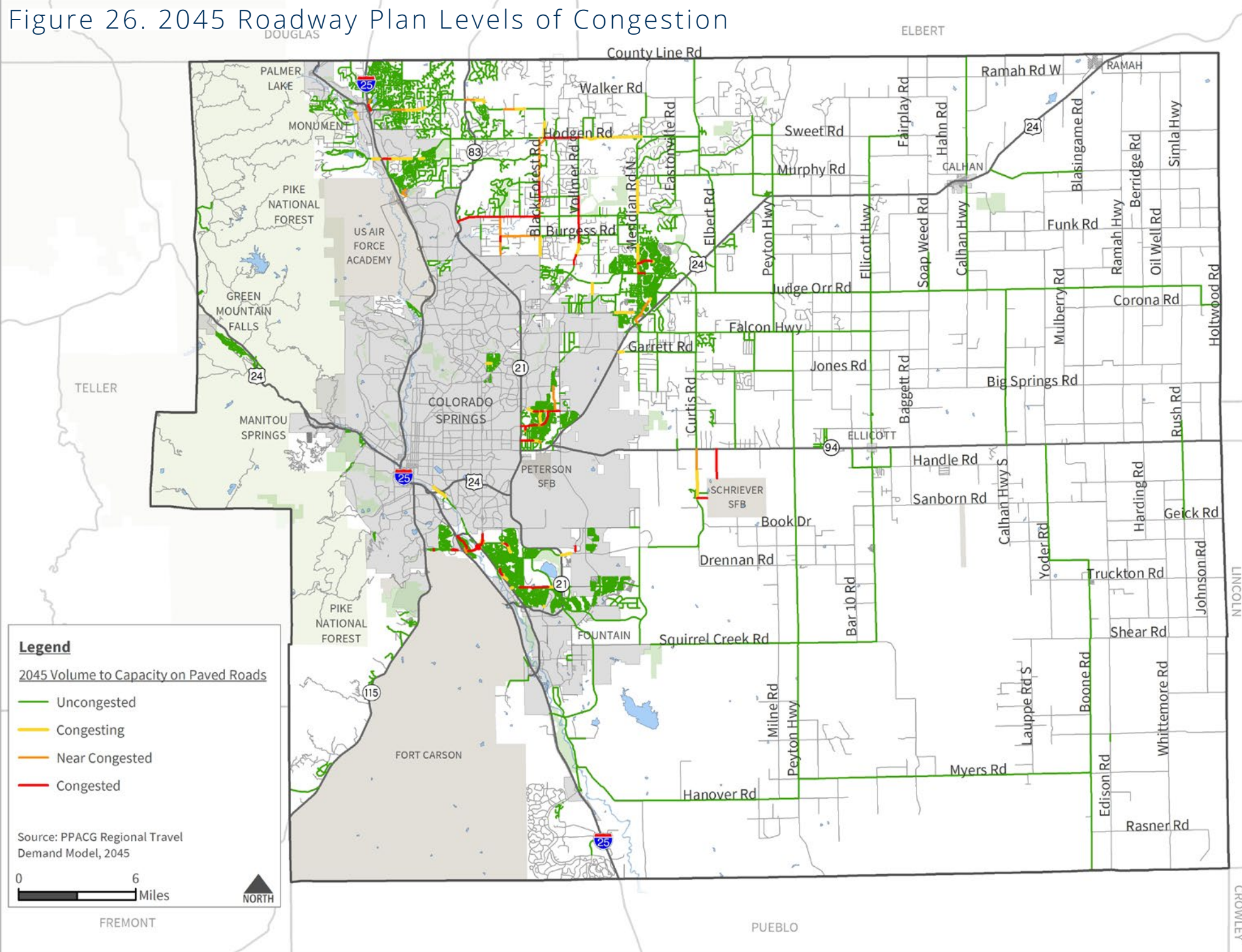


Figure 26. 2045 Roadway Plan Levels of Congestion (continued)

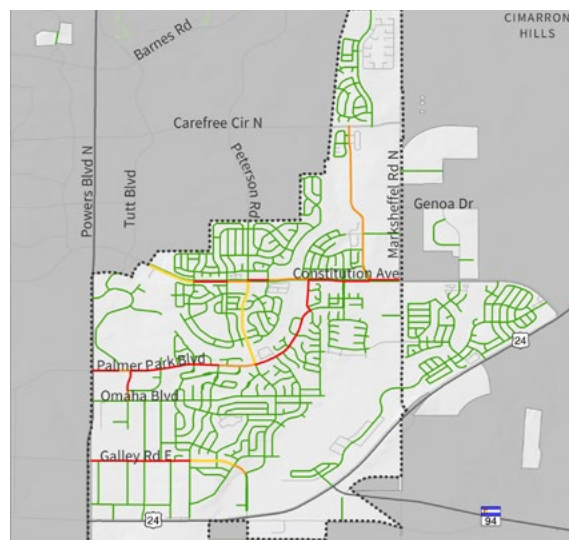
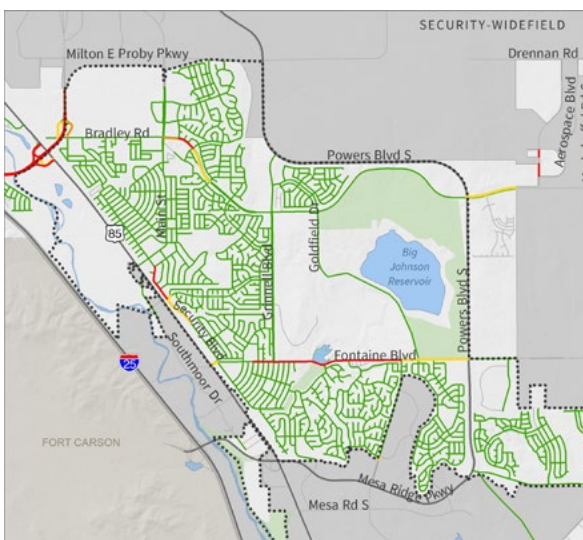
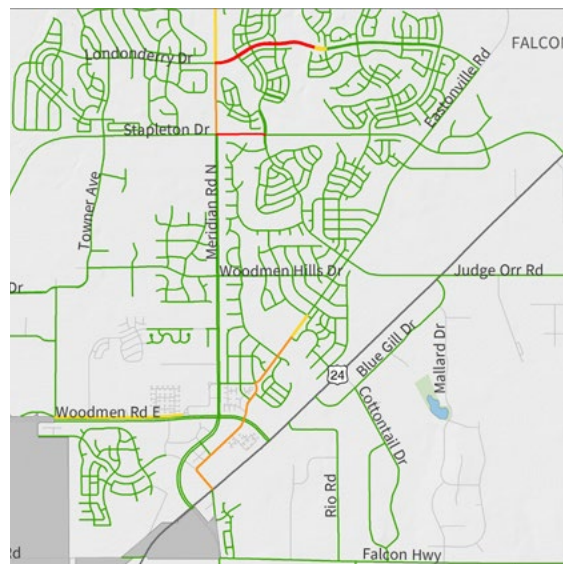
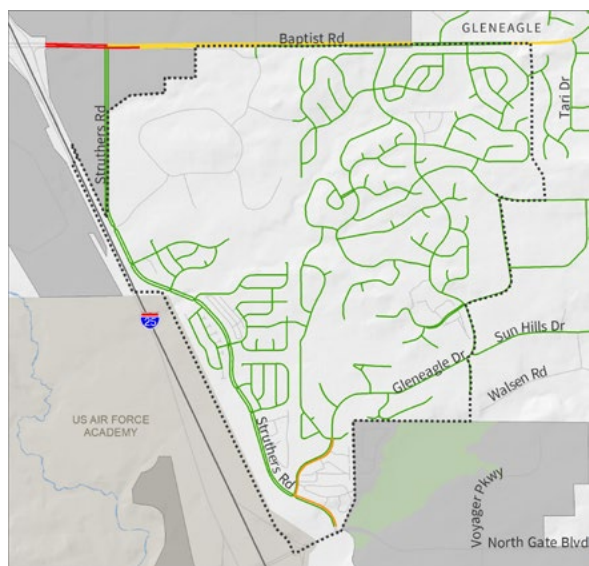


Figure 26, continued, 2045 Roadway Plan Levels of Congestion focus areas:

Gleneagle (upper left)

Falcon (upper right)

Security-Widefield (lower left)

Cimarron Hills (lower right)

Legend

2045 Volume to Capacity on Paved Roads

- Uncongested
- Congesting
- Near Congested
- Congested

Source: PPACG Regional Travel Demand Model, 2045

0 6 Miles



Improvement Categories

Nine categories of roadway improvements are shown in **Figure 27**, including bridge, interchange, and re-gravel projects and intersection improvements.

The following pages provide maps and describe in more detail the following project types:

- Rural County Road Upgrades
- Urban County Road Upgrades
- Gravel Road Upgrades (and Re-Gravel)
- County Road Capacity
- New Road Connections



Project Cost Estimates and Assumptions

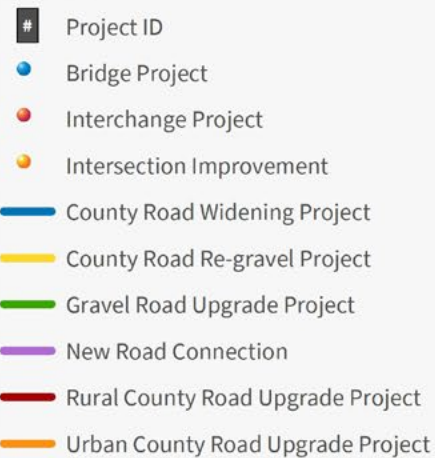
- Each project type assumed a 40 percent contingency.
- All projects assumed typical roadway improvement cost components on a percentage basis, including:
 - Mobilization and Traffic Control
 - Utilities
 - Construction Surveying
 - Right-of-Way
 - Water Quality
 - Temporary Stormwater Best Management Practices
 - Permanent Stormwater Stabilization
 - Clearing and Grubbing
 - Removals and Resets
 - Erosion Control
 - Contract Revisions
 - Design Fee
 - Environmental Clearance
 - Construction Engineering
- Projects on undisturbed land were assumed to have greater earthwork quantities (embankment material), roughly three times the amount, compared to projects on already established roads.
- Rural projects were assumed to have 25 percent of project length protected by type 3 guardrail.

- Projects where a road is already established assumed a full removal of existing pavement.
- Urban projects with curb and gutter assumed inlets on both sides of the street spaced at 300' intervals.
 - Stormwater pipe size was assumed to average 30" throughout the corridor.
- Intersection improvements (such as traffic signals or roundabouts) are not included in the cost estimates because the County's Road Impact Fee includes a separate pool for signalization and roundabouts.

Rural County Road Upgrades

These are projects to improve two-lane paved rural county roads by adding needed turn lanes and shoulders and improving alignments and drainage to bring them up to the county road standards. The per-mile cost estimates used for the non-Pikes Peak Rural Transportation Authority (PPRTA) 3 projects assume full removal of existing pavement and full reconstruction of the road. County Road Upgrades were evaluated for roads with functional classification of Major Collector; however, two upgrades of Rural Minor Collectors are listed and mapped because they are included in PPRTA 3. The two Rural Principal Arterial projects (both on Highway 105) include the initial two lanes of the ultimate 2-lane cross-section required for a Rural Principal Arterial (per the El Paso County ECM). The list of rural county road upgrade projects is shown in **Table 6** and on **Figure 28**.

Figure 27. MTCP Projects

 City Boundaries

Unincorporated El Paso County

Note: New alignments shown for new road connections are generalized and will be refined with project development. Functional classifications are subject to change through the MTCP update process.

A horizontal number line with tick marks at 0 and 6. The word "Miles" is written at the right end. The segment between 0 and 3 is shaded gray, and the segment between 3 and 6 is white.

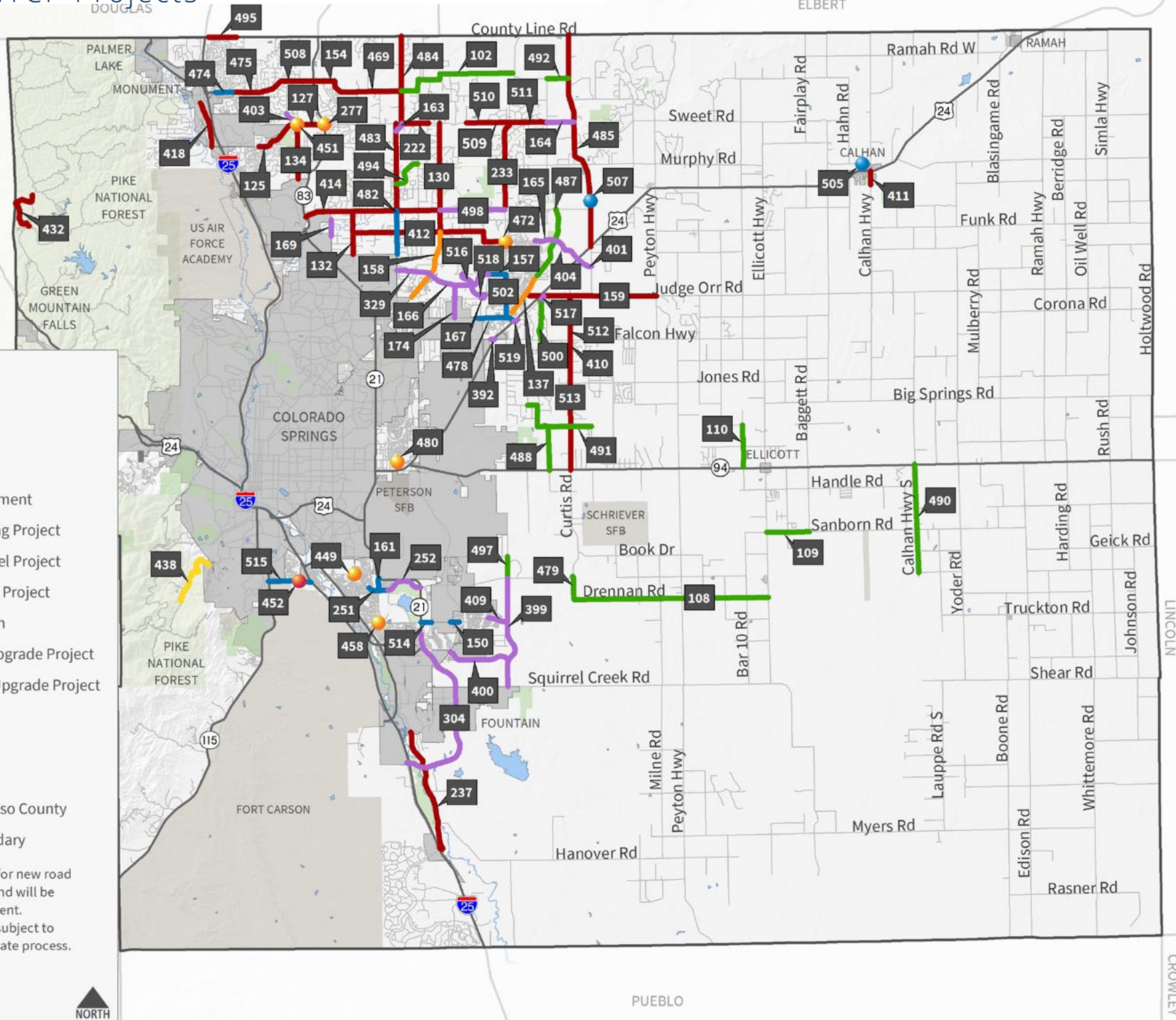
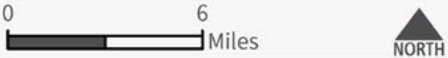
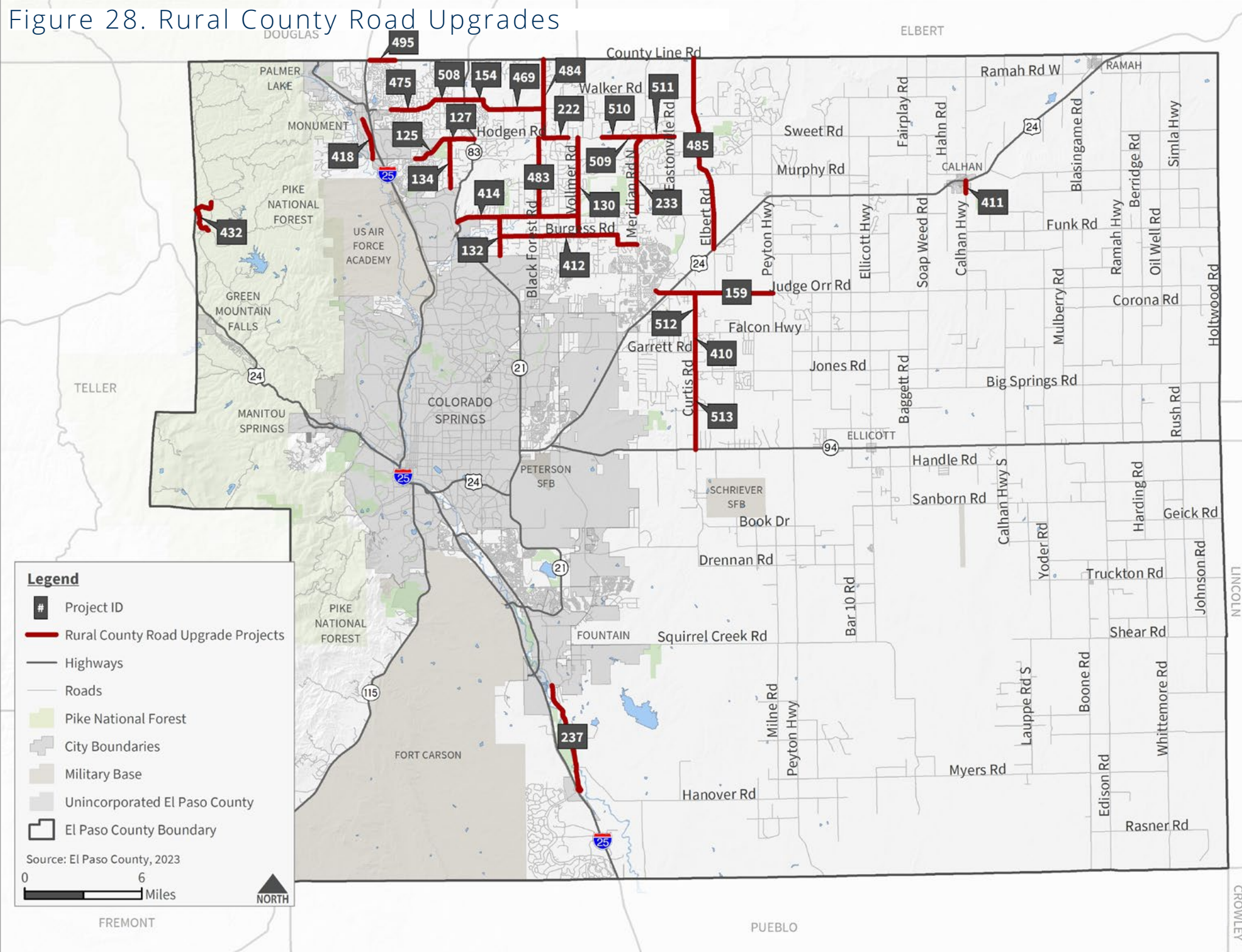




