SunCorridor
Metropolitan Planning Organization

Sun Corridor REGIONAL TRANSPORTATION PLAN 2040

UPDATE

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February 2020

SUN CORRIDOR METROPOLITAN PLANNING ORGANIZATION

REGIONAL TRANSPORTATION PLAN 2040 UPDATE

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LETTER FROM SUN CORRIDOR MPO EXECUTIVE DIRECTOR

As the Sun Corridor Metropolitan Planning Organization's Executive Director, I am pleased to present the Sun Corridor's Regional Transportation Plan 2040 Update. The Sun Corridor MPO was formed in 2013, after the 2010 U.S. Census determined that the City of Casa Grande had reached a population over 50,000. Our MPO represents portions of unincorporated Pinal County and the cities of Casa Grande, Coolidge, and Eloy.

The RTP is a coordinated system of the region's transportation facilities needed over the next 20 years. This plan identifies an investment strategy and a project selection and prioritization process to guide how federal funds are spent on transportation improvements within the region and is fiscally constrained. It provides a vision for how will projects will be developed in the future, to connect and serve all residents and visitors.

A performance-based planning approach is reflected in the RTP to monitor how the region is improving transportation and reflects a state and national emphasis to ensure that citizens receive results from their tax dollars.

Recognizing the very limited funding available for agencies and jurisdictions throughout the state, our recommended investment strategy emphasizes increasing safety and efficiency through system modernization and preserving our current infrastructure. Sun Corridor MPO member agencies will partner to select projects that improve access to employment centers, connect freight to major transportation corridors, and drive economic development in the region.

With our regional partners and citizens, we look forward to continuing to improve transportation options in the Sun Corridor MPO region.

Sincerely,

Irene Higgs, Executive Director

LETTER FROM CHAIRMAN OF SUN CORRIDOR MPO TECHNICAL ADVISORY COMMITTEE

The Sun Corridor MPO has worked hard to develop a Regional Transportation Plan 2040 Update that reflects the priorities and concerns of all the member jurisdictions in the region.

As economic development occurs in the region, this plan focuses strongly on safety improvements and modernization and maintaining existing infrastructure yet provides sufficient flexibility to modernize and expand the transportation system as needed.

As Chairman of the Sun Corridor MPO Regional Transportation Plan Technical Advisory Committee, I would like to thank the committee members for their hard work in developing the plan, as well as members of the public who participated in stakeholder outreach, local government presentations, and public meetings for the plan.

Sincerely,

Duane Eitel, Chairman

This report was funded in part through grant(s) from the Federal Highway Administration and/or Federal Transit Administration, U.S. Department of Transportation. The contents of this report reflect the views and opinions of the author(s) who is responsible for the facts and accuracy of the data presented herein. The contents do not necessarily state or reflect the official views or policies of the U.S. Department of Transportation, the Arizona Department of Transportation, or any other State or Federal Agency. This report does not constitute a standard, specification, or regulation.

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Acronyms		
Acronym	**Name**	**Description**
ACIP	Airport Capital Improvement Program	A capital improvement program developed for each airport that outlines future airport improvement projects
ADA	Americans with Disabilities Act	A civil rights law that prohibits discrimination based on disability
ADOT	Arizona Department of Transportation	State transportation agency
ADT	Average Daily Traffic	Traffic counts made every three years on all functionally classified roadways in the MPO. FHWA requirement.
ARAN	Automatic Road Analyzer	A leading highway/roadway data collection system
AV	Automated Vehicle	A driverless vehicle
BG	Block Group	A geographic area defined by the U.S. Census Bureau made up of a number of census blocks
CAG	Central Arizona Governments	Council of Governments serving Gila County and part of Pinal County
CART	Central Arizona Regional Transit	Regional transit service provided by the City of Coolidge
COMET	City of Maricopa Express Transit	Provides weekly transit service to the Banner Regional Medical Center in Casa Grande
CT	Census Tract	A geographic area defined by the U.S. Census Bureau made up of a number of block groups
EJ	Environmental Justice	Environmental justice is the fair treatment and meaningful involvement of all people with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.
FAA	Federal Aviation Administration	Provides funding for aviation projects
FAST Act	Fixing America's Surface Transportation (FAST) Act	Federal legislation for surface transportation programs, enacted December 4, 2015
FHWA	Federal Highway Administration	Provides funding for planning
FTA	Federal Transit Administration	Provides funding for transit projects
GA	General Aviation	Type of airport using non-scheduled commercial passenger service

Acronyms		
Acronym	**Name**	**Description**
HCM	Highway Capacity Manual	A publication by the Transportation Research Board that serves as a reference for the capacities of roadway segments and intersections
HHS	U.S. Department of Health and Human Services	Federal agency responsible for protecting the health of Americans
HPMS	Highway Performance Monitoring System	Yearly road information system for functionally classified roads
HSIP	Highway Safety Improvement Program	Local and state funding for safety projects
HURF	Highway User Revenue Funds	State funds that are distributed to cities, towns, and counties
LOS	Level of Service	A letter grade (A-F) assigned to roadway segments or intersections to indicate the amount of congestion
MAG	Maricopa Association of Governments	The regional MPO for the Phoenix metropolitan area
MAP-21	Moving Ahead for Progress in the 21st Century	Federal legislation for multimodal transportation, enacted July 6, 2012
MPO	Metropolitan Planning Organization	Agency formed to provide transportation planning in a region or area that reaches 50,000 in population
MUTCD	Manual on Uniform Traffic Control Devices	FHWA's standards for traffic control devices on all roadways and highways
NAICS	North American Industry Classification System	Standardized classification of business types
NHFN	National Highway Freight Network	The primary freight network in the United States as defined by the FHWA
PASER	Pavement Surface Evaluation and Rating	A system of pavement condition ratings
RIS	Recommended Investment Strategy	Strategy for spending federal funds on preservation, modernization, and capacity projects
RTA	Regional Transportation Authority	A Pinal County organization responsible for spending funds from an excise tax on transportation improvements
RTP	Regional Transportation Plan	A long-term blueprint for the region's transportation system, which is a federal requirement for funding

Acronyms		
Acronym	**Name**	**Description**
STBG	Surface Transportation Block Grant	Federal funding program to preserve and improve the conditions and performance on any federal-aid highway, bridge, and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects
STP	Surface Transportation Program	Federal funding for states to improve road, pedestrian, bicycle, and transit infrastructure
STSP	Strategic Transportation Safety Plan	A transportation safety plan that aims to improve multimodal safety within the region
TAC	Technical Advisory Committee	The Sun Corridor MPO TAC comprises member agency representatives who provide insight into the planning needs of the region
TAZ	Traffic Analysis Zone	A unit of geography used in transportation planning models
TDM	Travel Demand Model	A computer model that forecasts future travel volumes based on demographic forecasts and existing travel patterns
TDMS	Transportation Data Management System	Software application administered by ADOT available to all local governments to upload traffic data
TERM	Transit Economic Requirements Model	An FTA scale ranking the condition of transit facilities
TIP	Transportation Improvement Program	Projects that are funded must be on the TIP in order to be programmed for construction and reimbursement
TWLTL	Two-Way Left-Turn Lane	A center lane exclusively for vehicles turning left in both directions
ULB	Useful Life Benchmark	The expected life cycle of a capital asset of a transit provider
UZA	Urbanized Areas	Defined areas by ADOT/FHWA based on population census. Reviewed every 10 years.
VMT	Vehicle Miles Traveled	The amount of travel for all vehicles in a geographic region over a given period of time

ACKNOWLEDGMENTS

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1. INTRODUCTION

1. Introduction

The Sun Corridor Metropolitan Planning Organization (Sun Corridor MPO) was formed in 2013, after the 2010 U.S. Census determined that the City of Casa Grande had reached a population over 50,000.

Federal law requires that a Metropolitan Planning Organization (MPO) be formed to provide transportation planning within designated boundaries. The Sun Corridor MPO encompasses 1,155 square miles and provides transportation planning services to the region that includes the cities of Casa Grande, Coolidge, and Eloy, as well as adjacent rural portions of Pinal County. The 2018 population of the Sun Corridor MPO is 127,960, according to the Maricopa Association of Governments (MAG) Travel Demand Model (TDM). The Sun Corridor MPO region within the state of Arizona and Pinal County is shown in **Figure 1.1**.

A Regional Gateway

Nestled between two major metropolitan areas (Phoenix and Tucson), two Native American communities, and one Native American nation, the Sun Corridor MPO region is an important gateway for regional, national, and international freight shipments.

Interstate 10 (I-10), which crosses the region in a northwest-southeast direction, is a cross-country interstate highway that extends from California to Florida. Interstate 8 (I-8), which extends in an east-west direction from Casa Grande to San Diego, California is another key transportation facility.

The Sun Corridor MPO is in a unique position to develop partnerships that will enhance the region's ability to provide goods, services, and economic development strategies; improve local and regionally significant roads and transit systems; and plan for transportation improvements along I-8, I-10, and the potential future Interstate 11 (I-11) Intermountain West Corridor.

WHAT IS A METROPOLITAN PLANNING ORGANIZATION?

An MPO is a federally-mandated and federally-funded transportation policy-making organization comprised of representatives from local governments. The Federal-Aid Highway Act of 1962 requires the formation of an MPO for any urbanized area (UZA) with a population greater than 50,000.

Federal funding for transportation projects and programs is channeled through the MPO. Congress created MPOs to ensure that existing and future expenditures of governmental funds for transportation projects and programs are based on a continuing, cooperative, and comprehensive ("3 C") planning process. Statewide and metropolitan transportation planning processes are governed by federal law (23 U.S.C.§ 134-135). As of 2015, there are 408 MPOs in the United States.

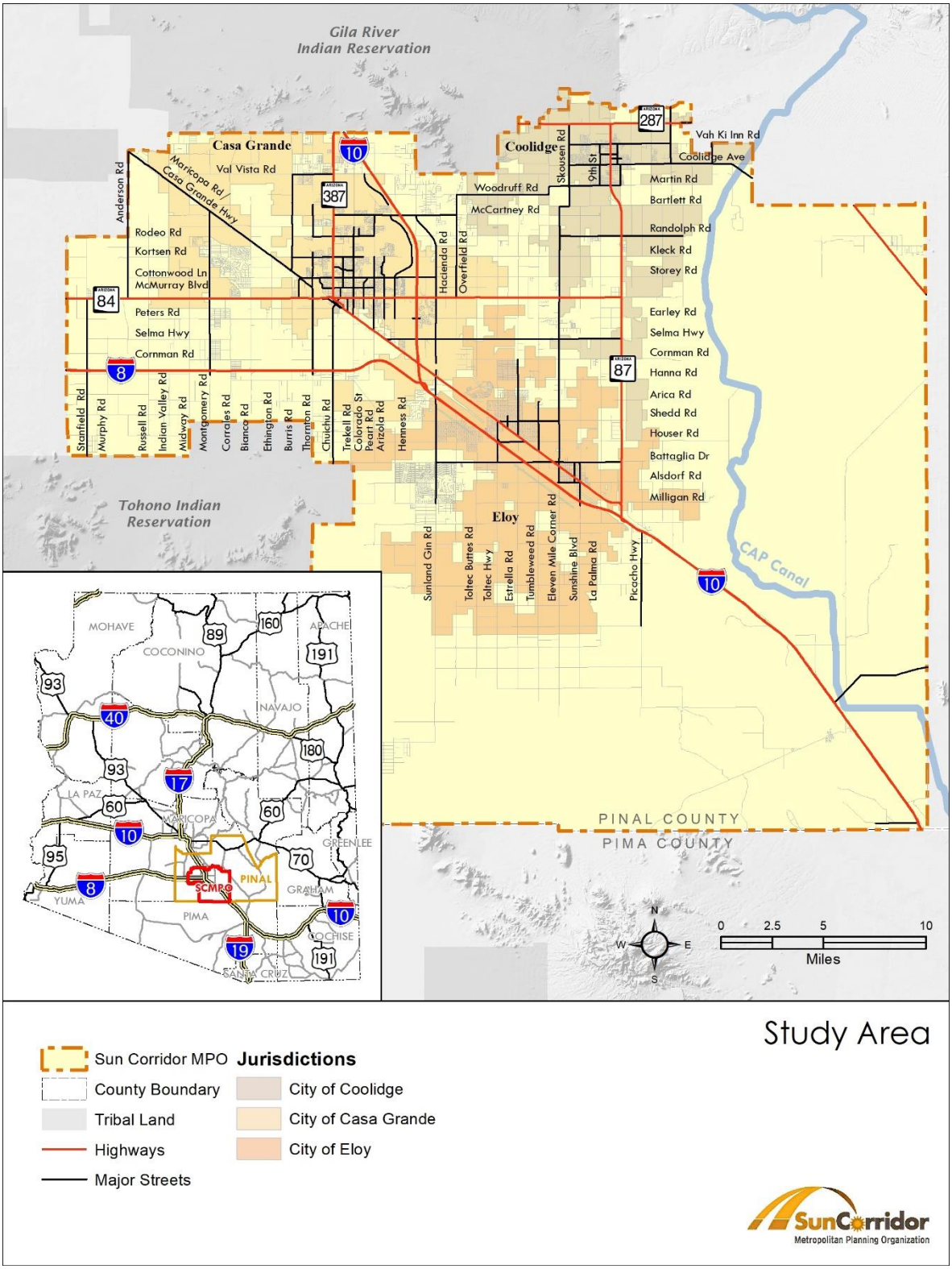


Figure 1.1 – Sun Corridor MPO Region

An Integral Part of the Arizona Sun Corridor Megaregion

The Sun Corridor MPO region is part of a larger area termed the "Sun Corridor." This emerging megaregion, which is a clustered network of cities, shares a common desert environment, infrastructure systems, economic linkages, and other features. The Arizona Sun Corridor megapolitan area, shown in **Figure 1.2**, extends from Prescott, Arizona to Nogales, Arizona and is home to more than 5.5 million people (about the same population size as the state of Wisconsin). By 2050, the megapolitan area is projected to grow to more than 12 million people (about the current population size of Illinois or Ohio). The Arizona Sun Corridor megaregion comprises all of Maricopa, Pinal, and Pima counties, with parts of Yavapai, Santa Cruz, and Cochise counties. The Arizona Sun Corridor is home to over 86 percent of Arizona's population.

Recognizing the tremendous growth and opportunities that lie before them, as well as the current funding and fiscal challenges for transportation and other infrastructure, the Sun Corridor MPO, representing portions of unincorporated Pinal County and the cities of Casa Grande, Coolidge, and Eloy, has developed this Regional Transportation Plan (RTP) 2040 Update.

This Sun Corridor MPO RTP emphasizes the regional cooperation required to improve and maintain the region's transportation infrastructure to best position the region for sustainable economic growth.

Figure 1.2 – Arizona Sun Corridor Megaregion

Sun Corridor MPO Executive Board

Sun Corridor member jurisdictions include the City of Casa Grande, City of Coolidge, City of Eloy, Arizona State Transportation Board, and Pinal County. These member jurisdictions constitute the voting members of the Sun Corridor MPO. There are also several ex-officio representatives of public agencies that work with the Sun Corridor MPO, which are the Federal Highway Administration (FHWA), the Federal Transit Administration (FTA), and the Arizona Department of Environmental Quality (ADEQ). It is the function of the Executive Board to act as a policy body, coordinating transportation planning and related implementation activities within the Sun Corridor MPO transportation region.

Sun Corridor MPO RTP

The Sun Corridor MPO RTP defines the region's strategy for creating a regional transportation system that accommodates the current mobility needs of residents, while also looking to the future. It is a 20-year multimodal plan developed in conjunction with Sun Corridor MPO member jurisdictions, FHWA, ADOT, MAG and CAG.

The RTP describes how federal transportation funds, provided to the Sun Corridor MPO, will be expended over the next 20 years within the Sun Corridor MPO planning area. The RTP is a financially constrained plan, meaning that projected expenditures are programmed consistent with anticipated revenue.

The RTP addresses all modes of transportation, including automobile, bicycle, pedestrian, transit, truck, air, and rail movements. The RTP is updated once every four years, enabling the plan to evolve as the region continues to grow and develop. This Plan is an update of the RTP adopted in March 2016.

This RTP was prepared in accordance with all federal requirements. A checklist of all requirements and how they were addressed is summarized in **Appendix A**.

WHAT IS A REGIONAL TRANSPORTATION PLAN?

The RTP is a long-term blueprint for the region's transportation system.

The plan fulfills federal requirements and serves as the region's transportation vision.

Federal funding cannot be allocated to transportation projects and programs unless they are included in this financially-constrained plan.

The plan is updated every four years to ensure that it continues to meet the needs of the region.

What is the Difference between an RTP and Other Transportation Planning Documents?

The RTP identifies an investment strategy and a project selection and prioritization process to guide how federal funds are spent on transportation improvements within the region. The RTP provides an overall transportation policy vision for the region, as shown in **Figure 1.3**. The direction provided in the RTP is a guide for the more detailed future work of specific project development. The RTP does not replace individual jurisdictions' general plans, transportation master plans, specific circulation plans, capital improvement plans (CIPs), or modal plans such as bicycle, pedestrian, trail, or transit plans.

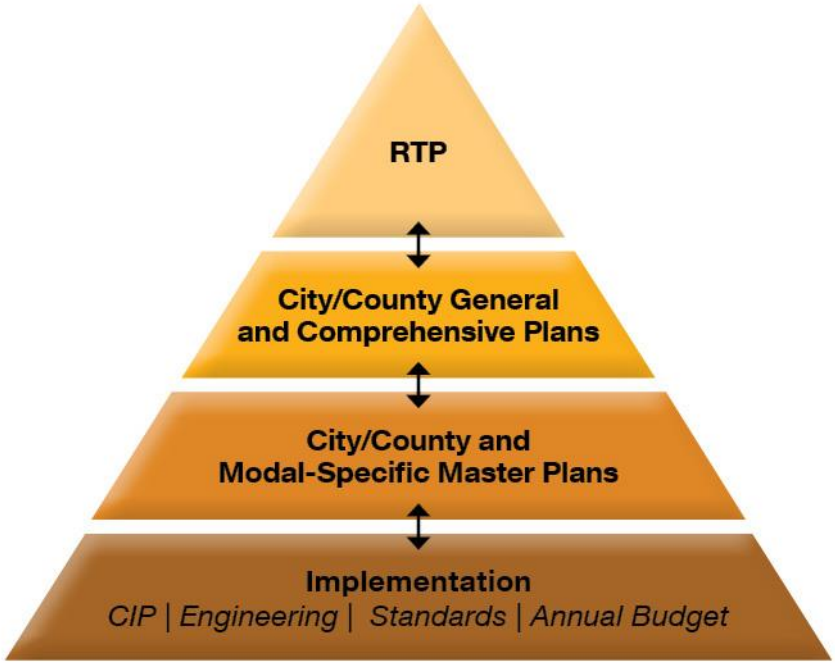


Figure 1.3 – RTP Provides Overall Regional Transportation Policy Vision

The Planning Process

The Sun Corridor MPO RTP represents a collaborative effort to establish a vision for the region's transportation system. The RTP was developed collaboratively based on direction from the Technical Advisory Committee (TAC) while considering public and stakeholder input.

The RTP planning process provides answers to four key questions, as illustrated in **Figure 1.4**, which graphically shows the regional transportation planning process.

1. **Where are we now?** The RTP summarizes existing transportation system conditions.
2. **Where do we want to go?** The RTP establishes transportation system goals and objectives.
3. **What will it take to get us there?** The RTP provides recommendations for each mode of transportation.
4. **How do we allocate our resources?** The RTP presents an investment strategy of how limited resources will be expended for transportation improvements.

Figure 1.4 – The Regional Transportation Planning Process

Sun Corridor MPO RTP Recommended Investment Strategy (RIS)

The Sun Corridor MPO RTP 2040 Update presents an RIS for the expenditure of federal funds within the Sun Corridor MPO region. The RIS priorities were largely developed based on a technical analysis of recent and programmed projects, but also included public and stakeholder input received through stakeholder outreach as well as Sun Corridor TAC member directives. The RIS does not apply to Highway User Revenue Funds (HURF) or other state sources.

The RIS recognizes the public's and stakeholders' priority to maintain existing infrastructure yet provides sufficient flexibility to modernize and expand the transportation system as needed. The RIS drives the allocation of resources and influences project selection yet is sufficiently flexible to allow Sun Corridor MPO agencies to accommodate and respond to changing needs and emerging priorities.

The funding allocations defined in the RIS as presented in **Figure 1.5** underscore the goals of Sun Corridor MPO agencies both to preserve the current system and to expand travel choices for residents and visitors, while also strategically investing to create and retain jobs.

The impact of the RIS on transportation system performance will be limited because of the realities of diminishing long-range revenues. Additionally, funding for pavement preservation is particularly challenging because of the short life cycle of pavement preservation projects (generally six to eight years). However, the RIS allocations across categories show the commitment of Sun Corridor member agencies to:

- ⇒ Improve mobility and safety through modest expansion as needed to address economic development needs;
- ⇒ Preserve the region's major roadways (arterials and collectors);
- ⇒ Support economic development by investing in transportation corridors that improve connectivity to employment; and
- ⇒ Increase safety and efficiency via system modernization.

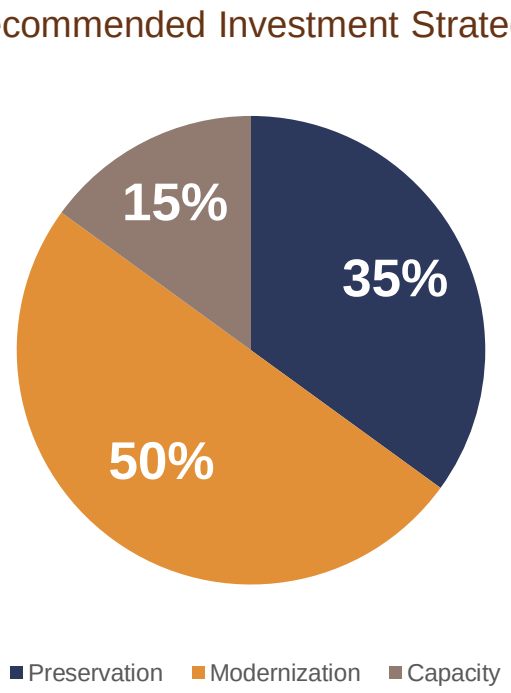


Figure 1.5 – Recommended Investment Strategy

2. COMMUNITY OUTREACH

2. Community Outreach

Citizen involvement, whether through direct contact or by the input of community representatives, is an important part of successful transportation planning. The Sun Corridor MPO is committed to inclusive and meaningful public involvement, as well as open and honest communication with all individuals and entities. Another aspect of public involvement is forming partnerships between member entities and the public and private sectors to plan and implement transportation/congestion solutions. Community outreach is also critical for identifying community goals and context, which provide insight on desired and appropriate transportation solutions.

The public involvement plan for this effort placed major emphasis on engaging the community early in the process. Early engagement allows potentially critical information provided by stakeholders to influence decisions and ensures widespread and inclusive outreach. Accordingly, the resultant stakeholder list had a wide variety of contacts representing government and elected officials, chambers of commerce, public and private transit, railroads, aviation, emergency management, environmental departments, surrounding governments and tribal communities, senior centers, social service agencies, and Central Arizona College. Recognizing both the large amount of land suitable for future development and ongoing development in the planning area, the team made a special effort to engage the development community, including owners of large undeveloped land, builders, and engineers.

Outreach for this project was accomplished through:

- ⇒ **RTP TAC**: Representatives of the Sun Corridor MPO met regularly throughout the project to discuss progress and issues, as well as to provide guidance for the plan. Meeting summaries are posted online at the Sun Corridor MPO website, https://scmpo.org/.
- ⇒ **Sun Corridor MPO Executive Board Briefings:** Briefings were held at key points in the study.
- ⇒ **Board of Supervisors/City Council Briefings**: Presentations on the RTP were made to the cities of Casa Grande, Coolidge, and Pinal County in August 2019. A presentation on the RTP to the City of Eloy was made in October 2019.
- ⇒ **Stakeholder Interviews**: Information was gathered through discussions with city and county staff related to economic development in the region. These meetings shed light on issues and needs of the transportation system relative to future growth.
- ⇒ **Stakeholder Survey**: An online stakeholder survey was conducted in late 2018 to obtain input on RTP plan goals and transportation needs in the community. Survey findings are summarized below.
- ⇒ **Public Meeting**: A public meeting was held January 14, 2020 to present findings of the RTP. The Draft RTP, Draft 2020-2019 Transportation Improvement Program, Draft Air Quality Conformity Analysis, and public meeting display boards were posted on the Sun Corridor MPO website.

Stakeholder Survey

The purpose of the stakeholder survey was to obtain input on the transportation system in the region and help identify the transportation priorities and goals that need to be included in the plan. The online survey was sent to 83 stakeholders, including representatives of:

- ⇒ Sun Corridor MPO jurisdictions
- ⇒ Transit interests
- ⇒ Tourism and business interests
- ⇒ Disaster risk agencies
- ⇒ Rail operators
- ⇒ Aviation providers
- ⇒ Environmental and Arizona State Land Department representatives

- ⇒ Surrounding tribal and municipal communities
- ⇒ Senior citizen and social service groups
- ⇒ Central Arizona College

The 24 survey responses received are summarized as follows.

Quality and/or Performance of the Region's Transportation System

The initial survey question asked respondents to rate the quality or performance of elements of the transportation system. The results (**Table 2.1**) showed that, in general, survey respondents were most satisfied with ease of access to important destinations. Survey respondents expressed the most dissatisfaction with the bicycle network, where 17 out of 24 respondents were either somewhat or very dissatisfied.

Table 2.1 – Summary of Responses to Question 1

Summary of Responses to Question 1 - "Based on your experience, please rate the quality and/or performance of the following elements of the region's transportation system"								
	Very Satisfied (1 pts)	Somewhat Satisfied (2 pts)	Neutral (3 pts)	Somewhat Dissatisfied (4 pts)	Very Dissatisfied (5 pts)	Don't Know/No Opinion	Total Response	Weighted Average*
Ease of Access to Importation Destinations	4.2% 1	54.2% 13	16.7% 4	25.0% 6	0	0	24	2.63
Conditions of Roads	4.2% 1	29.2% 7	29.2% 7	33.3% 8	4.2% 1	0	24	3.04
The Level of Congestion on Roadways	12.5% 3	25.0% 6	29.2% 7	25.0% 6	8.3% 2	0	24	2.92
Bicycle Network (Bicycle Lanes, Shared-Use Paths)	0.0% 0	8.3% 2	20.8% 5	41.7% 10	29.2% 7	0	24	3.92
Pedestrian Infrastructure (Sidewalks and Crosswalks	8.3% 2	12.5% 3	37.5% 9	33.3% 8	8.3% 2	0	24	3.21
Public Transportation (Transit/Bus)	4.2% 1	29.2% 7	16.7% 4	25.0% 6	20.8% 5	4.2% 1	24	3.42

**Weighted average* means that each item being averaged is multiplied by the point value (weight) based on the item's relative importance. The result is summed, and the total is divided by the sum of the weights.

Source: Stakeholder survey responses

Transportation Investment Priorities

Survey respondents were asked what proportion of $100 they would spend on the following types of transportation improvements:

- ⇒ **Preserving Infrastructure:** Regular maintenance and resurfacing of street pavements.
- ⇒ **Improving and Modernizing Infrastructure:** Upgrade the efficiency, functionality, and safety of roadways without adding capacity; examples include safety improvements, technology investments, traffic signal upgrades, sidewalks, and bicycle lanes.
- ⇒ **Expanding Roadway Infrastructure:** Improvements that add transportation capacity through the addition of new facilities, such as new lanes and construction of new roadway facilities.

The survey responses indicated that expanding roadway infrastructure and preserving infrastructure were ranked higher than improving and modernizing infrastructure, as shown in **Table 2.2**.

Table 2.2 – Summary of Responses to Question 2

Summary of Responses to Question 2 - "Imagine that you were given $100 to invest in the following transportation improvements for the region. Using the box next to each improvement type, please enter the portion of that $100 that you would dedicate to that specific improvement."	
Answer Choices	**Average Allocation of $100**
Preserving Infrastructure	$37
Improving and Modernizing Infrastructure	$27
Expanding Roadway Infrastructure	$36

Source: Stakeholder survey responses

Goal Prioritization

A series of questions asked survey respondents to rank their goal priorities by comparing the relative importance of these two goals by allocating 20 points between them. The results of these survey questions indicated the relative priority of transportation goals as summarized in **Figure 2.1**. Roadway and bridge conditions and safety were ranked highest by survey respondents.

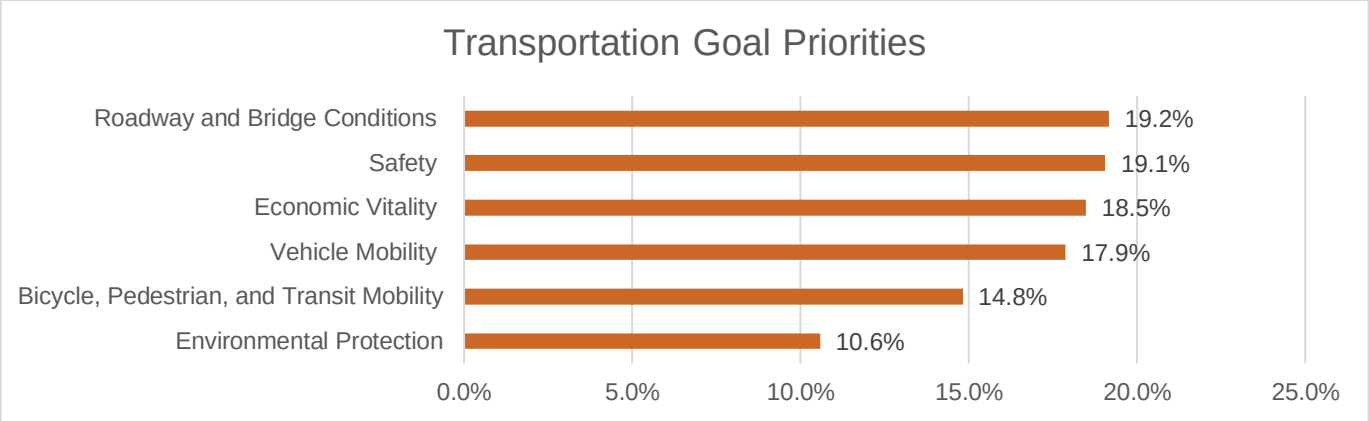


Figure 2.1 – Summary of Stakeholder Input on Transportation Goals

Other Items to be Considered in the RTP

An open response question asked survey respondents "Are there any other items, as it relates to the region's transportation system, that should be considered in the Regional Transportation Plan?" There were 12 responses, of which three were "no" or "N/A." Other responses were:

- ⇒ I-10 widening and Maricopa/Casa Grande Highway should be priorities.
- ⇒ Access to local airports and future passenger rail service between Phoenix and Tucson.
- ⇒ Funding sources
- ⇒ General aviation (GA) airports
- ⇒ Communities outside of the City of Tucson have done a very good job of developing and maintaining their transportation networks.
- ⇒ Signage regulation
- ⇒ Beautification. It's not all about the pavement. The aesthetics are important too. Landscaping, art.
- ⇒ Preservation of the Regionally Significant Routes update, November 2017.
- ⇒ Get the Regional Transportation Authority (RTA) out of the courts.