Table 6. Rural County Road Upgrades

ID	Name	From	To	Length (miles)	Existing Lanes	2045 FC	2045 Lanes	Cost
125	Baptist Rd	Desiree Dr	Roller Coaster Rd	2.2	2/4	Rural Minor Arterial/ Urban Minor Arterial	2/4	\$28,500,000
483	Black Forest Rd	Shoup Rd	Hodgen Rd	4.0	2	Rural Minor Arterial	2	\$28,600,000
484	Black Forest Rd	Hodgen Rd	County Line Rd	4.0	2	Rural Minor Arterial	2	\$28,600,000
412	Burgess Rd	Milam Rd	Meridian Rd (via Goodson/Rex)	7.5	2	Rural Minor Arterial	2	\$71,000,000
495	County Line Road	Monument Hill Rd	Vista Clara Ln	1.3	2	Rural Minor Arterial	2	\$9,200,000
410	Curtis Rd	Garrett Rd	Falcon Hwy	1.0	2	Rural Minor Arterial	2	\$10,000,000
512	Curtis Rd	Falcon Hwy	Judge Orr Rd	2.0	2	Rural Minor Arterial	2	\$10,900,000
513	Curtis Rd	SH 94	Garrett Rd	5.0	2	Rural Minor Arterial	2	\$27,100,000
485	Elbert Rd	US 24	County Line Rd	10.1	2	Rural Minor Arterial	2	\$71,500,000
475	Highway 105	Lake Woodmoor Dr	Martingale Rd	0.9	2	Rural Principal Arterial	2	\$35,000,000
508	Highway 105	Martingale Rd	CO 83	3.0	2	Rural Principal Arterial	2	\$65,000,000
127	Hodgen Rd	Roller Coaster Rd	SH 83	1.3	2	Rural Minor Arterial	2	\$8,900,000
222	Hodgen Rd	Black Forest Rd	Bar X	1.3	2	Rural Minor Arterial	2	\$21,000,000
509	Hodgen Rd	Winsome Wy	Meridian Rd	1.0	2	Rural Minor Arterial	2	\$10,600,000
510	Hodgen Rd	Goshawk	Winsome Wy	1.0	2	Rural Minor Arterial	2	\$5,600,000
511	Hodgen Rd	Meridian Rd	Eastonville Rd	1.7	2	Rural Minor Arterial	2	\$12,300,000
159	Judge Orr Rd	Eastonville Rd	Peyton Highway	6.1	2	Rural Minor Arterial/ Urban Major Collector	2	\$43,000,000
233	Meridian Rd	Latigo Blvd	Hodgen Rd	4.0	2	Rural Minor Arterial	2	\$28,200,000
132	Milam Rd	Old Ranch Rd	Shoup Rd	2.0	2	Rural Major Collector	2	\$22,700,000
411	N Calhan Hwy	US 24	Paint Mine Rd	0.6	2	Rural Minor Collector	2	\$7,100,000
418	Old Denver Rd	Sante Fe Ave	W Baptist Rd	2.1	2	Rural Major Collector	2	\$12,200,000
237	Old Pueblo Rd	Link Rd	I-25	6.0	2	Rural Minor Collector	2	\$57,000,000
432	Rampart Range Rd	FS 393	Loy Creek Rd	2.6	2	Rural Major Collector	2	\$4,700,000
134	Roller Coaster Rd	Old Northgate Rd	Hodgen Rd	2.5	2	Rural Minor Arterial	2	\$17,700,000
414	Shoup Rd	SH 83	Vollmer Rd	6.3	2	Rural Minor Arterial	2	\$72,000,000
130	Vollmer Rd	Burgess Rd	Hodgen Rd	5.0	2	Rural Major Collector	2	\$29,100,000
154	Walker Rd	SH 83	Steppler Rd	2.3	2	Rural Major Collector	2	\$13,500,000
469	Walker Rd	Steppler Rd	Black Forest Rd	2.1	2	Rural Major Collector	2	\$25,000,000
Rural County Upgrade Projects Total Cost: \$776,000,000								

Figure 28. Rural County Road Upgrades



Urban County Road Upgrades

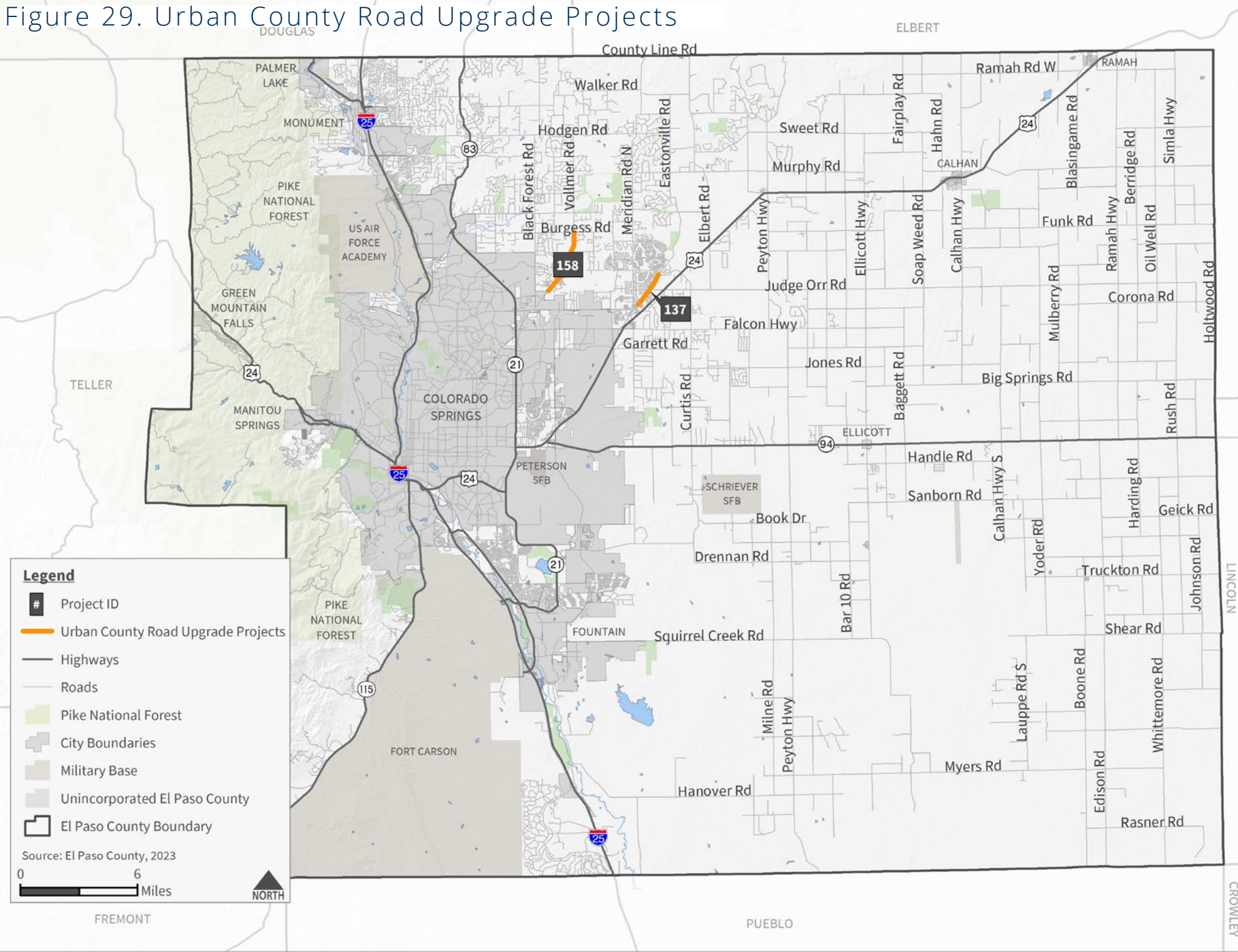
These are projects to improve county roads in the urban context by adding turn lanes, sidewalks, curb and gutter, and improving alignments and intersections to bring them up to the county road standards. The per-mile cost estimates used for the non-PPRTA 3 projects assume full removal of existing pavement and full reconstruction of the road. County Road Upgrades were evaluated for roads with functional classification of Major Collector and higher. The list of urban county road upgrade projects is shown in [Table 7](#) and on [Figure 29](#).

Table 7. Urban County Road Upgrades

ID	Name	From	To	Length (miles)	Existing Lanes	2045 FC	2045 Lanes	Cost
137	Eastonville Rd	McLaughlin Rd	Bandanero Rd	1.9	2	Urban Major Collector	2	\$15,000,000
158	Vollmer Rd	Marksheffel Rd	Burgess Rd	3.4	2	Urban Major Collector	2	\$48,000,000
Rural County Upgrade Projects Total Cost: \$63,000,000								



Figure 29. Urban County Road Upgrade Projects





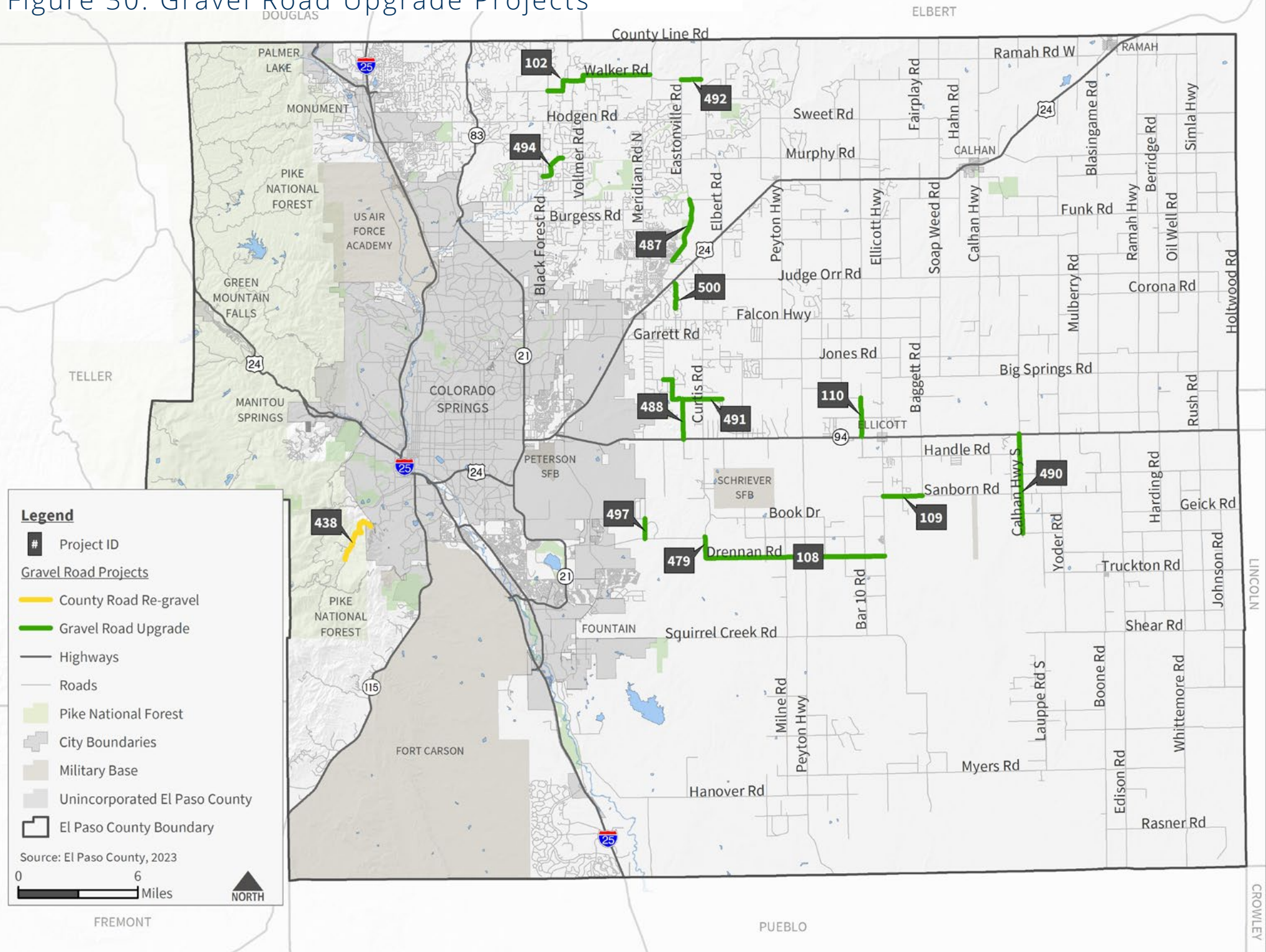
Gravel Road Upgrades

These are projects to upgrade gravel county roads to meet the county road standard for Rural Major Collectors. An evaluation was conducted for all gravel roads classified as Major Collector and higher to determine which roads should be paved by 2045. Those road segments that currently carry more than 300 ADT (and/or more than 500 ADT in 2045) were flagged for gravel road upgrades. The resulting list of gravel road upgrade projects is shown in **Table 8** and on **Figure 30**. El Paso County uses an asset management process separate from the MTCF to determine when Local and Minor Collector gravel roads should be paved and when gravel road maintenance is needed. One Local County Road Re-Gravel project is listed because it is included in PPRTA 3.