Public Meeting

A public meeting for the RTP was held on January 14, 2020. The meeting was advertised through the SCMPO website, and through social media sites for SCMPO member jurisdictions. In addition, public meeting information was distributed to everyone on the RTP stakeholder list. The advertisements all included a link to the Draft RTP. The Draft RTP was posted on the SCMPO website and was available at the SCMPO office which is centrally located in Casa Grande.

The public meeting was held at the City of Casa Grande Council Chambers. The format of the meeting was an open house, with display boards providing information on different aspects of the RTP. Staff was available to explain the information on the boards and responded to questions on the RTP. Fourteen persons attended the meeting.

Following the public meeting, there were edits requested by a participating agency member. The requested edits and changes made to the RTP are provided in **Appendix E.**

3. GOALS, OBJECTIVES, AND PERFORMANCE MEASURES

3. Goals, Objectives, and Performance Measures

Moving Ahead for Progress in the 21st Century (MAP-21), the federal highway funding authorization signed into law on July 6, 2012, promoted a performance-based and multimodal transportation program to address the many challenges facing the U.S. transportation system. These challenges include improving safety, maintaining infrastructure conditions, reducing traffic congestion, improving efficiency of the system and freight movement, protecting the environment, and reducing delays in project delivery. The Fixing America's Surface Transportation (FAST) Act, signed into law on December 4, 2015, maintained a performance-based approach to transportation planning.

MAP-21 and the subsequent FAST Act outline funding and procedural requirements for multimodal transportation planning in metropolitan areas and states. They require MPOs and states to develop transportation plans and transportation improvement programs through a performance-driven, outcome-based approach to planning. Emphasis on a performance-driven and outcome-based approach is reflected in this RTP.

Goals and Performance Measures

Performance-based planning methods help to translate a long-range vision into a set of goals, objectives, and performance criteria that can be used to guide investment decisions. Performance-based planning involves the following steps:

1. **Develop goals and objectives:** Goals are broad statements that describe what will be achieved. Objectives are specific and measurable statements to achieve the goals. Goals and objectives were developed in collaboration with the RTP TAC and input on priorities obtained at public meetings.
2. **Identify performance measures:** Performance measures are metrics that are used to assess progress towards meeting an objective.
3. **Establish performance targets:** Targets are measures of performance. In this plan, many of the targets involve exceeding the baseline conditions that are experienced today.
4. **Allocate resources:** This step involves determining the specific approaches that will be used to achieve the targets.
5. **Measure and report results:** This step involves measuring progress on a regular basis.

PERFORMANCE-BASED PLANNING

Performance-based planning helps to ensure that citizens receive results from their tax dollars.

These steps are shown in **Figure 3.1**.

Figure 3.1 – Steps in a Performance-Based Planning Project

For the RTP, the planning process led to the development of goals in six areas:

- ⇒ Roadway and bridge
- ⇒ Safety
- ⇒ Vehicle mobility
- ⇒ Bicycle, pedestrian, and transit
- ⇒ Economic vitality
- ⇒ Environmental protection

Sun Corridor MPO Adopted Arizona Department of Transportation (ADOT) Performance Measures and Targets

In addition to goal areas and targets identified in the 2016 Sun Corridor MPO RTP, the Sun Corridor MPO Executive Board voted in September 2018 to support and adopt ADOT performance measures that were developed in 2018 in the following areas:

- ⇒ Infrastructure condition
- ⇒ Safety
- ⇒ System reliability, freight movement, and economic vitality
- ⇒ Transit
- ⇒ Environmental sustainability

For each Sun Corridor MPO goal area a description of the objective, 2015 baseline condition, 2018 condition, 2020 target, and whether the region is meeting the target is provided in the following sections. Descriptions are also provided that highlight Sun Corridor MPO region compliance with ADOT performance measures adopted by the Sun Corridor MPO Executive Board. The intent of the analysis to show progress moving transportation system performance closer to adopted Sun Corridor MPO and ADOT targets and to inform future investment decisions.

Sun Corridor MPO Roadway and Bridge Conditions Goals and Objectives

The roadway and bridge goal is to maintain the road system in good repair. One objective for this goal is to increase the percentage of arterial and collector roadways in good condition. Pavement condition data from late 2018 and early 2019 was compared to data from 2015. Casa Grande and Coolidge are meeting this goal. In the Eloy area, a decrease in roadway pavement condition was observed; however, discussion with Eloy staff indicated that this reflects the fact that chip sealing was conducted just previous to the 2016 RTP, and now the pavement in these areas has degraded. In addition, this drop reflects a more comprehensive evaluation of the roadway conditions. The other objective is to increase the percentage of bridges classified in good condition. The 2020 target is to increase the percentage of bridges in good, very good, or excellent condition. The region is currently meeting this goal. These goals and objectives are shown in **Table 3.1**.

Sun Corridor MPO Adopted ADOT Infrastructure Condition Goals

The ADOT infrastructure condition goal is to maintain the National Highway System (NHS) in good repair. In the Sun Corridor MPO region, SR 287 from downtown Casa Grande to I-10 is the only non-interstate road segment that is part of the NHS. ADOT has set two-year and four-year targets for pavement and bridge condition, shown in **Table 3.2**. The Sun Corridor MPO region is exceeding ADOT targets for pavement conditions. However, the Sun Corridor MPO region is not meeting the target for the objective of "Percent of NHS Bridges Classified as in Good Condition Based on Deck Area."

Table 3.1 – Sun Corridor MPO Roadway and Bridge Goals, Objectives, and Measures

Goal: Maintain the Road System in Good Repair				
Objective	**2015 Baseline Condition**	**2018 Condition**	**2020 Target**	**Progress Meeting Target?**
Increase the percentage of arterial and collector roadways in good, very good, or excellent condition	Casa Grande: 82.1% Coolidge: 11.3% Eloy: 22.5% Pinal County: 44.3%	Casa Grande: 84.6% Coolidge: 27.2% Eloy: 11% Pinal County: 36.9%	» Increase percentage of roads in good condition	Casa Grande and Coolidge are meeting targets
Increase the percentage of bridges in good condition (not classified as functionally obsolete or structurally deficient)	Percentage of bridges that are not classified as functionally obsolete or structurally deficient: 90.5%	Percentage of bridges that are not classified as functionally obsolete or structurally deficient: 94.4%	» Increase percentage of bridges in good condition	Yes

Source: Information from Jurisdictions

Table 3.2 – Sun Corridor MPO Adopted ADOT Roadway and Bridge Goals, Objectives, and Measures

Sun Corridor MPO Region Progress Towards Implementing Adopted ADOT Infrastructure Conditions Goals			
Objective	**2-Year Target**	**4-Year Target**	**Sun Corridor MPO Region Meeting ADOT Targets?**
Percent of Non-Interstate NHS Pavements in Good Condition*	31%	31%	Yes – 98.5% in good condition
Percent of Non-Interstate NHS Pavements in Poor Condition	6%	6%	Yes – 0% in poor condition
Percent of NHS Bridges Classified in Good Condition Based on Deck Area	52%	52%	No – 17% in good condition
Percent of NHS Bridges Classified in Poor Condition Based on Deck Area	4%	4%	Yes – 0% in poor condition

**Note: There is one non-interstate NHS segment in the Sun Corridor MPO region – SR 287, from downtown Casa Grande to I-10.*

Source: ADOT

Sun Corridor MPO Safety Conditions Goals and Objectives

The safety goal is to reduce the number of fatalities and serious injury crashes on all public roads. The objective for this goal is to improve the five-year rolling average for fatalities and serious injuries. The 2020 target is to decrease the five-year rolling average for both fatalities and incapacitating injuries. Based on a review of the most recent five-year rolling average for crash data, the Sun Corridor MPO region is meeting this goal, as shown in **Table 3.3**.

Table 3.3 – Sun Corridor MPO Safety Goals, Objectives, and Measures

Goal: Reduce Number of Fatalities and Serious Injury Crashes on all Public Roads				
Objective	**2015 Baseline Condition**	**2018 Condition**	**2020 Target**	**Progress Meeting Target?**
Improve the five-year rolling average for: » Fatalities » Serious (incapacitating) Injuries	» Average Number of Fatalities, 2010-2014: 20 » Average Number of Serious Injuries, 2010-2014: 45	» Average Number of Fatalities, 2013-2017: 18 » Average Number of Serious Injuries, 2013-2017: 38	» Decrease the five-year rolling average for fatalities » Decrease the five-year rolling average for incapacitating injuries	Yes

Source: ADOT Crash Data

Sun Corridor MPO Adopted ADOT Safety Goals and Objectives

The ADOT safety goal is to reduce traffic fatalities and serious injuries on all public roads. Objectives include reducing the number and rate of fatalities, serious injuries, and non-motorized fatalities and serious injuries. The number of fatalities measure is the total number of persons suffering fatal injuries in a motor vehicle crash during a calendar year, and the number of serious injuries measure is the total number of persons suffering serious injuries during a calendar year. The number of non-motorized fatalities and non-motorized serious injuries is the combined total of both injury types involving a motor vehicle during a calendar year. Both the rate of fatalities, and the rate of serious injuries measures, are an indicator of the quantity of each incident type by 100 million vehicle miles traveled in a calendar year. The most recent five-year period of data is shown in **Table 3.4**. Trends based on the rolling five-year average will be part of future RTP updates, as these data become available.

Table 3.4 – Sun Corridor MPO ADOT Safety Goals, Objectives, and Measures

Sun Corridor MPO Region Progress Towards Implementing Adopted ADOT Safety Goals			
Objective	**Data 2013-2017**	**Targets**	**Sun Corridor MPO Region Meeting Adopted ADOT Targets?**
Reduce Number of Fatalities	18 (average # fatalities)	3% Increase	ADOT targets too new to determine trends (10% decrease in fatalities and 18% decrease in serious injuries since last RTP)
Reduce Rate of Fatalities	3.30 fatal crashes per 100 million vehicle-miles of travel	2% Increase	
Reduce Number of Serious Injuries	38 (average # of serious injuries)	3% Decrease	
Reduce Rate of Serious Injuries	6.96 serious injury crashes per 100 million vehicle-miles of travel	3% Decrease	
Reduce Number of Non-Motorized Fatalities and Serious Injuries	6.4 (average # of fatalities and serious injuries)	3% Increase	

Source: ADOT Crash Data

While the rolling five-year average cannot yet be compared to the ADOT targets, the number of annual fatalities and severe injuries for 2013 through 2017 was analyzed to determine how the Sun Corridor MPO region is trending. The annual number of fatalities and severe injuries is provided in **Figure 3.2**. The number of fatalities has fluctuated, ranging from 15 fatalities in 2014 to 24 fatalities in 2013. Severe injuries have generally been decreasing, ranging from 69 in 2013 to 45 in 2014.

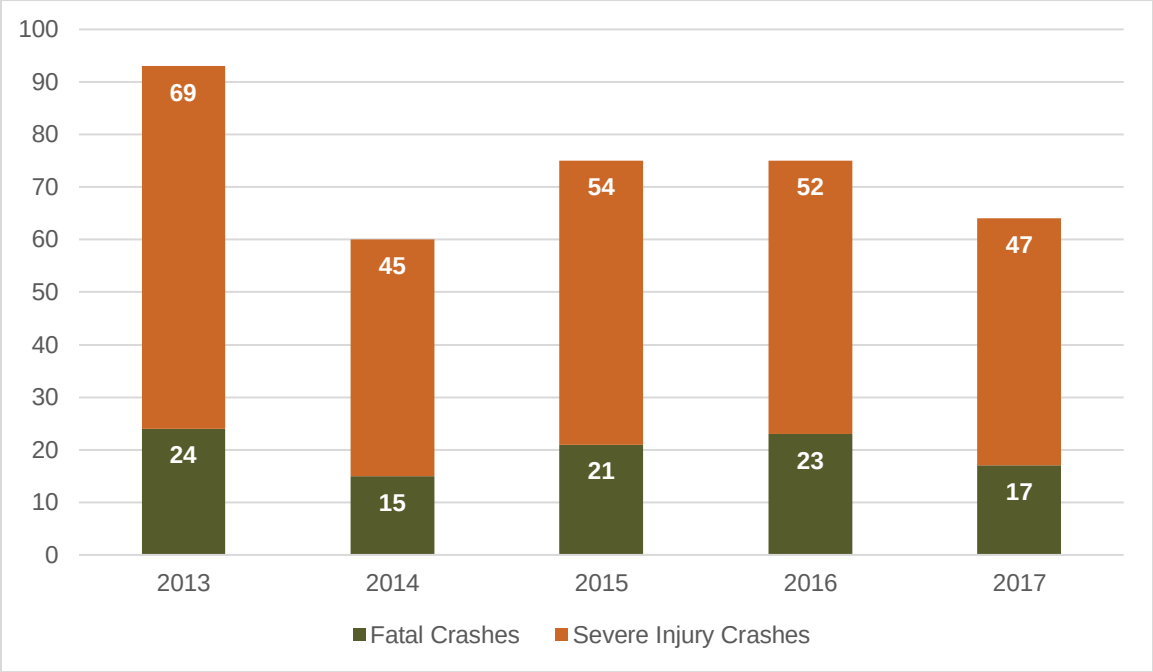


Figure 3.2 – Annual Fatal and Serious Injury Crashes in the Sun Corridor MPO Region

Sun Corridor MPO Vehicle Mobility Goals and Objectives

The vehicle mobility goal is to reduce travel time in the region by providing new roadway connections and improving existing roadway connections. One objective for this goal is to reduce the annual hours of delay on major arterials and collectors in the region. The 2015 baseline condition is the number of vehicle hours traveled, which is estimated to be 63,146 vehicle hours. The 2018 condition is currently 80,504 vehicle hours.

The other objective is to reduce the number of roadway segment miles with unacceptable level of service (LOS E or F) on major arterials and collectors. Since there are currently no road segment miles that perform at LOS E or F, the 2020 target is to continue to have zero miles of roadways operating at LOS E or F. Year 2018 travel demand forecast model data indicated that the region is meeting this objective. These goals and objectives are shown in **Table 3.5**.

Table 3.5 – Sun Corridor MPO Vehicle Mobility Goals, Objectives, and Measures

Goal: Reduce Travel Times in the Region by Providing New and Improved Existing Roadway Connections				
Objective	**2015 Baseline Condition**	**2018 Condition**	**2020 Target**	**Progress Meeting Target?**
Reduce annual hours of delay on major arterials and collectors	» 2010 Vehicle Hours Traveled: 63,146	» 2018 Vehicle Hours Traveled: 80,504	» Decrease annual vehicle hours traveled	No
Reduce roadway segment miles with unacceptable LOS (E or F) on major arterials and collectors	» There are currently zero road segment miles that perform at LOS E or F	» There are currently zero road segment mile that perform at LOS E or F	» Zero miles of roadway operating at LOS E and F	Yes

Source: MAG Travel Demand Model, LOS analysis by Kimley-Horn

Sun Corridor MPO Adopted ADOT System Reliability, Freight Movement, and Economic Vitality Goals and Objectives

ADOT's vehicle mobility goals are in two areas:

- ⇒ **System reliability:** The goal is to improve the efficiency of the surface transportation system.
- ⇒ **Freight movement and economic vitality:** The goal is to improve the national freight network and strengthen rural access to national/international markets and support economic development.

Travel time reliability is significant to many transportation system users, whether they are vehicle drivers, transit riders, freight shippers, or even air travelers. Personal and business travelers value reliability because it allows them to make better use of their own time. Shippers and freight carriers require predictable travel times to remain competitive. The Travel Time Reliability Index represents the total travel time that should be planned when an adequate buffer time is included. The index includes typical delay plus unexpected delay, including a comparison of near worst-case travel time to a travel time in light or free-flow traffic. For example, a planning time index of 1.60 means that, for a 15-minute trip in light traffic, the total time that should be planned for the trip is 24 minutes (15 minutes x 1.60 = 24 minutes). Travel time reliability is defined as the ratio of longer travel times (80th percentile) to a "normal" travel time (50th percentile), using data from FHWA's National Performance Management Research Data Set. Data is collected in 15-minute segments during all time periods between 6 a.m. and 8 p.m. local time. The measure is the percent of person-miles traveled on the relevant portion of the NHS that are reliable. Person miles account for NHS users including bus, automobile, and truck occupancy levels.

The targets for these objectives are shown in **Table 3.6**. Data acquisition to effectively evaluate these measures is ongoing.

Table 3.6 – Sun Corridor MPO ADOT Adopted Vehicle Mobility Goals, Objectives, and Measures

Sun Corridor MPO Region Progress Towards Implementing Adopted ADOT System Reliability and Freight Movement and Economic Vitality Goals			
Objective	**2-Year Target**	**4-Year Target**	**Sun Corridor MPO Region Meeting Adopted ADOT Targets?**
Freight Reliability on the Interstate (Truck Travel Time Reliability Index)	1.21	1.23	Data for these targets are not available currently
Interstate Travel Time Reliability (Percent of Person-Miles that have Reliable Travel Times on the Interstate)	86%	85.8%	
Non-Interstate NHS Travel Time Reliability (Percent of Person-Miles that have Reliable Travel Times on the Non-Interstate NHS)	N/A	74.9%	

Source: ADOT

Sun Corridor MPO Economic Vitality Goals and Objectives

The economic vitality goal is to provide more jobs in the region. The objective for this goal is to increase the number of total primary jobs within the region. The 2015 baseline condition for this goal involves several indicators: total primary jobs, persons employed and living in the Sun Corridor MPO region, inflow employees, and outflow employees.

It should be noted that the 2015 baseline condition is reported using 2013 U.S. Census data. The most current data, reported in the 2018 condition column, is based on 2015 U.S. Census data, which is the latest available for this type of information. The 2020 target is to increase the total number of primary jobs in the region. Based on these data, the region is meeting this objective, as primary jobs have increased from 21,754 to 21,962 jobs. These data are shown in **Table 3.7**.

Table 3.7 – Sun Corridor MPO Economic Vitality Goals, Objectives, and Measures

Goal: Provide More Jobs in the Region				
Objective	**2015 Baseline Condition**	**2018 Condition**	**2020 Target**	**Progress Meeting Target?**
Increase the number of jobs in the region	» Total Primary Jobs: 21,754 » Employed and Living in the Region: 11,316 » Inflow Employees: 10,438 » Outflow Employees: 23,572	» Total Primary Jobs: 21,962 » Employed and Living in the Region: 11,108 » Inflow Employees: 10,854 » Outflow Employees: 24,608	» Increase total primary jobs in the region	Yes, total primary jobs have increased

Source: U.S. Census, 2015 and 2018 data

Sun Corridor MPO Bicycle, Pedestrian, and Transit Goals and Objectives

The bicycle, pedestrian, and transit goal is to provide more bicycle, pedestrian, and transit options regionwide. There are three objectives to address this goal. The first objective is to increase annual transit vehicle service miles and annual transit vehicle service hours for public transit systems in the region – currently the Cotton Express and the Central Arizona Regional Transit System (CART). Comparing 2015 to 2018 transit data, the Cotton Express has increased service miles, and CART has increased service hours. The second objective is to increase the annual transit passenger trips for public transit systems. Comparing 2015 with 2018 data, both transit systems have decreased ridership. The third objective is to increase the number of miles of new bicycle infrastructure in the region. Comparing the 2015 baseline data with 2018 data, jurisdictions in the region are meeting this objective. These data are provided in **Table 3.8**.

Table 3.8 – Sun Corridor MPO Bicycle, Pedestrian, and Transit Goals, Objectives, and Measures

Goal: Provide More Bicycle, Pedestrian, and Transit Options Regionwide				
Objective	**2015 Baseline Condition**	**2018 Condition**	**2020 Target**	**Progress Meeting Target?**
Increase annual transit vehicle service miles and annual vehicle service hours	**Annual Vehicle Service Miles** » CART: 146,141 miles » Cotton Express: 76,221 miles **Annual Vehicle Service Hours** » CART: 4,788 hours » Cotton Express: 9,898 hours	**Annual Vehicle Service Miles** » CART: 119,344 miles » Cotton Express: 84,328 miles **Annual Vehicle Service Hours** » CART: 12,985 hours » Cotton Express: 9,750 hours	» Increase annual vehicle service miles » Increase annual vehicle service hours	The Cotton Express has increased service miles; CART has increased service hours
Increase annual transit passenger trips	**Annual Transit Ridership** » CART: 26,224 trips » Cotton Express: 27,687 trips	**Annual Transit Ridership** » CART: 12,985 trips » Cotton Express: 20,098 trips	» Increase in annual ridership	No
Increase the number of miles of new bicycle infrastructure in the region	**Miles of Arterials and Collectors with Bike Lanes** » Casa Grande: 31.42 miles of striped bike lane » Coolidge: 8.17 miles of paved shoulder four feet wide or greater » Eloy: 6.49 miles of paved shoulder, 0.94 miles striped bike lane » Pinal County: No designated bicycle facilities	**Miles of Arterials and Collectors with Bike Lanes** » Casa Grande: 41.13 miles of striped bike lanes » Coolidge: 8.17 miles of paved shoulder four feet wide or greater » Eloy: 13.20 miles of bike lanes » Pinal County: 0.82 miles of paved shoulder four feet wide or greater	» Increase miles of principal arterials, major arterials, and major collectors with bike lanes	Yes, Casa Grande, Eloy, and Pinal County have increased miles of bicycle infrastructure

Source: Transit data: City of Coolidge, Bicycle infrastructure data: SCMPO Jurisdictions

Sun Corridor MPO Adopted ADOT Transit Goals and Objectives

Sun Corridor MPO and ADOT have adopted FTA transit targets in the areas of revenue vehicles, equipment, and facilities:

- ⇒ **Revenue vehicles:** Percentage of revenue vehicles within a particular asset class that have met or exceeded their useful life benchmark (ULB)
- ⇒ **Equipment:** Percentage of vehicles that have met or exceeded their ULB
- ⇒ **Transit facilities:** Percentage of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) scale

The ULB is defined as the expected life cycle of a capital asset for a particular transit provider's operating environment, or the acceptable period of use in service for a particular transit provider's operating environment. Transit agencies report the age of all vehicles to the National Transit Database. FTA tracks the performance of revenue vehicles (rolling stock) and service vehicles (equipment) by asset class, by calculating the percentage of vehicles that have met or exceeded the ULB. FTA has set a default ULB as the expected service years for each vehicle class in **Table 3.9**. Currently CART is meeting this goal, as this service has 25%, or one vehicle, that exceeds the ULB. The Cotton Express has an older fleet of vehicles, and currently 57% of their fleet is 10 years of age or older, so the service is not meeting the target of 30%.

The ULB for service vehicles is shown in **Table 3.10**. The CART and Cotton Express share one shop truck, which is 13 years old, although it is noted in good condition. Since it does not meet the ULB, this criterion is not met.

The transit facilities target notes a percentage of facilities with a condition rating below 3.0 on the FTA TERM scale. The TERM scale is a condition rating defined as follows:

TERM Rating	Condition	Description
Excellent	4.8 - 5.0	No visible defects, near new condition
Good	4.0 - 4.7	Some slightly defective or deteriorated components
Adequate	3.0 - 3.9	Moderately defective or deteriorated components
Marginal	2.0 - 2.9	Defective or deteriorated components in need of replacement
Poor	1.0 - 1.9	Seriously damaged components in need of immediate repair

Goals, objectives, and measures for transit facilities are shown in **Table 3.11**. The City of Coolidge has a transit terminal that serves both the Cotton Express and CART transit services. It is in good condition and includes administrative offices, maintenance facilities, parking lot, and passenger transit stop. This facility meets the ADOT target for transit facilities.

Table 3.9 – Sun Corridor MPO Adopted ADOT Transit Revenue Vehicle Goals, Objectives, and Measures

Adopted ADOT Transit Revenue Vehicles Targets: Percentage of Revenue Vehicles within a Particular Asset Class that Have Met or Exceeded their ULB								
Asset Class	**Default ULB in Years**	**2019 Target**	**CART Meeting 2019 Targets?**	**Cotton Express Meeting 2019 Targets?**	**2020 Target**	**2021 Target**	**2022 Target**	**2023 Target**
Automobile	8	30%	N/A	N/A	28%	28%	26%	26%
Cutaway Bus	10	30%	Yes	No	28%	28%	26%	26%
Minibus	10	30%	N/A	N/A	28%	28%	26%	26%
Minivan	8	30%	N/A	N/A	28%	28%	26%	26%
Sport Utility Vehicle	8	30%	N/A	N/A	28%	28%	26%	26%
Van	8	30%	N/A	N/A	28%	28%	26%	26%

Source: City of Coolidge

Table 3.10 – Sun Corridor MPO Adopted ADOT Transit Equipment Goals, Objectives, and Measures

Adopted ADOT Transit Equipment Targets: Percentage of Vehicles that Have Met or Exceeded their ULB								
Asset Class	**Default ULB in Years**	**2019 Target**	**CART Meeting 2019 Targets?**	**Cotton Express Meeting 2019 Targets?**	**2020 Target**	**2021 Target**	**2022 Target**	**2023 Target**
Non-Revenue/Service Automobile	8	50%	N/A	N/A	50%	50%	50%	50%
Trucks and Other Rubber Tire Vehicles	8	50%	No	No	50%	50%	50%	50%

Source: City of Coolidge

Table 3.11 – Sun Corridor MPO Adopted ADOT Transit Facilities Goals, Objectives, and Measures

Adopted ADOT Facilities Targets: Percentage of Facilities with a Condition Rating Below 3.0 on the FTA TERM Scale							
Asset Class	**2019 Target**	**CART Meeting 2019 Targets?**	**Cotton Express Meeting 2019 Targets?**	**2020 Target**	**2021 Target**	**2022 Target**	**2023 Target**
Administration	20%	Yes	Yes	20%	20%	20%	20%
Maintenance	20%	Yes	Yes	20%	20%	20%	20%
Parking Structures	20%	Yes	Yes	20%	20%	20%	20%
Passenger Facilities	20%	Yes	Yes	20%	20%	20%	20%

Source: City of Coolidge

Sun Corridor MPO Environmental Protection Goals and Objectives

The environmental protection goal is to protect and enhance the natural environment through measures such as paving more dirt roads to reduce dust, noise, and air pollution. The objective of this goal is to decrease the number of miles of unpaved roads, which will decrease dust pollution. Comparing the 2015 baseline condition with 2018 data, Pinal County has reduced the miles of unpaved roads. The Pinal County Fugitive Dust Rule established a goal to pave 15 miles per year for three years. These data are shown in **Table 3.12**.

Table 3.12 – Sun Corridor MPO Environmental Goals, Objectives, and Measures

Goal: Protect and Enhance the Natural Environment - Pave More Dirt Roads to Reduce Dust, Noise, and Air Pollution				
Objective	**2015 Baseline Condition**	**2018 Condition**	**2020 Target**	**Progress Meeting Target?**
Decrease the number of miles of unpaved roads, which will decrease dust pollution	Miles of unpaved roads: » Casa Grande: 32 miles » Coolidge: 69 miles » Eloy: 67 miles » Pinal County: 225 miles of gravel/dirt roads, 113 miles of asphalt-rock dust palliatives	Miles of unpaved roads: » Casa Grande: 26 miles » Coolidge: 70 miles » Eloy: 74 miles » Pinal County: 206 miles of gravel/dirt roads, 130.45 miles of asphalt-rock dust palliatives	» Reduce miles of unpaved roads	Casa Grande and Pinal County have reduced miles of dirt roads

Source: SCMPO jurisdictions

Sun Corridor MPO Adopted ADOT Environmental Sustainability Goals and Objectives

The ADOT environmental sustainability goal is to enhance the performance of the transportation system while protecting and enhancing the natural environment. ADOT has set two-year and four-year targets for levels of volatile organic compounds, carbon monoxide, nitrogen oxides, particulate matter less than or equal to 10 microns, and particulate matter less than or equal to 2.5 microns. SCMPO has committed to helping ADOT achieve these targets. Goals, objectives, and measures for environmental sustainability are shown in **Table 3.13**.

Table 3.13 – Sun Corridor MPO Adopted ADOT Environmental Sustainability Goals, Objectives, and Measures

Sun Corridor MPO Progress Towards Implementing Adopted ADOT Environmental Sustainability Goals – Congestion Mitigation and Air Quality (CMAQ) Emissions Reductions (Kilograms per Day)			
Objective	**2-Year Target (kilograms/day)**	**4-Year Target (kilograms/day)**	**Progress Meeting Target?**
Volatile Organic Compounds	210	385	SCMPO commitment as reflected in 2020-2029 Transportation Improvement Program
Carbon Monoxide	3,720	6,985	
Nitrogen Oxides	418	761	
Particulate Matter Less than or Equal to 10 microns	873	1,399	
Particulate Matter Less than or Equal to 2.5 microns	69	112	

Source: ADOT

4. ECONOMIC DEVELOPMENT AND TRANSPORTATIONON

4. Economic Development and Transportation

Economic development and transportation are closely intertwined. An efficient transportation system is essential to a market economy. Efficient transportation facilities provide economic benefits such as accessibility to markets and labor resources. An effective transportation network helps customers to easily reach markets, employees to get to work, and industry to ship goods faster. Businesses, ranging from shopping malls to industrial factories, make location and development decisions based on nearby transportation facilities.

Inefficient transportation facilities have an economic cost, such as missed economic opportunities and lower quality of life, that results from congestion or long commutes.

The RTP recognizes the intrinsic link between transportation and economic development. The Sun Corridor MPO and RTP TAC members are committed to selecting, prioritizing, and funding projects that maximize economic impact while serving other transportation purposes. To this end, economic development is considered throughout the RTP. The RTP established an economic development-focused goal:

⇒ **RTP Goal:** Increase the number of primary jobs in the region.

To achieve this goal, during the Transportation Improvement Program (TIP) development, each project nominated by Sun Corridor MPO TAC member agencies will be evaluated for its potential to impact economic development according to the following criteria:

⇒ The project serves or improves connectivity and mobility to an existing or planned major regional employment/activity center.

Application of these criteria to candidate projects will help to ensure that transportation investments are devoted to where they will have the most economic benefit.