Table 8. Gravel Road Upgrades

ID	Name	From	To	Length (miles)	Existing Lanes	2045 FC	2045 Lanes	Cost
Gravel Road Upgrades								
488	Blaney/Davis/Hoofbeat	Hwy 94	Curtis Rd/Blaney Rd E	4.9	2	Rural Major Collector	2	\$23,700,000
490	Calhan Hwy	Hwy 94	Torrence Rd	5.0	2	Rural Major Collector	2	\$24,000,000
479	Curtis Rd	Drennan Rd	Bradley Rd	1.1	2	Rural Major Collector	2	\$5,300,000
491	Davis Rd	Curtis Rd	Kennedy Rd	1.0	2	Rural Major Collector	2	\$4,800,000
108	Drennan Rd	Curtis Rd	Ellicott Hwy	8.9	2	Rural Major Collector	2	\$42,900,000
487	Eastonville Rd	Stapleton Dr	Latigo Blvd	3.4	2	Rural Major Collector	2	\$16,200,000
492	Evans Rd	Eastonville Rd	Elbert Rd	1.0	2	Rural Major Collector	2	\$4,800,000
110	Log Rd	SH 94	90-Degree Bend	1.9	2	Rural Major Collector	2	\$9,300,000
500	Mallard Dr/Buckboard Dr	Falcon Hwy	Blue Gill Dr	1.9	2	Rural Major Collector	2	\$9,100,000
497	Meridian Rd	Bradley Rd	Drennan Rd	1.0	2	Rural Major Collector	2	\$4,900,000
109	Sanborn Rd	Ellicott Highway	Baggett Rd	2.0	2	Rural Major Collector	2	\$9,400,000
102	Walker Rd	Black Forest Rd	Meridian Rd	5.9	2	Rural Major Collector	2	\$28,400,000
494	Wildridge Rd	Black Forest Rd	Herring Rd	1.6	2	Rural Major Collector	2	\$7,900,000
County Road Re-Gravel								
438	Old Stage Rd	Mile Post 4.157	Mile Post 0.75	3.4	2	Rural Local	2	\$7,300,000
Gravel Road Upgrade Projects Total Cost: \$198,000,000								

Figure 30. Gravel Road Upgrade Projects





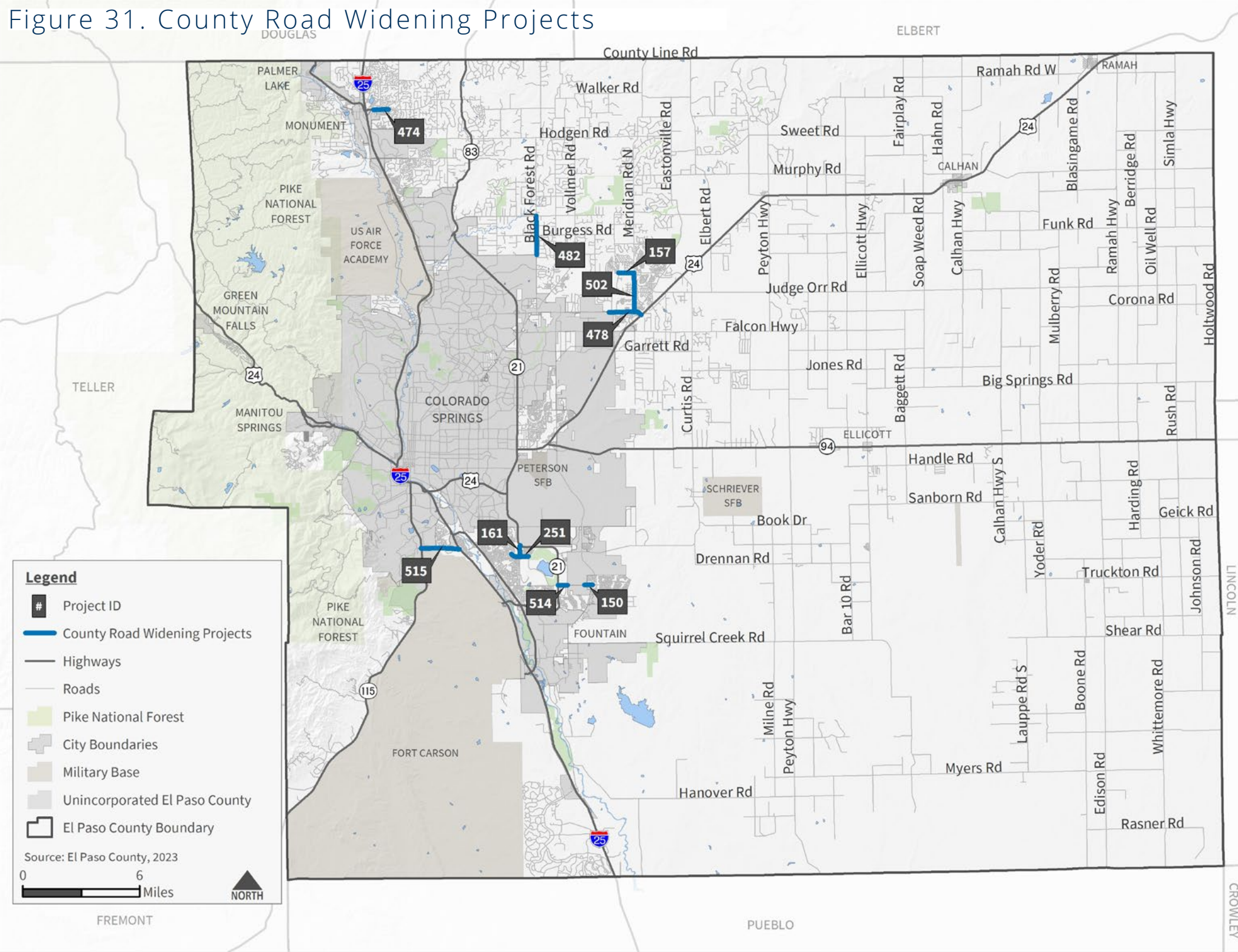
County Road Widening

Approximately 12 miles of County Roads are expected to require widening by 2045 to accommodate the future traffic forecasts. County Road Widening projects involve widening a 2-lane road to a 4-lane road, or in the case of Meridian Rd, Woodmen Rd, and Academy Blvd, widening a 4-lane road to a 6-lane road, and upgrades to meet the standards for the applicable functional classification. The county road widening projects are shown in **Table 9** and on **Figure 31**.

Table 9. County Road Widening Projects

ID	Name	From	To	Length (miles)	Existing Lanes	2045 FC	2045 Lanes	Cost
515	Academy Blvd	CO 115	I-25	2.0	4	Urban Expressway	6	\$62,500,000
482	Black Forest Rd	Old Ranch Rd	Shoup Rd	2.0	2	Rural Principal Arterial	4	\$14,300,000
251	Bradley Rd	Wageman Dr	Goldfield Dr	0.9	4/2	Urban Principal Arterial	4	\$22,400,000
150	Fontaine Blvd	Sleepy Meadow Dr (west of)	Marksheffel Rd	0.4	2	Urban Minor Arterial	4	\$7,700,000
514	Fontaine Blvd	Powers Blvd	Rolling View Dr (east of)	0.5	2	Urban Minor Arterial	4	\$9,000,000
161	Grinnell Blvd	Bradley Rd	Powers Blvd	0.6	2	Urban Minor Arterial	4	\$10,700,000
474	Highway 105	Jackson Creek Pkwy	Lake Woodmore Dr	0.8	2	Urban Principal Arterial	4	\$23,000,000
502	Meridian Rd	Woodmen Rd	Stapleton Dr	2.0	4	Urban Principal Arterial	6	\$38,000,000
157	Stapleton Dr	Towner Ave	Meridian Rd	0.8	2	Urban Principal Arterial	4	\$18,200,000
478	Woodmen Rd	Golden Sage	US 24	1.7	4	Urban Expressway	6	\$4,500,000
County Road Widening Projects Total Cost: \$210,300,000								

Figure 31. County Road Widening Projects





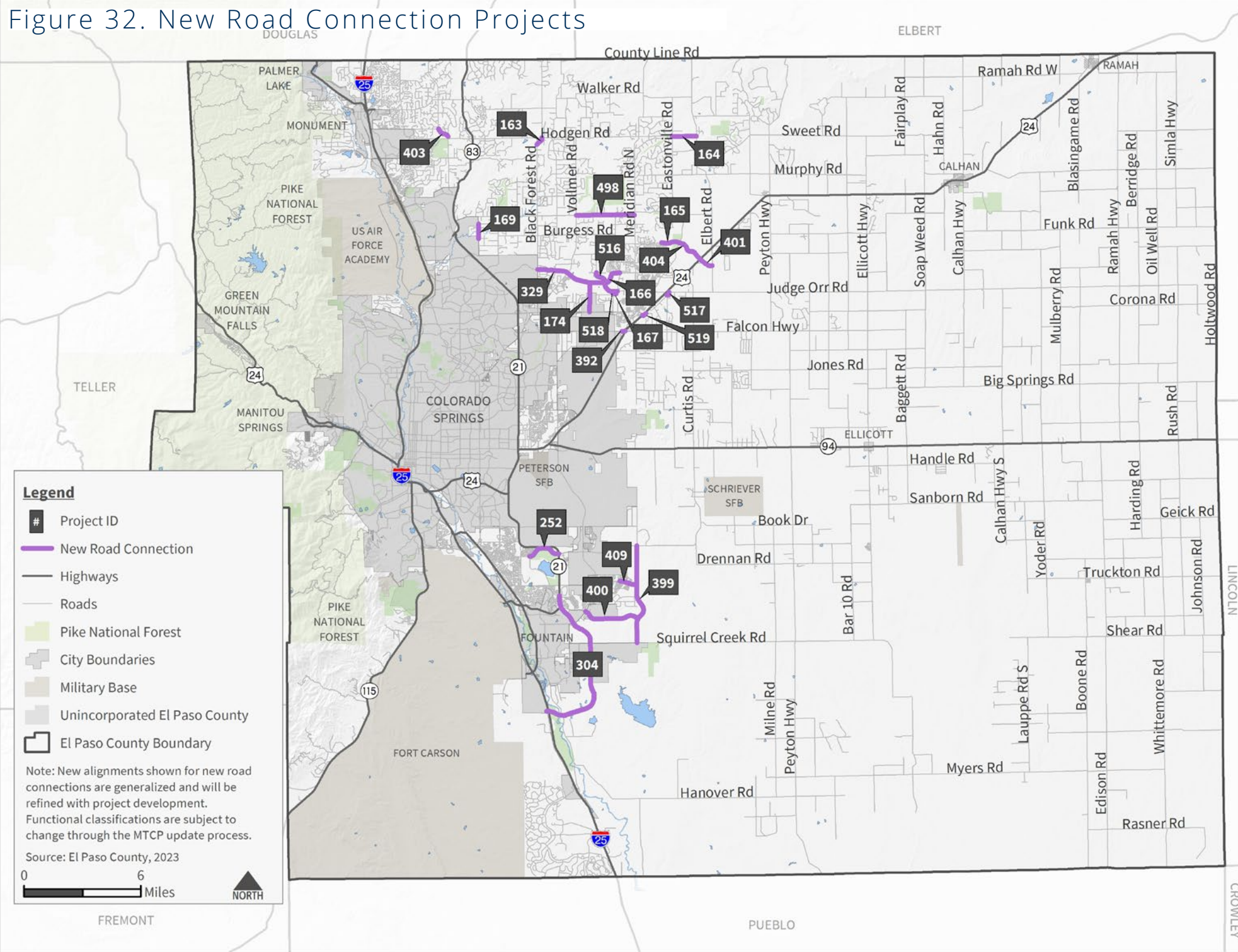
New Road Connections

Nearly 30 miles of new County Roads (classified as Major Collector and higher) are anticipated by 2045. Many of these projects are needed to support new development in the County. Two projects (163–Black Forest Rd and 403–Roller Coaster Rd) involve roadway realignments to eliminate offset intersections. New Road Connection projects involve construction of new roads on undisturbed land to meet the standards for the applicable functional classification. In several cases, as noted with an asterisk in [Table 10](#), the new road connection is anticipated to be built as half of the ultimate cross section. For example, Project 252 will include building the first two lanes of Bradley Road’s ultimate 4-lane Urban Principal Arterial cross-section. The iterative travel demand modeling process indicated that these roads will not need their full capacity until sometime after 2045. The list of new road connections are shown in [Table 10](#) and on [Figure 32](#).

Table 10. New Road Connections

ID	Name	From	To	Length (miles)	Existing Lanes	2045 FC	2045 Lanes	Cost
174	Banning Lewis Pkwy	Woodmen Rd	Stapleton Dr	1.5	N/A	Urban Principal Arterial	4	\$36,700,000
163	Black Forest Rd	Hodgen Rd	Black Forest Dr	0.5	N/A	Rural Minor Arterial	2	\$3,700,000
252	Bradley Rd *	Goldfield Dr	Powers Blvd	1.8	N/A	Urban Principal Arterial	2	\$23,000,000
392	Dublin-Falcon-HWY-4	Falcon Highway	Tamlin Rd	0.2	N/A	Rural Major Collector	2	\$1,200,000
409	Fontaine Blvd Extension *	Mumford Dr	Meridian Rd Extension	0.9	N/A	Urban Minor Arterial	2	\$18,200,000
164	Hodgen Rd	Eastonville Rd	Elbert Rd	1.2	N/A	Rural Minor Arterial	2	\$9,900,000
169	Howells Rd	Mountain View Dr	Crosslen Ln	0.8	N/A	Urban Major Collector	2	\$11,200,000
399	Meridian Rd *	Squirrel Creek Rd	Bradley Rd	5.2	N/A	Rural Minor Arterial	2	\$41,500,000
400	Mesa Ridge Pkwy *	West of Williams Creek	Marksheffel Rd	2.9	N/A	Urban Minor Arterial	2	\$58,900,000
165	Rex Rd *	Rainbow Bridge Dr	Eastonville Rd	0.9	N/A	Urban Minor Arterial	2	\$19,000,000
401	Rex Rd	US 24	Elbert Rd	0.7	N/A	Rural Minor Arterial	2	\$5,900,000
404	Rex Rd *	Eastonville Rd	US 24	1.5	N/A	Urban Minor Arterial	2	\$29,100,000
403	Roller Coaster Rd	Hodgen Rd	Higby Rd	0.7	N/A	Rural Major Collector	2	\$4,100,000
498	Shoup Rd	Vollmer Rd	Meridian Rd	3.0	N/A	Rural Minor Arterial	2	\$18,600,000
166	Stapleton Dr	west of Vollmer Rd	Towner Ave	3.2	N/A	Urban Principal Arterial	4	\$77,500,000
329	Stapleton Dr/ Briargate Pkwy	Black Forest Rd	west of Vollmer Rd	1.3	N/A	Urban Principal Arterial	4	\$38,000,000
167	Tercel Dr	Falcon Meadow Blvd	Towner Ave	0.2	N/A	Urban Local	2	\$2,300,000
304	South Powers Ext	Mesa Ridge Pkwy	I-25	9.0	N/A	Expressway	4	\$772,000,000
516	Woodmen Hills Rd	Raygor Rd	Towner Ave	1.7	N/A	Urban Major Collector	2	\$25,100,000
517	Blue Gill Dr Ext.	Blue Gill Dr	Judge Orr Rd	0.3	N/A	Rural Major Collector	2	\$1,200,000
518	Falcon Meadows Ext	Tercel Dr	Woodmen Hills Rd	0.1	N/A	Urban Local	2	\$2,100,000
519	Rio Rd	Woodmen Rd	Rio Lane	0.2	N/A	Rural Major Collector	2	\$1,000,000
New Road Connection Projects Total Cost: \$1,200,200,000								

Figure 32. New Road Connection Projects





Coordination with Other Jurisdictions

In a county as large as El Paso County, the transportation network includes roadways and related facilities owned, operated, and maintained by multiple jurisdictions. Unseen to the typical traveler, however, is that jurisdictions are working together to improve safety, maintain existing facilities, and enhance the overall transportation network with future projects. Partnerships, collaboration, and coordination are essential. On a regular basis, El Paso County staff coordinate with the following agencies and municipalities to ensure transportation plans and projects meet the County's needs.

Colorado Department of Transportation

The regional transportation network includes state highways that are under CDOT jurisdiction, including the following:

- I-25
- US 24
- CO 16, 21, 83, 85/87, 94, and 115

In transportation, El Paso County and CDOT coordinate on funding, timeline, design standards, access permits, and regional priorities. A current example is the South Powers Extension project, an ongoing collaborative study between the County, CDOT, the cities of Colorado Springs and Fountain, and stakeholders to recommend an alignment to extend S. Powers Blvd (CO 21) from Mesa Ridge Pkwy to I-25.

Current CDOT emphasis is on projects that reduce GHG emissions, such as more multimodal and active transportation projects and fewer roadway capacity projects. CDOT has also modified their project planning approach and now uses a shorter timeframe, a 10-year plan, to prioritize transportation projects. When projects cross jurisdictional boundaries, partnering entities collaborate to plan and complete projects. CDOT's Updated [10-Year Plan](#) for the PPACG metropolitan planning organization (MPO) Area for fiscal years 2023-2032 includes roadway and transit projects.

Larger Municipalities: Colorado Springs and Fountain

When adjacent municipalities update their transportation planning documents, El Paso County is a stakeholder and provides input, as evidenced by participation in the recent development of both city's plans: [ConnectCOS](#) and the [Fountain Transportation Master Plan \(TMP\)](#). Partnerships are effective in providing a robust transportation network in the region that, for example, provide consistency in roadway functional classification, connected trails, or access to public transportation. A map showing the [ConnectCOS Major Thoroughfares Plan](#) is available [via this link](#). The [City of Fountain's Overall Network/Functional Classification Map](#) is provided on Figure 6.4 in the TMP, available [via this link](#).





Multimodal Plan

A balanced transportation system that provides a safe and convenient environment for all travel modes is an important element in the quality of life that makes El Paso County attractive to current residents, tourism, employers, and people considering relocating to the area. The development patterns in El Paso County rely on private motor vehicles as the dominant means of travel for residents, workers and visitors, thus the preceding chapters have focused primarily on that travel mode. However, for various reasons, people are increasingly seeking more travel options to fulfill their individual mobility or recreational needs and desires.

Convenient and safe bicycle and pedestrian facilities provide opportunities for non-motorized transportation and recreation-oriented use of the transportation system. Transit services also provide mobility options to those who may not have availability of, or access to, private vehicles. This section presents how the MTCP plans for bicycle/pedestrian and transit modes of travel will combine with the roadway network to enhance transportation facilities, services, and connections in El Paso County.

Pedestrian, Trails, and Bicycle Facilities

Active transportation includes modes of travel such as pedestrians walking, bicycles and e-bikes, scooters, motorized wheel chairs, and horses. The active transportation network

in unincorporated El Paso County includes sidewalks, trails, and multi-use shoulders.

In activity centers such as unincorporated communities, employment centers, and school or medical campuses, sidewalks are important where more pedestrians are likely and separation from vehicle traffic is needed. Sidewalk and trail projects improve safety for foot and non-motorized modes of travel and for people with disabilities by closing gaps, adding crossings, and connecting to the larger network. In addition to serving safety and emergency functions, wide multi-use shoulders provide a space for bicyclists separate from the vehicle travel lane.

Well in advance of a road or bridge design and construction, recommendations from the MTCP address and prioritize community needs such as road improvements to accommodate new development, connections between rural and urban areas, right-of-way preservation to accommodate long-range needs, and options to serve other means of travel such as walking and biking. Multimodal projects may include the following:

- Construction of new sidewalks, multi-use paths, accessibility projects for people with disabilities, or trails
- Improvements to existing trails
- Grade separations to provide safer crossings
- Addition of multi-use shoulders

[The El Paso County Parks Master Plan \(Parks Master Plan\)](#) is a guiding document that works with other County plans to strategize and provide outdoor recreation opportunities such as parks and trails in addition to the long term protection of open space. Like the MTCP process but focused on parks and trails, the Parks Master Plan is updated regularly to comprehensively address the needs of parks, trails, and open space throughout El Paso County. As the guiding document to allocate resources and identify trail projects for the next five to ten years, the Trails Master Plan should be consulted.

Multimodal Elements of Roadway Projects

The inclusion of multimodal elements depends on the roadway's functional classification. Table 2 and Table 3 show the shoulder and sidewalk widths for each functional classification in the rural and urban context. [Section 2.2.4 of the County's ECM](#) provides cross-section diagram of roadways and show the placement of sidewalks and shoulders where appropriate. MTCP project types will also improve the active transportation network, as indicated by the following examples:

- A **County Road Upgrade** project may add paved multi-use shoulders, improve intersections, add



- multimodal features such as sidewalks, and upgrade to current ADA standards.
- **Intersection Improvement** projects address safety for multimodal travel and people with disabilities with improvements such as crosswalks, curb ramps, and pedestrian signals that are also audible.
- A **Paving/Repaving** project will provide a faster, smoother ride for bicyclists, easier travel for people with disabilities, and eliminate dust that would be present on a gravel road.
- A **New Road Connection** project might include multi-use shoulders or trails for bicyclists and sidewalks for pedestrians and people with disabilities.

American with Disabilities Act

In 2019, El Paso County adopted an [Americans with Disabilities Act \(ADA\) Transition Plan](#) to identify physical obstacles in the public realm that could impede persons with disabilities and to begin planning needed steps and a timeline to address such obstacles. Physical obstacles such as gaps in sidewalks, curbs without ramps, and street crossings without visual or audible aids could affect a person's ability or level of comfort in travel, thus becoming a barrier to their mobility. The ADA Transition Plan also addresses the County's plan to include ADA compliance in a variety of DPW project types – capital projects, pavement management, and developments – as well as responding to citizen requests. An additional strategy is the pursuit of external grant monies

to fund additional accessibility projects. In recent years, the Federal government has increased its emphasis on non-motorized projects and has supported that focus with additional funds made available for grants.

In 2020, El Paso County received two grants for almost \$4.675 M to assess ADA infrastructure and compliance and to design and construct ADA improvements. ADA infrastructure includes curb ramps, sidewalks, crossings, striping, signals and adequate ROW, etc. Each of these components is made up of attributes, such as slope, width, height, type of material, signal crossing, and state of repair. The ADA projects resulted in an inventory of the important attributes of ADA infrastructure and facilitated a determination of compliance with the updated engineering standards. The inventory, completed in Spring 2023, measured attributes for more than 6400 curb ramps, 525 miles of sidewalks, curbs and gutters, and more than 525 intersections and crosswalks. DPW is now in the process of implementing improvements. The County invested \$23.34M to upgrade 24 pedestrian crossings with Manual of Uniform Traffic Control Devices (MUTCD) compliant signals and audible countdown pedestrian signals, ADA improvements, and other safety features at high priority pedestrian crossing locations.

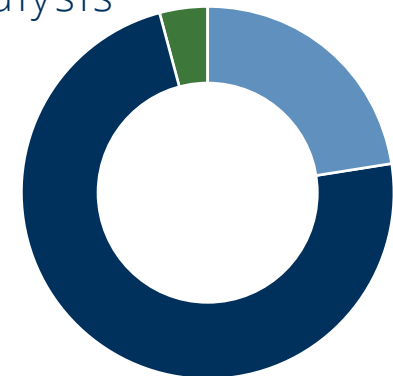
The County will continue working on a variety of projects in the unincorporated area within the MPO boundary (per the grant requirements) to carry out the ADA Compliance Program. In addition to sidewalk and curb improvements, ADA elements of

roadway projects may include pedestrian crossings, signals, and removal of other barriers to travel.

Figure 33 shows a sidewalk gap analysis of targeted populated centers within the unincorporated portion of the County. This map, along with the zoomed-in maps provided on the following pages, further informs the County's multimodal network planning.

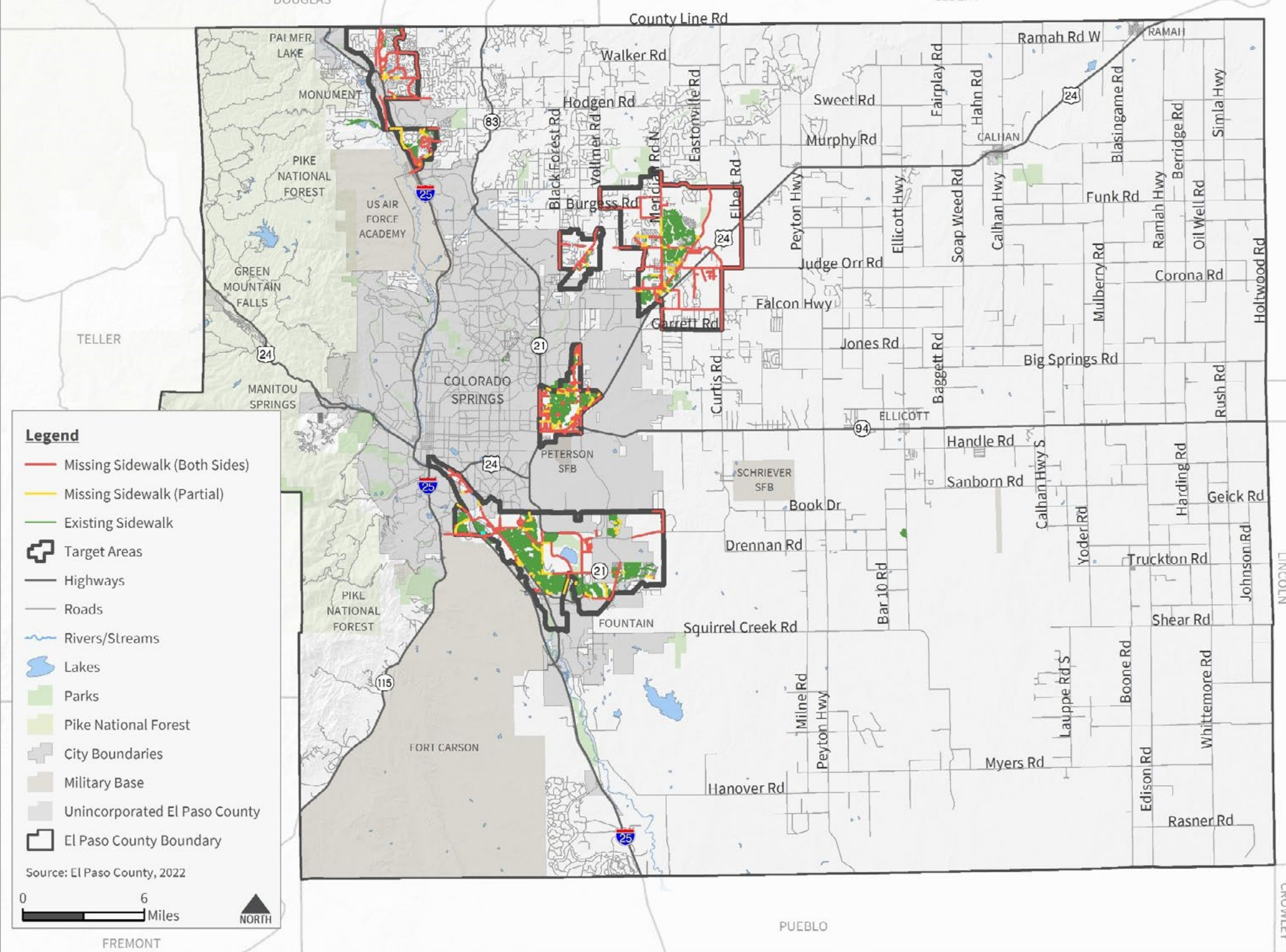
Within the areas shown, there are 565 miles of sidewalk. Of the 206 miles of missing sidewalk, 31 miles represent the need is on one side of the roadway. Constructing or repairing sidewalks to close these gaps will improve the travel experience for pedestrians and those who travel by means such as wheelchair and other mobility aids.

Targeted Sidewalk Gap Analysis



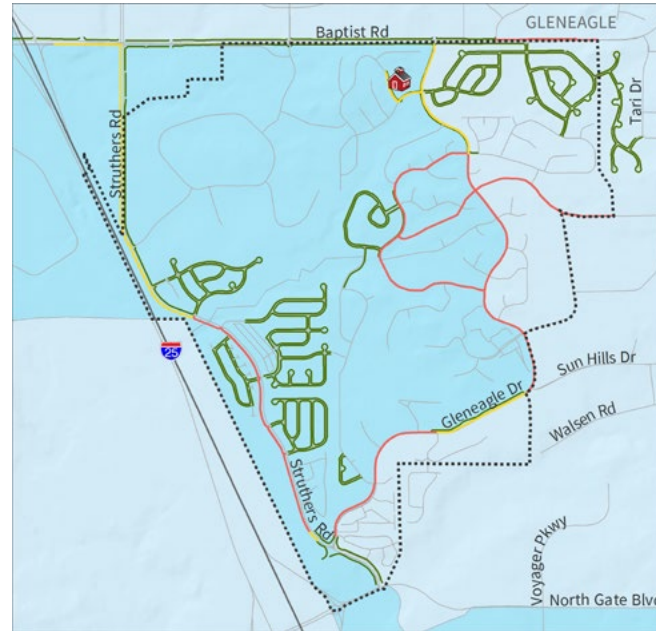
- 565 Miles: Existing sidewalk
- 175 Miles: Missing on both sides
- 31 Miles: Missing on one side

Figure 33. Unincorporated El Paso County Targeted Sidewalk Gap Analysis



The following four subareas were selected for sidewalk analysis. The fifth map shows the Woodmoor area, a CDP north of Monument. The analysis evaluated roadways with a functional classification of Urban Collectors and higher, as well as local roads near schools.

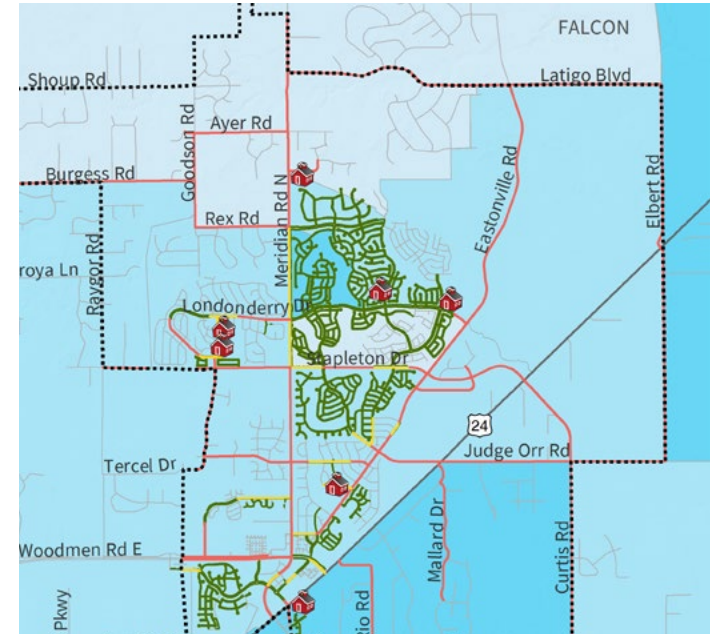
Green lines indicate sidewalks are present on both sides of the road, while red lines indicate sidewalks are missing on both sides. A yellow line represents sidewalk gaps on one side or the other. Projects that close sidewalk gaps in these areas are good candidates for future grant funding as they improve safety for those using the active transportation network. Blue shading represents the presence of a vulnerable population group, such as youth, older adults, people with disabilities, minorities, low-income, or zero-vehicles households. Darker blue shading represents two or more groups.



Gleneagle

Gleneagle is a CDP in unincorporated El Paso County. Primarily residential land use, Gleneagle is also home to schools, businesses, and retail. The 2020 US Census population was approximately 6,600.

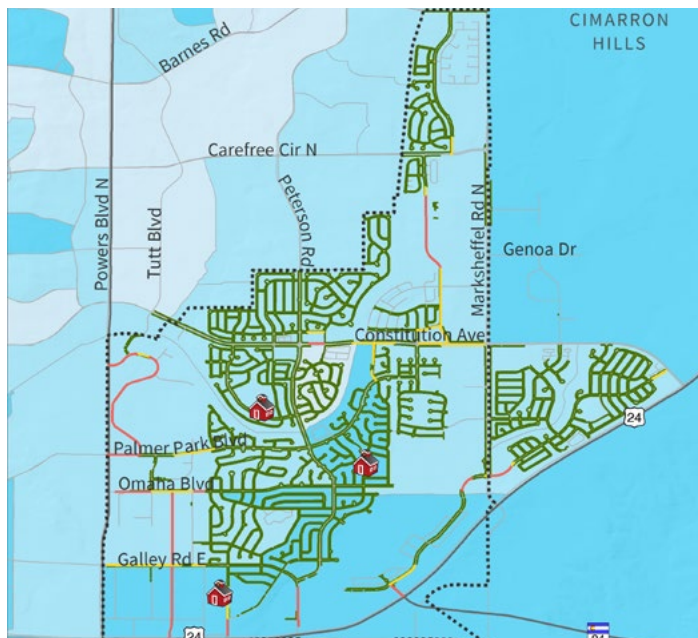
The origin/destination (O/D) analysis showed that nearly 200 of 6,500 vehicle trips were less than 1 mile in length, and about 1,700 trips were 1 to 3 miles in length. These short distances represent vehicle trips that could potentially be converted into bike or pedestrian trips if travelers perceive the active transportation network to be “comfortable” for their needs. Among the roadways that significantly serve the area but lack sidewalks on both sides are parts of Gleneagle Dr, Struthers Rd, and Rangely Dr.



Falcon

Falcon is an unincorporated community that has experienced significant growth in the past two decades. Though primarily residential, the community offers significant commercial and retail services in proximity of Woodmen Rd and US 24.

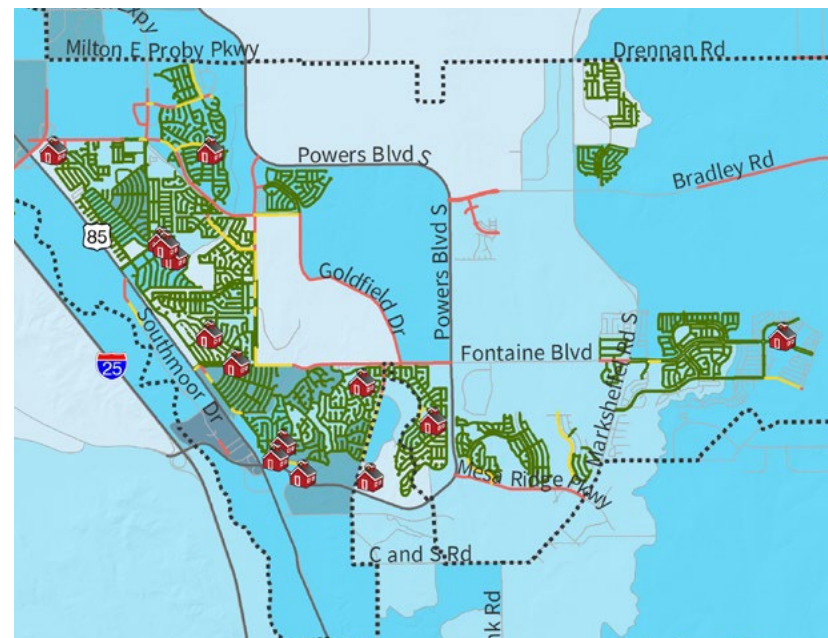
The O/D analysis showed that the majority of the 38,500 vehicle trips that originate daily in Falcon end in these commercial areas. Approximately 1,200 trips are less than 1 mile in length and more than 7,300 trips are 1 to 3 miles in length.



Cimarron Hills

This CDP in unincorporated El Paso County is an enclave within the city limits of Colorado Springs. The west boundary of Cimarron Hills is CO 21, a commercial corridor. Peterson Space Force Base lies to the south. Portions of the east boundary reach US 24 as well as Markscheffel Rd and slightly beyond. The 2020 US Census population was 19,311. In recent years, the County has invested in improvements to the active transportation network in Cimarron Hills. Remaining sidewalk gaps exist primarily in the light-industrial commercial areas east of CO 21.