Economic Development Areas of Interest

Over the next 25 years and beyond, the Sun Corridor MPO region is positioned to experience sustained economic development growth. Sun Corridor MPO and its member agencies are committed to promoting projects that improve access to existing employment centers, as well as to new and emerging centers. These expanding or proposed economic development locations are summarized in **Table 4.1** and shown in **Figure 4.1**.

Each of these facilities is expected to add 50 or more employees to their workforce. These additions and expansions, because they are occurring in exporting ("basic") industries, will tend to produce a higher jobs multiplier effect for the region than most other types of new economic activity. A number of these additions and expansions in Casa Grande and Coolidge are in an area where major concentrations of industrial activity already exist.

The Sun Corridor MPO region will benefit from access to I-10 and I-8. The Sun Corridor MPO TAC is committed to implementing projects that maintain adequate performance on these and other key roadway facilities in order to best support economic growth and development. The Sun Corridor MPO supports additional access to I-10 so that congested or limited access does not become a constraint to growth.

Table 4.1 – Proposed Major Economic Development Projects

Number (refer to Figure 4.1)	Name	Description
1	Nikola Motor Company	Nikola Motor Company is a 400-acre development that is anticipated to occur in the Inland Port Arizona located within the city limits of Coolidge and adjacent to Eloy. It is a hydrogen-electric vehicle manufacturing company that is expected to break ground in 2020 and begin operation in 2022. In order to receive the full tax incentives provided by Coolidge and Pinal County, the company is required to employ at least 1,800 people by 2025. At full build-out, with surrounding supporting uses in place, Nikola and the surrounding land is anticipated to employ as many as 5,400 people.
2	Lucid Motors	Lucid Motors, another electric vehicle manufacturing operation, will begin construction in 2019 in an area on the southwest side of Casa Grande near the intersection of Thornton and Peters Roads. At full build-out, this facility is expected to employ approximately 2,200 people. Tractor Supply, which is located adjacent to the proposed location for Lucid Motors, is expected to employ approximately 300 people in the near future.
3	Central Arizona Commerce Park	The rail-served Central Arizona Commerce Park, located on the southwest side of Casa Grande, has seen some growth in recent years and is anticipated to accommodate approximately 500 jobs at full build-out.
4	Attesa	Attesa is a 2,500-acre private motor sports complex on the southwest corner of Casa Grande. Phase 1 of the development, a membership road course, is planned to break ground in 2019. Ultimately the development will include two racetracks, an entertainment center, hotel, retail, and residences. The development is anticipated to generate more than 10,000 jobs directly or indirectly.
5	Pinal Airpark	Due to its location along I-10 and recent interest from several entities, it is expected that the area around Pinal Airpark will become a major employment center, with an expected 1,000 jobs at full build-out. Additionally, the airport is anticipated to become a large cargo hub.
6	Agronomy Innovations	Agronomy Innovations is a medicinal marijuana farming operation in Coolidge with approximately 80 current employees that is anticipated to double in size.
7	PhoenixMart	PhoenixMart, which is a business-to-business marketplace intending to serve markets at a global scale, appears to be continuing construction. The project also involves a planned adjacent major industrial park.
8	Bright International	Bright International is a hair care product manufacturing company in Coolidge with approximately 280 current employees that is anticipated to grow substantially over the coming years.
9	Dreamport Village	Dreamport Villages is 1,500-acre amusement park and destination resort planned near the I-10 and I-8 interchange. Phase 1 of the project is anticipated to generate 5,800 jobs. At full build-out, which is planned over the next ten years, the project is anticipated to generate 15,000 jobs.
10	Frito-Lay	Frito-Lay is a food manufacturing company with a large presence in the area on the west side of Casa Grande already. At approximately 500 employees, it is anticipated to grow.
11	LKQ and Food for Life	LKQ is a vehicle recycling company, and Food for Life is a national organic food baker, which have a combined employment of 100 employees. At full build-out, these employers are expected to have a combined 1,000 employees.
12	Stinger Welding	Stinger Welding is a welding and expansion joint manufacturer in Coolidge that is anticipated to grow substantially in the short term.

Source: Sun Corridor MPO

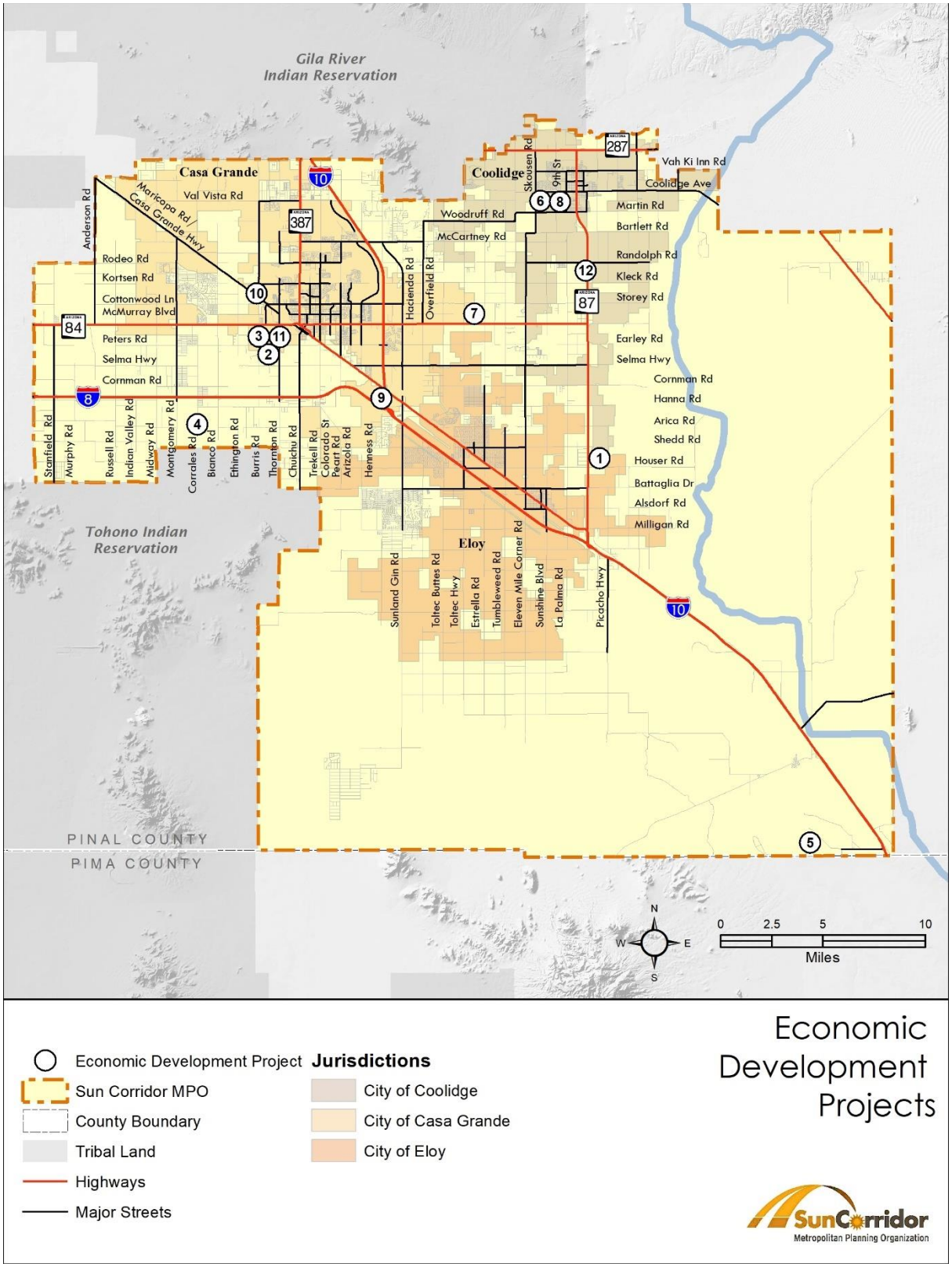


Figure 4.1 – Proposed Economic Development Locations

5. CURRENT AND FUTURE POPULATION AND EMPLOYMENT

5. Current and Future Population and Employment

Population, employment, demographics, and growth location helps define transportation needs and choices. As the population grows, the need for roadways to facilitate travel and mobility needs will also grow. This chapter summarizes current (2018) population and employment data and provides a projection of future (2035 and 2040) population and employment.

Population and Employment

Current Population

The Sun Corridor MPO planning area 2018 population is estimated to be 127,960 persons.[1] The most populated areas are centered primarily in the incorporated cities of the region, as shown in **Figure 5.2** on the next page.

The darker areas in the figure represent higher population. Population by community, according to the latest five-year estimates from the American Community Survey (2017), is estimated to be:

- ⇒ **City of Casa Grande** – 52,501 persons
- ⇒ **City of Coolidge** – 12,221 persons
- ⇒ **City of Eloy** – 17,537 persons (this includes residents in CoreCivic, the Eloy Detention Center)
- ⇒ **Pinal County (entirety)** – 405,537 persons

Future Population

Future population estimates were developed in collaboration with study stakeholders. The project team worked with Sun Corridor MPO jurisdictions, ADOT, Sun Corridor MPO, and MAG to review population and employment projections. Population projections must also be consistent with those developed by the State Demographer's Office.

Population is anticipated to grow from today's 127,960 persons to approximately 284,268 persons in 2040. This represents an annual average growth rate of 3.69% per year over the next 22 years. Population projections for the region are shown graphically in **Figure 5.1** and are taken from the MAG Travel Demand Model.

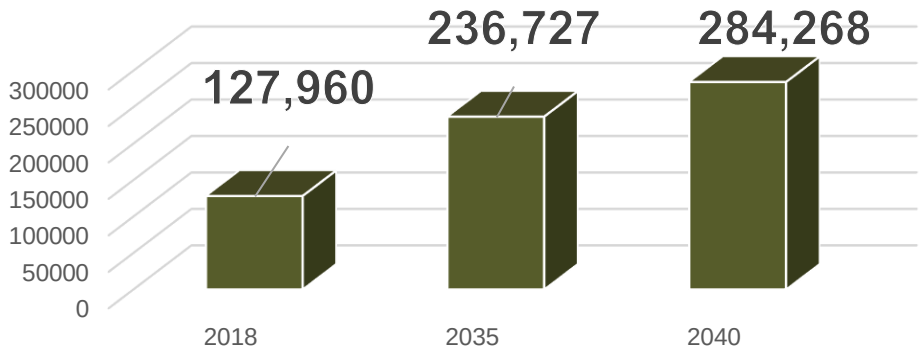


Figure 5.1 – Projected Population Growth for the Sun Corridor Region

[1] *Source: MAG Travel Demand Model*

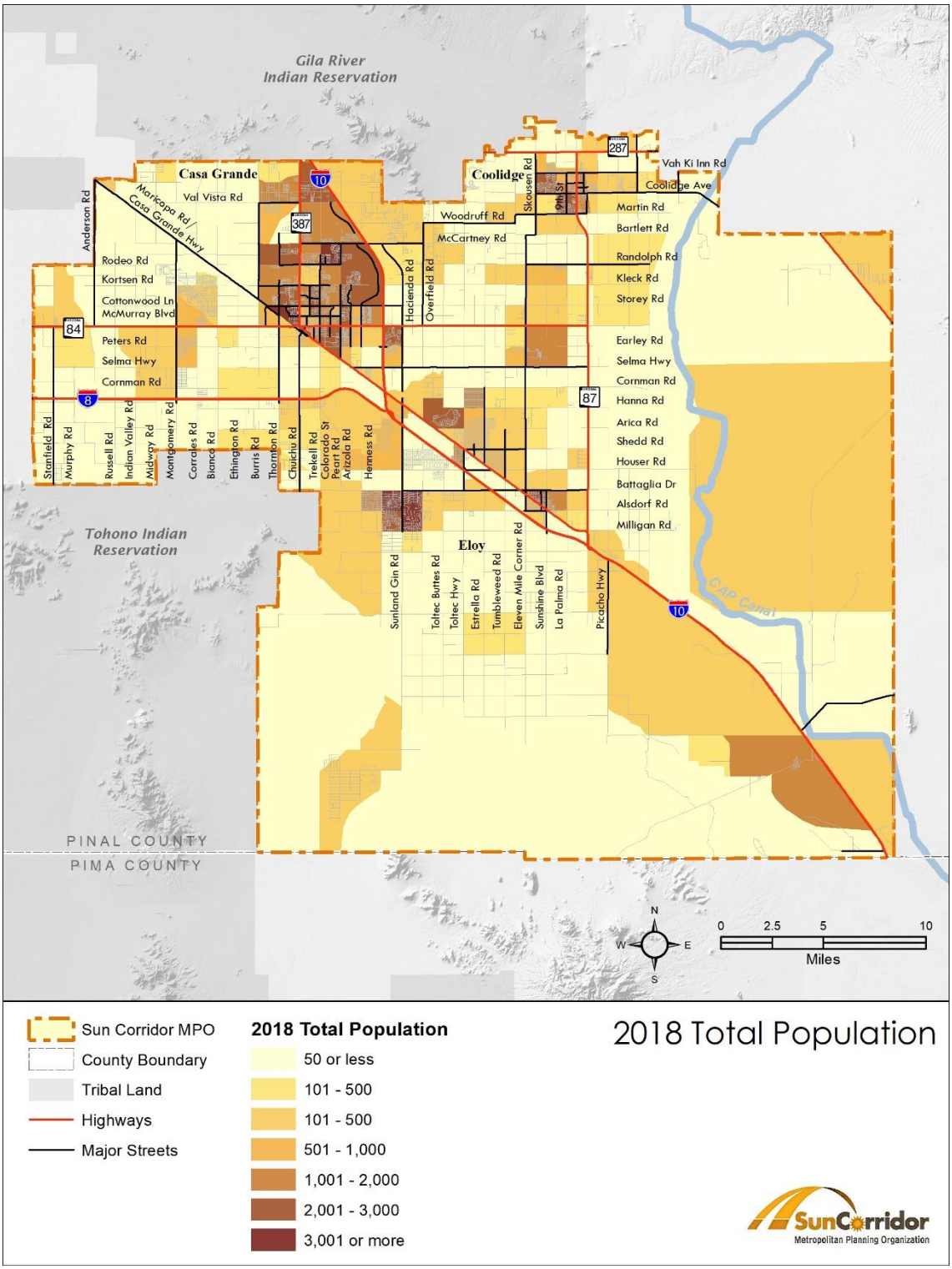


Figure 5.2 – 2018 Total Population in the Sun Corridor Region

As an extra check on the MAG population growth rate, historic growth rates for the region were evaluated to determine if they are similar to what MAG estimates. While population statistics for the Sun Corridor Region as a whole were not available from the U.S. Census Bureau, statistics for the three municipalities and Pinal County as a whole can be quantified. These historic population statistics and calculated growth rates are provided in **Table 5.1**.

Table 5.1 – Historic Growth Rates

Location	1990 Population	2000 Population	2010 Population	2017 Population Estimate	1990-2017 Annual Growth Rate
Pinal County	116,453	181,071	379,504	430,237	4.96%
Casa Grande	19,187	26,799	48,971	55,477	4.01%
Coolidge	6,916	8,587	11,913	12,698	2.28%
Eloy	7,183	10,575	16,833	19,168	3.70%

Source: U.S. Census

The forecasted population growth rates are within a similar range as historic growth rates within the region. Historic annual growth rates range from 2.28% (in Coolidge) to 4.96% (for Pinal County); the forecasted growth rate for the Sun Corridor region is central within that range at 3.69%. Population estimates for 2035 and 2040 are shown graphically in **Figure 5.3** and **Figure 5.4.**

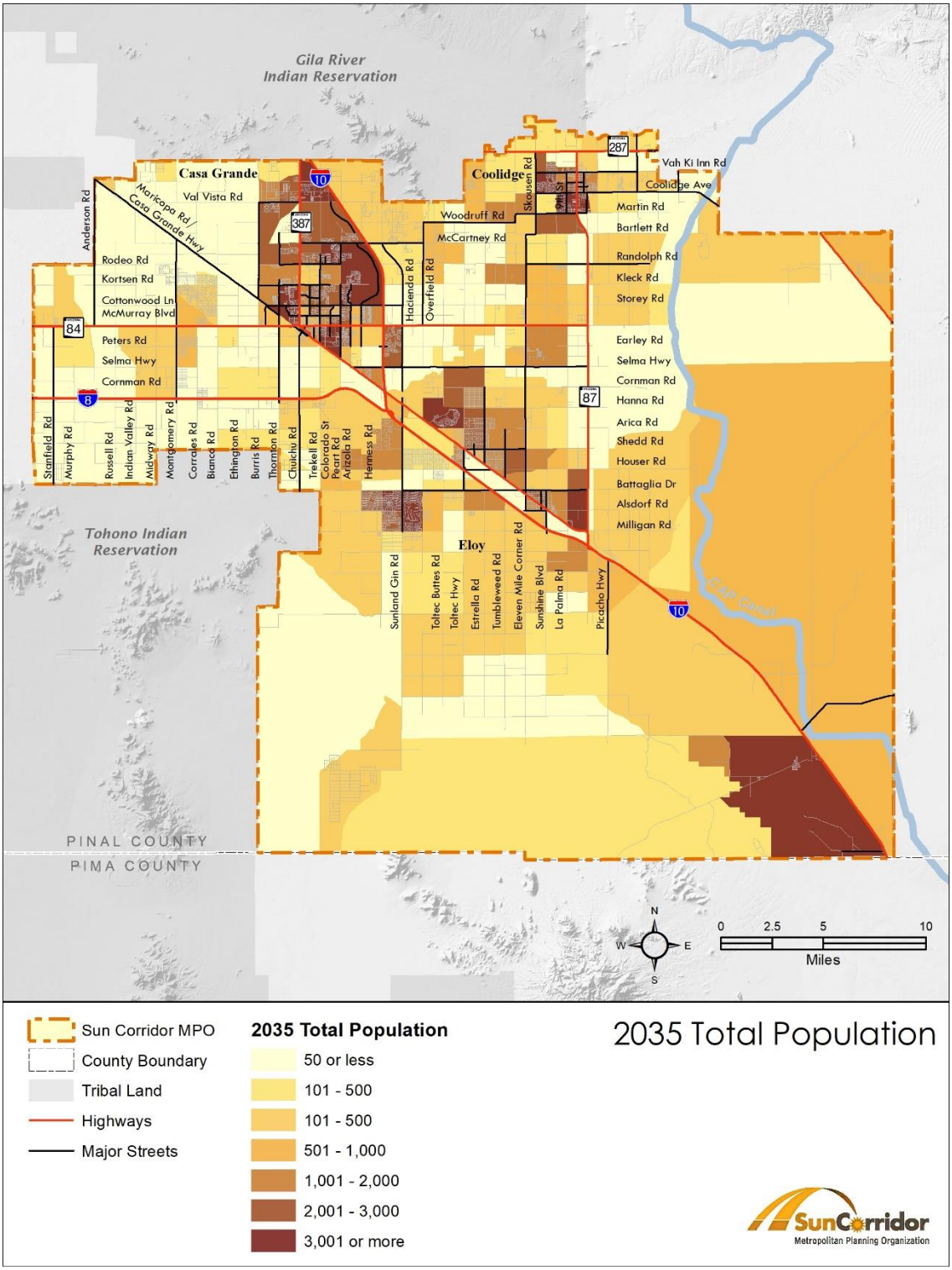


Figure 5.3 – 2035 Total Population in the Sun Corridor

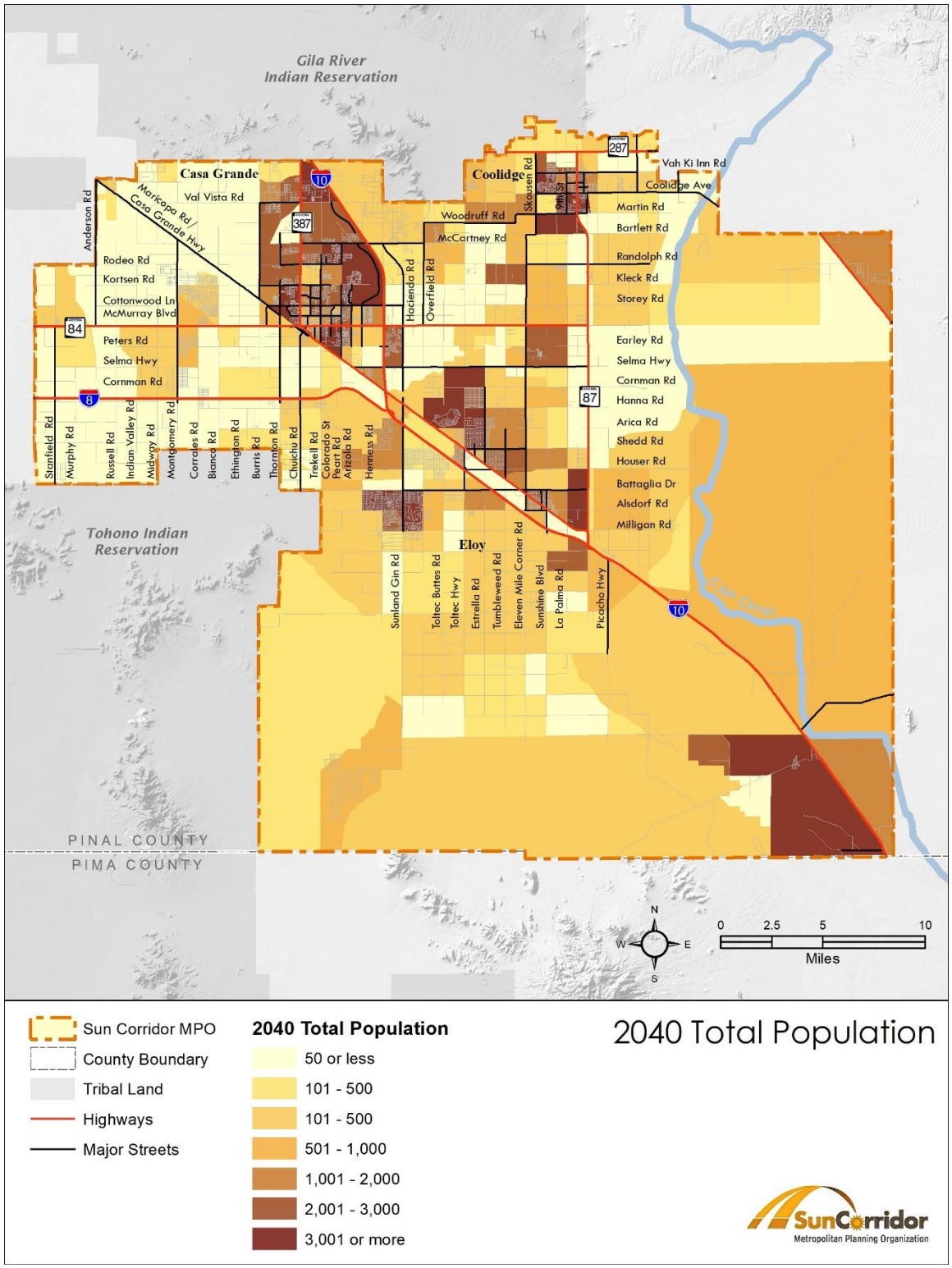


Figure 5.4 – 2040 Total Population in the Sun Corridor

Current Employment

As the region's transportation system is developed, and as projects are identified and prioritized for funding, access to major employment centers should be considered. Employment centers' access to safe and reliable transportation systems will enable and encourage these employers to expand and new employers to relocate to the Sun Corridor MPO region, consistent with the Sun Corridor MPO economic vitality goals.

Major Employers

Table 5.2 shows the 25 largest employers in the Sun Corridor MPO region. Top employers represent educational establishments, commercial, medical, and industries such as mining, manufacturing, and correctional institutions.

Table 5.2 – Top 25 Employers in the Sun Corridor MPO

Company	General North American Industry Classification System (NAICS) Code Description	Estimated Employees
Walmart	General Warehousing and Storage/Retail	1,720
CoreCivic Inc.	Facilities Support Services	1,179
Central Arizona College	Junior Colleges	755
Banner Regional Medical Center	General Medical and Surgical Hospitals	625
Bureau of Customs and Border Protection	International Affairs	366
Abbott Laboratories	Pharmaceutical Preparation Manufacturing	325
Frito-Lay Inc.	Nondurable Consumer Goods Manufacturing	300
Arizona Training Center	Res. Mental Health and Substance Abuse Fac.	300
At Home Solutions LLC	Home Health Care Services	276
Marana Aerospace Solutions Inc.	Transportation and Logistics	270
Veterans' Health Administration	Health Care	264
Hospice Compassus	Nursing Care Facilities	246
State of Arizona	Child Day Care Services	224
Casa Grande Unified High School Distr. 82	Elementary and Secondary Schools	200
Home Depot	Retail	200
National Vitamin Co. Inc.	Pharmaceutical Manufacturing	180
Bright International Corp.	Chemical Products Manufacturing	150
Fry's Food Stores	Supermarkets and Other Grocery	150
Lowe's	Retail	150
Schuff Steel Company	Structural Steel and Precast Concrete	149
State of Arizona	Administration of Human Resource Programs	139
Steel Girder LLC	Iron and Steel Forging	130
Bureau of Land Management	Government	130
Kohl's Department Stores	Retail	123
United States Department of the Army	National Security	121
Total Employees		**8,672**

Source: MAG Statewide Employer Viewer

Future Employment

The region's transportation system is critical to help residents get to and from places of employment. As additional jobs are created in the Sun Corridor MPO region, the need for new and improved roadways will also increase.

The study team met with each Sun Corridor MPO jurisdiction to discuss employment projections and areas projected to become major employment centers in the future. The study team then collaborated with MAG staff (who maintain the TDM for the region) to ensure that employment projections are accurately allocated within the Sun Corridor MPO planning area. 2040 projections of employment in the region recognize:

- ⇒ Current industry mix and targeted new industry in the region;
- ⇒ General and comprehensive plans and emerging employment nodes; and
- ⇒ The continued maturation and diversification of employment opportunities that will occur over the next 20 years in the Sun Corridor MPO region.

The total number of jobs in the region is estimated to grow from approximately 32,548 employees today to 89,552 by 2040. This represents an annual average growth rate of 4.71% per year. A comparison of current and projected employment is shown in **Figure 5.5**.

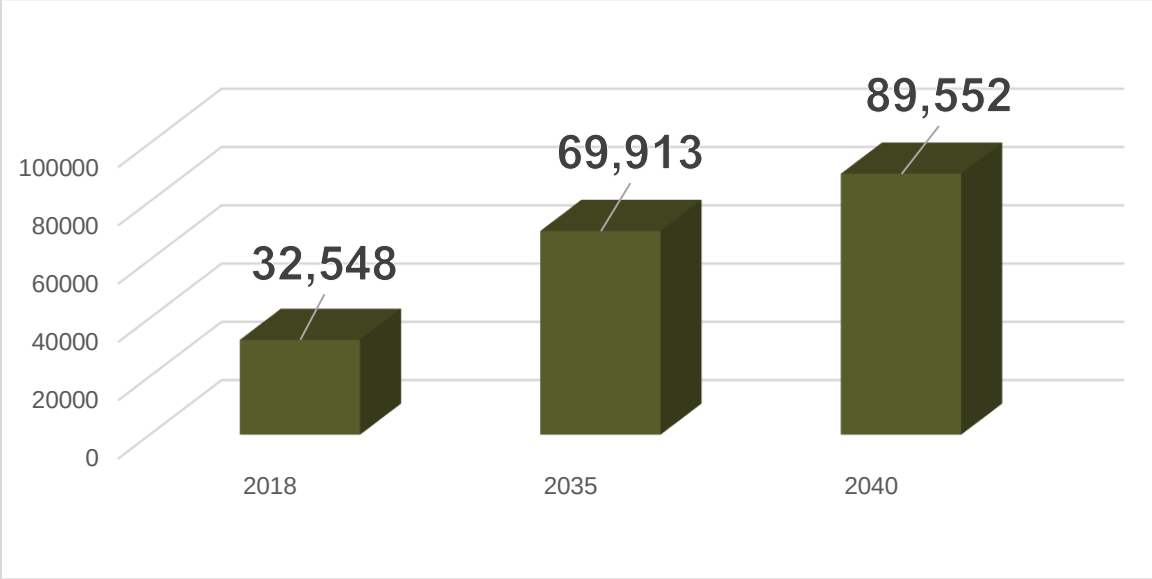


Figure 5.5 – Projected Employment Growth

Employment totals, using traffic analysis zone (TAZ) data from the MAG TDM, is depicted for the Sun Corridor MPO region for 2018, 2035, and 2040 in **Figure 5.6** through **Figure 5.8**. The map illustrates total employment and shows employment center concentrations along the I-10 corridor between Eloy and Casa Grande, as well as in Coolidge. Future transportation system investments should enhance access to these employment centers.