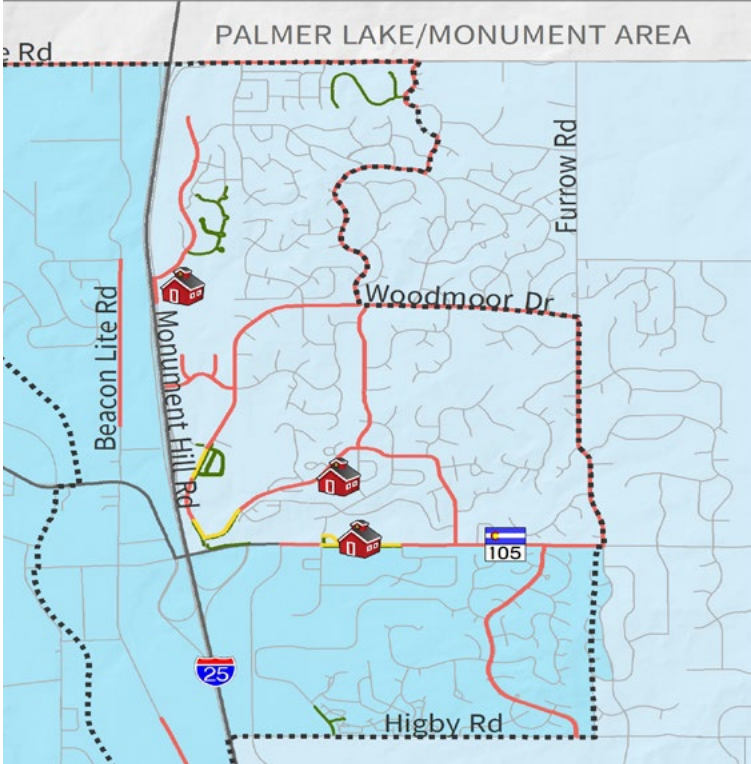
The O/D analysis of almost 33,000 vehicle trips that originate in Cimarron Hills every day showed that approximately 1,200 are less than 1 mile in length and approximately 8,000 trips are 1 to 3 miles in length.



Security-Widefield

Security-Widefield is another CDP area of unincorporated El Paso County. The 2020 US Census population was 38,639.

The O/D analysis in Security-Widefield showed a high concentration of vehicle trips ending in the commercial area along US Hwy 85 and in the areas in proximity to Hancock Expressway and Bradley Rd. Of nearly 65,000 vehicle trips analyzed, approximately 3,000 were less than 1 mile in length and about 17,5000 were 1 to 3 miles in length.



Woodmoor

Woodmoor is a CDP in unincorporated El Paso County, adjacent to the Town of Monument. Woodmoor is a residential area with a 2020 US Census population of 9,536. Roadways that lack sidewalks on both sides include Woodmoor Dr, White Fawn Dr, Lake Woodmoor Dr, and Monument Hill Rd.



Transit Plan

Figure 14 on page 26 shows a map of transit services within El Paso County. While not a provider of transit services, El Paso County supports regional goals to address the public transportation needs of its residents. While the County recognizes transit providers typically align fixed-route service areas with good rider demand, there could also be opportunities for demand-responsive or flex route services for residents in unincorporated El Paso County.

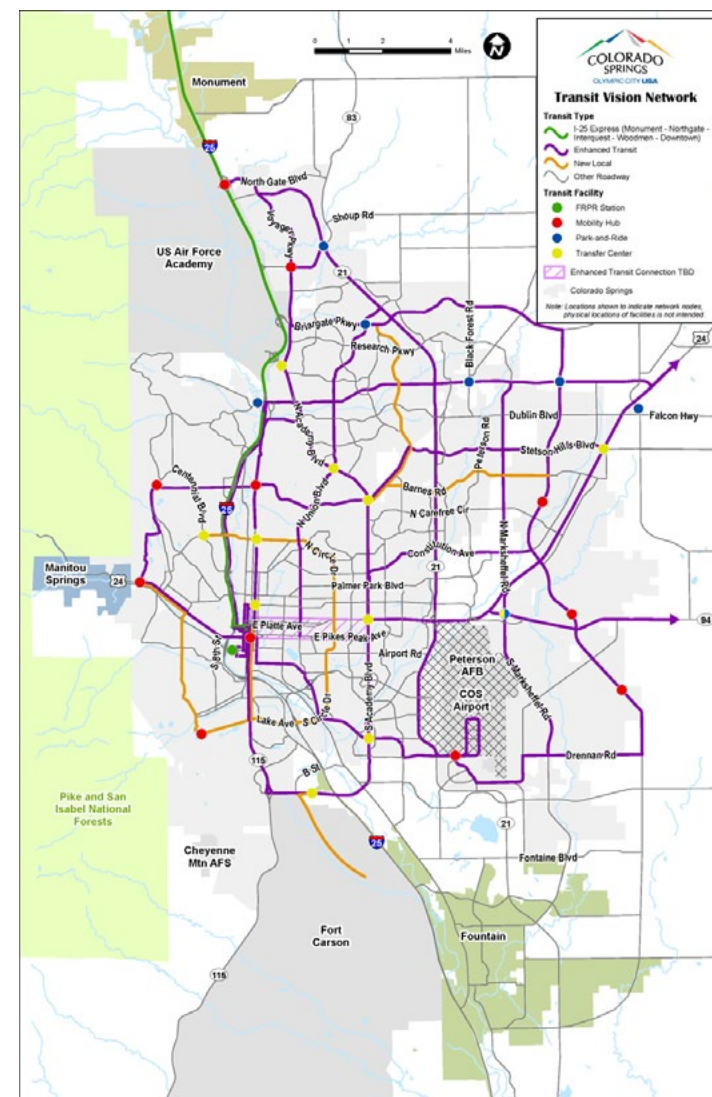
The County is open to considering partnering on projects for routes, studies, or transit alternatives that serve its residents in unincorporated areas. One example is the Academy Blvd “Enhanced Transit Corridor Implementation Plan,” which if defined as the full Academy Blvd corridor from Academy Blvd/Voyager Pkwy south to the Pikes Peak State College (PPSC) Centennial campus, includes a segment that is in unincorporated El Paso County. Another example is the financial partnerships to construct park-n-rides near municipal/County boundaries, such as the one DPW recently completed in the Falcon area.

Local Transit Providers

In 2023, the City of Colorado Springs adopted ConnectCOS, the multimodal transportation plan that addresses citywide and regional mobility issues. The Transit Vision Network map in **Figure 34** shows how future expansion of MMT’s service area would connect public transportation with unincorporated El Paso County. The red dots represent mobility hubs that would provide access and facilitate connections along the municipal border. Some MMT routes serve portions of the unincorporated County, as shown on [MMT’s webpage \(link\)](#) and [route map \(link\)](#).

Similarly, Fountain Municipal Transit offers connections between its municipal boundaries with unincorporated El Paso County and the MMT service area, as shown on the [Fountain Municipal Transit schedule \(link\)](#) and [route map \(link\)](#), shown in **Figure 35**. Other local service providers include private transportation services and local human services.

Figure 34. ConnectCOS Transit Vision Network (2023)



Source: [City of Colorado Springs website](#)

Regional Transit Providers

[CDOT's Bustang](#) and Outrider routes provide interregional bus service to other metropolitan regions across the state and to rural areas. The Bustang provides daily services with stops at the Tejon park-and-ride, the downtown Colorado Springs terminal, and Woodmen and Monument park-and-rides. The CDOT Outrider route between Lamar and Colorado Springs includes a stop in Fountain.

Front Range Passenger Rail (FRPR)

In 2021, the Colorado Legislature established the [Front Range Passenger Rail District](#) as an independent government agency tasked with all steps needed to design, finance, construct, operate and maintain a passenger rail system along Colorado's front range, connecting Fort Collins to Pueblo with stops in Denver, Colorado Springs, and other cities in between.

The current plan focuses on existing rail alignments in order to introduce FRPR service more economically and with less environmental disruption than building a new rail line. Therefore, as shown in [Figure 36](#), in El Paso County, the only alignment under consideration is the consolidated main line (CML) jointly operated by Burlington Northern-Santa Fe (BNSF) and Union Pacific Railroad (UPRR). An inter-city rail has fewer stops than commuter rail.

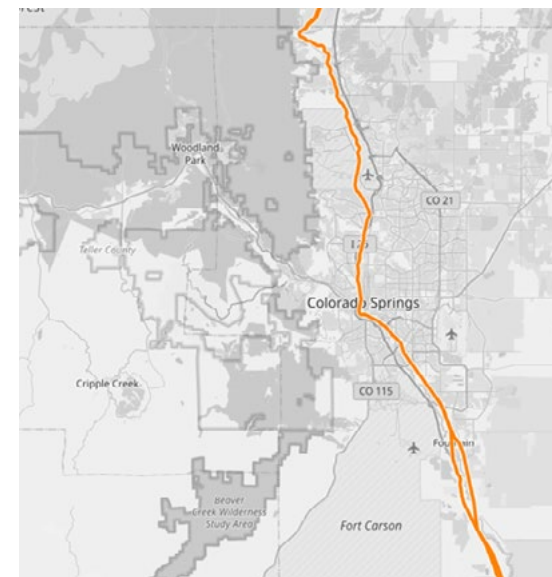
At this time, the FRPR study recommends one station in El Paso County; Colorado Springs was selected. Following that decision, MMT completed a Colorado Springs Passenger Rail Station Location Study in December 2022. The study, which evaluated 11 sites against seven criteria, recommends the station be in downtown Colorado Springs, immediately south of the Olympic & Paralympic Museum.

Figure 35.
Existing
Fountain
Municipal
Transit Service
Map



Source: FountainColorado.org

Figure 36. FRPR
Alignment Under
Consideration



Source: openrailwaymap.org

Freight Plan

Beyond the travel needs of El Paso County residents, the MTCP recognizes the importance of moving freight and goods, whether by truck and/or rail, to the regional economy. The ability to transport freight and goods to, from, and within the region is another important purpose of El Paso County's transportation network. The freight network includes truck, rail, and air modes of travel as well as the interconnections between modes. The [PPACG Regional Freight Study](#) was recently finalized. The study's recommended actions include El Paso County as a partner entity or advisory stakeholder for additional freight planning efforts, including a Freight Plan, a Regional Truck Parking Study, a freight working group, and regional bridge improvements.

Rail

With the exception of the Manitou Pikes Peak rail line, which provides tourism service to Pikes Peak, rail corridors in El Paso County essentially parallel the I-25 corridor and are used by both BNSF and Union Pacific (UP). Rail is typically used to ship heavy commodities in bulk, such as fertilizers or lumber, which are inputs to the local economy. The rail to truck to end use connection relies on the road network for delivery to the commodities' final destination. El Paso County has been significantly involved in the planning of the [Southern Colorado Rail Park \(SCRIP\)](#), a planned industrial park and freight hub that is planned to be located on the east side of Fort Carson with convenient access to I-25 and connecting routes.

Air

The freight study reports that of seven airports in El Paso County, only the Colorado Springs Municipal Airport handles freight traffic. When compared to truck and rail, the volume of freight handled by air is significantly less and tends to be smaller and lighter weight. The roadway network serves the delivery of inbound air freight to destinations throughout the County.



Truck

Figure 37 shows the two levels of truck routes in the County. Primary routes are federal and state roads that act as through roads, used by freight haulers with no origin or destination in El Paso County. The primary truck routes include I-25, US 24, CO 83, and CO 21. The secondary routes serve trucks with an origin or destination, often within the more urbanized areas of the county. Unlike the City of Colorado Springs, El Paso County does not prohibit trucks from using roads that are not identified on the truck route map. Trucks may legally use any road in the County that is not weight, height, or width restricted. The network of secondary truck routes, shown in blue, includes arterials under the County's jurisdiction:

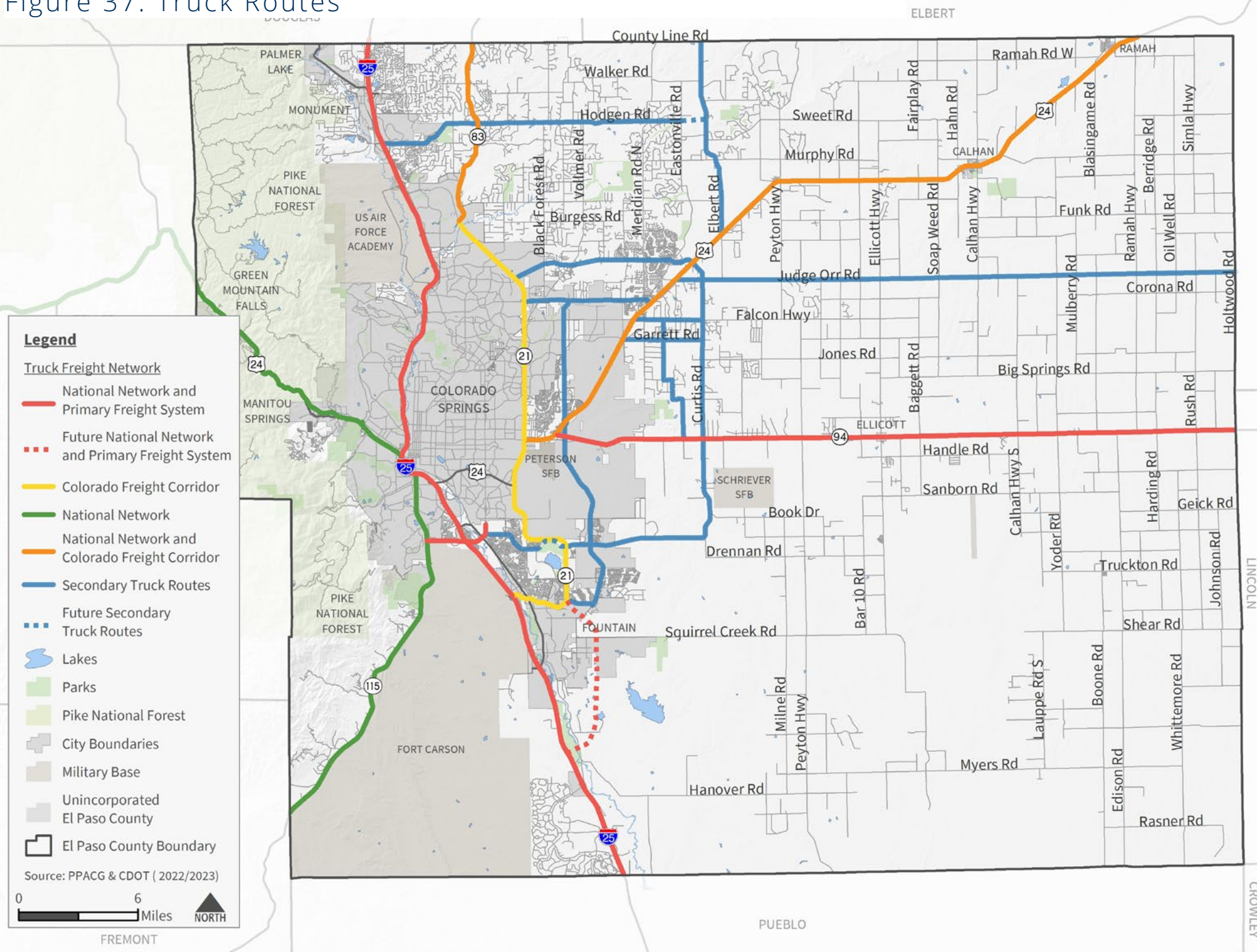
- North-South: Elbert Rd, Curtis Rd, Segments of Marksheffel Rd
- East-West: Bradley Rd, Hwy 105, Woodmen Rd, Briargate-Stapleton

Table 11 identifies projects that will continue to improve the network of roads for freight haulers.

Table 11. Improvements to Regional Freight Network

Roadway in Freight Network	Benefit
Project Type	
Bradley Rd (Grinnell to Wageman Dr) Widen from 2 to 4 lanes	Improvement to complete the loop around Colorado Springs.
Hwy 105 (I-25 to CO 83) Improvements	A northern connection from I-25 to CO 83. Also, an important redundancy project for incident management on both state highways.
Curtis Rd (US 24 to Bradley, COS limits) Improvements	Part of the loop around Colorado Springs. The roads need to be brought up to current standards as the rural road has no shoulders and needs intersection safety, Improvements and drainage improvements.
Blaney Rd/Davis Rd/ Hoofbeat Rd Pavement Project	This project supports the regional use of the landfill on Blaney Rd. These connector roads are gravel and have too many truck trips to safely function for freight. The gravel roads need to be paved and brought up to current standards including shoulders, safety improvements, and drainage improvements.
Woodmen Rd (US 24 to Golden Sage) Widen to 6 lanes	Woodmen Rd is a major east-west connector from I-25 to US 24 East. While the Colorado Springs segment is currently 6 lanes, the EPC section needs to be widened to 6 lanes, intersection and drainage improvements and multimodal accommodations
Elbert Rd (US 24 to County Line) Improvements	Elbert Road makes an important connection from US 24 East going to Douglas County and connects to SH 86. This rural road needs to be brought up to current standards as the road has no shoulders and needs intersection safety improvements and drainage improvements.
Powers Blvd South New Road Connection	This project will serve as a redundant road for I-25 and will serve freight from Powers north, the Colorado Springs airport, and the freight distribution centers around the airport.
South Academy	The project was just done, but east of I-25 S. Academy needs to go to 6 lanes and an interchange is potentially needed at PPSC/Commercial area for military readiness, connection to rail, and an important connection from Hancock Expressway, the COS airport, and CO 115.

Figure 37. Truck Routes







Chapter 6. Corridor Preservation Plan

Right of Way Preservation

Long-range transportation plans are typically developed for a 20- to 30-year timeframe, as was this MTCP update with a 2045 time horizon. However, we know that growth in El Paso County will continue after 2045, and growth in some parts of the County may in fact occur faster than is reflected in the 2045 forecasts. Given the potential need to expand major transportation corridors beyond the levels identified in this plan for 2045, this chapter identifies the future ROW preservation that may be needed for future road expansion in the long range future.

The objectives are to preserve the necessary ROW for future roadway improvements, maintain the desired character of the corridor, and fulfill the intended functional classification of each roadway. These corridors should be preserved and building within preserved ROW should be restricted from encroachments so that future improvements can be made in an efficient manner. This is done through the active process of:

- Identifying major corridors for future roadway improvements;
- Adopting access management requirements that identify appropriate access point spacing for each corridor consistent with the County's Engineering Criteria Manual;
- Requiring building and development setbacks that preserve the relationship between the right-of-way and development so that future roadway improvements can be accommodated.



2065 Travel Demand Forecasts Development

The development of the 2065 (buildout) travel demand model involved integrating 2045 and 2065 socioeconomic forecasts previously developed (and described in Chapter 4) along with traffic growth rates derived from the modified PPACG current and 2045 Travel Demand Model.

Developing 2065 traffic volumes relied on forecasted travel patterns from the model runs already completed. To determine the traffic growth for a road link, existing growth from 2020 to 2045 traffic was used, and a correlation was established between the road's location and the socioeconomic growth (2020 to 2045) within that area (TAZ). This correlation was then used to adjust the forecasted traffic for the period from 2045 to 2065, aligning it with the anticipated socioeconomic growth in the same area (TAZ).

This approach ensures that forecasted traffic for a road is directly influenced by the primary scenario developed for 2045, while also considering the expected growth in land use within the road's vicinity.

Acknowledging the potential for some significantly higher growth rates, a cap was introduced, limiting all traffic growth rates that exceed a doubling (100 percent growth). In cases where growth rates surpass this limit, land use growth rates for where roads are located are used. This ensures that values correspond closely to land use, but still maintain substantial growth.

Figure 38 shows the travel demand forecasts prepared for the year 2065.

2065 Corridor Preservation Plan

Figure 39 presents the Corridor Preservation Plan, indicating where right-of-way should be preserved and development setbacks should be required to respond to potential development and growth as it occurs. This reduces the costs of future roadway improvements while allowing development to occur in a responsible manner.

Figure 40 shows the through lane requirements that correspond with the Corridor Preservation Plan. The preservation plan does not imply that all these facilities will be improved to the level indicated. If anticipated developments do not happen, particular long-range roadway expansion may not be needed. The process of updating the MTCP approximately every five years is useful to mitigate uncertainty regarding improvements, developments, and the longer-term horizon.

Figure 38. 2065 Traffic Volume Forecast

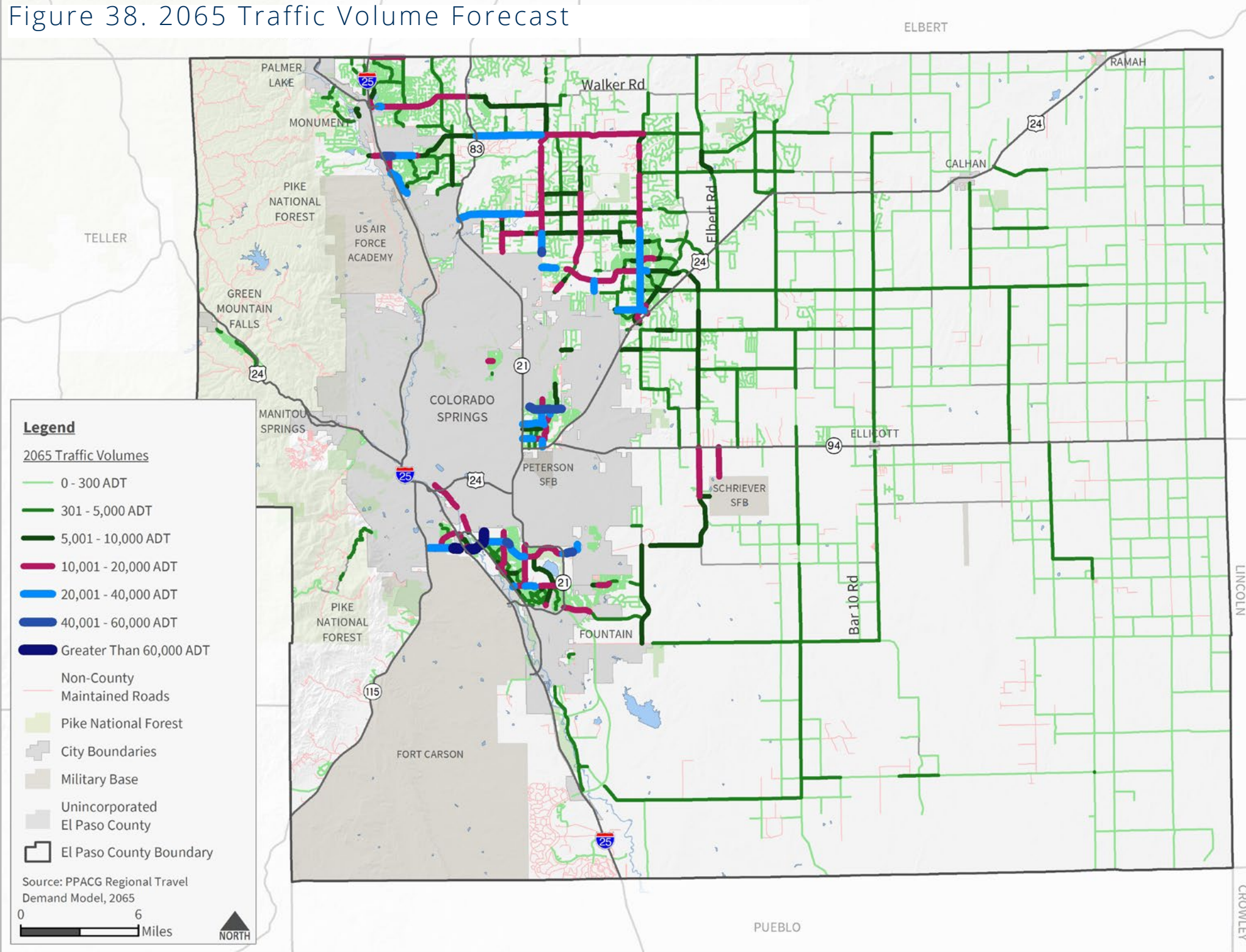


Figure 39. 2065 Corridor Preservation Plan

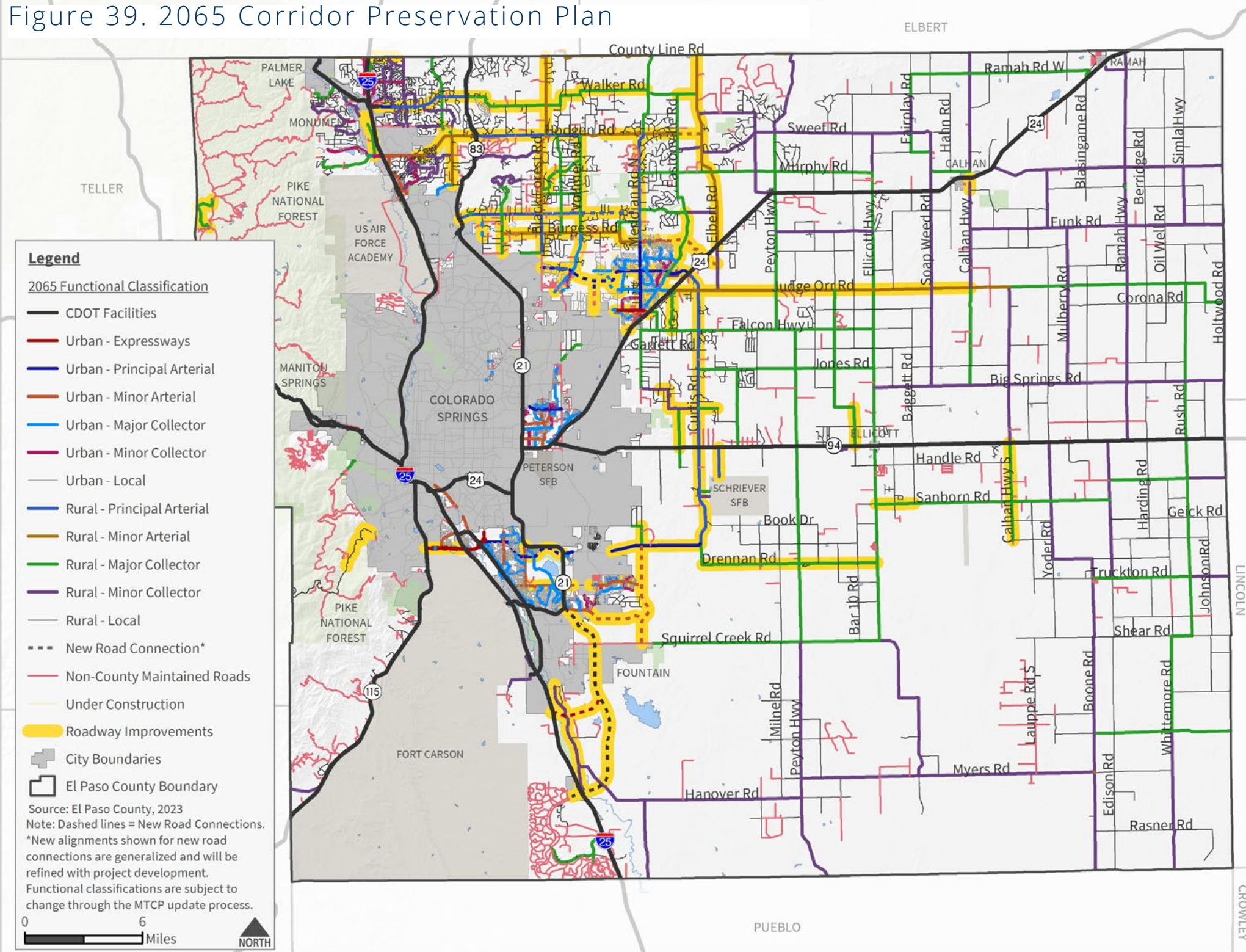


Figure 39. 2065 Corridor Preservation Plan (continued)