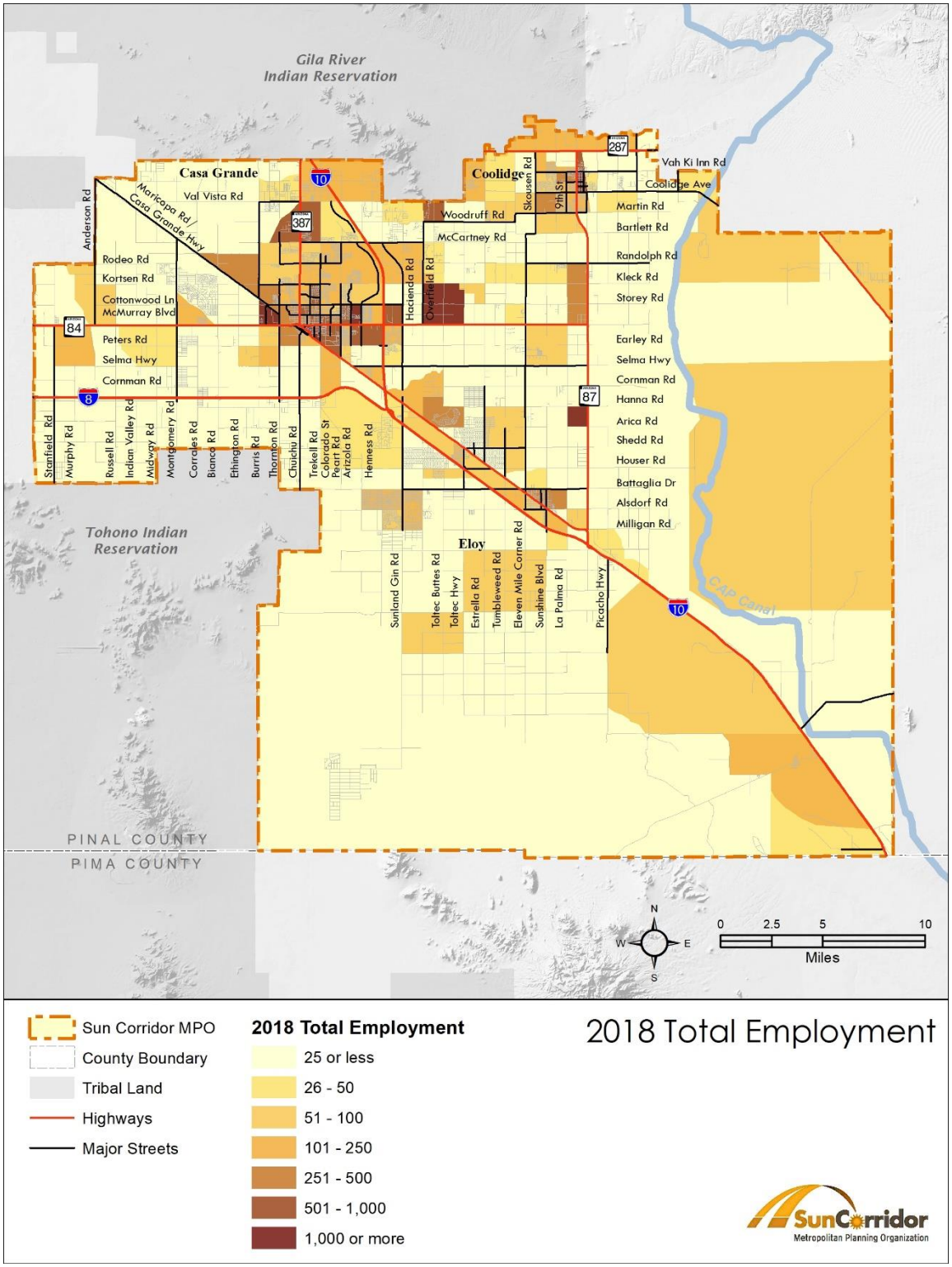


Figure 5.6 – 2018 Total Employment in the Sun Corridor

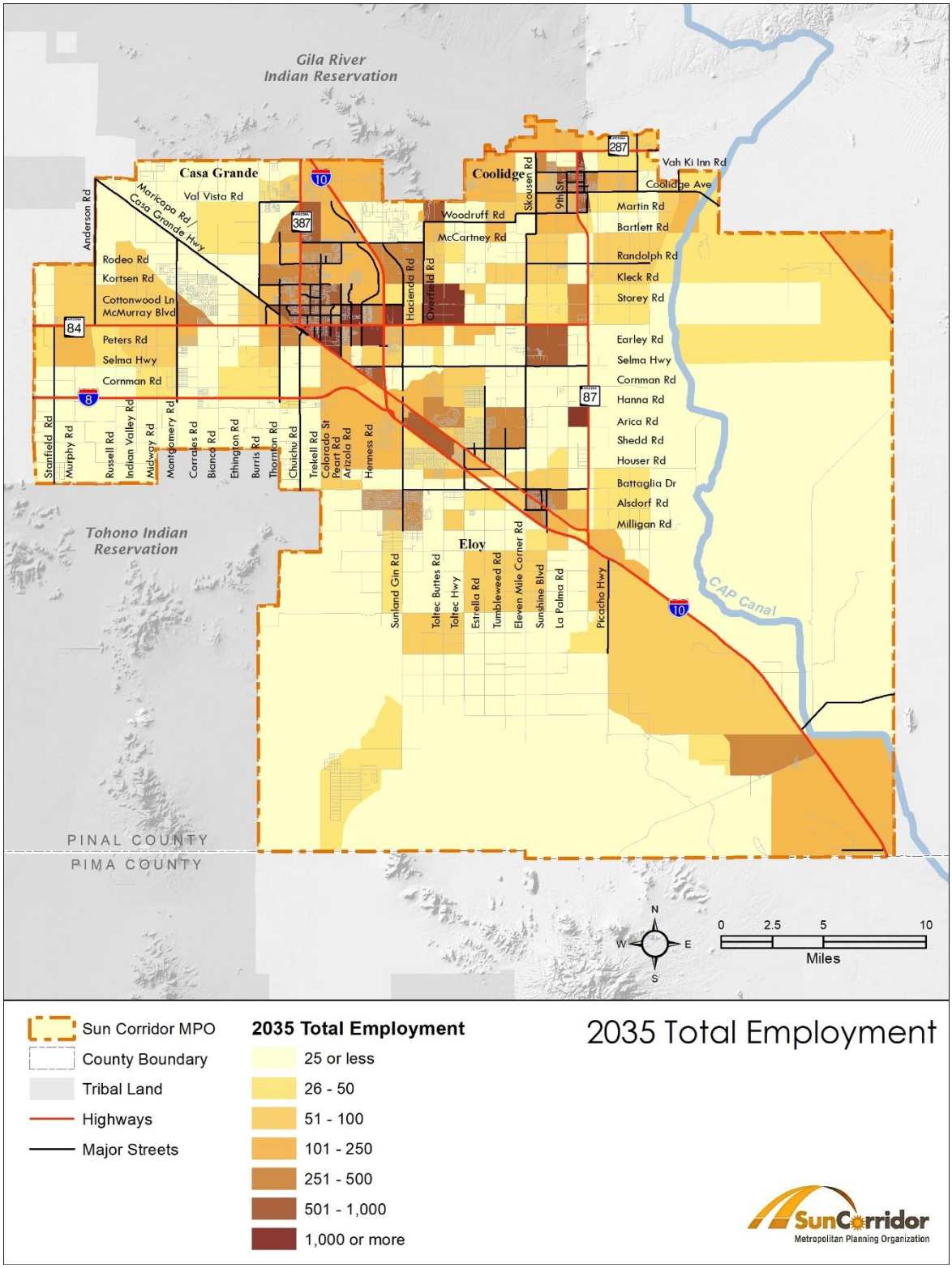


Figure 5.7 – 2035 Total Employment in the Sun Corridor

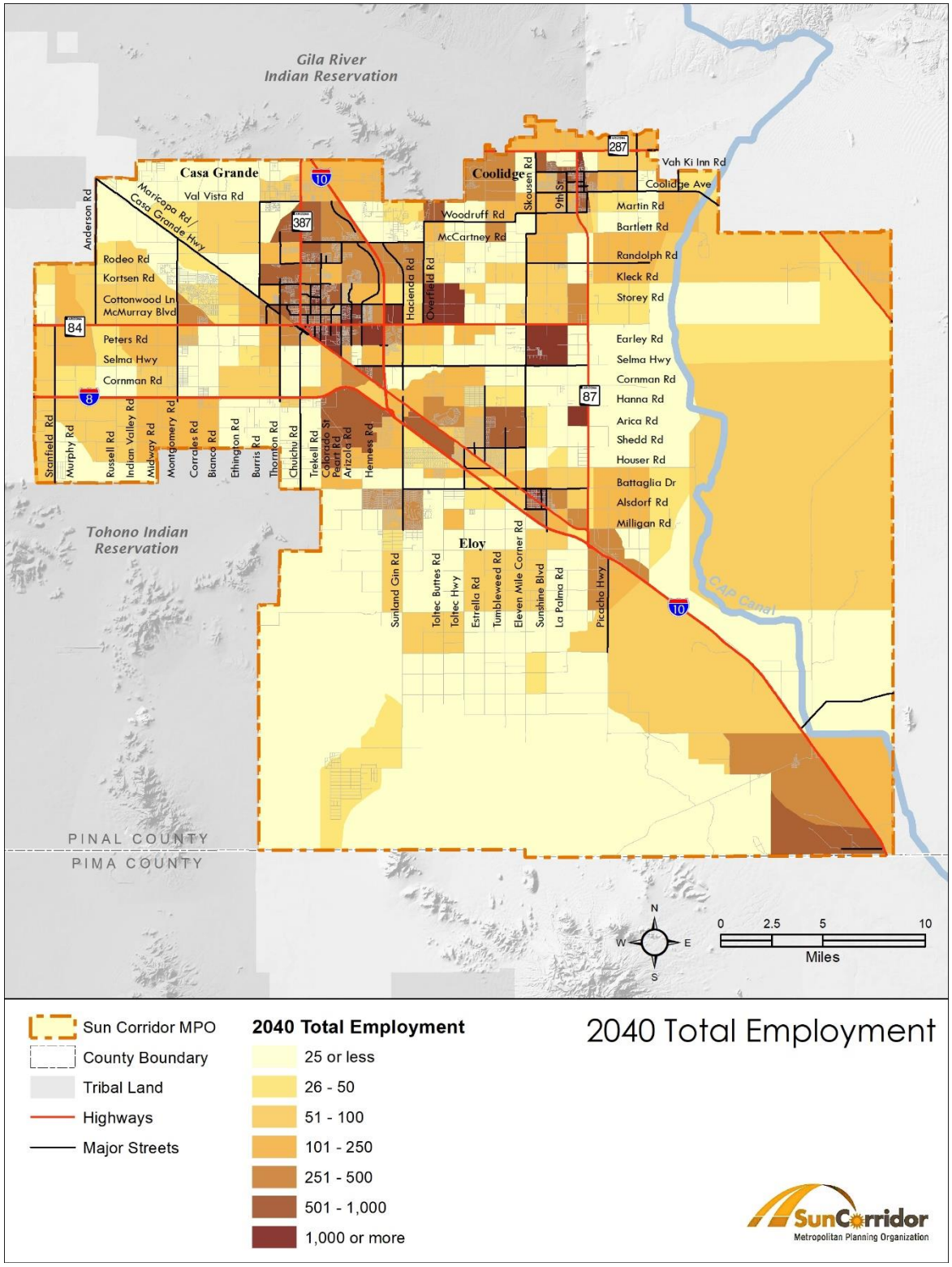


Figure 5.8 – 2040 Total Employment in the Sun Corridor

Title VI, Environmental Justice, and Regional Demographics

On July 10, 2019, the Sun Corridor MPO Executive Board approved the Sun Corridor MPO Title VI and Environmental Justice Plan. This plan reflects activities that fulfill the responsibilities set forth by the Federal Transit Administration, the Federal Highway Administration, and the U.S. Department of Justice. The plan is updated annually and approved by the ADOT Civil Rights Office.

Sun Corridor MPO RTP recommendations must comply with federal and state laws, regulations, and policies that apply to long-range transportation planning. Of particular note is Executive Order 12898, Federal Actions to Address Environmental Justice (EJ) in Minority Populations and Low-Income Populations, which established environmental justice as a federal government priority. Environmental justice was initially established in Title VI of the Civil Rights Act of 1964.

Title VI of the Civil Rights Act of 1964 and Executive Order 12898, issued February 11, 1994, require that federally-funded projects identify and address any disproportionately high and adverse human health effects from environmental impacts on minority and low-income people, and that individuals are not excluded from participation in, denied the benefit of, or subjected to discrimination on the basis of race, color, age, sex, disability, income level, or national origin.

As the RTP is implemented, the potential adverse effects that projects may have on minority and low-income populations will be reviewed. Projects that place a disproportionate burden on minority or low-income populations will be identified, and considerations that dictated this recommendation over alternative actions will be explained.

In accordance with the intent of these federal requirements, analyses were completed to identify disadvantaged populations within the Sun Corridor MPO boundary area. This analysis is summarized below.

The analysis reflects both census block group (BG) and census tract (CT) level of data depending how detailed the data is which is published by the U.S. Census Bureau. The BGs and CTs selected for this analysis cover the entire Sun Corridor MPO region. Due to the size of BGs and CTs, some expand beyond the boundaries of the Sun Corridor MPO but are included because they make up a portion of the region. The analysis compares 2017 American Community Survey data for the Sun Corridor MPO region and cities to similar data for Pinal County (entirety).

Racial and Ethnic Minorities

In 1998, the Federal Highway Administration (FHWA) published actions to address EJ in minority populations and low-income population. Racial and ethnic minority populations are summarized in **Table 5.3**. Racial and ethnic populations are shown graphically in **Appendix B** as a percentage of the BG population. FHWA guidance defined minority as the following: Black (having origins in any of the black racial groups of Africa); Hispanic (of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish culture or origin, regardless of race); Asian American (having origins in any of the original peoples of the Far East, Southeast Asia, the Indian subcontinent, or the Pacific Islands); American Indian and Alaskan Native (having origins in any of the original people of North America and who maintain cultural identification through tribal affiliation or community recognition).

The population for the Sun Corridor MPO region does not have a strong majority in race and ethnicity; White (Non-Hispanic) accounts for 43.7% and Hispanic (of any race) accounts for 44.4% of the population. The percentage of Hispanic population is higher and the percentage of White (Non-Hispanic) is lower in the Sun Corridor MPO than Pinal County (entirety), which is 57.4% White (Non-Hispanic) and 29.6% Hispanic (of any race).

Elderly, Disabled, Below Poverty Level, Zero-Vehicle Households, Limited English-Speaking Households, and Total Minority Population

Minority populations identified within the Title VI Related Statutes include individuals classified as elderly, disabled, female head-of-household, persons living below poverty level, and total minority population. These minority population groups are defined as:

- ⇒ **Elderly:** An individual 60 years of age or over (provided at BG level).
- ⇒ **Disabled:** A non-institutionalized civilian that has reported a sensory disability, physical disability, mental disability, self-care disability, go-outside-home disability, or employment disability (provided at CT level).
- ⇒ **Zero-Vehicle Household:** A household with no permanent access to a personal vehicle (provided at CT level).
- ⇒ **Below Poverty Level:** An individual of low-income is defined as a person whose median annual household income is at or below the U.S. Department of Health and Human Services (HHS) poverty guidelines. To determine poverty level, the U.S. Census Bureau relies on the thresholds identified in the HHS poverty guidelines, which vary by family size and composition. 2010 HHS poverty thresholds for a four-person family are currently set at $22,050 (provided at CT level).
- ⇒ **Limited English-Speaking Households:** A household in which no member 14 years of age or older speaks only English or speaks a non-English language "very well" (provided at BG level).
- ⇒ **Total Minority:** This category is composed of all people who consider themselves Non-White racially plus those who consider themselves White Hispanic (provided at BG level).

Census data on Total Minority, Age 60 Years and Over, Below Poverty Level, Disabled, and Zero-Vehicle Households are discussed below, summarized in **Table 5.4**, and shown graphically in **Appendix B**.

A summary of the findings of a comparison of this data with Pinal County (entirety) data is summarized as follows:

- ⇒ **Total Minority:** The Sun Corridor MPO region has a higher percentage of total minority population (56.3%) as compared to the entirety of Pinal County (42.6%). All of the cities in the Sun Corridor region have higher total minority percentages than Pinal County as a whole, particularly Eloy (77.5%).
- ⇒ **Elderly:** The elderly population percentage for the Sun Corridor MPO region (22.6%) is slightly lower than that of Pinal County (24.7%). Casa Grande has a relatively high percentage of elderly persons (23.7%), and Coolidge and Eloy have lower percentages as compared to Pinal County (18.0% and 14.4%, respectively).
- ⇒ **Disabled:** The disabled population percentage for the Sun Corridor region (15.8%) is slightly higher than that of Pinal County (14.7%). The cities within the Sun Corridor MPO region have relatively similar percentages, ranging between 15.0% and 16.1%.
- ⇒ **Zero-Vehicle Households:** The Sun Corridor MPO region has a similar percentage of households with zero vehicles available (2.2%) as Pinal County (2.1%). The cities within the Sun Corridor region have slightly higher percentages, ranging from 2.4% in Casa Grande to 3.1% in Eloy.
- ⇒ **Below Poverty Level:** The Sun Corridor MPO region has a higher percentage of persons living below poverty level (19.3%) as compared to Pinal County (15.5%). Eloy and Coolidge have a higher percentage of the population living below the poverty level (32.5% and 24.2%, respectively).
- ⇒ **Limited English-Speaking Households:** The Sun Corridor MPO has a higher percentage of limited English-speaking households (4.5%) as compared to Pinal County (2.1%). Eloy and Coolidge have the highest percentages of limited English-speaking households (12.5% and 4.9%, respectively).

Table 5.3 – Racial and Ethnic Demographics

Area	Pinal County (entirety)	Sun Corridor MPO Area Block Groups	Unincorporated Areas in Sun Corridor MPO Block Groups	City of Casa Grande Block Groups	City of Coolidge Census Blocks	City of Eloy Census Blocks
Total Population	405,537	123,803	22,360	63,266	17,986	20,191
%	100	100	100	100	100	100
White	326,120	94,624	19,009	46,551	14,266	14,798
%	80.4	76.4	85.0	73.6	79.3	73.3
African-American	18,273	5,548	536	2,607	697	1,708
%	4.5	4.5	2.4	4.1	3.9	8.5
Native American	20,386	6,947	957	4,122	1,296	572
%	5.0	5.6	4.3	6.5	7.2	2.8
Asian	7,013	1,616	74	1,089	36	417
%	1.7	1.3	0.3	1.7	0.2	2.1
Native Hawaiian	1,441	638	957	63	14	518
%	0.4	0.5	4.3	0.1	0.1	2.6
Other	17,777	9,760	832	6,221	1,082	1,625
%	4.4	7.9	3.7	9.8	6.0	8.0
Two or More Races	14,527	4,670	909	2,613	595	553
%	3.6	3.8	4.1	4.1	3.3	2.7
Hispanic	120,075	54,963	7,565	28,066	7,814	11,518
%	29.6	44.4	33.8	44.4	43.4	57.0

**Hispanic refers to ethnicity and is derived from the total population, not as a separate race.*

Source: 2017 5-year American Community Survey Estimates

Table 5.4 – Total Minority, Age 60 Years and Over, Below Poverty Level, Disabled, Zero-Vehicle Households, and Limited English-Speaking Households

Area		Pinal County (entirety)	Sun Corridor MPO Area	Unincorporated Areas in Sun Corridor MPO	City of Casa Grande	City of Coolidge	City of Eloy
Total Population		405,537	123,803	22,360	63,266	17,986	20,191
Total Minority	Number	172,587	69,688	9,328	35,496	10,061	14,803
	%	42.6	56.3	41.7	56.1	55.9	73.3
Age 60 years and over	Number	100,086	27,992	6,415	14,642	3,829	3,106
	%	24.7	22.6	28.7	23.1	21.3	15.4
Total Population for whom Disability is Determined		380,940	130,891	31,258	63,209	16,895	11,653
Disabled	Number	55,945	20,728	4,768	9,944	2,856	1,898
	%	14.7	15.8	15.3	15.7	16.9	16.3
Total Population for whom Poverty is Determined		379,432	130,042	31,132	62,875	16,571	11,588
Below Poverty Level	Number	58,750	25,051	4,256	11,881	3,852	3,357
	%	15.5	19.3	13.7	18.9	23.2	29.0
Households Number		133,513	47,425	10,722	23,962	5,862	4,142
Zero Vehicle Households	Number	5,859	1,052	166	499	244	112
	%	4.4	2.2	1.5	2.1	4.2	2.7
Total Households for which English Proficiency has been Established		127,599	37,881	7,515	20,454	5,868	4,044
Limited English-Speaking Households	Number	2,640	1,554	132	629	287	506
	%	2.1	4.1	1.8	3.1	4.9	12.5

**Total Minority comprises all people who consider themselves Non-White racially plus those who consider themselves White Hispanic.*

Source: 2017 5-year American Community Survey Estimates

6. TRANSPORTATION CONDITIONS

6. Transportation Conditions

The next step in developing an RTP is to understand the existing transportation conditions of the region. Understanding the trends and changes that made the region what it is today is essential before developing forecasts of future conditions and transportation needs. Chapter 6 provides an overall snapshot of current transportation conditions in the Sun Corridor MPO region, with a focus on the existing conditions most relevant to transportation planning. Conditions are described for roadways, transit, bicycling and walking, aviation, and freight. The Sun Corridor regional transportation system consists of roadways, transit systems, bicycling and walking pathways, and airports, as described in **Figure 6.1**.

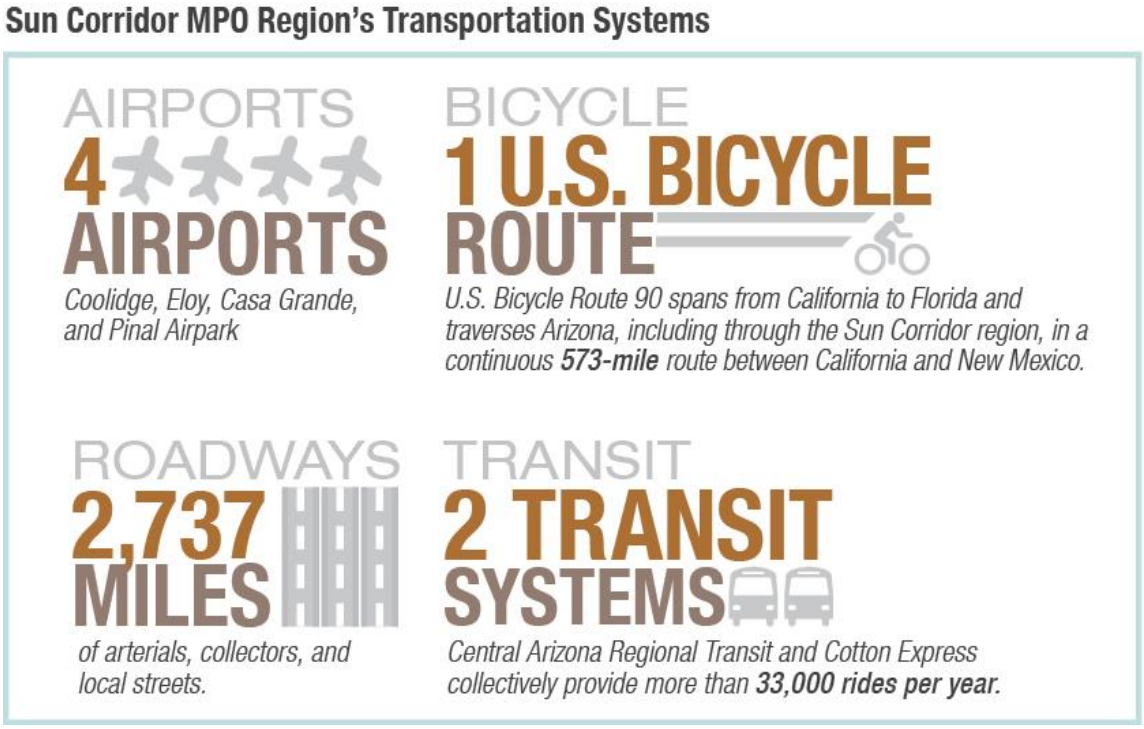


Figure 6.1 – Sun Corridor MPO Region's Transportation Systems

Roadways

Roads serve as the foundation of the Sun Corridor MPO regional transportation network, accommodating motor vehicles, freight, transit users, pedestrians and bicyclists. Roads are the main component of the transportation network throughout the MPO, and the primary public space in which MPO residents travel on a daily basis. In all, there are 2,737 miles of roads of various conditions and types. The efficiency, safety, and condition of the MPO's road and bridge network is essential to the functionality of the other transportation modes, and to the economic prosperity and quality of life of the Sun Corridor MPO region.

This section provides an overview of road types, traffic volumes, current and future traffic congestion levels, traffic safety, and pavement and bridge conditions.

Functional Classification

Transportation planners and engineers categorize roadways based on the type of traffic they are intended to serve. For example, arterials move people for long distances at higher speeds within a city or between cities. Collector streets are lower speed and shorter distance than arterials and connect travelers to the arterials. Local streets are very low speed, extend for short distances, and provide direct access to residential and commercial properties. This categorization is referred to as functional classification. Three main functional classes are defined by the FHWA: arterial, collector, and local based on speed, vehicular capacity, and relationships with adjacent existing and future land uses according to the character of service they are intended to provide (**Table 6.1**). Functional classifications have an inverse relationship between access and mobility (**Figure 6.2**).

WHY IS FUNCTIONAL CLASSIFICATION IMPORTANT?

A road must be functionally classified as an arterial or collector road to access federal funding.

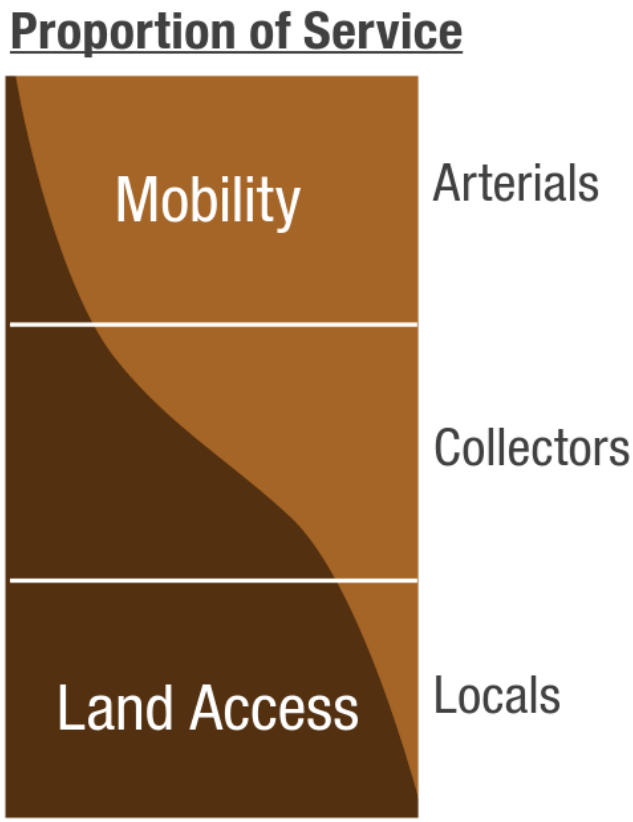


Figure 6.2 – Functional Classifications

Source: http://www.fhwa.dot.gov/environment/publications/flexibility/ch03.cfm

ADOT has been working with jurisdictions to update the federal functional classifications statewide. The federal functional classification map for the Sun Corridor MPO region is shown in **Figure 6.3**. This map reflects the new functional classifications that ADOT is working on.

Table 6.1 – Functional Classification Definitions

Functional Classification Definitions		
Functional Classification	**Services Provided**	**Types**
Arterial	Provides the highest LOS at the greatest speed for the longest uninterrupted distance, with some degree of access control	» Principal Arterial – Serves major activity centers; links urban areas; provides high connectivity » Minor Arterial – Connects principal arterials; provides accessibility
Collector	Provides a less highly developed LOS at a lower speed for shorter distances by collecting traffic from local roads and connecting them with arterials	» Major Collector – Generally, major collector routes are longer; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than minor collectors » Minor Collector – These roadways collect traffic from the local roadway network and distribute them to the major collector or arterial system
Local	All roads not defined as arterials or collectors; primarily provides access to land with little or no through traffic	

Source: http://www.fhwa.dot.gov/environment/publications/flexibility/ch03.cfm

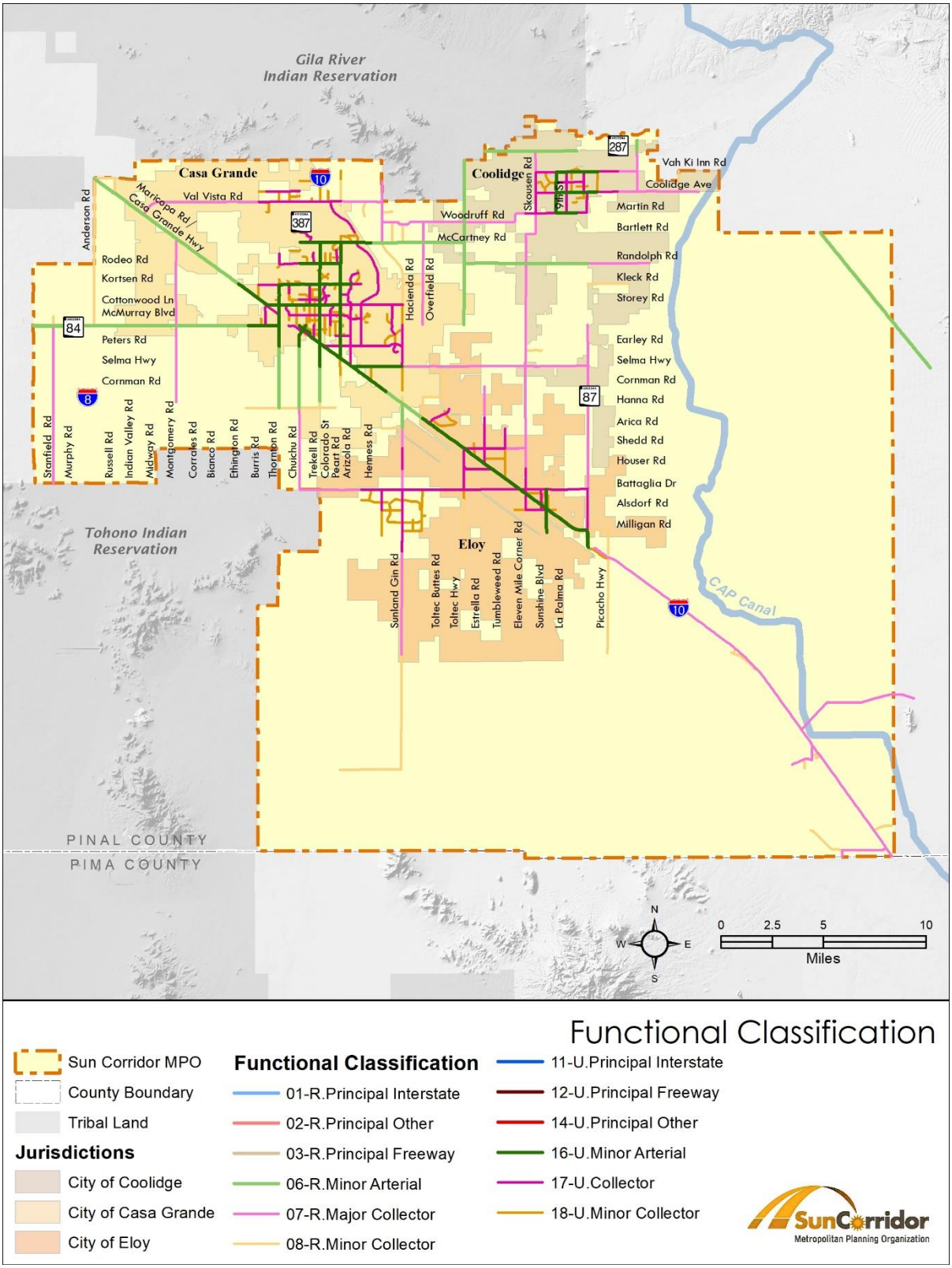


Figure 6.3 – Functional Classification

Current Daily Traffic Volumes

From 2016-2018, the Sun Corridor MPO traffic count program provided traffic counts on over 400 federally functionally classified roads within the MPO boundaries. This traffic count program involved conducting traffic counts, creating data tables, uploading data into the Sun Corridor MPO Traffic Data Management System (TDMS), uploading data into FHWA's Highway Performance Monitoring System (HPMS), and providing traffic count maps to the cities in the Sun Corridor planning region. Current traffic counts are shown in **Figure 6.4.** Locations with the ten highest traffic counts in each jurisdiction are shown in **Table 6.2**.

Table 6.2 – Road Segments with Highest Traffic Volumes, Based on 2016-2018 Traffic Counts

2016-2018 Annual Average Daily Traffic (ADT) Volumes on Selected Road Segments				
Road Name	**From**	**To**	**Traffic Count Year**	**ADT Volume (Vehicles per Day)**
City of Casa Grande				
Florence Boulevard	Peart Road	Arizola Road	2017	26,620
Florence Boulevard	Camino Mercado	I-10	2017	26,052
Florence Boulevard	Henness Road	Camino Mercado	2017	26,047
Florence Boulevard	Pottebaum Road	Peart Road	2017	25,517
Florence Boulevard	Brown Avenue	Trekell Road	2018	25,157
Florence Boulevard	Pueblo Avenue	Colorado Street	2017	24,372
Florence Boulevard	Colorado Street	Pottebaum Avenue	2017	24,038
Florence Boulevard	Arizola Road	Henness Road	2017	23,806
Pinal Avenue	Centennial Boulevard	McCartney Road	2018	22,537
Florence Boulevard	Trekell Road	Pueblo Avenue	2017	21,951
City of Coolidge				
Attaway Road	Elk's Lodge	SR 287	2017	7,675
Vah Ki Inn Road	9th Street	Padre Kino Lane	2017	5,734
Coolidge Avenue	Carter Court	9th Street	2017	5,347
Woodruff Road	Overfield Road	Evans Road	2017	5,147
Coolidge Avenue	9th Street	Arizona Boulevard	2017	5,105
Coolidge Avenue	Kenworthy Road	Carter Court	2018	4,938
Macrae Road	Martin Road	Woodruff Road	2016	4,729
Woodruff Road	Signal Peak Road	Curry Road	2017	4,467
Skousen Road	Kenilworth Road	Martin Road	2017	4,236
Vah Ki Inn Road	Kenworthy Road	9th Street	2017	4,160
City of Eloy				
Sunland Gin Road	I-10	Houser Road	2017	9,973
Frontier Street (Old SR-84)	Sunland Gin Road	Overfield Road	2017	7,911

Table 6.2 – Road Segments with Highest Traffic Volumes, Based on 2016-2018 Traffic Counts, Cont.

2016-2018 Annual Average Daily Traffic (ADT) Volumes on Selected Road Segments				
Road Name	**From**	**To**	**Traffic Count Year**	**ADT Volume (Vehicles per Day)**
City of Eloy (cont.)				
Frontier Street (Old SR-84)	Toltec Buttes Road	Toltec Road	2017	7,814
Frontier Street (Old SR-84)	Battaglia Drive	Alsdorf Road	2017	5,148
Frontier Street (Old SR-84)	Houser Road	Battaglia Drive	2017	4,802
Frontier Street (Old SR-84)	Toltec Road	Estrella Road	2017	4,790
Frontier Street (Old SR-84)	Estrella Road	Houser Road	2017	4,545
Battaglia Drive	Tweedy Road	Frontier Street (Old SR-84)	2016	2,995
Pinal County				
Sunland Gin Road*	Battaglia Drive	Santa Cruz Boulevard	2018	7,651
Battaglia Drive	Sunland Gin Road	Overfield Road	2016	5,373
Battaglia Drive*	Overfield Road	Toltec Road (north half in Eloy)	2018	5,302
Sunland Gin Road	Battaglia Drive	Milligan Road	2016	4,005
Pinal Airpark Road	Trico Road	I-10	2016	2,512
Thornton Road	Peters Road	Selma Highway	2016	2,163
Chuichu Road	Houser Road	Battaglia Drive	2016	1,911
Battaglia Drive	Henness Road	Sunland Gin Road	2016	1,798
Battaglia Drive	Chuichu Road	Henness Road	2016	1,755
Overfield Road	Battaglia Drive	Milligan Road	2016	1,128
Lamb Road	Battaglia Drive	Milligan Road	2016	1,121
Park Link Drive	Camino Adelante Road	Nona Road	2016	778

Source: Sun Corridor MPO

** Unincorporated Pinal County*

Why are Traffic Counts Conducted?

A traffic count is a count of vehicular, pedestrian, and/or bicycle traffic that is conducted along a particular road segment or intersection. Traffic counts are typically undertaken with automatic equipment or recording devices, or by observers who visually count and record traffic on handheld devices or tally sheets.

Traffic count data is used to identify which routes are used the most, and to inform what improvements are appropriate for the corridor, roadway, or intersection, if any. Traffic counts are reported in terms of ADT.

ADOT Data Section annually prepares updates to the HPMS. Required of each state and U.S. territory by the FHWA, the HPMS is the national database of highway information. Roadway extent, use, condition, and performance data are collected by and for the states and submitted to the FHWA on an annual basis. From a national perspective, the FHWA's primary intent with this program is to provide Congress with a policy tool for major highway legislation and funding decisions. The Sun Corridor MPO annually collects traffic count data and provides this data to ADOT for inclusion in the HPMS database.

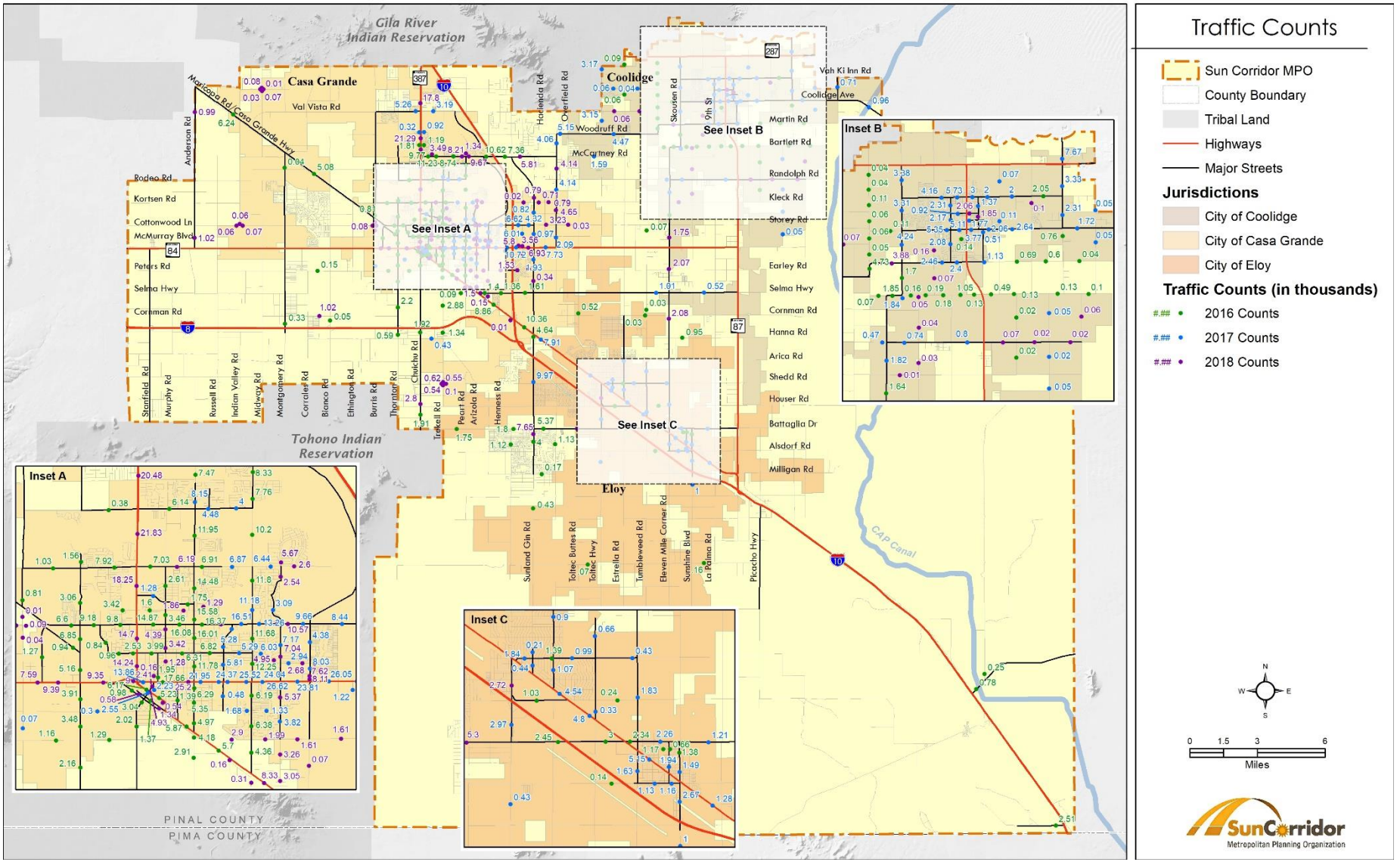
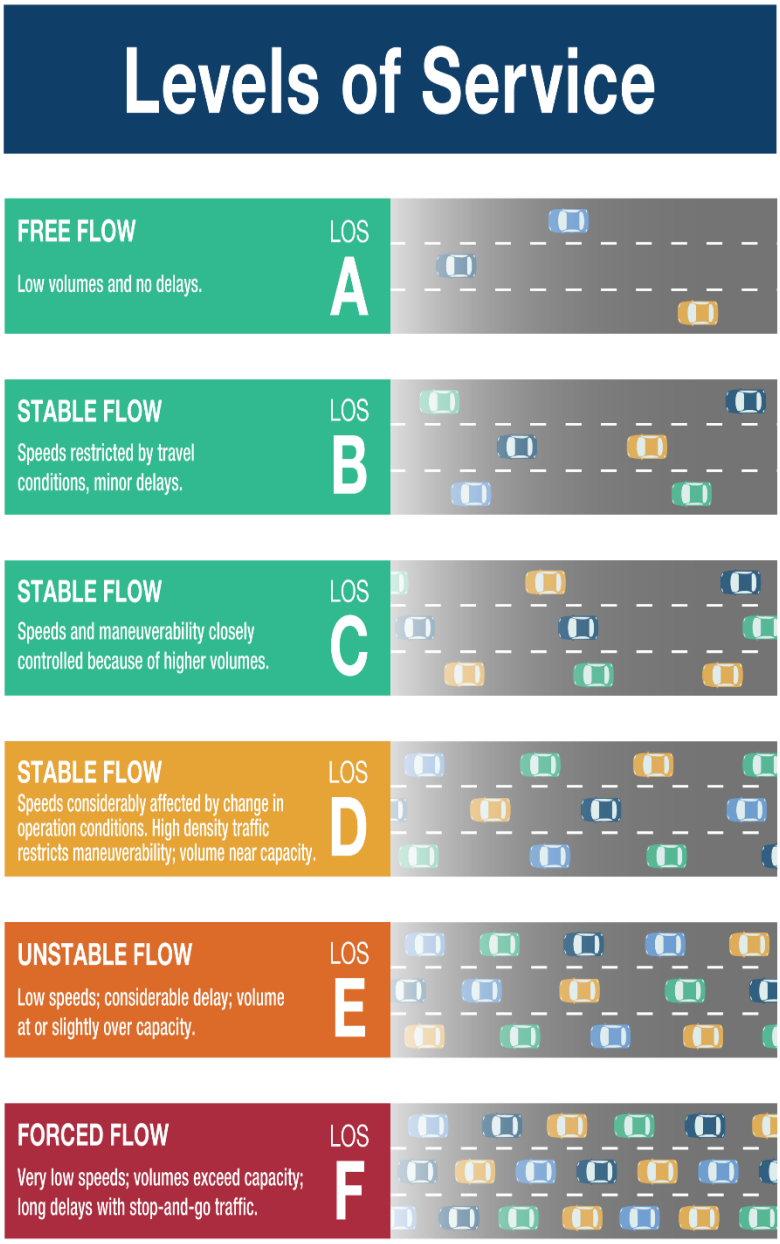


Figure 6.4 – Current Traffic Volumes

Current Roadway Performance (LOS)

Current traffic congestion levels in the Sun Corridor MPO planning area were analyzed using LOS, a measure that rates the performance of the roadway network in terms of the degree of congestion. This measure uses the letters A through F, with A being the best and F being the worst, depicted in the graphic to the right. LOS grades are defined by the Highway Capacity Manual (HCM) and described below:



Source: Utah Department of Transportation, https://www.parleyseis.com/

LOS A: Free Flow. Traffic flows freely at the posted speed limit. Incidents or vehicle breakdowns have minimal impact on others. LOS A generally occurs late at night in urban areas and frequently in rural areas.

LOS B: Reasonably Free Flow. LOS A speeds are maintained, and maneuverability within the traffic stream is slightly restricted. Motorists have a high level of physical and psychological comfort.

LOS C: Stable Flow, at or Near Free Flow. Motorists' ability to maneuver between lanes is noticeably restricted and requires more driver awareness. Roads remain uncongested but are approaching capacity. Minor incidents begin to lead to traffic delays behind the incident. This is the target LOS for most rural highways.

LOS D: Approaching Unstable Flow. Speeds are decreased and motorist freedom to maneuver is more limited. Examples are a busy shopping corridor in the middle of a weekday, or a major arterial during commuting hours. This is the target LOS for most urban streets, as attaining LOS C would be cost-prohibitive.

LOS E: Unstable Flow, Operating at Capacity. Flow becomes irregular and speed varies rapidly as traffic's ability to maneuver diminishes. Vehicles rarely reach the speed limit. Any incident or disruption to traffic flow, such as crashes or merging ramp traffic or lane changes, leads to congestion.

LOS F: Every vehicle moves in lockstep with the vehicle in front of it, with frequent slowing required. Travel time cannot be predicted, with generally more demand than capacity. This represents a traffic jam.

Figure 6.5 shows current LOS on major roads in the Sun Corridor MPO region, based on ADT volumes in the MAG TDM. In general, the roads are operating well on average; however, during peak periods, congestion may occur at specific intersection locations.

2018 vehicle miles traveled (VMT), as estimated by the MAG TDM, is 5.46 million vehicle miles for all roadways within the Sun Corridor MPO.

The MAG TDM was used to project future travel patterns in the Sun Corridor MPO region. The travel demand model was updated to reflect economic development that is expected to occur in the region, based on discussion with planning and economic development staff in Casa Grande, Coolidge, Eloy, and Pinal County. The updated MAG TDM for 2035 and 2040 is provided.

In 2035, the TDM indicates that roads are operating well on average; however, there are projected to be congested segments on Pinal Airpark Road, Red Rock Road, Camino Correo, and Sasco Road. 2035 levels of congestion are shown graphically in **Figure 6.6**.

In 2040, the TDM indicates areas of congestion at the I-10/Red Rock Road interchange and in the Battaglia Road/Toltec Highway intersection area. 2040 levels of congestion are shown graphically in **Figure 6.7**.

Table 6.3 summarizes road conditions exhibiting congested conditions with 2035 and 2040 projected travel demands.

Table 6.3 – 2035 and 2040 Congested Roadways

Future Travel Demand Volumes on Selected Road Segments					
Road	**Jurisdiction**	**From**	**To**	**2035 LOS**	**2040 LOS**
Sunshine Boulevard	Eloy	Phillips Road	I-10	D	E
Battaglia Road	Eloy/Pinal County	SR 87	Vail Road	A	E
Toltec Road	Eloy	I-10 Eastbound Ramps	Houser Road	C	E/F
Eleven Mile Corner Road	Eloy	I-10 Westbound Ramps	Alsdorf Road	C	F
Pinal Airpark Road	Pinal County	Pinal Airpark	I-10	F	F
Cripple Creek Road	Pinal County	Whirl Wind Way	Coachway Road	D	F
Red Rock Road	Pinal County	Camino Correo	I-10 Westbound Ramps	F	F
Camino Correo	Pinal County	Red Rock Road	Sasco Road	F	F
Sasco Road	Pinal County	Aguirre Lane	Camino Correo	F	F
Coachway Road/Sasco Road	Pinal County	Cripple Creek Road	Colony Drive	C/D	F

Source: MAG Travel Demand Model, LOS analysis by Kimley-Horn

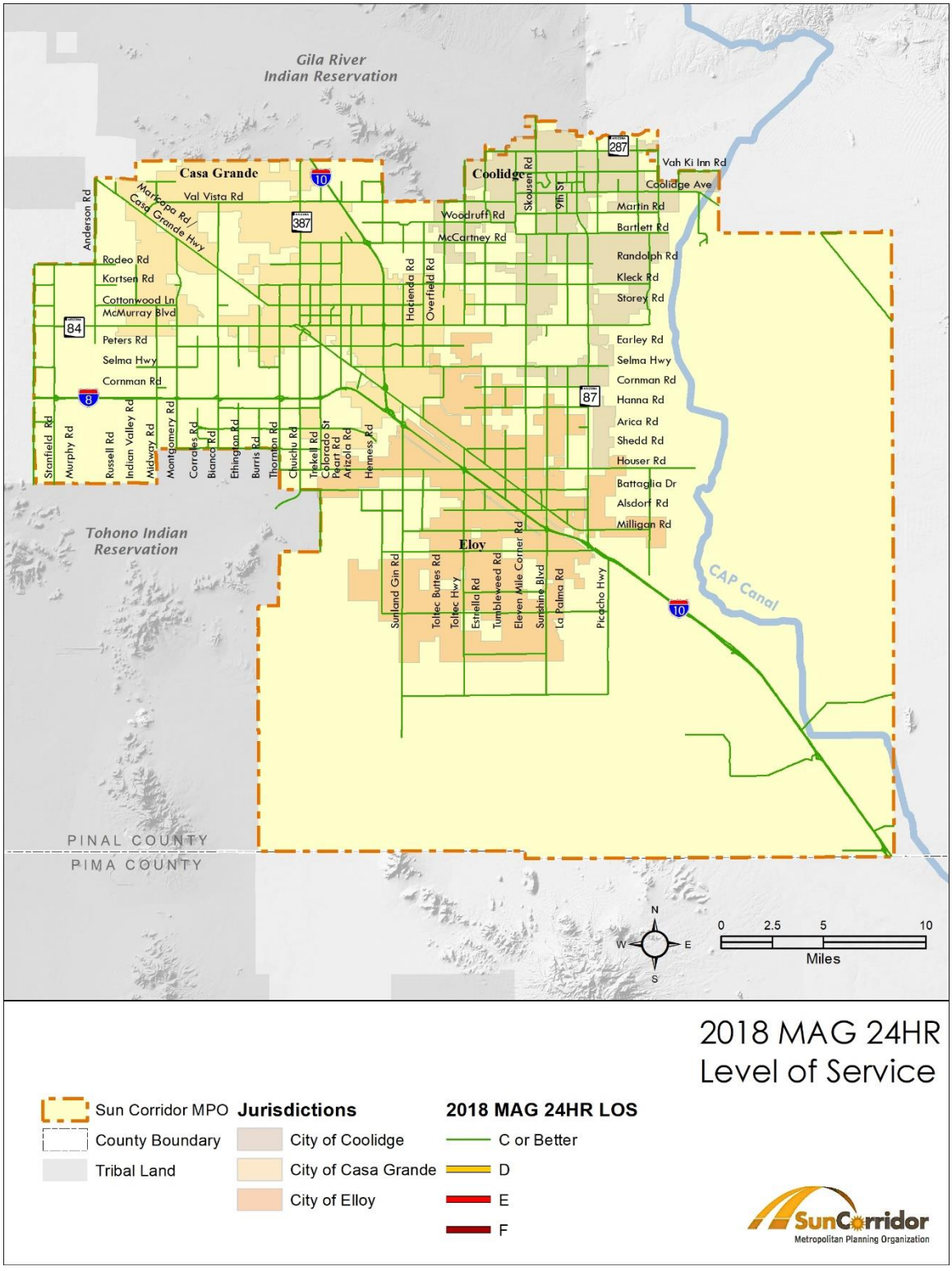


Figure 6.5 – 2018 Roadway LOS

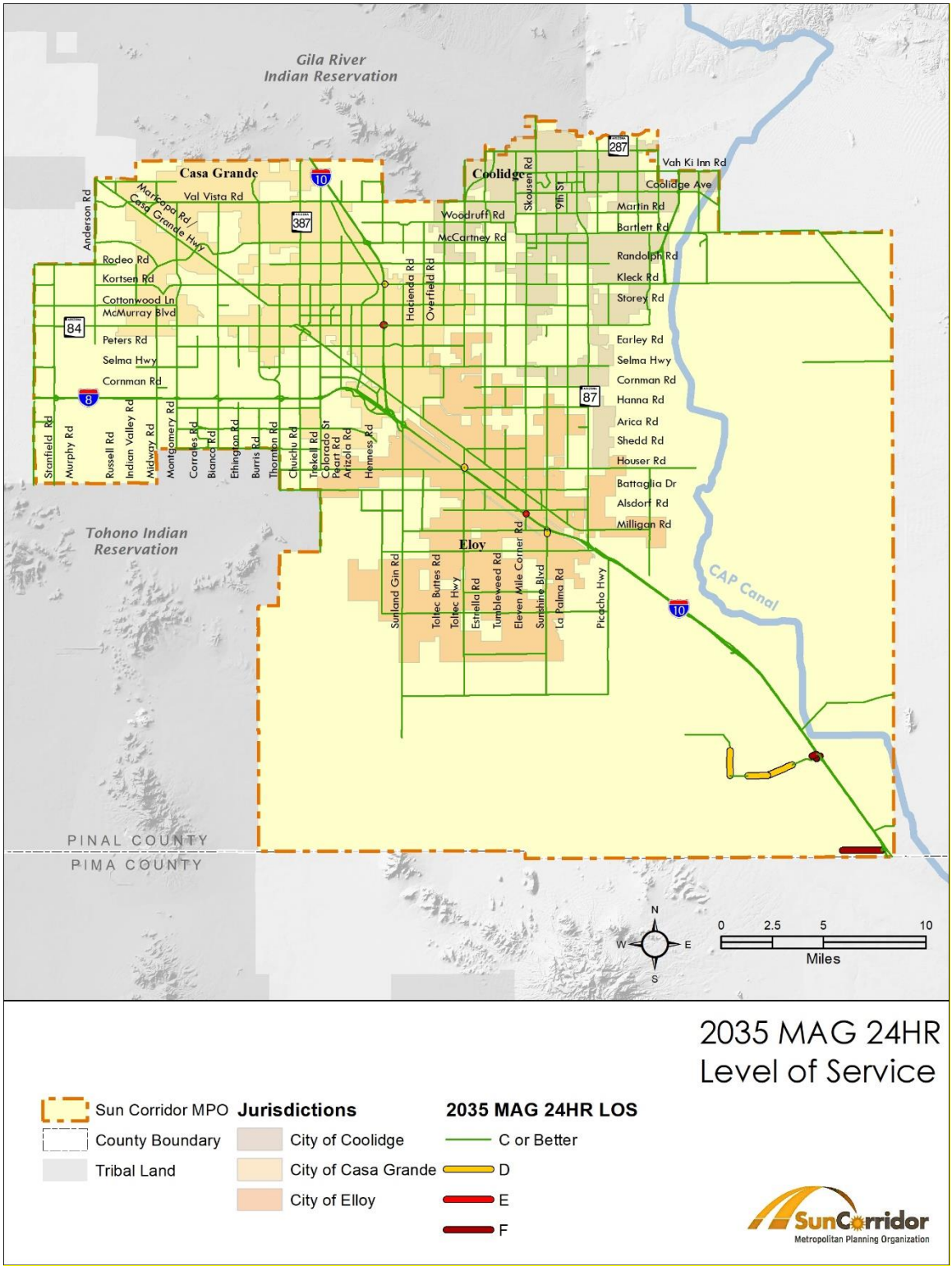


Figure 6.6 – 2035 Roadway LOS

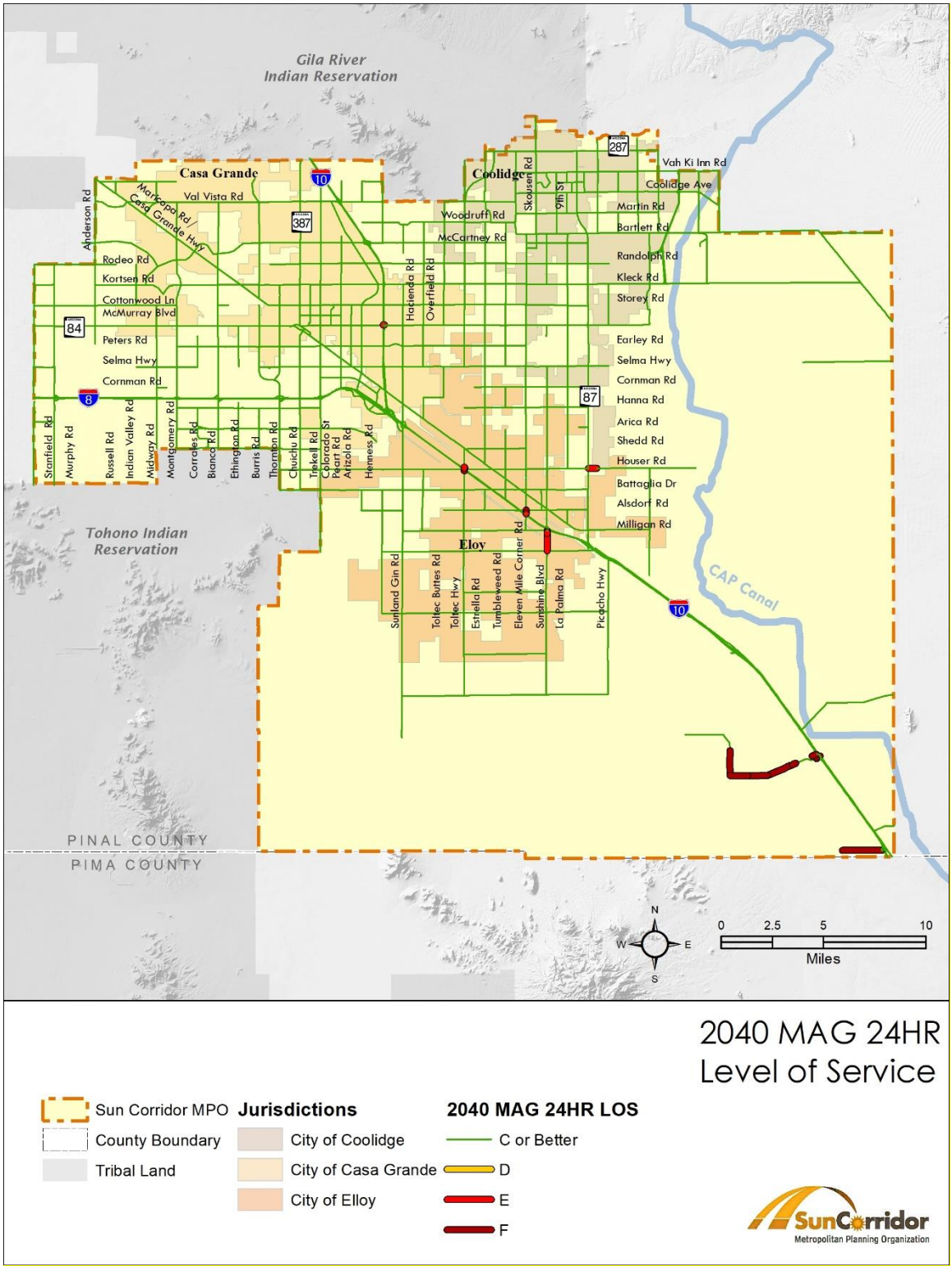


Figure 6.7 – 2040 Roadway LOS

Transportation Safety

The Sun Corridor MPO completed its first Strategic Transportation Safety Plan (STSP) in 2016. The STSP vision is to ***"Reduce fatal and serious injury crashes through implementation of effective safety strategies and countermeasures,"*** and the STSP goal is to ***"Reduce the number of fatalities and serious injuries in the Sun Corridor MPO region by 3 to 7 percent during the next 5 years."*** The vision and goal were developed with stakeholder input and were inspired by the FHWA vision "Towards Zero Deaths" and Arizona's vision "Toward Zero Deaths by Reducing Crashes for a Safer Arizona."

Findings and recommendations in the STSP were based on data provided by ADOT for all reported crashes within the Sun Corridor MPO region for the 10-year period from January 2005 through December 2014. During that 10-year period, the region experienced:

- ⇒ 243 fatal crashes
- ⇒ 640 incapacitating injury crashes
- ⇒ 16,525 crashes

TRANSPORTATION SAFETY

A goal of the Sun Corridor MPO and member agencies is to reduce the five-year rolling average for fatal and serious injury crashes. From 2013-2017, an average of 18 fatal and 38 serious injury crashes occurred annually on Sun Corridor MPO area roadways.

Strategies to improve safety focus on both roadway improvements (speed control, roadway lighting, medians and education of drivers, motorists, pedestrians, and bicyclists.

Collisions that resulted in no injury were the most prevalent, accounting for nearly 69% of the total collisions. Fatalities accounted for 1.5% of study area crashes, and possible injury or injury crashes accounted for approximately 30% of the total study area crashes. Crashes by injury type are shown in **Table 6.4** below.

Table 6.4 – Crash Severity in the Sun Corridor Region, 2005-2014

Crash Severity in the Sun Corridor MPO Region, 2005-2014		
Collision Severity	**Number of Collisions**	**Percent of Total**
Fatal	243	1.5%
Incapacitating Injury	640	3.9%
Non-Incapacitating Injury	2,021	12.2%
Possible Injury	2,276	13.8%
No Injury	11,345	68.6%
Total	**16,525**	**100.0%**

Source: ADOT

Single vehicle crashes have been the most predominant crash type in the region for both total crashes and severe (fatal and incapacitating injury) crashes. Crash types are shown in **Figure 6.8**. **Appendix C** shows fatal and serious injury crash locations for Eloy, Coolidge, and Casa Grande.