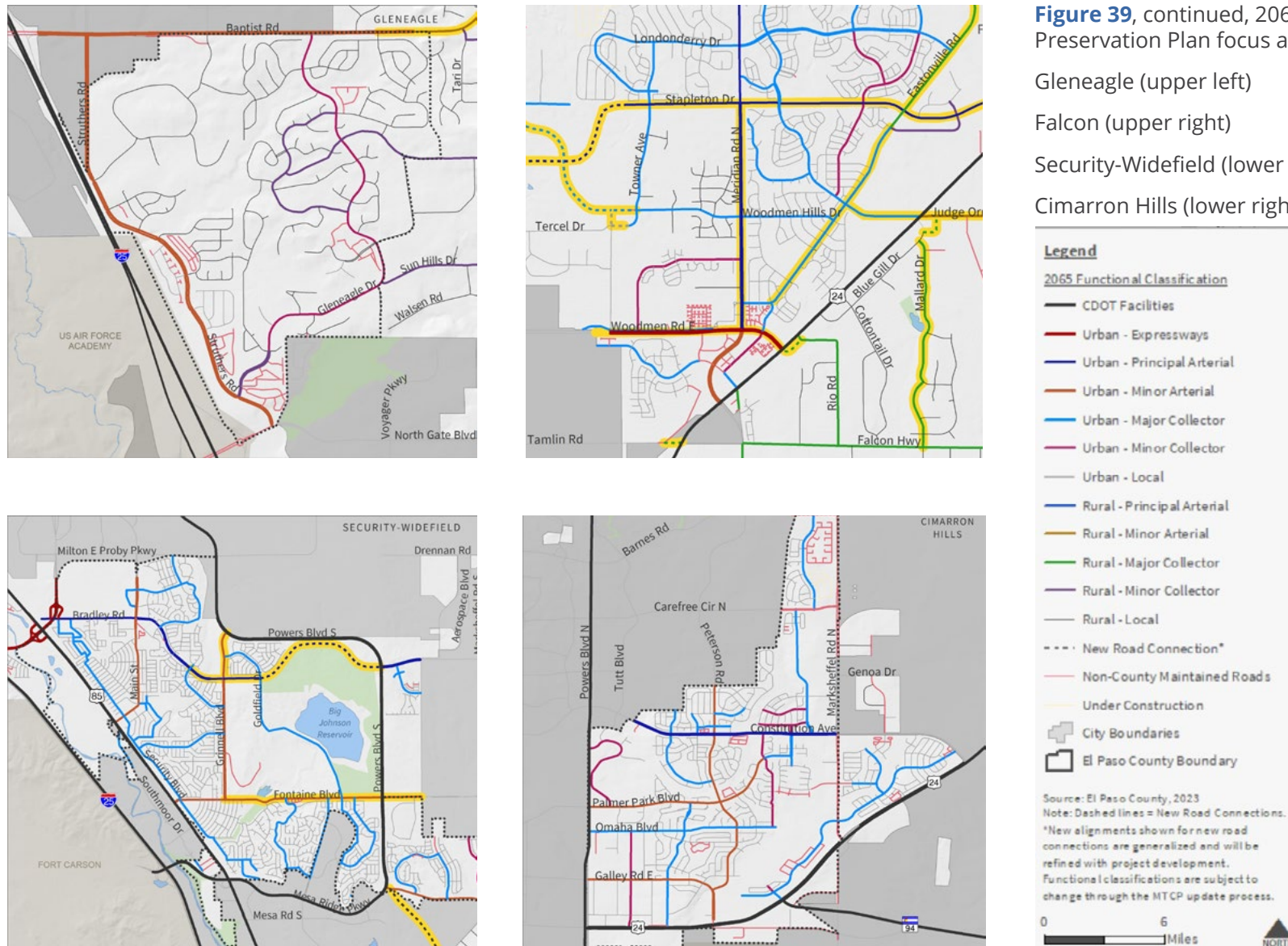


Figure 40. 2065 Through Lane Requirements

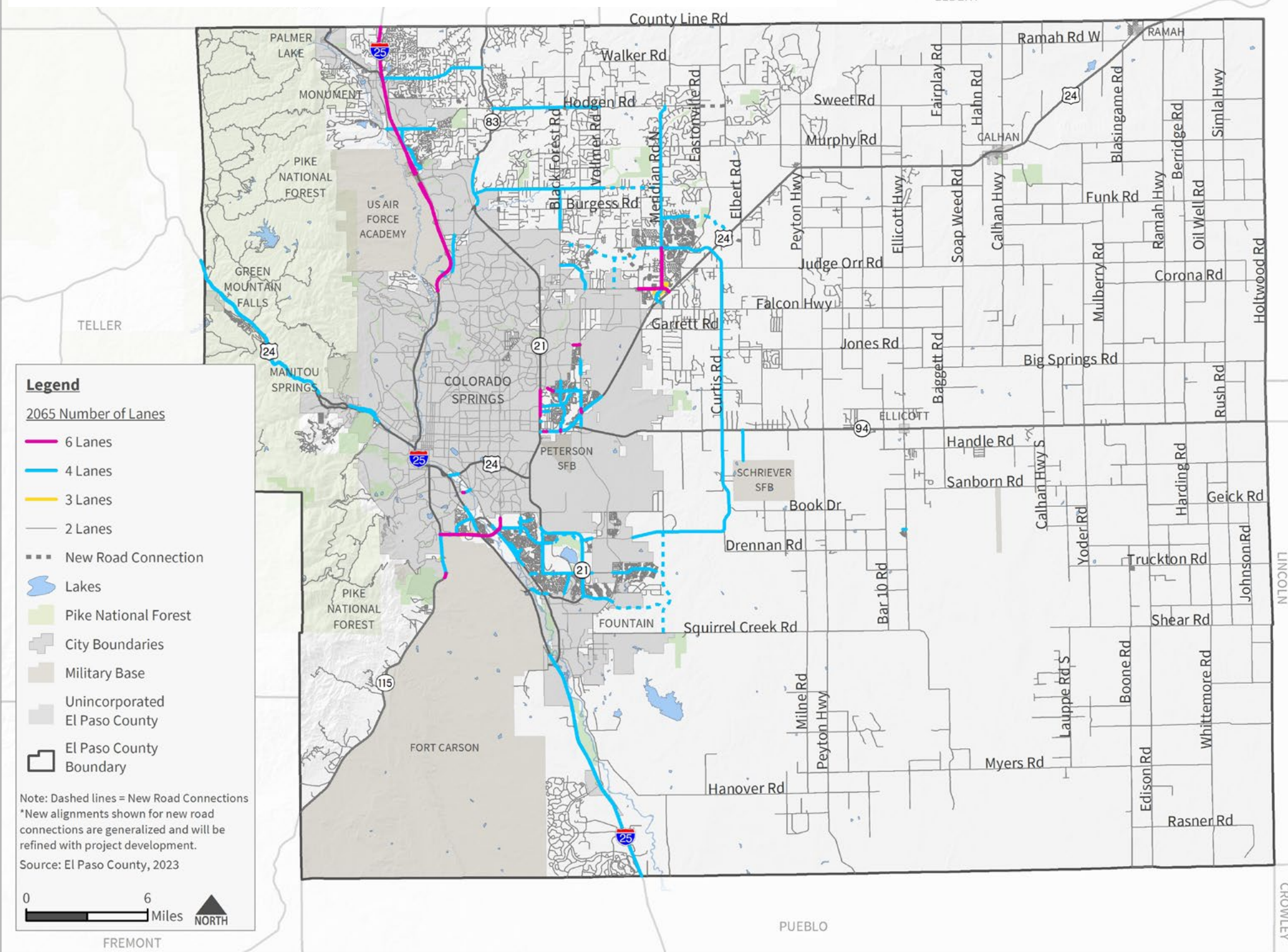
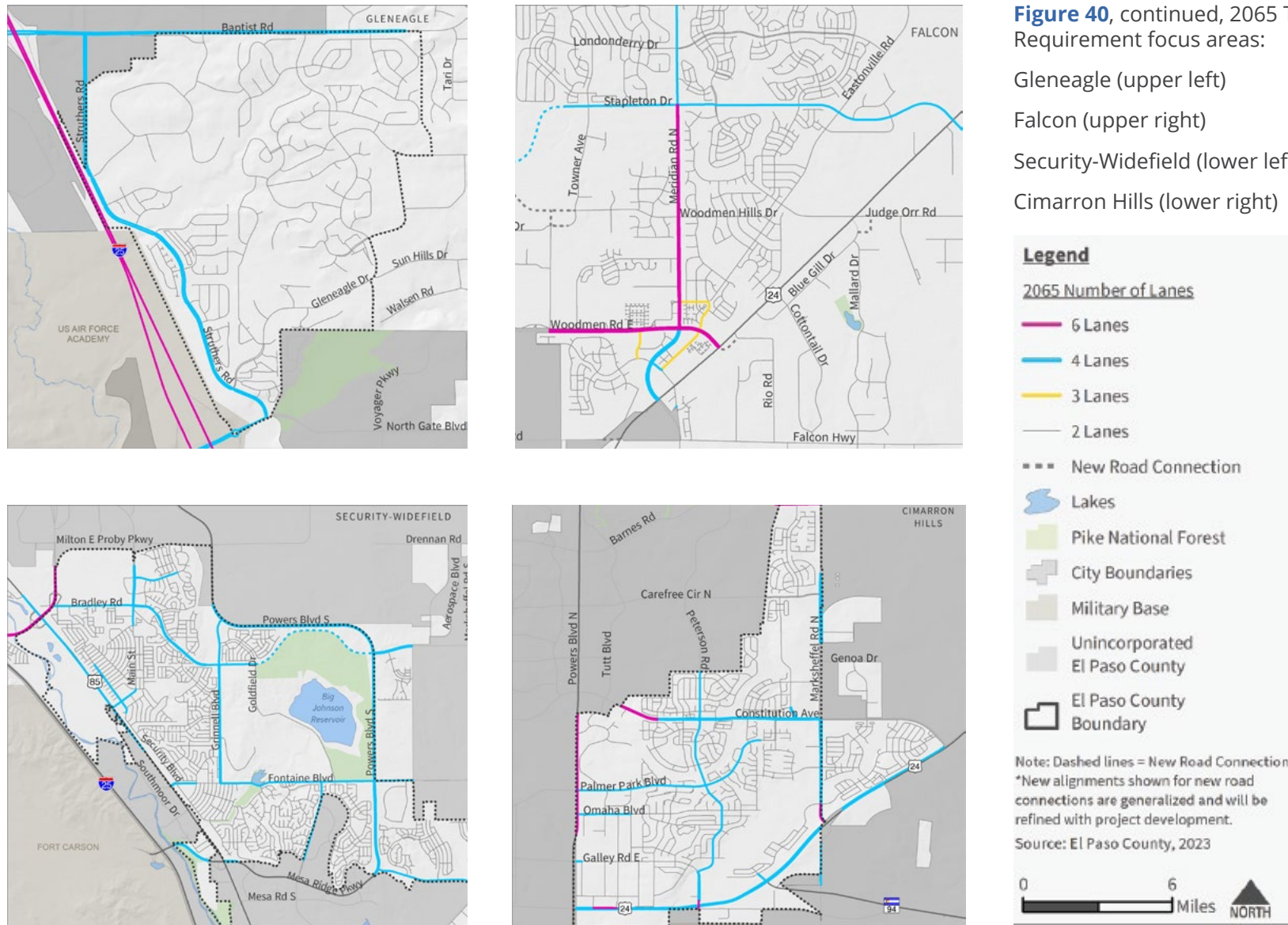


Figure 40. 2065 Through Lane Requirements (continued)







Chapter 7. Implementation Plan

Transportation Funding

There are 4,438 lane miles of roads maintained by El Paso County. Of those, roughly 2,349 lane miles are paved, and 2,089 lane miles are gravel. To put that in context, the distance, as the crow flies, between Canada and Mexico is 1,200 miles. The County's responsibility also includes bridges, drainage ditches, drainage pipes, guardrails, traffic control signs, traffic signals, and more than 22,000 acres of right-of-way. Since 1980, almost 400 centerline miles of road have been added for the county to maintain and the number of paved lane miles has more than doubled.

The roadway system in El Paso County represents a substantial public investment to accommodate motor vehicles and non-motorized travel. Likewise, improvements shown on the 2045 MTCP Roadway Plan maps will require significant resources to implement. To present a plan that is realistic, an analysis of costs associated with roadway improvement and resources available to fund them is necessary.

In Chapter 5, the MTCP program includes eight project types. **Table 12** shows the estimated costs total \$2.45 billion.

In El Paso County maintained roads are typically funded through three sources – development exactions/ impact fees, local sales and property taxes, and Highway Users Tax Fund (HUTF), which comes from the state gas tax and registration fees. The County has adopted a Countywide Road Impact Fee Program that will fund a significant portion of the future county

road capacity needs in the County. The Road Impact Fee program helps the County to ensure that new development pays its own way.

The local and neighborhood streets in the County, including collector streets, are often funded and constructed by the developer when a subdivision is developed. However, after a few years, the County must take over maintenance for these developer constructed roads. Most roads are maintained by the County while some are private roads maintained by a local metropolitan/special district or a homeowners' association.

For the Department of Public Works (DPW), the largest sources of revenue for transportation are HUTF (the gas tax), specific ownership tax, and the property tax. In addition to these funding sources, the PPRTA collects a sales tax increment that funds multi-modal transportation projects across the County, including roads in the unincorporated parts of the County.

Federal Transportation Funding

The County receives gas taxes in two ways: from federal and state levels. The federal gas tax is funded by an 18.4¢/gallon tax that has not changed since 1993. Federal gas tax funding is distributed through PPACG in the MPO area only in the form of grants that generally require a 20 percent local match. These are competitive grants, not disbursements based on population or road miles.

Table 12. MTCP Program Estimated Costs

Project Type	Total Cost
Rural County Road Upgrade	\$776,000,000
Urban County Road Upgrade	\$63,000,000
Gravel Road Upgrade	\$198,000,000
County Road Widening	\$210,300,000
New Road Connection	\$1,200,200,000
	\$2,447,500,000



Federal Transportation Funding
(continued)

The use of federal funds presents some challenges for the County:

- DPW must fund 100 percent of the project upfront and then 80 percent is refunded later. This can pose cash flow issues for the County.
- Due to regulations and requirements, federal projects are often more expensive than the same project funded with local dollars.
- Federal projects often take longer to implement.

State Transportation Funding

The HUTF consists of multiple funding streams:

- the state gas tax of 22¢/gallon
- motor vehicle fees such as license and registration fees
- an electric vehicle fee
- delivery vehicle fee

About 75 percent of the HUTF funds come from the state gas tax. More than 65 percent of the HUTF funding goes to CDOT to construct and maintain state roads such as I-25, US 24, and State Highways 21, 94 and 115. The remaining funds are split among all other cities, towns

and counties in the state. The HUTF payments represent the return of gas and diesel taxes and other fees to the local communities (e.g., El Paso County) and residents that paid them, but only 20 percent of funds paid by residents is returned to the County. Over the past ten years, from 2013 to 2022, the County received an average of 13.4 million per year from the HUTF.

State Budget Updates

One way the State distributes transportation funds is through formula programs, as shown in [Table 13](#).

Pikes Peak Rural
Transportation Authority

In response to the need for additional transportation funding, voters in El Paso County, Colorado Springs, Manitou Springs, and Green Mountain Falls approved the creation of the [PPRTA](#). PPRTA is funded by a 1-percent sales and use tax that was originally approved to start January 1, 2005. Fifty-five percent of funds collected pay for a voter approved list of capital projects with a 10-year sunset on these funds. The remaining 45 percent goes to transportation maintenance (35 percent) and to transit services (10 percent) without being subject to sunset provisions. The Town of Ramah joined in 2009, and the Town of Calhan joined in 2022.

Table 13. CDOT
Transportation Formula
Programs

Formula Program	Recipients
Transportation Alternatives Program (TAP)	CDOT Region Distribution
Regional Priority Program (RPP)	Transportation Planning Region (TPR) Distribution
Metro Planning (Metro-PL), Carbon Reduction Program, Surface Transportation Block Grant (STBG) Urban	MPO Distribution
Multimodal Options Fund (MMOF)	CDOT Region Distribution
FASTER Safety	CDOT Region Distribution

Pikes Peak Rural Transportation Authority (continued)

Twice voters have renewed PPRTA to continue funding transportation and transit improvements. In 2012, nearly 80 percent of voters reauthorized the collection of the sales and use tax, with 55 percent of capital funds for an additional 10-year period from 2015 to 2024, known as PPRTA 2. Again in 2022, nearly 80 percent of voters reauthorized the tax, and the PPRTA 3 list itemizes capital improvement projects for the region for 2025 to 2034.

While El Paso County receives a significant amount of funding from the PPRTA, the amount varies year to year. El Paso County receives approximately 30 percent of revenues collected; the rest goes to incorporated areas, mostly to the City of Colorado Springs. **Figure 41** shows the El Paso County portion of the PPRTA revenue estimates passed by the PPRTA Board for years 2022 through 2034 and assumes a conservative three percent growth in annual revenue.

Property Tax

El Paso County also receives some property taxes for roads. Since the last MTCP update in 2016, El Paso County experienced an active real estate market and the median home price has increased significantly. According to the Colorado Association of Realtors, the median single family home sales price increased from \$265,000 in September 2016 to \$480,000 in September 2023 ([Colorado Association of Realtors](#)). Property taxes have increased as well. The average home pays about \$8.25 in Road and Bridge property tax. El Paso County roads received an average of \$1.4 million per year from property taxes from 2013 to 2022. **Figure 42** displays the major sources of funding to the County's Road and Bridge account.

Figure 41. Estimated PPRTA Revenue, El Paso County Portion

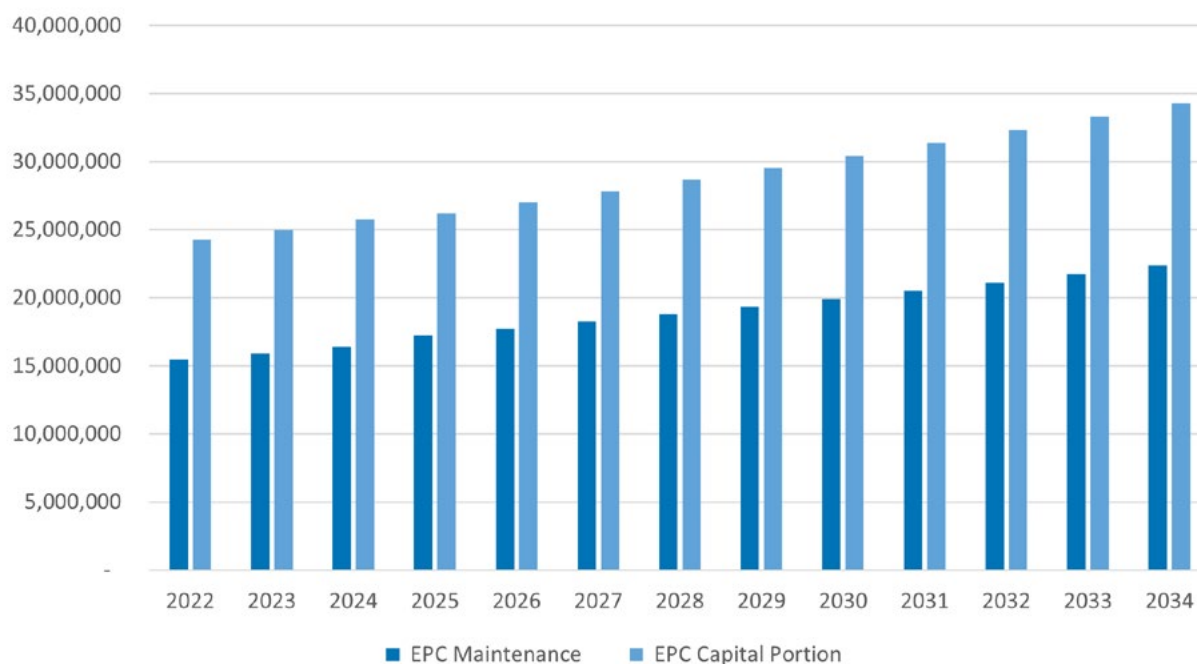
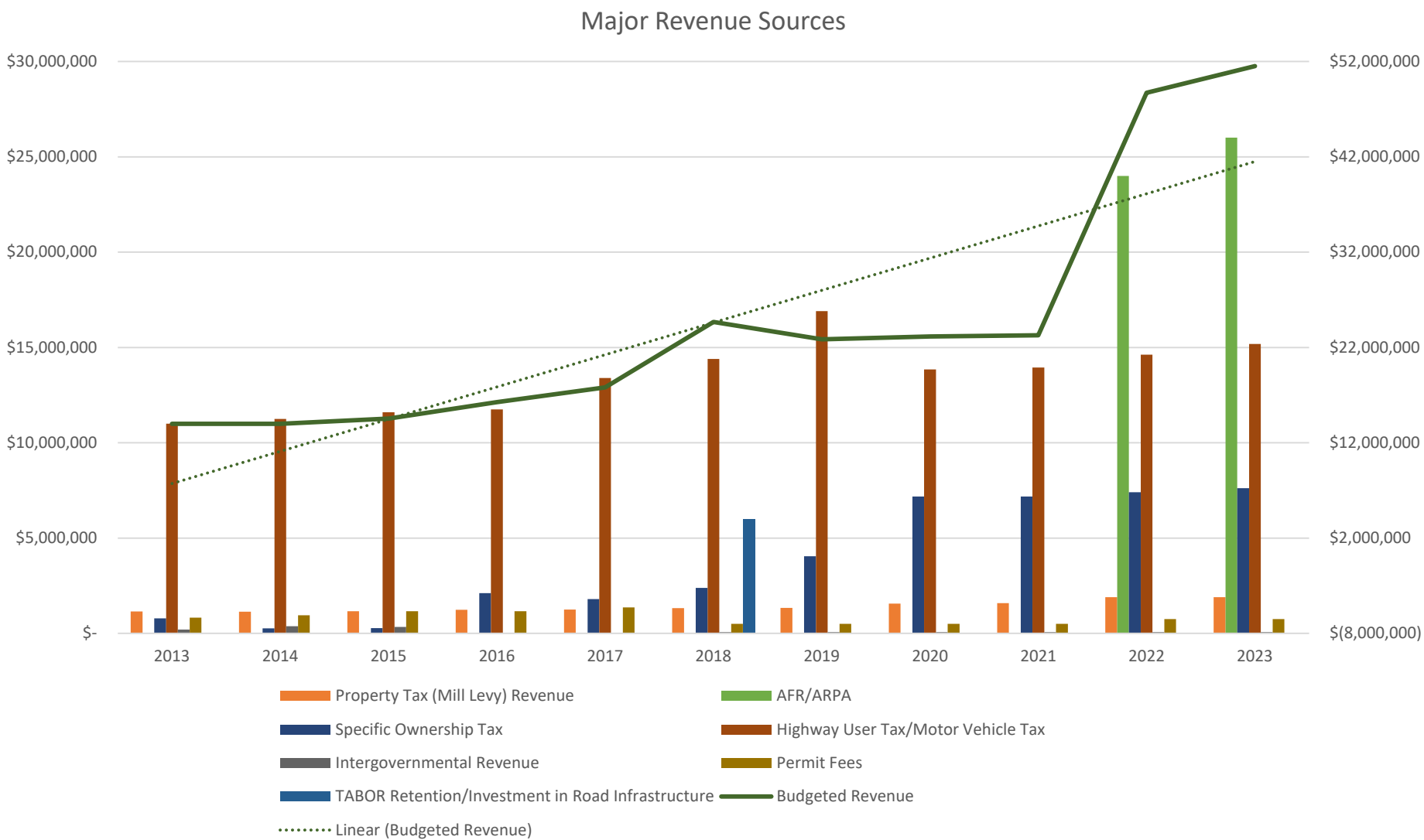


Figure 42. Budgeted DPW Revenue to Fund Roads & Bridges



For a variety of factors, revenues have not kept up with inflation, which is denoted by the Consumer Price Index (CPI) and shown on **Figure 43**.