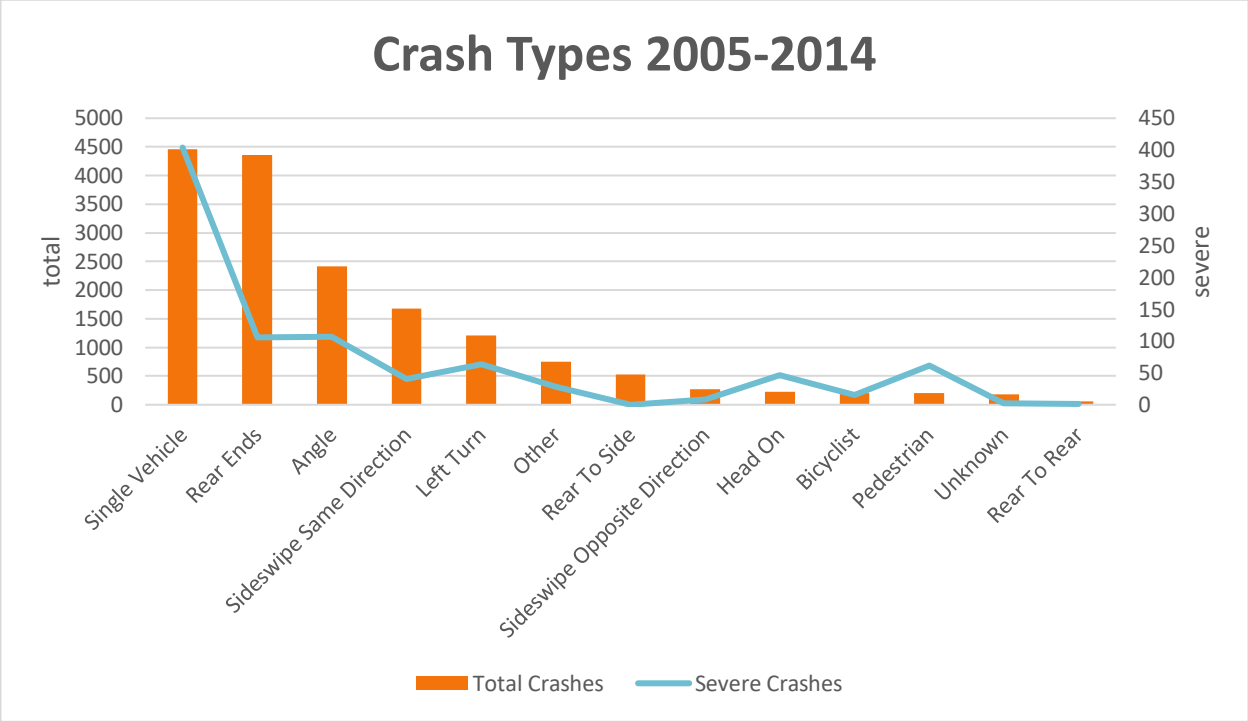


Figure 6.8 – Crash Types, 2005-2014

The Sun Corridor MPO STSP identified 10 emphasis areas for the region, as shown in **Table 6.5**. The table shows how the fatal crashes in the Sun Corridor MPO region compare to statewide fatal crashes by emphasis area.

The STSP developed safety strategies for each emphasis area, focusing on the four Es of safety:

- ⇒ **Engineering** to deploy safety countermeasures (improvements);
- ⇒ **Education** on roadway safety;
- ⇒ **Enforcement** of safety laws and regulations; and
- ⇒ Effective **emergency** medical services.

On April 14, 2016, an FHWA final rule for "National Performance Management Measures: Highway Safety Improvement Program" went into effect. This rule established the procedures, data, reporting requirements, and potential consequences for safety performance at state department of transportation (DOT) and MPO levels. Five Safety Performance Measures are required annually for state DOTs and MPOs:

1. Number of Fatalities;
2. Rate of Fatalities per 100 million VMT;
3. Number of Serious Injuries;
4. Rate of Serious Injuries per 100 million VMT; and
5. Number of Non-Motorized Fatalities and Serious Injuries.

Table 6.5 – Emphasis Areas

Emphasis Areas and Sun Corridor MPO and Statewide Fatal Crashes in Each Area, 2005-2014		
Emphasis Areas	**Sun Corridor MPO Fatal Crashes**	**Statewide Fatal Crashes**
Lane Departure	64%	53%
Occupant Protection	53%	49%
Speeding	40%	38%
Impaired Driving	38%	34%
Young Drivers	21%	30%
Intersections	19%	23%
Older Drivers	17%	15%
Distracted Driving	16%	15%
Pedestrians	11%	15%
Weather-Related	5%	4%

Source: ADOT, analysis by Greenlight Traffic Engineering

Recommendations to implement, evaluate, and update the STSP and to encourage stakeholder participation in implementing the plan included:

- ⇒ Form an STSP Champions Working Group of key safety stakeholders to identify issues affecting the implementation of the plan, celebrate successes, identify emerging safety issues, and discuss new safety strategies;
- ⇒ Hold quarterly meetings with law enforcement, engineering, and planning staff to discuss safety issues and any new crash patterns;
- ⇒ Keep key advocacy groups such as the Coolidge Youth Coalition involved by inviting them to participate in safety meetings and TAC meetings;
- ⇒ Host an annual Regional Traffic Safety Conference to promote traffic safety for all stakeholders;
- ⇒ Form a fatal crash investigation team of engineering, law enforcement, and risk management staff to analyze fatal crashes in the region;
- ⇒ Update the STSP on a regular cycle, e.g. every three to five years;
- ⇒ Update crash data and performance measures annually;
- ⇒ Update intersection and segment crash analysis annually to determine high-priority locations; and
- ⇒ Collect traffic volumes to generate updated crash rates and performance measures.

A key component of the STSP was developing safety projects. The following Highway Safety Improvement Program (HSIP) project applications were submitted to, and selected by, ADOT to receive HSIP funding for fiscal years 2019 and 2020:

Project	Cost
Jimmie Kerr Blvd (Eloy): Dilemma Zone Warning System, Rumble Strips	$388,607
Macrae Rd (Coolidge): Rumble Strips	$333,428
Peart Rd (Casa Grande): Left Turn Lane, Transverse Rumble Strips	$615,012

The Sun Corridor MPO is working with Pinal County to develop a Pinal County STSP. As part of the Pinal County STSP, the following Sun Corridor MPO HSIP project applications were submitted to and selected by ADOT to receive HSIP funding for fiscal years 2021 and 2022:

Project	Cost
Multiple Roads (Pinal County): Rumble Strips	$3,018,897
Cottonwood Ln/Kadota Ave (Casa Grande): Pedestrian Hybrid Beacon (PHB)	$360,000
Skousen Rd (Coolidge): Rumble Strips	$735,525

Pinal County was awarded HSIP funds for fiscal years 2024 and 2025 for a project to replace stop signs with solar-powered LED stop signs, as described below:

Project	Cost
Multiple intersections (Pinal County): Systemic LED stop sign replacement project	$400,575

Table 6.6 provides updated crash data for the Sun Corridor MPO region for the three-year period since the development of the 2016 STSP (2015-2017).

Table 6.6 – Crash Types 2015-2017

Crash Types 2015-2017						
Collision Manner	**No Injury**	**Possible Injury**	**Non-Incapaci-tating Injury**	**Incapaci-tating Injury**	**Fatal**	**Total**
Rear End	790	214	111	15	7	**1,137**
Single Vehicle	744	125	172	30	22	**1,093**
Angle	360	124	70	18	6	**578**
Left Turn	303	116	68	14		**501**
Sideswipe Same Direction	402	34	24	4	1	**465**
Other	127	20	17	9	2	**175**
Sideswipe Opposite Direction	52	11	17			**80**
Rear to Side	68	5	1			**74**
Head On	24	12	11	7	5	**59**
Unknown	41	3	2			**46**
Pedestrian	0	5	11	7	10	**33**
Bicyclist	4	7	10	2	3	**26**
Rear to Rear	17	2	1			**20**
Total	**2,932**	**678**	**515**	**106**	**56**	**4,287**

Source: ADOT, analysis by Greenlight Traffic Engineering

System Preservation

Roadway Pavement Conditions

Whether trips are taken by automobiles, transit, bicycle, or walking, everyone benefits when the streets are maintained in a safe and serviceable condition. Maintaining infrastructure condition is a key focus area nationally, particularly on NHS roads.

Pavement conditions on functionally classified arterial and collector roadways in the Sun Corridor MPO region were evaluated by each jurisdiction using a uniform rating system based on Asphalt Pavement Surface Evaluation and Rating (PASER) System Guidelines, which rate pavement surface conditions on a scale of 1 to 10, with 10 being excellent and 1 indicating pavement failure. **Table 6.7** summarizes the rating system and typical maintenance procedures associated with various roadway conditions.

Table 6.7 – Pavement Ratings and Typical Maintenance Treatments

Pavement Ratings and Typical Maintenance Treatments	
Ratings	**Typical Needed Maintenance Treatment**
10 - Excellent	No Maintenance Required
9 - Excellent	No Maintenance Required
8 - Very Good	Little to No Maintenance
7 - Good	Routine Maintenance, Crack Sealing, and Minor Patching
6 - Good	Preservative Treatments (Seal Coating)
5 - Fair	Preservative Treatments (Seal Coating)
4 - Fair	Structural Improvement and Leveling (Overlay or Recycling)
3 - Poor	Structural Improvement and Leveling (Overlay or Recycling)
2 - Very Poor	Reconstruction
1 - Failed	Reconstruction

Source: PASER Asphalt Roads Manual, Transportation Information Center, University of Wisconsin-Madison, 2002

Example of a roadway with very poor pavement condition

Example of a roadway with good pavement condition

A review of pavement condition in **Figure 6.9** shows that the City of Casa Grande does an excellent job of maintaining their arterial and collector roadways, with more than 80% of roadways in good, very good, or excellent condition. Within unincorporated Pinal County, 37% of arterial and collector roadways are in good, very good, or excellent condition. Within Eloy and Coolidge, less than 30% of arterial and collector roadways are in good, very good, or excellent condition.

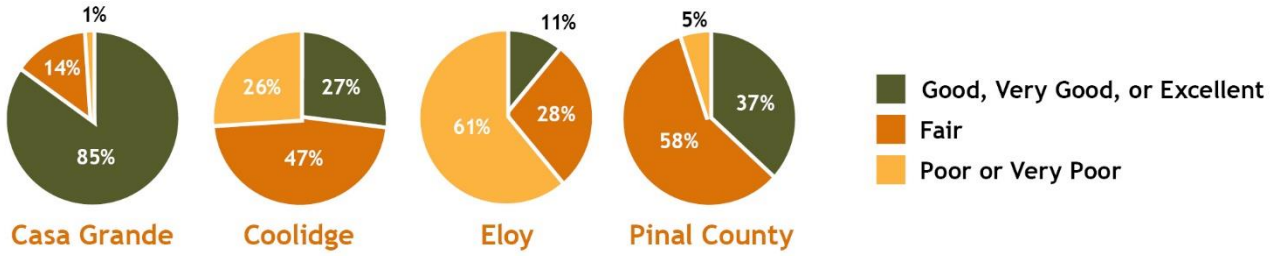


Figure 6.9 – Condition of Arterial and Collector Roadways in the Sun Corridor MPO Region

Bridge Conditions

The Sun Corridor MPO region includes bridges that meet the following definition:

> *A "bridge" is defined as a structure including supports erected over a depression or an obstruction, as water, highway, or railway and having a track or passageway for carrying traffic or other moving loads, and having an opening measured along the center of the roadway of more than 20 feet between under copings of abutments or spring lines of arches, or extreme ends of openings for multiple boxes; it may include multiple pipes, where the clear distance between openings is less than half of the smaller contiguous opening.* —ADOT

ADOT maintains inventories for all bridges and grade-separated structures on state highways, and Sun Corridor MPO member jurisdictions have agreements with ADOT to maintain bridge inventories for bridges on local and county roads.

Table 6.8 summarizes the most recently available state and local government bridge inventories for the Sun Corridor MPO region. Approximately 97% of all bridges are in good or fair condition.

Table 6.8 – Bridge Condition

Bridge Condition				
Agency or Jurisdiction	**Number of Bridges**	**Good Condition**	**Fair Condition**	**Poor Condition**
Casa Grande	4	4	0	0
Coolidge	13	10	2	1
Eloy	12	9	2	1
Pinal County (unincorporated)	24	19	5	0
Subtotal	53	42	9	2
ADOT	63	15	46	2

Source: ADOT, Arizona Local Agency System Bridge Record, 8/29/2018

Transit

The Sun Corridor MPO is responsible to coordinate transit system funding and investment. The MPO TAC collaboratively ensures that transit investments serve to support regional transportation priorities and goals. The Sun Corridor RTP has established a goal to increase the number of residents and visitors served by transit in the region.

Much of the information in this section was obtained from the *Central Arizona Governments (CAG) and Sun Corridor MPO Human Services Transportation Coordination Plan FY 2018*. The purpose of this plan is to identify the transportation needs of individuals with disabilities, older adults, and people with low incomes; provide strategies for meeting those needs; and prioritize transportation services for funding and implementation. The plan is updated annually, and a major update occurs every three years. All MPOs and Councils of Governments (COGs) in Arizona must have a coordination plan in place for programs in their respective areas to be eligible for funding through the Section 5310 Program.

Two public transit systems currently operate in the Sun Corridor MPO region. These services are described as follows and had a combined 2018 ridership of 33,083 passenger trips, according to data from the City of Coolidge. In addition, the City of Maricopa Express Transit (COMET) system provides once-a-week transit service to the Banner Regional Medical Center in Casa Grande.

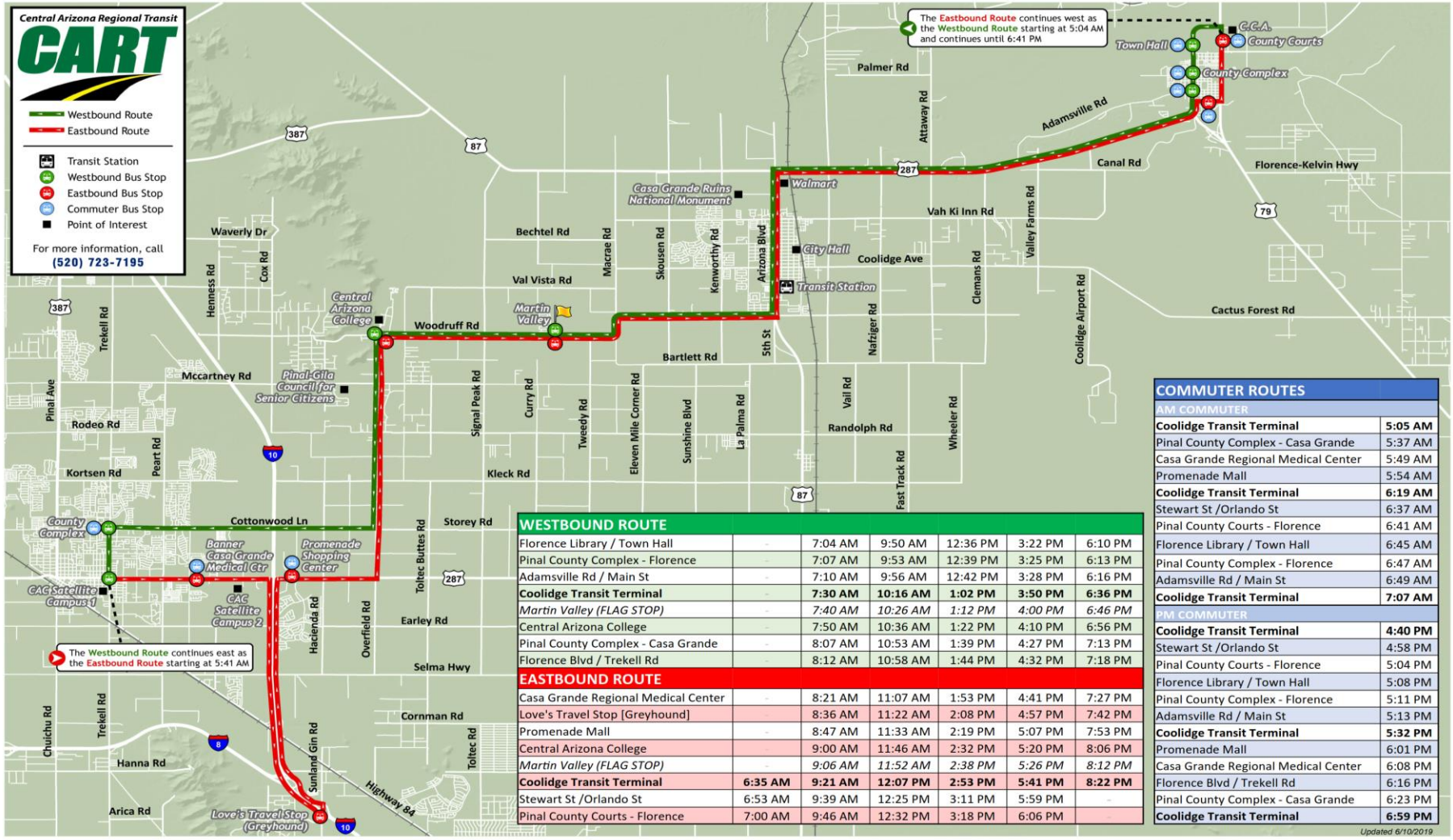
CART

In August 2010, CART began service. This system is a fixed-route service that operates Monday through Friday from 5:15 a.m. to 8:30 p.m. and provides regional service to Florence, Coolidge, Central Arizona College, Eloy and Casa Grande. Additional service is provided during peak commute times. It is funded by ADOT, Central Arizona College, City of Coolidge, Pinal County, and the Town of Florence. There is an eastbound route that includes a Greyhound bus stop at the Love's Travel Stop off I-10 and Sunland Gin Road in Eloy. A route map for the transit service, which also shows the schedule, is shown in **Figure 6.10** on the following page.

Cotton Express

The Cotton Express bus system provides deviated fixed-route bus service and on-demand service throughout the City of Coolidge. The service runs Monday through Friday from approximately 7 a.m. to 8 p.m.

There are two routes, the red and the blue, which are shown in . Persons requesting deviated service must call the transit dispatcher the day before.



WESTBOUND ROUTE						
Florence Library / Town Hall	-	7:04 AM	9:50 AM	12:36 PM	3:22 PM	6:10 PM
Pinal County Complex - Florence	-	7:07 AM	9:53 AM	12:39 PM	3:25 PM	6:13 PM
Adamsville Rd / Main St	-	7:10 AM	9:56 AM	12:42 PM	3:28 PM	6:16 PM
Coolidge Transit Terminal	-	**7:30 AM**	**10:16 AM**	**1:02 PM**	**3:50 PM**	**6:36 PM**
Martin Valley (FLAG STOP)	-	*7:40 AM*	*10:26 AM*	*1:12 PM*	*4:00 PM*	*6:46 PM*
Central Arizona College	-	7:50 AM	10:36 AM	1:22 PM	4:10 PM	6:56 PM
Pinal County Complex - Casa Grande	-	8:07 AM	10:53 AM	1:39 PM	4:27 PM	7:13 PM
Florence Blvd / Trekell Rd	-	8:12 AM	10:58 AM	1:44 PM	4:32 PM	7:18 PM
EASTBOUND ROUTE						
Casa Grande Regional Medical Center	-	8:21 AM	11:07 AM	1:53 PM	4:41 PM	7:27 PM
Love's Travel Stop [Greyhound]	-	8:36 AM	11:22 AM	2:08 PM	4:57 PM	7:42 PM
Promenade Mall	-	8:47 AM	11:33 AM	2:19 PM	5:07 PM	7:53 PM
Central Arizona College	-	9:00 AM	11:46 AM	2:32 PM	5:20 PM	8:06 PM
Martin Valley (FLAG STOP)	-	*9:06 AM*	*11:52 AM*	*2:38 PM*	*5:26 PM*	*8:12 PM*
Coolidge Transit Terminal	**6:35 AM**	**9:21 AM**	**12:07 PM**	**2:53 PM**	**5:41 PM**	**8:22 PM**
Stewart St /Orlando St	6:53 AM	9:39 AM	12:25 PM	3:11 PM	5:59 PM	-
Pinal County Courts - Florence	7:00 AM	9:46 AM	12:32 PM	3:18 PM	6:06 PM	-

COMMUTER ROUTES	
AM COMMUTER	
Coolidge Transit Terminal	**5:05 AM**
Pinal County Complex - Casa Grande	5:37 AM
Casa Grande Regional Medical Center	5:49 AM
Promenade Mall	5:54 AM
Coolidge Transit Terminal	**6:19 AM**
Stewart St /Orlando St	6:37 AM
Pinal County Courts - Florence	6:41 AM
Florence Library / Town Hall	6:45 AM
Pinal County Complex - Florence	6:47 AM
Adamsville Rd / Main St	6:49 AM
Coolidge Transit Terminal	**7:07 AM**
PM COMMUTER	
Coolidge Transit Terminal	**4:40 PM**
Stewart St /Orlando St	4:58 PM
Pinal County Courts - Florence	5:04 PM
Florence Library / Town Hall	5:08 PM
Pinal County Complex - Florence	5:11 PM
Adamsville Rd / Main St	5:13 PM
Coolidge Transit Terminal	**5:32 PM**
Promenade Mall	6:01 PM
Casa Grande Regional Medical Center	6:08 PM
Florence Blvd / Trekell Rd	6:16 PM
Pinal County Complex - Casa Grande	6:23 PM
Coolidge Transit Terminal	**6:59 PM**

Updated 6/10/2019

Figure 6.10 – CART Transit System Map

Source: City of Coolidge, https://www.coolidgeaz.com

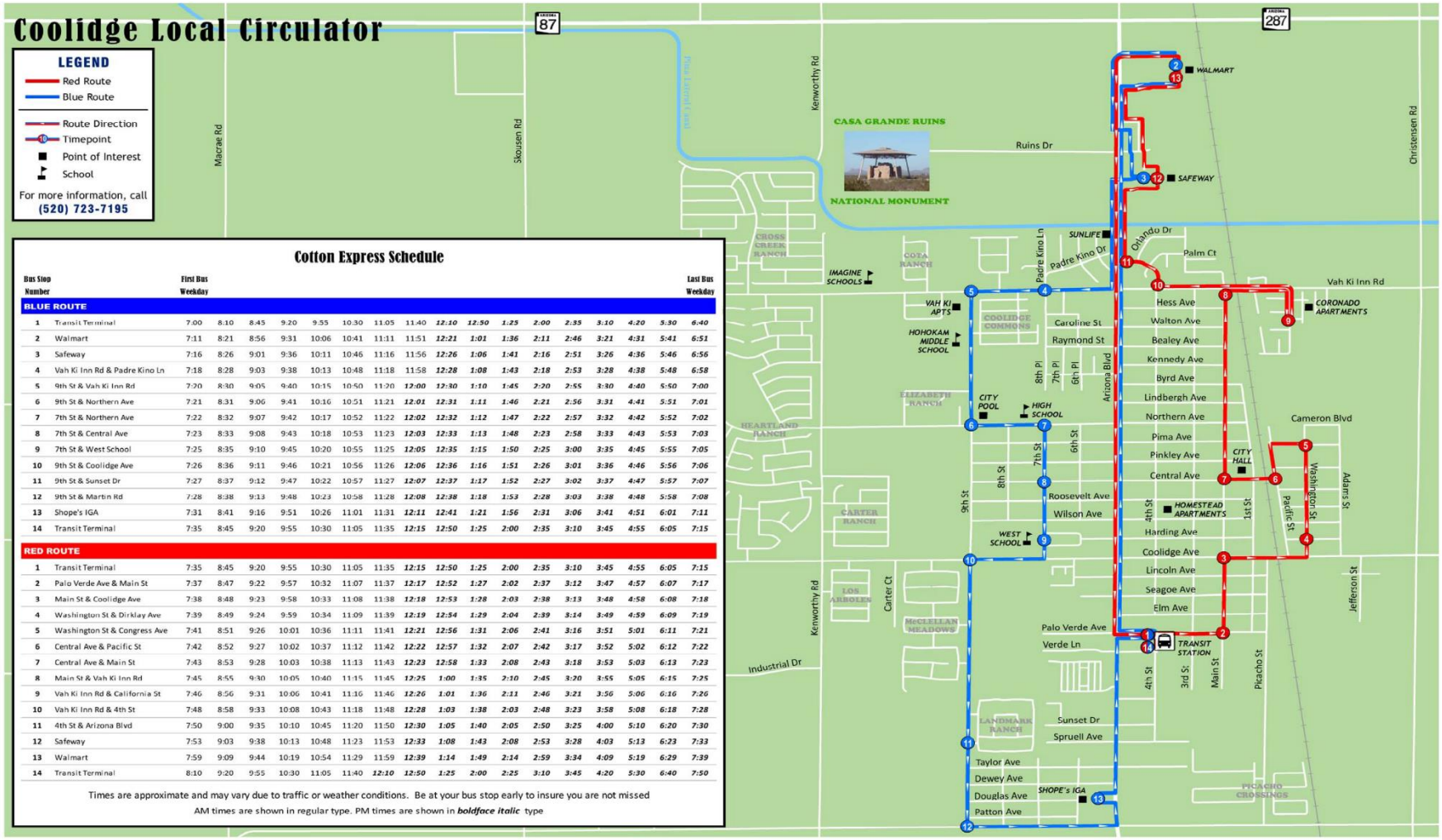


Figure 6.11 – Cotton Express Route Map

Source: City of Coolidge, https://www.coolidgeaz.com

Transit Services for Seniors and Individuals with Disabilities

Several organizations provide valuable transit services for seniors and individuals with disabilities. A listing of these services is summarized in **Table 6.9** on the following page. This table also shows agencies in the Sun Corridor MPO region that receive funding through the FTA 5310 Program – Enhanced Mobility of Seniors and Individuals with Disabilities, and other funding sources.

Other FTA 5310 providers for which information was not available include:

- ⇒ Banner, Casa Grande
- ⇒ Central Arizona College, Casa Grande
- ⇒ Eloy Adult Center, Eloy
- ⇒ Department of Economic Security (DES)/Division of Developmental Disabilities (DDD), Coolidge
- ⇒ Dorothy Powell Senior Adult Center, Casa Grande

The Gila-Pinal Rides Committee is the steering committee for transit coordination issues within the CAG and Sun Corridor MPO regions. This steering committee comprises transit providers and stakeholders from Pinal and Gila counties and meets bi-monthly. The Gila Pinal Rides Committee identified the following program goals:

Goal 1. Strengthen, through coordination, the existing transit services and support expansion of transit where appropriate.

Goal 2. Strengthen and expand training programs for public, human service, and volunteer providers in Gila and Pinal Counties – with a special focus on expanding joint driver trainings.

Goal 3. Provide readily-accessible information on transit and specialized transportation resources in Gila and Pinal Counties.

Goal 4. Maintain vehicles in a state of good repair and utilize efficiently.

Operational priorities are:

1. Continue funding of existing programs that lack public or private transportation alternatives.
2. Develop and encourage programs that address regional service gaps.
3. Encourage projects that go beyond Americans with Disabilities Act (ADA) requirements.
4. Focus funding on programs that improve services by coordinating trips with other organizations.
5. Encourage agencies to serve the elderly, individuals with disabilities, and the general public where allowed by organizational policies.

Table 6.9 – Sun Corridor MPO Region Transit Services

Sun Corridor MPO Region Transit Services						
Program	**Services**	**Major Funding Source**	**Jurisdiction Served**	**2018 Annual Trips**	**2018 Annual Hours**	**2018 Annual Miles**
Hope Lives - Vive La Esperanza	Provides services to individual with serious mental illness or mental health/substance abuse	Cenpatico Integrated Care	Casa Grande/Pinal County	1260 (FY16-17)	N/A (FY16-17)	10,300 (FY16-17)
Horizon Health and Wellness	Provides transportation services to eligible registered participants and individuals in agency group homes	Section 5310	Pinal County and Gila County (only Pinal County shown)	16,896 (2017-18)	18,099 (2017-18)	306,412 (2017-18)
Opportunity Tree (Formerly Arizona Foundation for the Handicapped)	Provides support to persons with intellectual and developmental disabilities	State	Casa Grande	11,296	7,852	109,881
Pinal-Gila Council for Senior Citizens	Supports transit services for the elderly through providing funds to senior centers who provide local transportation services meeting nutritional, social, and medical needs	N/A	Pinal and Gila County	N/A	N/A	N/A
Pinal Hispanic Council	Provides transportation to members for medical appointments	5310 and Cenpatico	Eloy	17,103 (2017)	1,820 (2017)	269,733 (2017)
Portable Practical Education Preparation Encompass	Provides transportation for group homes and day programs for developmentally disabled adults	5310	Pinal and Gila County	29,307	6,224	147,456

Source: CAG and Sun Corridor MPO Human Services Coordinated Transportation Plan, FY 2019

Capital priorities are:

1. Replace existing program vehicles that have exceeded the ADOT identified useful life and meet at least two operational priorities.
2. Replace program vehicles that have exceeded the ADOT identified useful life and meet at least one operational priority.
3. Support fleet expansion that provides increased access or coordination with a 5310 agency and meets two operational priorities.
4. Support fleet expansion that identifies an unmet geographic or ridership need and meets two operational priorities.

Agencies seeking funding in the Sun Corridor MPO and CAG region are required to have all projects measured through a prioritization process, which involves the following criteria:

⇒ Project management criteria

⇒ Coordination criteria

⇒ Project-specific criteria for capital expansion, replacement, or operations

Transit Planning Initiatives

Coolidge Transit Plan

The Coolidge Transit Plan was completed in June 2016. The Coolidge Transit Plan assessed both the Cotton Express and CART transit systems. Current and projected level of demand for both transit systems was evaluated using data from the federal census along with Cotton Express/CART customer surveys, a Pinal County community survey, community workshops, and stakeholder roundtable sessions. The study evaluated the current Cotton Express and CART services through daily trip sheet analysis and field observations.

Based on the preceding analysis, goals were developed as well as a phased five-year plan of improvements, which are summarized as follows:

Cotton Express	Phase 1	» Formalize route-deviation policy » Provide bi-directional service along Arizona Boulevard
	Phase 2	» Introduce limited-hour Saturday service
CART	Phase 1	» Provide a local circulator in Florence » Increase service frequency along the trunk line (service from Florence to Coolidge, and Coolidge to Central Arizona College) » Extend service to Florence Gardens and Florence Anthem Hospital » Extend service to Eleven Mile Corner Road
	Phase 2	» Extend service to San Tan Valley » Extend service to Sacaton and Blackwater » Extend service to Arizona City » Extend service to Eloy

Recommendations included justifications and supporting detail for each route alignment and extension. Capital and financial plans, as well as administrative and marketing recommendations, were also included.

Casa Grande Transit Development Plan

The City of Casa Grande Transit Development Plan, completed November 2018, identified a short-range (five-year) plan, which was based on a service analysis and input from the public, a Transit TAC, and ADOT staff. The recommended plan involved deviated fixed-route service on the Florence Boulevard Spine Route and a Downtown and Service Area Loop. Another alternative moved forward for consideration involved serving the western portion of Florence Boulevard by using a Florence Cottonwood Loop. The short-range transit plan was costed using several different management strategies.