The Colorado Construction Cost Index (CCI) calculates an index of prices and quantities and shows the trend in the cost of construction materials commonly used in transportation construction project bids: earthwork, hot mix asphalt, concrete pavement, structural concrete, and reinforcing steel (Colorado Construction Cost Index Report).

Figure 44 illustrates the nature of unpredictability in construction costs along with an overall increasing trend line for the period from 2013 through 2022.

Figure 43. Annual Consumer Price Index

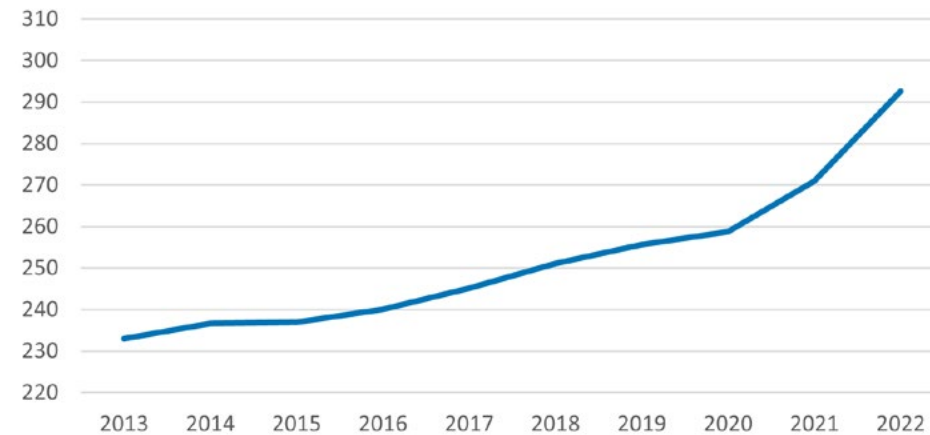


Figure 44. Colorado Construction Cost Index

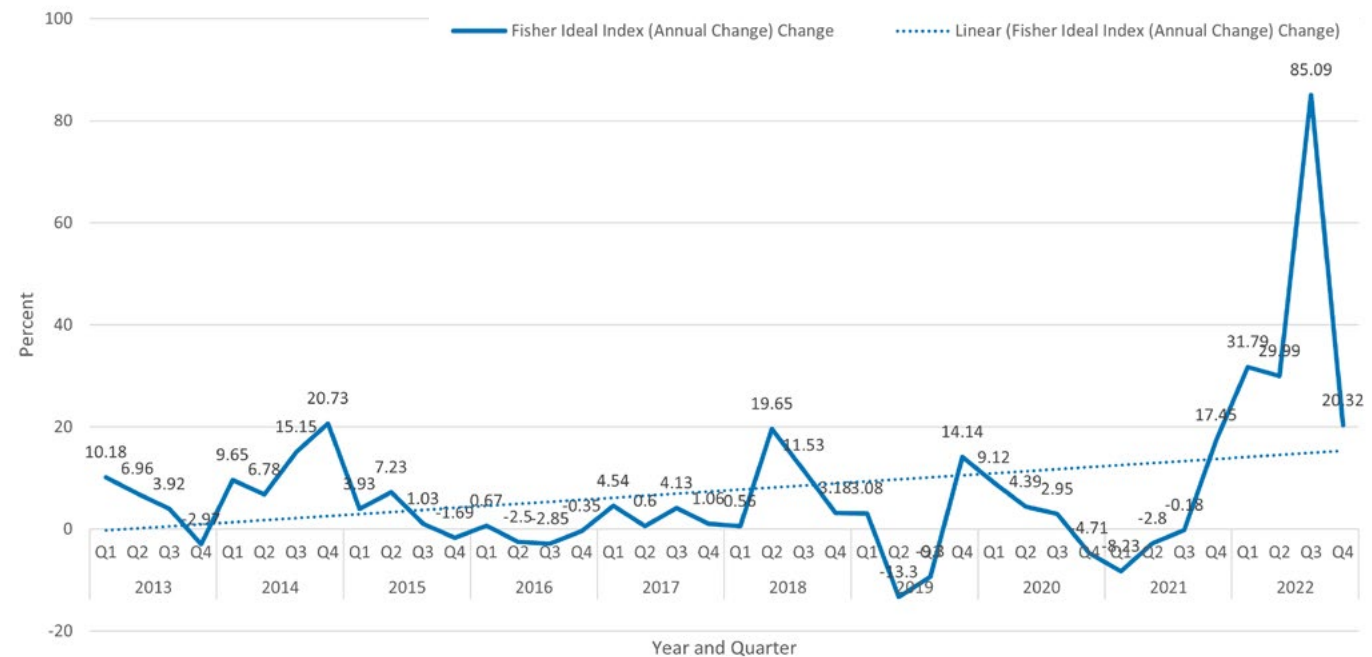
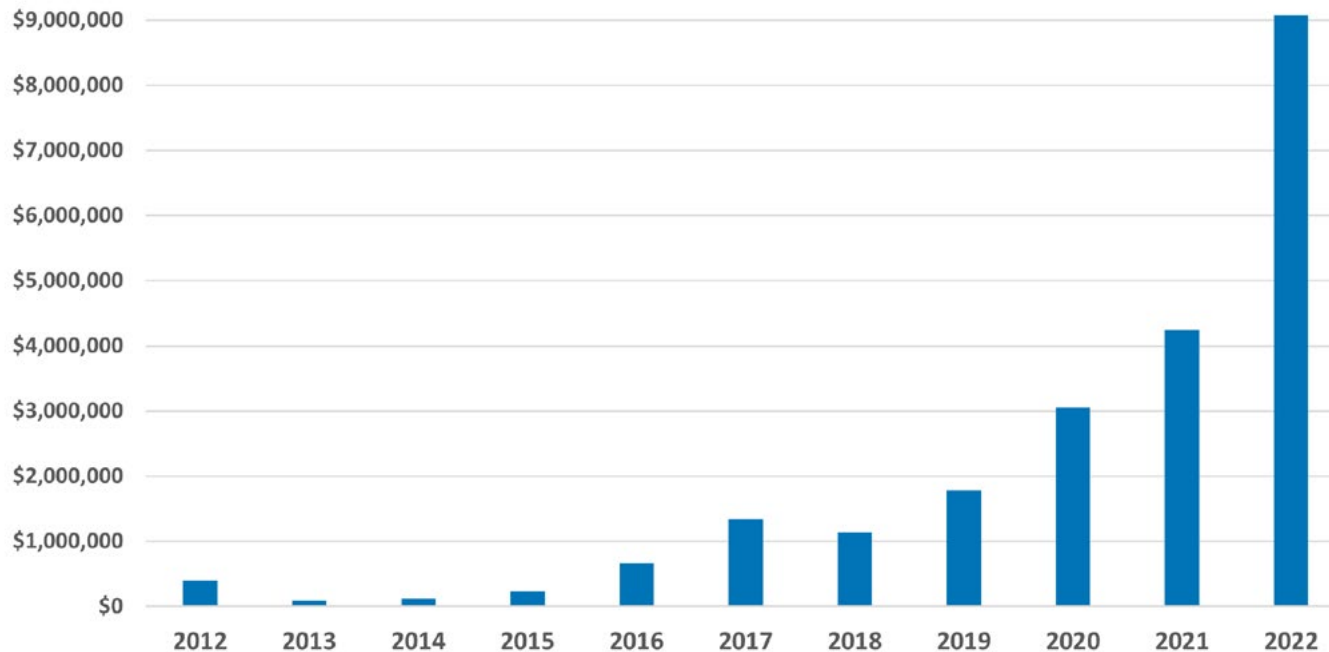




Figure 45. Road Impact Fee Revenue Since 2012



Road Impact Fee

El Paso County first adopted a road impact fee program in 2012 to create an equitable method of establishing a fair-share contribution from development for transportation improvements needed to accommodate growth. **Figure 45** shows that since 2012, road impact fee revenue has contributed more than \$21 million to transportation capacity projects in the County. A Road Impact Fee Study update is being prepared, in a parallel effort with this MTCP update, to set the impact fee rate per new trip created by new development.

New development is often required to construct projects on the adjacent major roadway system to provide access for that development. These requirements are referred to as development "exactions". In cases where the cost of these road improvements or exactions exceeds the development's fair share road impact fee, the County uses impact fee funds to reimburse developers for excess costs.

A significant portion of the roadway system improvement needs on County roads identified in this plan are funded through development impact fees and exactions.



Safety: Strategies & Recommendations

In 2023, the Board of County Commissioners adopted an updated Local Road Safety Plan to improve transportation facilities for the safety and benefit of all users.

The plan identifies four emphasis areas with unique safety concerns to address for safety improvements:

- Unrestrained Occupant: behavioral condition of drivers and passengers not wearing seatbelts, which increases the risk of more severe injuries
- Intersection Related: crash locations on roadway networks where conflicting movements are most likely to occur, including bicycle and pedestrian traffic
- Lane Departure: crashes where a vehicle departs the travel lane and strikes another vehicle or crashes after leaving the roadway
- Speeding: crashes when one or more vehicles exceeded the posted speed limit

The accompanying Best Practices Toolkit provides a list of priority actions to incorporate into County

projects. The actions are organized by the five Es of safety:

- Engineering
- Education
- Encouragement
- Evaluation
- Enforcement

Table 14 shows an excerpt from the Road Safety Plan's recommended priority actions, which are strategies to be considered in future transportation planning actions and design of projects, including those recommended by this MTCP.

While not universally applied to every project, as engineering, maintenance, and planning expertise will determine the most appropriate actions, these strategies and recommendations provide a framework to be more proactive in intent as safety is addressed in future projects. The DPW is already evaluating and implementing some of these solutions and strategies.

Links to the Local Road Safety Plan

[BoCC Resolution No. 23-47](#)

[Part 1: Executive Summary, Introduction, Safety Analysis, and Stakeholder Engagement](#)

[Part 2: Strategies and Recommendations](#)

Table 14. Priority Safety Strategies and Recommendations

Design and Operate Safer Infrastructure	
Engineering	Install pedestrian hybrid beacon and advanced yield signs, stop markings and signs, high visibility crosswalk markings.
Evaluation	Conduct pedestrian road safety audits in areas with a higher than average pedestrian crashes. Ensure sidewalks and facilities meet ADA requirements.
Engineering, Enforcement	Reduce motor vehicle speeds by using data driven, effective, and equitable enforcement methods that utilize available technology.
Engineering, Evaluation	Reduce motor vehicle speeds by utilizing other traffic calming strategies such as narrower lanes, adding roundabouts, reducing the number of traffic lanes, planting trees, and implementing roadway reconfiguration.
Engineering	Continue to install pedestrian countdown signals and refuge islands and evaluate and include where prudent different options for pedestrian signal countdown technology (touchless, audible, etc.).



Design and Operate Safer Infrastructure

Engineering	Evaluate the geometry of pedestrian and bicycle facilities at signalized intersections with high frequencies of pedestrian and/or bicycle crashes and on routes serving schools or other generators of pedestrian and bicycle traffic. Make improvements as needed, this can include installing pedestrian refuge.
Engineering	Replace intersections that have high numbers of fatalities and serious injuries with roundabouts, a circular intersection configuration with channelized approaches and a center island that results in lower speeds and fewer conflict points, wherever feasible.
Engineering	Utilize a protected left, improving the sight distance, positive off-sets, or multiphase signal operation at signalized intersections with a high frequency of angle crashes involving left turning and opposing through vehicles as well as rear-end and sideswipe crashes.
Evaluation	Evaluate uncontrolled intersections where a high crash rate is observed and recommend improvements based on evaluation results.
Engineering	Improve left-turn channelization (providing definite paths for vehicles to follow) at signalized intersections where left-turn crashes are an issue and increase left turn lane offsets for increased visibility at intersections where visibility is an issue. Implement left-turn traffic calming (left turn hardening) to reduce left turn speeds and provide for safe turning behavior at intersections that show a pattern of pedestrian-related left turn crashes and intersection geometry that facilitates high speeds. Consider installing Dilemma Zone (Smart Sensor Advance Radar) to reduce rear-end and sideswipe crashes.
Engineering, Evaluation	Ensure intersections are built with appropriate design standards to allow adequate drainage at intersections and conduct regular intersection drainage evaluation and recommend improvements if needed.
Engineering	Continue to install LED heads and reflective backplates (reflective borders around traffic lights that make them more visible) in locations with high numbers of signalized intersection fatal and serious injury crashes.
Evaluation	Continue to update plans for connected bicycle and pedestrian (sidewalk) networks in the county.
Engineering	Install LED-enhanced stop signs or stop signs with larger beacons or enhanced conspicuity supplemental beacons, vertical retro-reflective strips on sign support, post reflectors, solid yellow strip of retro-reflectivity, etc. at unsignalized intersections where there are a higher-than-average number of fatal and serious injury crashes and enhanced signage does not already exist. Consider Intersection Conflict Warning Systems (ICWS) if signal warrants are not met or an all-way stop is not appropriate.
Engineering	Continue improved striping for all roads (one year for higher volume and biannually for general roads), expand epoxy restriping for high-volume roads, and consider including tape for skips. Update edgelines to six-inch edgelines. Evaluate the striping schedule to determine if striping should be updated with more frequency.
Engineering	Implement roadside design improvements such as clear zones, slope flattening, and adding or widening shoulders to improve ability for drivers to safely recover if they leave the travel lane where roadway departure crashes are observed.
Engineering	Continue to implement enhanced delineation treatments to alert drivers in advance of the curve including pavement markings; post-mounted delineation; larger signs and signs with enhanced retro-reflectivity; and dynamic advance curve warning signs and sequential curve signs.
Engineering	Continue to implement improvements including installation of cable barriers, guardrails, and concrete barriers to reduce the severity of roadway departure crashes.
Engineering	Install high friction surface treatment (HFST) in locations where the available pavement friction is not adequate to support operating speeds at a sharp curve, inadequate cross-slope design, wet conditions, polished roadway surfaces, or driving speeds in excess of the curve advisory speed.
Engineering	Install longitudinal (edgeline and center line) rumble strips and stripes in locations where run-off-the-road crashes are high and in the middle of the road to prevent entry into opposing lane.
Engineering	Review traffic count data and intersection counts to identify if traffic control changes are warranted due to traffic increases at intersections experiencing growth to monitor changes in local traffic.
Engineering	Install the Safety Edge to eliminate the vertical drop-off at the pavement edge, allowing drifting vehicles to return to the pavement safely.
Evaluation	Develop a regional Safety Checklist or template as a tool for local jurisdictions to use during planning and project identification efforts.

Encourage Safer Behavior	
Education	Include pedestrian safety and the risks of impairment for pedestrians and drivers in alcohol related media campaigns.
Education, Encouragement	Implement a regional Street Smart Campaign focusing on bicycle, pedestrian, and motorcycle awareness.
Evaluation	Create an official Road Safety Audit team to visit major accident and fatality sites
Education, Encouragement	Implement a telework policy and encourage regional jurisdictions to create their own telework policies.
Education	Provide public information, education, and training for older and younger drivers on risks associated with signalized intersections such as red-light running, speeding, not yielding to pedestrians, and difficulty judging speed and distance of approaching vehicles when making left turns.
Education, Encouragement	Implement safety awareness campaigns specifically for low seat belt use groups to include diverse and underserved communities. Use data to determine which population groups are at highest risk for not wearing safety belts, determine why if possible.
Encouraging	Support enacting a state primary seat belt enforcement legislation for adult drivers and front-seat passengers and increased seat belt use law penalties.
Enforcement	Conduct high-profile “child restraint inspection” events at multiple community locations.
Education	Conduct seat belt educational and awareness campaigns to educate the public on the importance of using seat belts and include social media and messaging to reach diverse communities.
Encouragement	Support a helmet law for motorcycle riders.
Education, Enforcement	Implement and enhance server training programs to enable servers to identify underage customers and prevent overserving.
Enforcement	Increase use of ignition interlocks for first-time impaired driving offenders, impose limits on diversion and plea agreements, increase requirements for alcohol problem assessment and treatment.
Education, Encouragement	Provide and encourage use of ride sharing programs (like SoberRide) to reduce impaired driving.
Enforcement	Conduct well-publicized compliance programs and sobriety checkpoints aimed at impaired drivers and motorcyclists.
Encouragement	Encourage citizens to submit service requests when they see safety concerns at https://citizenconnect.elpasoco.com/#/homepage
Encouragement	Lobby for increased DWI offender monitoring and lower BAC limit for repeat offenders.

Source: *El Paso County Road Safety Plan*, January 2023, Strategies and Recommendations, List of Priority Projects, pages 24-27





3 South Tejon Street, Suite 300
Colorado Springs, CO 80903
719.314.1800

WWW.FHUENG.COM