A long-range transit plan (five- to ten-year time frame) was developed as part of the study. This plan involved five route options designed to serve major new employment and recreation centers as well as continued development and infill in the community core. This plan was approved by the Sun Corridor MPO Executive Board on January 8, 2019 and accepted by the Casa Grande City Council on April 15, 2019.

Eloy Transit Feasibility Study

The City of Eloy Transit Feasibility Study, completed in March 2019, identified near-, mid-, and long-term transit service recommendations. The near-term transit recommendation is a flex route circulator service within Eloy with a regional connection to Casa Grande. This provides access to Downtown Eloy and other key locations throughout the community identified by the public and stakeholders. Initial service is recommended to be on weekdays with a reduced schedule on Saturdays. Cost estimates for optional service to the CoreCivic Correctional Complex and Arizona City were included. This study was approved by the Sun Corridor MPO Executive Board on March 12, 2019 and accepted by the Eloy City Council on April 22, 2019.

Bicycle and Pedestrian Transportation

Bicycling and walking represent important modes of transportation. The Sun Corridor RTP encourages investments in bicycling and walking facilities. These investments encourage healthy lifestyles and physical fitness, as well as provide safe and comfortable transportation options to access jobs, schools, residences, recreation, and shopping. When walking and bicycling facilities are provided, particularly in downtown areas, they can mean fewer vehicles on the road.

A goal of the Sun Corridor RTP is to increase the number of miles of new bicycle infrastructure in the region. This can be implemented in conjunction with pavement preservation and rehabilitation projects or new roadway construction or reconstruction by agencies or private development. A brief overview of bicycle and pedestrian facilities in the region is provided below.

Casa Grande

The City of Casa Grande is incrementally developing a pedestrian/bicycle trail system. Bicycle lanes have been incorporated into the construction of new arterials and collector streets. The City's roadway design standards include bike lanes for both arterial and collector streets. In addition, the City has implemented shared-use paths along canals and washes. Arterial and collector roadways that have striped bicycle lanes include:

- ⇒ Arizola Road
- ⇒ Burris Road
- ⇒ Casa Grande Avenue
- ⇒ Cottonwood Lane
- ⇒ Main Avenue
- ⇒ Peart Road
- ⇒ Thornton Road
- ⇒ Val Vista Boulevard
- ⇒ McCartney Road
- ⇒ McMurray Boulevard

- ⇒ Rodeo Road
- ⇒ Selma Highway
- ⇒ Trekell Road
- ⇒ Henness Road
- ⇒ Kortsen Road

Many of these roads also include sidewalks on one or both sides of the road.

Coolidge

Approximately 11 miles of Coolidge arterial and collector streets have sidewalks on either one or both sides of the road. Since completion of the 2016 RTP, Coolidge has completed the Main Street, Coolidge Avenue to Pinkley Avenue roadway improvement project and the Central Avenue, Main Street to First Avenue, both of which included pedestrian enhancements.

Other streets that have sidewalks include segments of:

- ⇒ 9th Street
- ⇒ Central Avenue
- ⇒ Northern Avenue
- ⇒ Main Street
- ⇒ Martin Road
- ⇒ Picacho Street
- ⇒ Vah Ki Inn Road
- ⇒ Coolidge Avenue

Coolidge has identified priority sidewalk corridors for future installation of sidewalks, as part of its transportation planning efforts. With respect to bicycling, some roadways have striped shoulders suitable for bicycling. The most continuous route is Vah Ki Inn Road. Other roads with paved shoulders that are four feet wide or greater include sections of Randolph Road, Woodruff Road, 9th Street, and Coolidge Avenue.

Eloy

Eloy has sidewalks on many of its residential streets in the downtown area. Since 2015, Eloy has replaced sidewalks on C Street and Stuart Boulevard.

Paved shoulders that are four feet wide or greater exist on one or more sections of Main Street, Battaglia Road, Frontier Street, Giles Street, Stuart Boulevard, Phoenix Avenue, and Sunshine Boulevard. There is a bike lane on Shedd Road, between Giles Road and N. Estrella Road. Sections of Sunshine Boulevard have a striped bicycle lane. Future plans exist for a shared-use urban trail system, an irrigation canal trail system, and regional trails.

Pinal County

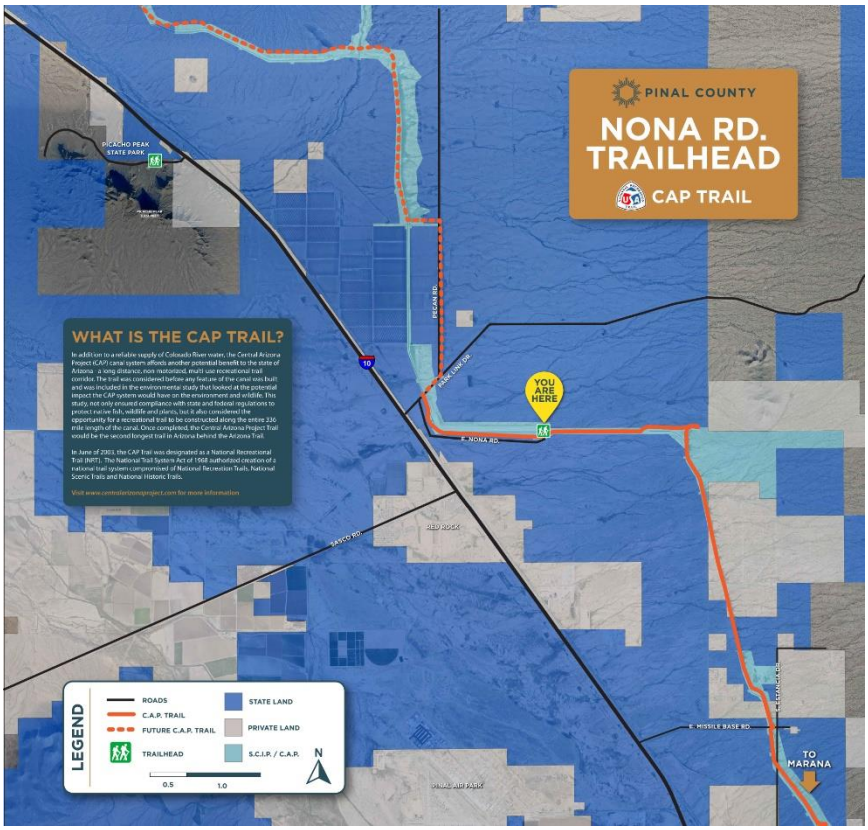
Pinal County residents and visitors have access to a wide variety of park, trail, and outdoor recreation opportunities. Pinal County is home to five state parks, four wilderness areas, three national monuments, two national forests, and a national scenic trail.

Pinal County also provides several neighborhood/community parks and manages approximately 60 miles of regional non-motorized multi-use trails. Bicycles are permitted on all state roads in the county except I-10 and the segment of I-8 between Trekell Road and I-10. Sections of Jimmie Kerr Boulevard have wider paved shoulders for bicyclists.

In 2019, Pinal County opened the CAP Recreational Trail/Nona Road Trailhead. The 10.5-mile trail is within the CAP maintenance road and ranges from three to ten feet in width. The next segment of the trail is anticipated to be constructed within three years.

Nona Road Trailhead and CAP Trail

Source: Pinal County

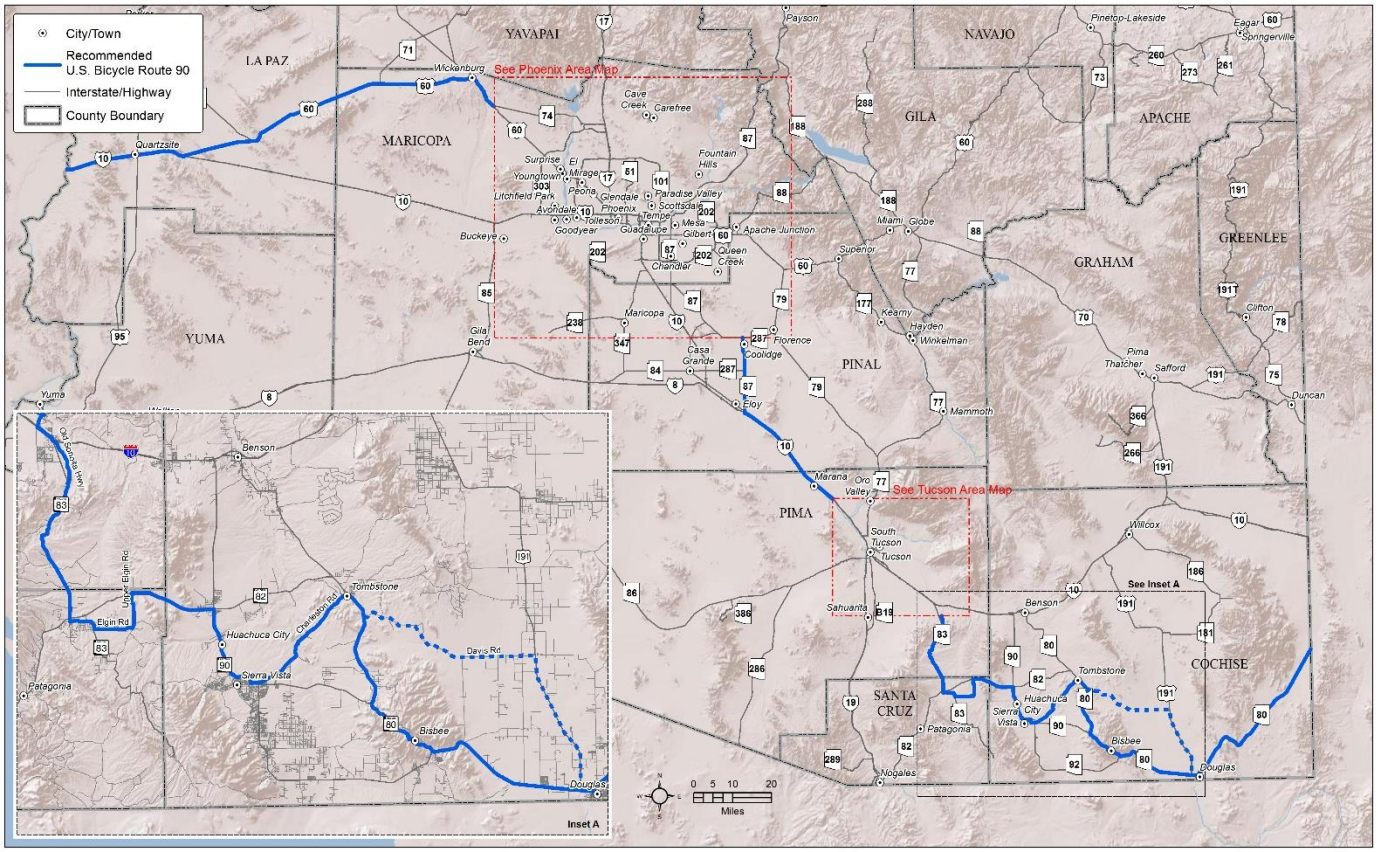


Pinal County has an Open Space and Trails Master Plan (2007), which identifies almost 400,000 acres of existing or planned open space; 800,000 acres of proposed open space; 26,000 acres of restricted use open space; and 169,000 acres of regional parks. The plan reflects the vision of county residents and identifies goals and objectives for the attainment of open space, trails, and regional parks.

The Regionally Significant Routes for Safety and Mobility Study (December 2008) provides for alternative travel modes such as transit and bicycle and pedestrian facilities.

U.S. Bicycle Route 90

On September 24, 2015, Arizona became part of the U.S. Cycling Route System, an interstate network of designated cycling routes spanning 11,424 miles of roadway in 23 states and the District of Columbia. U.S. Route 90, which spans from California to Florida, traverses Arizona, including through the Sun Corridor region, in a continuous 573-mile route between California and New Mexico.



U.S. Bicycle Route 90
Source: ADOT

Aviation

Aviation represents another critical transportation mode in the Sun Corridor region. While airport investments (taxiways, runways, terminals, etc.) are guided by the Federal Aviation Administration (FAA), the Sun Corridor MPO is responsible for ensuring that investments in airport and aviation facilities become part of the region's intermodal transportation system by improving connectivity and access to them by other transportation modes including by vehicle and freight, walking, bicycling, or transit. Multimodal access to aviation facilities can promote economic development and tourism. The four municipal airports in the Sun Corridor region include:

- ⇒ Casa Grande Municipal Airport
- ⇒ Coolidge Municipal Airport
- ⇒ Eloy Municipal Airport
- ⇒ Pinal Airpark

These airports are shown in **Figure 6.12**.

Casa Grande Municipal Airport

Source: City of Casa Grande

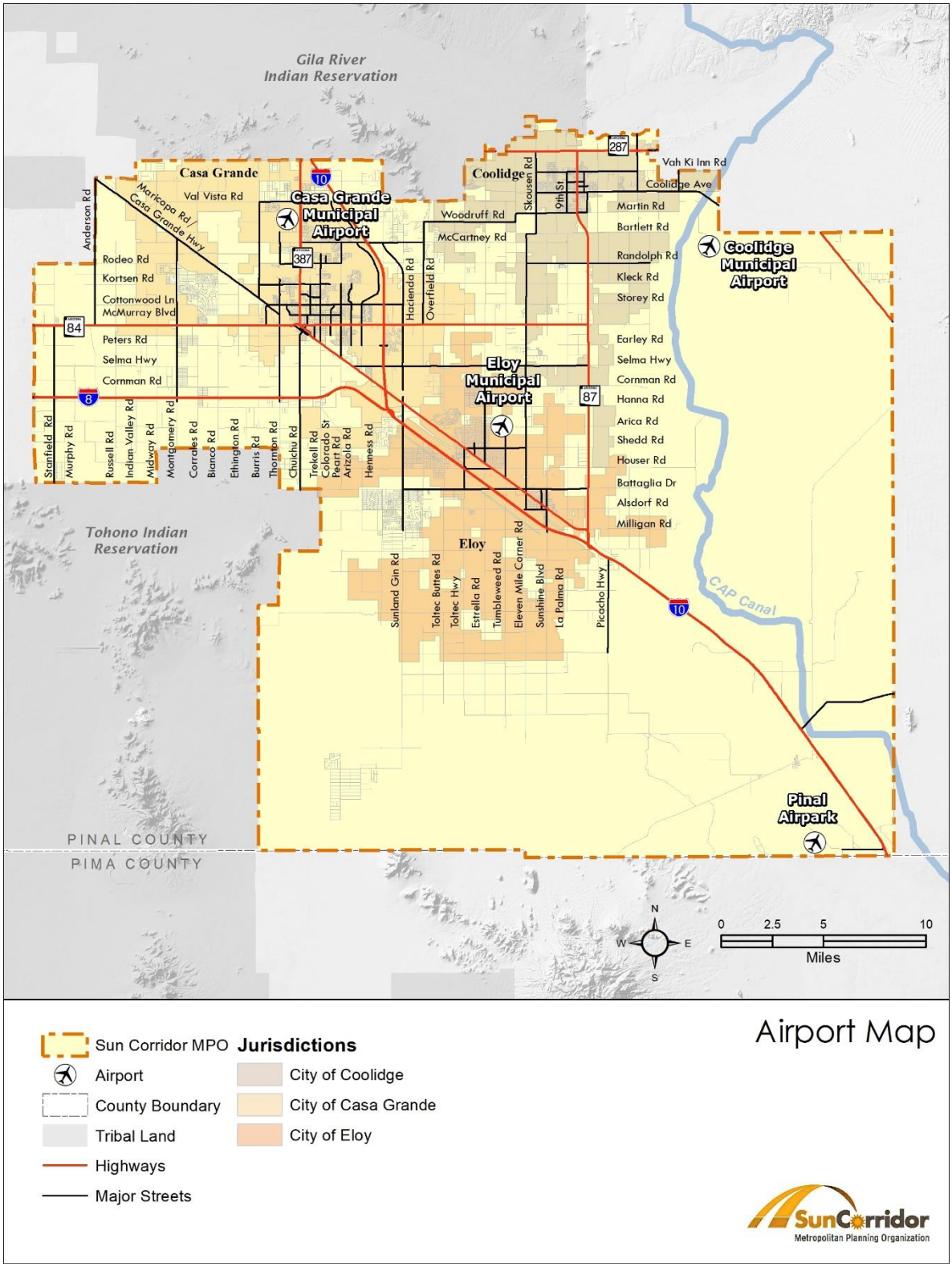


Figure 6.12 – Airports in the Sun Corridor MPO Region

Casa Grande Municipal Airport

The Casa Grande Municipal Airport is a GA facility owned and operated by the City of Casa Grande and is located six miles north of central Casa Grande. The airport is located on approximately 640 acres in the northern section of the city. The airport has one runway, which is 5,200 feet long. Landside facilities include a terminal building and hangar facilities, which include 52 T-hanger bays, 20 T-shade tie down spaces, and nearly 100 aircraft open tie-down spaces. In addition, the City has leased land to private owners and currently has six privately-owned hangers. A restaurant is located inside the terminal building.

Pinal Avenue/SR 387 provides access to the Casa Grande Municipal Airport via Airport Road. An Airport Master Plan Update was prepared in September 2015.

Coolidge Municipal Airport

Coolidge Municipal Airport is a GA airport owned and operated by the City of Coolidge and is located approximately five miles southeast of downtown Coolidge on approximately 1,300 acres of land. The airport has two runways; one is 5,562 feet long, and the other is 3,871 feet long. Landside facilities include aircraft storage hangars, an office for Coolidge Aviation, self-service fuel facilities, other aircraft hangar facilities, and facilities for two specialty operators that offer a variety of services. Coolidge Municipal Airport has become a base for aviation businesses that specialize in parachute training operations and aerial disaster relief.

Coolidge received a $9.5 million grant from the Federal Aviation Administration (FAA) for the development of a new runway along with the installation of new lighting and lighting controls. The City of Coolidge received another $450,000 for runway and runway lighting reconstruction and installing a navigation aid.

Access to this airport is via Coolidge Airport Road and East Coolidge Avenue, which becomes Cactus Forest Road east of the intersection with Coolidge Airport Road. An Airport Master Plan was prepared in January 2011.

Eloy Municipal Airport

The Eloy Municipal Airport is owned and operated by the City of Eloy. The airport encompasses approximately 90 acres of land. The airport has one runway that is 3,900 feet long. Landside facilities include aircraft storage/maintenance hangars, aircraft parking aprons, and support facilities such as fuel storage, and automobile parking. Airport tenants include a parachute manufacturer, a company conducting maintenance services, a company that stores hot air balloons, and a company that operates a full-service facility for the packing and maintenance of parachute and parachute-related equipment. Several aviation-related businesses are located off airport property but have access to airfield facilities. One example is Sky Dive Arizona, which has grown into one of the busiest skydiving centers in the country. This specialty aviation enterprise conducts over 150,000 jumps per year and served as host to the Federation Aeronatique Internationale Parachuting World Cup in October 2019.

Eloy Municipal Airport

Source: Google Earth

Eloy Municipal Airport will receive a $150,000 FAA grant for taxiway reconstruction.

The Eloy Municipal Airport is accessed via Tumbleweed Road. Lear Drive extends along the south side of airport property and provides access to the T-hangar facilities. An approved Airport Master Plan was prepared in 2013.

Pinal Airpark

Pinal Airpark is a GA airport owned and operated by Pinal County. The airport has one active runway that is 6,849 feet long. Landside facilities include office buildings, a county administrative building, storage buildings, a fuel facility, and other structures. Within the property there is also a race track and firing range.

According to the Pinal Airpark Master Plan Update (September 2015), the majority of aviation activity is helicopter activity associated with the Arizona Army National Guard and other tenant organizations of the adjacent Silver Bell Army Heliport (located just north of the airport). The remaining activity is by private pilots; activity related to the maintenance; repair and overhaul services offered at the airport; and parachute training and testing by the United States Special Operations Command, which uses a landing site and facilities immediately west of the Airport.

Pinal Airpark Road provides access to the airport. On airpark property, the main access road that runs throughout the terminal area to the Army National Guard facility is named Del Smith Boulevard. The roadway that parallels and is closest to the flight line is named Evergreen Way. Roads running perpendicular to Del Smith Boulevard are numbered First through Eleventh Streets.

Airport Activity Data

An overview of activity at these airports is summarized in **Table 6.10**. This table shows the number of aircraft housed or based at the airport on a regular basis, as well as the number of take-offs and landings, or "operations" at each airport.

Table 6.10 – Airport Operations

Airport Operations							
Facility Name	**Number of Housed or Based Aircraft**	**Air Taxi Operations**	**GA Local Operations**	**GA Itinerant Operations**	**Military Aircraft Operations**	**Total Annual Operations**	**Reporting Date**
Casa Grande Municipal	92	2,000	12,720	104,560	400	119,680	4/21/2017
Coolidge Municipal	43	0	4,000	200	50	4,250	4/22/2017
Eloy Municipal	22	0	25,400	4,500	100	30,000	4/20/2017
Pinal Airpark	15	0	7,500	557	48,800	56,857	4/19/2017

Source: FAA Airport Facilities Data, https://www.faa.gov/airports/airport_safety/airportdata_5010/, accessed November 2018

Freight

Efficient, reliable, and strategically designed transportation infrastructure benefits businesses by lowering transportation and shipping costs and providing quicker access to markets and services. This leads to their improved economic competitiveness and growth, and that of the region.

Freight transportation represents a tremendous opportunity in the Sun Corridor MPO region. With access to two major interstates (I-8 and I-10), as well as the Union Pacific Railroad, the region is well-positioned to continue to attract freight-associated industries and customers. This will require a unified approach by Sun Corridor MPO agencies and collaboration with freight providers and industrial customers to protect, maximize, and expand freight-oriented commerce and economic activity.

The Sun Corridor MPO presents multiple objectives designed to improve freight accommodation within the region. These include keeping the region's roadways in good condition, improving safety, reducing travel times by improving connectivity, and investing in transportation improvements that provide for more jobs in the region.

Critical Urban and Rural Freight Corridors

MAP-21 and the subsequent FAST Act require that metropolitan planning processes provide consideration for projects and strategies to:

⇒ Increase the accessibility and mobility of people and for freight; and

⇒ Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight.

Components of the National Highway Freight Network (NHFN)

The FAST Act requires the establishment of an NHFN to strategically direct federal resources and policies toward improved performance of the network. The NHFN comprises the following four subsystems shown in **Figure 6.13**. This network is the focus of funding under the National Highway Freight Program and a significant funding target under the Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies grants.

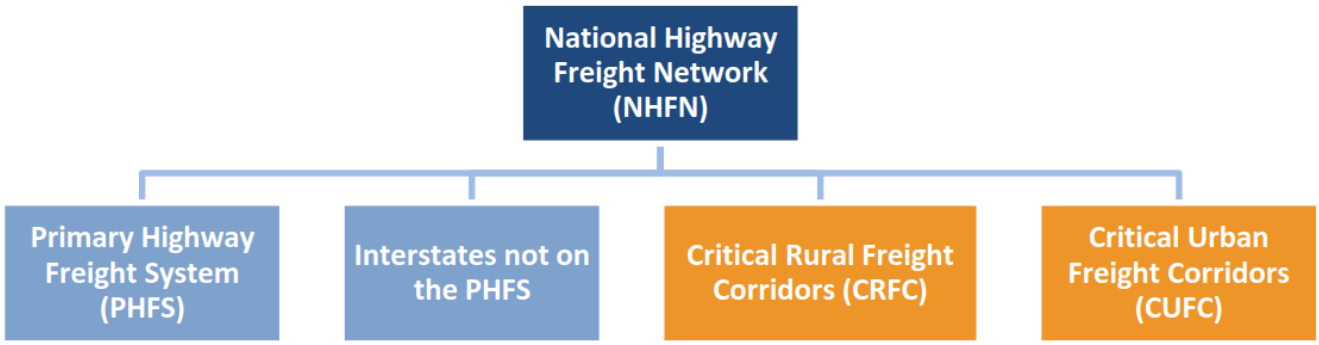


Figure 6.13 – Components of the NHFN

Source: Arizona State Freight Plan, 2017

I-10 is designated as part of the PHFS, and I-8 is designated as a non-PHFS.

The Sun Corridor MPO and member agencies recognize that maximizing and improving the ability to move materials and goods into, out of, and through the region effectively and efficiently is a key component of future economic success. This will require not only regional but also statewide and national coordination. The Sun Corridor MPO commits to collaborating with ADOT to promote and direct investments that improve freight mobility and access, leading to economic development and opportunity.

Arizona State Freight Plan (2017)

The Arizona State Freight Plan established a five-year freight plan in line with federal requirements for state freight plans embodied in the FAST Act. A core focus of the plan is to address the importance of freight in the planning and programming activities of ADOT.

As part of the plan, priority freight improvement projects were identified. In the Sun Corridor MPO region, these projects were:

- ⇒ I-10, Picacho Area Road Widening: This $72 million project, between Eloy and Picacho, involves widening four miles of I-10 to three lanes in each direction by creating new travel lanes. The improvements include a new SR 87 interchange and a first-of-its-kind dust detection zone on 10 miles of I-10 to provide drivers with crucial safety information during dust storms. This project was completed in October 2019.
- ⇒ I-10, Earley Road to I-8 Widening and Traffic Interchange Improvements: This $43 million project, completed in October 2019, includes replacing the original bridges over Jimmie Kerr Boulevard to accommodate three lanes in each direction.

A project identified as a priority project with a disproportionate benefit to freight is the I-10, SR 202L (Santan) to SR 387 Design Concept Report and Environmental Assessment.

These projects were recipients of 2016 Fostering Advancements in Shipping and Transportation for the Long-Term Achievement of National Efficiencies grants.

Truck Routes

I-10 is an east to west corridor connecting California to Florida, thus providing national connectivity. It is also important in serving global markets by providing a connection to the ports of Los Angeles and Long Beach. I-10 is Arizona's most heavily-used freight corridor.

I-8 offers connections to Yuma, San Diego, and southern California. Key truck routes in the Sun Corridor MPO region include SR 84 (Gila Bend Highway), SR 287 (Florence Boulevard), and SR 387 (Pinal Avenue), which are used by local industries as a connection between local routes and the interstate system. Previous studies have also identified Thornton Road, Cottonwood Lane, and Burris Road as regional truck routes.

Intermodal Facilities

Intermodal freight transport involves the use of multiple modes of transportation (rail, ship, and truck), without any handling of the freight itself when changing modes. Intermodal facilities closest to the Sun Corridor MPO region include two intermodal terminals located in Phoenix and Tucson that service Union Pacific Railroad, and one intermodal terminal in Glendale that services Burlington Northern Santa Fe (BNSF) Railway.

Rail

The Union Pacific Railroad provides direct access to the Sun Corridor MPO region for rail-using industries. UPRR's Sunset Route connects Southern California and Arizona to El Paso, San Antonio, Houston, and New Orleans.

Union Pacific is considering the development of a classification yard at Red Rock. Classification yards are where railcars are combined into trains with common destinations.

Future Freight Route Needs

Transportation plans need to consider alternative truck-traffic routing that will enhance connectivity between industrial investment areas and I-10 and protect the region's ability to have efficient and effective road designs promoting commercial and residential development in a livable community. For example, a loop road on the west side of Casa Grande would create a freight-friendly transportation corridor. The loop road could run north from the intersection of I-8 and South Burris Road, turn east about two miles south of the copper mine, cross SR 387, and join I-10 north of the Casa Grande Municipal Airport. Such a roadway would provide convenient, low-congestion access for trucks and separate industrial traffic from commercial and commuter traffic.

Another freight planning consideration is designated truck routes to reach the proposed inland port in the Coolidge-Eloy area on SR 87.

There is a possible need for roadway improvements as new industries develop in the region. Some examples include possible improvements to Peters Road to support traffic from Lucid Motors, or improvements to Houser Road for Nikola Corporation.

Transportation Security

Transportation security addresses the protection of transportation infrastructure related to hazardous events. When considering the amount of hazardous materials, chemicals, and flammable products that are transported on the nation's infrastructure each day, it is easy to recognize the need for security measures along highways and bridges.

Security Planning in the SCMPO Region

Public agencies in the SCMPO region have developed plans to mitigate adverse impacts from hazardous natural or man-made events. The Pinal County Office of Emergency Management is responsible for maintaining the County's Emergency Response Plan, the Long-Term Recovery Plan, The Multi-Hazard Multi-Jurisdiction Mitigation Plan, and the Local Emergency Planning Committee Hazardous Materials Response Plan.

Pinal County has a Pinal Emergency Notification System (PENS) to provide citizens with critical information in a variety of situations, such as: major roadwork, road closures, severe weather, fires, hazardous materials incidents, evacuations, and other emergency events. For more information on Pinal County's Emergency Management or to sign up for notifications, go to: http://www.pinalcountyaz.gov/emergencymanagement/pages/home.aspx

The Multi-Hazard Multi-Jurisdiction Mitigation Plan (2016) provides mitigation strategies for each of the SCMPO jurisdictions. Related to transportation, these strategies include:

- Casa Grande: Establish and sign a truck route for hazardous materials to avoid residential areas.
- Coolidge: Investigate and develop a plan that defines allowable HAZMAT corridors and prepare and adopt municipal codes for the signage and enforcement of the defined corridor routes.
- Eloy: There are no specific transportation strategies, mitigation measures are primarily related to floodplain and drainage management.
- Pinal County:
    - Provide all-weather and emergency access on Sunland Gin Road at the Greene Canal.
    - Review County transportation network and determine areas in need of stream crossing upgrades to improve public access.

Environmental Mitigation Activities

The RTP supports a number of environmental mitigation activities in the region. One is the adoption of ADOT environmental sustainability goals, objectives, and performance measures. This goal of environmental sustainability is intended to enhance the performance of the transportation system while protecting and enhancing the natural environment. In the 2016 RTP, the SCMPO adopted environmental goals and objectives relating to decreasing the number of unpaved roads in the region.

This RTP supports efforts by member jurisdictions to encourage employers and developers to consider travel demand management strategies and approaches. These strategies, including ridesharing, could potentially decrease traffic during peak hours.

The SCMPO provides program and project support for public transit and human service transportation programs, which supports protection and enhancement of the environment.

It should be noted that any project within the Sun Corridor MPO that may impact air quality conformity or that is funded with federal or state dollars must be programmed on the Sun Corridor TIP. All private or locally funded projects that meet conformity or federally mandated criteria are also programmed on the TIP. More information on the air quality conformity analysis is provided in Chapter 9.

Additionally, ADOT does not administer the development of all local public agency projects but is responsible for all National Environmental Policy Act (NEPA) compliance for federally funded local public agency projects.

7. BEST PRACTICES

7. Best Practices

Considerations in developing high-quality transportation improvements for the Sun Corridor MPO region are discussed in this section. Best practices are presented for:

- ⇒ Regional Access Management
- ⇒ Complete Streets
- ⇒ Bicycle and Pedestrian Facilities
- ⇒ Travel Demand Management
- ⇒ Intelligent Transportation Systems (ITS)
- ⇒ Pavement Management
- ⇒ Regional Transit Governance
- ⇒ Designated Truck Routes

Best practices are methods, techniques, or programs that have been found to be successful in accomplishing goals, and generally produces results that are superior to those achieved by other means, or because it has become a standard way of doing things. Some best practices can range from detailed practices to more open guidelines, depending on the specific topic.

Using recognized best practices have several advantages including:

- ⇒ Best practices have been shown to work in similar situations.
- ⇒ Employing a method and/or guidelines that have been used before successfully can save time and provide a resource for questions, and implementation experiences.
- ⇒ Best practices can help justify an approach because it has demonstrated effectiveness.

Regional Access Management

The benefits of access management include improved efficiency for through traffic, reduced crashes, and fewer vehicle conflicts. According to the FHWA, key access management techniques include:

- ⇒ **Increasing spacing between signals and interchanges:** In general, increasing the distance between traffic signals improves the flow of traffic on major arterials, reduces congestion, and improves air quality for heavily traveled corridors.
- ⇒ **Improved design of driveway locations and spacing:** A large number of driveways increases the potential for conflicts on the road and with pedestrians.
- ⇒ **Use of exclusive turning lanes:** Exclusive turn lanes for left and right turns remove stopped vehicles from the through traffic flow. Another alternative is to construct roundabouts at intersections with many conflict points.
- ⇒ **Providing median treatments, including two-way left-turn lanes (TWLTL):** Median treatments and TWLTL allow turn movements in multiple directions from a center lane. Raised medians prevent movements across a roadway by restricting driveways to right-in-right-out or three-quarter access, which eliminate the most dangerous roadway conflicts.
- ⇒ **Use of service and frontage roads and shared access:** Service and frontage roads reduce the number of direct driveway access points on major roadways, thus increasing safety. Shared access between properties reduces the number of overall driveways and may eliminate some trips altogether on the major road for trips between nearby properties.

Two Sun Corridor MPO jurisdictions have access management guidelines, the City of Casa Grande and Pinal County. The City of Casa Grande Access Management Standards (2017) include the following general access control policies for the municipal roadway network:

- ⇒ Traffic signals should be installed only at major intersections when warranted in accordance with the Manual on Uniform Traffic Control Devices (MUTCD).
- ⇒ Left- and right-turn lanes should be provided on all approaches to major intersections. Left-turn lanes should be provided on all approaches to intermediate intersections. Right-turn lanes should be provided where warranted by projected traffic demands of arterial-collector and arterial-local intersections.
- ⇒ Access along an arterial street approaching a grade-separated interchange should be limited to a signalized intersection ¼ mile from the ramp intersection (centerline to centerline), and a right-in-right-out driveway on each side of the arterial mid-way between the ramp and ¼-mile intersections. A left-in-only turn lane may be included with the right-in-right-out driveways if an operations analysis demonstrates sufficient gaps will be provided to operate this left turn safely, without signalization.
- ⇒ As new development and redevelopment occurs, existing roadway and driveway access points should be eliminated or consolidated, where it is reasonable and feasible to do so.
- ⇒ The collector street network of proposed major land developments should provide access to streets that intersect/connect with the City's arterial street system. The review process associated with an access permit affecting state routes must be coordinated through the District Engineer of ADOT's Southcentral District.
- ⇒ Any median opening along state routes passing through the City requires application through the District Engineer of ADOT's Southcentral District.
- ⇒ The minimum spacing of signalized intersections along state routes and the City's major arterials should be one mile in rural areas and one-half mile in urban areas.
- ⇒ Preparation of access management plans is recommended on selected City streets and for state routes. Standards regarding driveway spacing and access spacing are provided by roadway functional classification.

In 2017, Pinal County developed an Access Management Manual. An overview of access management guidelines from this manual is summarized in **Table 7.1**.

Table 7.1 – Pinal County Access Management Guidelines

Pinal County Access Management Manual – Summary of Guidelines						
Item	**Parkways**	**Major Arterials**	**Minor Arterials**	**Collectors**	**Local Streets**	**Frontage Roads**
Signalized Street Access Spacing [1]						
Urban	½ mile spacing	¼ mile spacing	¼ mile spacing	1/8 mile spacing[2]	N/A	N/A
Rural	1 mile spacing	½ mile spacing	½ mile spacing	¼ mile spacing[2]	N/A	N/A
Unsignalized Street Access Spacing [1]						
Urban	N/A	660'	330'	330 (150' for minor collectors)	100'	N/A
Rural	N/A	1,320'	660'	660'	330'	N/A
Median Openings [1]						
Full Access	1,320'	1,320'	660'	N/A	N/A	N/A
Partial Access	660'	660'	330'	N/A	N/A	N/A

Table 7.1 – Pinal County Access Management Guidelines, Cont.

Pinal County Access Management Manual – Summary of Guidelines						
Item	**Parkways**	**Major Arterials**	**Minor Arterials**	**Collectors**	**Local Streets**	**Frontage Roads**
Frontage Road Access Spacing [3,4]						
One-Way	N/A	N/A	N/A	N/A	N/A	200'- 425'
Two-Way	N/A	N/A	N/A	N/A	N/A	200'- 510'
Driveway Spacing	360'	360'	360'	250'	75'	N/A
Corner Clearance	360'	360'	360'	250'	N/A	N/A

[1] Distance measured from intersection centerline to intersection centerline
[2] Not applicable for minor collector roads
[3] Distance measured from inside edge of pavement to inside edge of pavement
[4] Dependent on posted speed limit

Source: Pinal County Access Management Manual, February 2017

It is recommended that each Sun Corridor MPO member agency adopt a consistent regional access management policy to guide roadway improvements within their respective jurisdictions. A uniform access management policy will help guide future street system development in the Sun Corridor MPO region and streamline the permitting process for local developers. The existing Pinal County Access Management Guidelines may serve as a starting point. Currently the City of Coolidge is considering adoption of Pinal County's access management standards for the area anticipated to experience major industrial growth along the SR 87 corridor.

Complete Streets

Complete streets is a term used to describe roads that are designed and operated to enable safe access for all users. People of all ages and abilities can safely move along and across streets in a community, regardless of how they are traveling. Complete streets make it easy to cross the street, walk, and bicycle to destinations.

The Eloy Main Street Improvement project provided operational and streetscape improvements to accommodate pedestrian, bicycle, and vehicular users.

A complete street in a rural area will look quite different from a complete street in a highly urban area, but both are designed to balance safety and convenience for everyone using the road. Within an urban area, a complete street may include sidewalks, bike lanes, median treatments, and frequent pedestrian crossing opportunities. Within a rural area, a complete street may simply include a wide paved shoulder for use by bicyclists and pedestrians. Both examples of complete streets respond to the needs of the roadway users along the corridor.

It is recommended that each Sun Corridor MPO member jurisdiction develop and adopt a complete streets policy. By adopting a complete streets policy, communities within the Sun Corridor region will promote the implementation of additional bicycle and pedestrian facilities. **Figure 7.1** is an example of how a complete streets approach can improve conditions for motorists, bicyclists, pedestrians, and transit riders. **Figure 7.2** proposes additional considerations for transportation planning and roadway design that lead to projects that meet the needs of all roadway users. Additional information about a complete streets policy can be found at http://www.smartgrowthamerica.org/complete-streets.

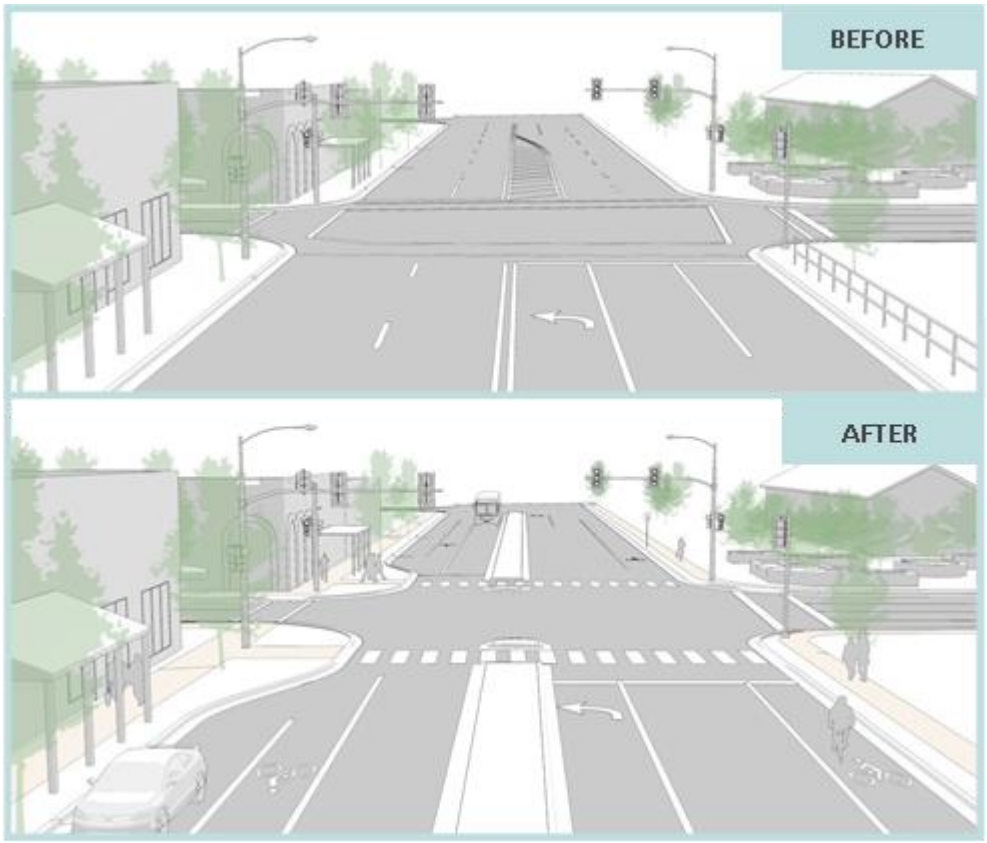
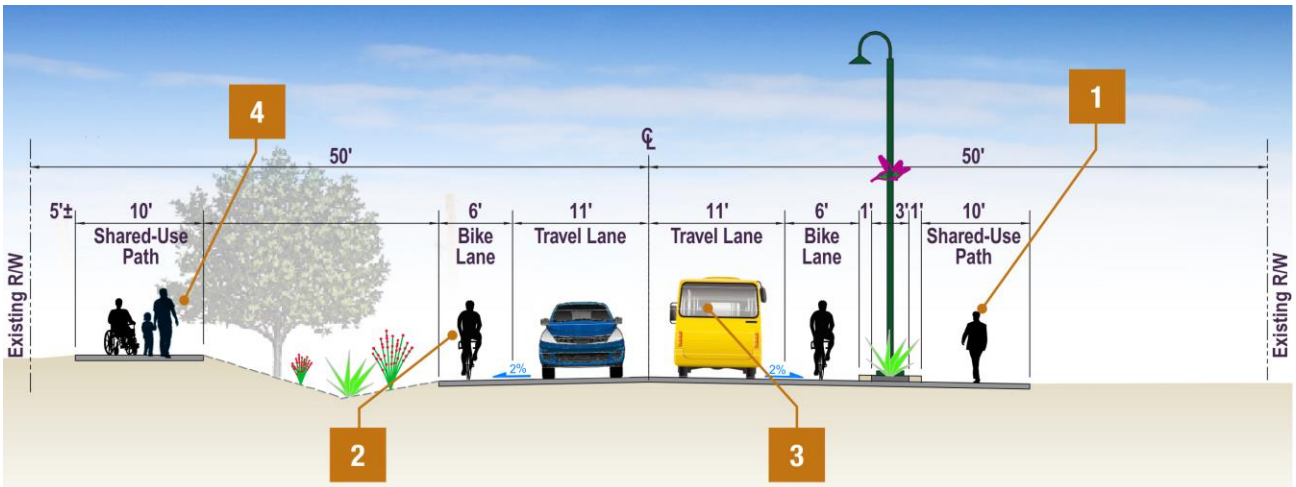


Figure 7.1 – Example of Transportation Planning for Complete Streets

Source: Kimley-Horn



CONSIDERATIONS

1 Pedestrians	◆ Are any current or planned land uses or destinations in the corridor within reasonable walking distance of one another? ◆ How will the project improve walking conditions along the state highway? Can nearby existing sidewalks be connected through the project? ◆ Are state highway crossings needed? Are destinations located on opposite sides of the roadway? ◆ Are community facilities (parks, schools) located within one-half mile to 1 mile of the project? Will children and others walk along or across the roadway to access the destinations?
2 Bicyclists	◆ Is the roadway identified as a bicycle route within a local bicycle and pedestrian plan? ◆ Does the project include elements to encourage people of all ages to bicycle, or will the project only serve the needs of experienced and advanced bicyclists? ◆ What project elements can be incorporated to enable people of all ages to bicycle on or near the project/corridor?
3 Transit users	◆ Are existing bus routes within the project/corridor limits? ◆ Are proposed bus routes within the project/corridor limits? ◆ Do transit users need to walk along or cross the state highway to access bus routes? ◆ Are transit facilities such as sheltered bus stops and bus pull outs needed?
4 Other users	◆ Equestrians? ◆ Heavy machinery or agricultural equipment? ◆ Military vehicles? ◆ Recreational vehicles? ◆ Oversize/overweight vehicles?

Figure 7.2 – Example of Transportation Planning Considerations for Complete Streets

Source: Kimley-Horn

Bicycle and Pedestrian Facilities

Bicycling and walking are key elements to a healthy community's transportation system. When an environment is conducive to active transportation, these modes offer a practical transportation choice that provides benefits for individuals and their communities.

Walking and biking provide a variety of benefits including the following:

- ⇒ **Health benefits:** Walking is a form of physical activity that can be accomplished by most citizens. Regular physical activity helps prevent or reduce the risk of heart disease, obesity, high blood pressure, type 2 diabetes, and osteoporosis and can improve mental health.
- ⇒ **Environmental/energy benefits:** Walking or biking instead of driving can improve air quality.
- ⇒ **Economic benefits:** Walking and biking are affordable forms of transportation.
- ⇒ **Quality of life benefits:** The walkability and bikeability of a community is an indicator of its livability. This factor has a profound impact on establishing and growing tourism-related activity as well as attracting businesses and workers.
- ⇒ **Social justice:** When providing pedestrian and bicycle facilities such as sidewalks and bike lanes, communities allow people a choice in travel mode opportunities. For those who do not have the option to drive, such as adolescents, the elderly, those unable to afford a car, and people with certain disabilities, a lack of choice in transportation creates a barrier to mobility.

Features that contribute to a more convenient, comfortable, and safe walking and bicycling environment include mixed-use development; appropriately sized and located sidewalks, shared-use paths, and on-street bike lanes; accessibility features such as curb ramps; buffers between vehicular traffic and non-motorized modes; and trees to shade walking routes.

Slowing traffic, reducing unnecessary exposure to vehicles, and incorporating features such as signage, crosswalks, and adequate pedestrian phasing at signals into future roadway design plans also enhance bikeability and walkability.

The City of Casa Grande has a Trail System Master Plan (2008), which describes locations, typical cross sections, and design features for a variety of community facilities including:

- ⇒ Enhanced Bicycle and Pedestrian Corridors
- ⇒ Linear Parks
- ⇒ Community Trails
- ⇒ Spur Trails
- ⇒ Rural/Unpaved Trails
- ⇒ Primitive Trails

Pinal County also has an Open Space and Trails Master Plan (2007), which provides an implementation plan for proposed trails, open space, and park development throughout the county.

Eloy has a section on Parks, Trails, and Open Space in the General Plan.

Types of Bicycle and Pedestrian Facilities

It is recommended that all new roadway projects include adequate right-of-way dedication to incorporate bicycle and pedestrian facilities. Examples of bicycle and pedestrian facilities that can be incorporated into major improvements and new construction projects are listed in **Figure 7.3** to **Figure 7.5.** The City of Casa Grande now includes bicycle lanes in their standard plans for any new arterial roadways in the city and has bicycle detection at some traffic signal locations.

Innovative pedestrian treatments being used in the Sun Corridor MPO region include:

⇒ **High-Intensity Activated crossWalK beacon (HAWK beacon):** A traffic control device used to stop road traffic and allow pedestrians to cross safely. HAWKs have been installed on Florence Boulevard, between Cacheris Court and Camino Mercado, as well as on Pinal Avenue (SR 387) between Ocotillo Street and McMurray Boulevard. An additional HAWK is planned for Construction in FY22 near the intersection of Cottonwood Lane and Kadota Avenue.

⇒ **Rectangular Rapid-Flash Beacon (RRFB):** User-actuated amber light-emitting diodes (LEDs) that supplement warning signs at unsignalized intersections or mid-block crosswalks. They can be activated by pedestrians manually pushing a button or passively by a pedestrian detection system. RRFBs use an irregular flash pattern that is similar to emergency flashers on police vehicles. An RRFB has been installed on Florence Boulevard, between Sacaton Street and 4th Street.

RRFB on Florence Boulevard, between Sacaton Street and 4th Street

⇒ **In-pavement warning lights:** Warning lights that are embedded in the pavement to improve crosswalk visibility. These are located at several locations in Casa Grande, including:

- Arizola Road (Mission Valley Boulevard – E. Balboa Drive)
- McMurray Boulevard and Center Street
- Colorado Street and Sunset Street
- Trekell Road and Trinity Place
- Trekell Road and 4th Street
- Trekell Road and San Carlos Pathway (2nd Street - 1st Street)
- Brown Street and 1st Street

Examples of Bicycle and Pedestrian Facilities

Striped Bike Lane

⇒ Exclusive-use area adjacent to the outermost travel lane
⇒ Typical width: 6' (5' minimum)
⇒ Recommended on all arterial and collector roadways with speed limits of 25 mph or higher

Striped Paved Shoulder

⇒ Additional pavement adjacent to travel lane
⇒ Extends service life of road and provides greater safety and comfort for bicyclists
⇒ Typical width: 10' (5' minimum recommended to accommodate bicyclists)
⇒ In rural areas with low traffic, can be used by pedestrians

Figure 7.3 – Examples of Bicycle and Pedestrian Facilities

Examples of Bicycle and Pedestrian Facilities

Shared-Lane Markings

- ⇒ Pavement markings on lanes to indicate a shared space for bicyclists and motorists
- ⇒ Should be used on roads (35 mph or less) where bicycle lanes are desirable but not feasible due to pre-existing constraints; most appropriate in constrained urban environments such as downtown business districts
- ⇒ Typical spacing: every 100-250 feet along a corridor

Sidewalk

- ⇒ Dedicated space within right-of-way for pedestrians
- ⇒ Should include a landscaped buffer from roadway
- ⇒ Typical width: 6' (5' minimum)

Figure 7.4 – Examples of Bicycle and Pedestrian Facilities, Cont.

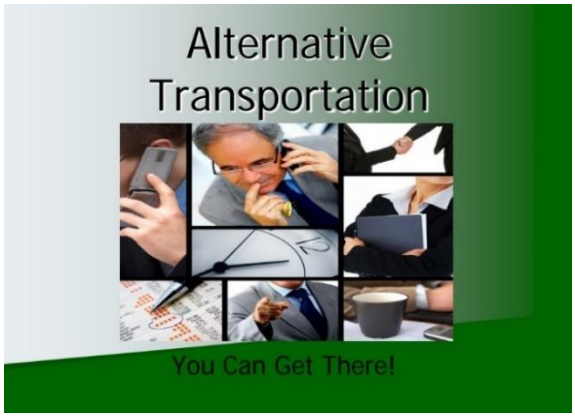
Examples of Bicycle and Pedestrian Facilities
Shared-Use Path
⇒ Separated from traffic and located in open space or adjacent to road with more setback and width than sidewalks ⇒ Typical width: 10'-14' preferred (8' minimum) ⇒ Most suitable in suburban or rural environments where roadway will include limited intersections with side streets or driveways

Figure 7.5 – Examples of Bicycle and Pedestrian Facilities, Cont.

Travel Demand Management

Travel demand management refers to a set of strategies aimed at reducing the demand for roadway travel, particularly in single occupancy vehicles. Some travel demand management strategies are designed to reduce total travel demand, some are designed to reduce peak period demand, and some encourage a shift to alternate modes. Travel demand management strategies can improve and expand transportation choices.

As the region grows and develops and as major new employment centers are constructed, it is recommended that Sun Corridor MPO member jurisdictions encourage employers and developers to consider travel demand management strategies and approaches. In particular, the corridor between Coolidge and Eloy would be a good location to implement travel demand management practices because of planned industrial development. Examples of how these strategies are being implemented in the Sun Corridor region are summarized in **Table 7.2**.



Source: Pinal County Alternative Transportation

Table 7.2 – Travel Demand Management Strategies

Travel Demand Strategies		
Category	**Strategy**	**Examples in the Sun Corridor MPO Region**
Alternative Work Schedules/ Telecommuting	⇒ Flexible and compressed work weeks ⇒ Telecommuting – Strategies include working from home, video conferencing, and use of satellite offices	Pinal County has a Travel Reduction Ordinance for major employers (over 50 employees) They also have general information about alternative work schedules at http://www.pinalcountyaz.gov/AirQuality/Travel/Pages/AlternativeWorkSchedules.aspx
Bicycle Incentives	⇒ Bicycle parking – Provision of bicycle parking racks near businesses ⇒ Education programs – Maps of bicycle routes ⇒ Improved safety for bicyclists through traffic calming, streetscaping, and complete streets	The Pinal County website: http://www.pinalcountyaz.gov/AirQuality/Travel/Pages/BikeWalk.aspx has information about: ⇒ ADOT "Share the Road" Guide ⇒ U.S. Bicycle Route 90 ⇒ Bikeguard – free bike registry to identify stolen bikes Casa Grande has bike detection at selected traffic signals, and bicycle lanes are in standard plans for arterial roadways
Parking Strategies to Encourage Use of Alternate Modes	⇒ Smart growth – Encourage more compact, mixed, multimodal development to allow more parking sharing and use of alternative modes ⇒ Preferential parking for carpools/vanpools ⇒ Park-and-ride lots	Pinal County has a successful vanpool program that often gets used by industrial employees. The vanpool program has several informal parking locations around the region.

Table 7.2 – Travel Demand Management Strategies, Cont.

Travel Demand Strategies		
Category	**Strategy**	**Examples in the Sun Corridor MPO Region**
Pedestrian Improvements	⇒ Improve sidewalks, crosswalks, and paths - Construction to connect gaps in sidewalk system, repair broken sidewalk segments, and improve pedestrian crossings ⇒ Universal design - Design that accommodates people with disabilities and other special needs ⇒ Pedestrian-oriented land-use and building design ⇒ Traffic calming - Includes streetscape improvements, traffic speed reductions, and vehicle restrictions	Examples include pedestrian crossing improvements such as: ⇒ HAWK beacons ⇒ RRFBs ⇒ In-pavement warning lights
Ridesharing/Vanpooling	⇒ Encouraging carpooling and vanpooling - Carpooling typically uses a person's own vehicle, while vanpooling uses rented vans often supplied by employers, non-profit organizations, or government agencies. As more people use these services, the chances of finding a suitable carpool or vanpool increase significantly. As a result, success depends on promotion programs that encourage a significant portion of potential users to register for possible participation. Financial incentives, such as employee subsidies, also increase participation.	Pinal County has links to Maricopa and Pima County Rideshare and Commuter Services Programs
Transit Encouragement Programs	⇒ Improved transit service including additional, more frequent, and more comfortable service ⇒ Improved transit stops and access to stops - Shelters, seating, transit user information and wayfinding guidance, park-and-ride lots, and other amenities. Improve sidewalk system to reach stops ⇒ Improve rider information and marketing programs	The CART system has a video about the transit system, a newly improved website, and fare promotions such as free ride days for CART and the Cotton Express

Source: Information from SCMPO Jurisdictions

Intelligent Transportation Systems (ITS)

ITS refers to electronics, communications, and information systems to improve the efficiency and safety of the transportation system. Some of the many areas in which ITS is used are described below.

Coordinated Traffic Signal Systems

A key source of delay and congestion along arterial streets and roadways is traffic signals. Too often motorists are required to make unnecessary stops because adjacent traffic signals are not coordinated. This results in longer travel times and increased vehicle emissions and fuel consumption. A well-timed, coordinated traffic signal system permits

continuous movement along an arterial or throughout a network of major streets with minimal stops and delays, which reduces fuel consumption and improves air quality.

Signal coordination is most critical when the intersections are in close proximity to each other and there is a large amount of traffic on the coordinated street. An example in the Sun Corridor region is Florence Boulevard/ SR 287. The MUTCD provides guidance that traffic signals within one-half mile of each other along a corridor should be coordinated. It is recommended that the Sun Corridor region invest in communications infrastructure (wireless or fiber optic cable) to better enable traffic signal coordination along major corridors.

Autonomous Vehicles

An impending future of connected vehicles (CV), automated or "driverless" vehicles (AV), shared, and electric vehicles is upon us. Many vehicle manufacturers and technology companies are experimenting, testing, and implementing these technologies, although few of these have become widespread in the vehicle market. The biggest result of the movement towards automation is an increased level of uncertainty in the role that cities and towns need to play in transportation. There are multiple schools of thought on the impacts that automated vehicles will have on local transportation systems, and cities and towns find themselves stuck between accommodating today's demands and trying to plan for tomorrow's unknowns.

Currently, the FHWA is preparing an update to the MUTCD for streets and highways in preparation for AVs and to afford states and local communities with more opportunities to utilize innovation. The MUTCD is the national standard for traffic signs, signals, and pavement markings. The upcoming new edition will propose to update the technical provisions to reflect advances in technologies and operational practices, incorporate recent trends and innovations, and set the stage for automated driving systems as those technologies continue to take shape. It is recommended that Sun Corridor MPO member jurisdictions take steps to modernize traffic control infrastructure once the new MUTCD is published as quickly as feasible to accommodate the rapidly-changing technology of vehicles.

Safety Infrastructure

ITS technology can help to improve driver, passenger, and pedestrian safety. Sensors, cameras, signing, and warning devices embedded in roads, on traffic signals, or at strategic locations can be used to inform vehicles of driving conditions. For example, road weather sensors can deliver information about conditions on bridges or roads. Examples of this infrastructure include:

- ⇒ ADOT is installing a dust detection system on I-10, from Sunshine Boulevard to Picacho Peak Road, that will identify reduced visibility along the freeway and evaluate the distance for approaching storms. Warning signs, overhead messages, and reduced speed limits will be activated automatically, and traffic operators will monitor the dust conditions via closed circuit cameras.
- ⇒ ADOT and Casa Grande have coordinated to develop an I-10/I-8 detour plan for signing and traffic control to direct traffic onto surface streets when there is an incident that closes one or both directions on the interstate.
- ⇒ In addition, the region is in the process of implementing low-cost safety improvements to address the issue of drivers running stop signs, such as:

- Larger (36-inch) stop signs with "Stop Ahead" advance traffic control sign
- Embedded LEDs in sign faces improve safety at intersections by enhancing driver awareness of traffic-control signs—these help with driver compliance because they are more visible, especially under low light and low visibility conditions
- Added pavement markings (double-yellow centerline and stop bars) to help delineate traffic at the intersection

Example of a stop sign with embedded LEDs and solar unit

Source: FHWA, https://safety.fhwa.dot.gov/intersection/conventional/unsignalized/tech_sum/fhwasa09006/

Transit

The Cotton Express Transit Service and the CART Service have webpages on the City of Coolidge website that provide route and schedule information.

An effective way to improve bus ridership is to make route information as accurate, accessible, and convenient as possible. Smartphone applications can provide information such as schedule updates or real-time transit information (next bus arrival). Flagstaff's Mountain Line offers smartphone applications that may serve as a model for future enhancements in the Sun Corridor region, particularly as the region's transit system grows in the upcoming years.

Pavement Management

Pavement management is the process of planning and prioritizing the maintenance and repair of a network of roadways or other paved facilities to optimize pavement conditions over the entire network.

Many jurisdictions, including Phoenix and Tucson, use an Automatic Road Analyzer (ARAN) pavement data collection vehicle equipped with survey systems and software to perform pavement data collection tasks. The ARAN van collects consistent and accurate roadway data, such as pavement condition, roadway ride quality, and detailed location information of specific road features. The ARAN van uses a variety of sensors that measure roughness and irregularities, and includes a global positioning system, video cameras, and computers. The ARAN is a modular design that can be built on a van chassis that meets specifications with respect to power and weight.

Information from the ARAN van is used to identify locations where preservation measures can extend the life of existing pavement. Data from the ARAN van is fed into a pavement management system to determine a condition rating for each street section. The system provides agencies with the appropriate tools and data to assess the

deterioration of publicly-owned roadways and other roadway infrastructure. Other applications of the ARAN include accident investigations/forensics, signs, roadside asset inventory, and safety enhancement.

It is recommended that the Sun Corridor MPO region consider acquisition of an ARAN van that can become a shared and valuable resource for the Sun Corridor MPO member agencies. Acquisition of an ARAN or contracting for this type of service would provide consistent collection of pavement conditions throughout the entire Sun Corridor MPO region.

ARAN Van for Pavement Data Collection

Source: Transview, City of Tucson, http://www.transview.org/aran/

Regional Transit Governance

While Pinal County is predominantly rural, it has multiple urban areas that are experiencing tremendous growth. The continued growth will place significant new demands on the county's transportation system and will create a greater need for expanded and effective transit services.

CAG, in partnership with the Pinal RTA and Pinal County, is studying an organizational structure and investment strategy that will improve coordination and connectivity within Pinal County. This study is called the Pinal County Transit Governance Study.

Pinal County has a regional bus service, CART, connecting Florence and Casa Grande via Central Arizona College. The regional service was implemented through a partnership effort between ADOT, City of Coolidge, Town of Florence, Central Arizona College, and Pinal County. Pinal County is also served by two local public transit agencies, the Cotton Express and COMET, as well as over thirty non-profit/private transit providers.

With the proposed expansion of transit services recently identified in the Casa Grande Transit Development Plan, Eloy Transit Feasibility Study, Coolidge Transit Plan, and City of Maricopa Rural Transit Demand Study, coordination among transit providers is critical. Using the above-mentioned transit studies as the foundation, the Pinal County Transit Governance Study will examine existing services and assess future needs for effective regional planning and

coordination. This coordination will enable seamless operations between local and regional transit systems without duplication in services and administrative costs. The coordinated regional transit service area is shown in **Figure 7.6**.

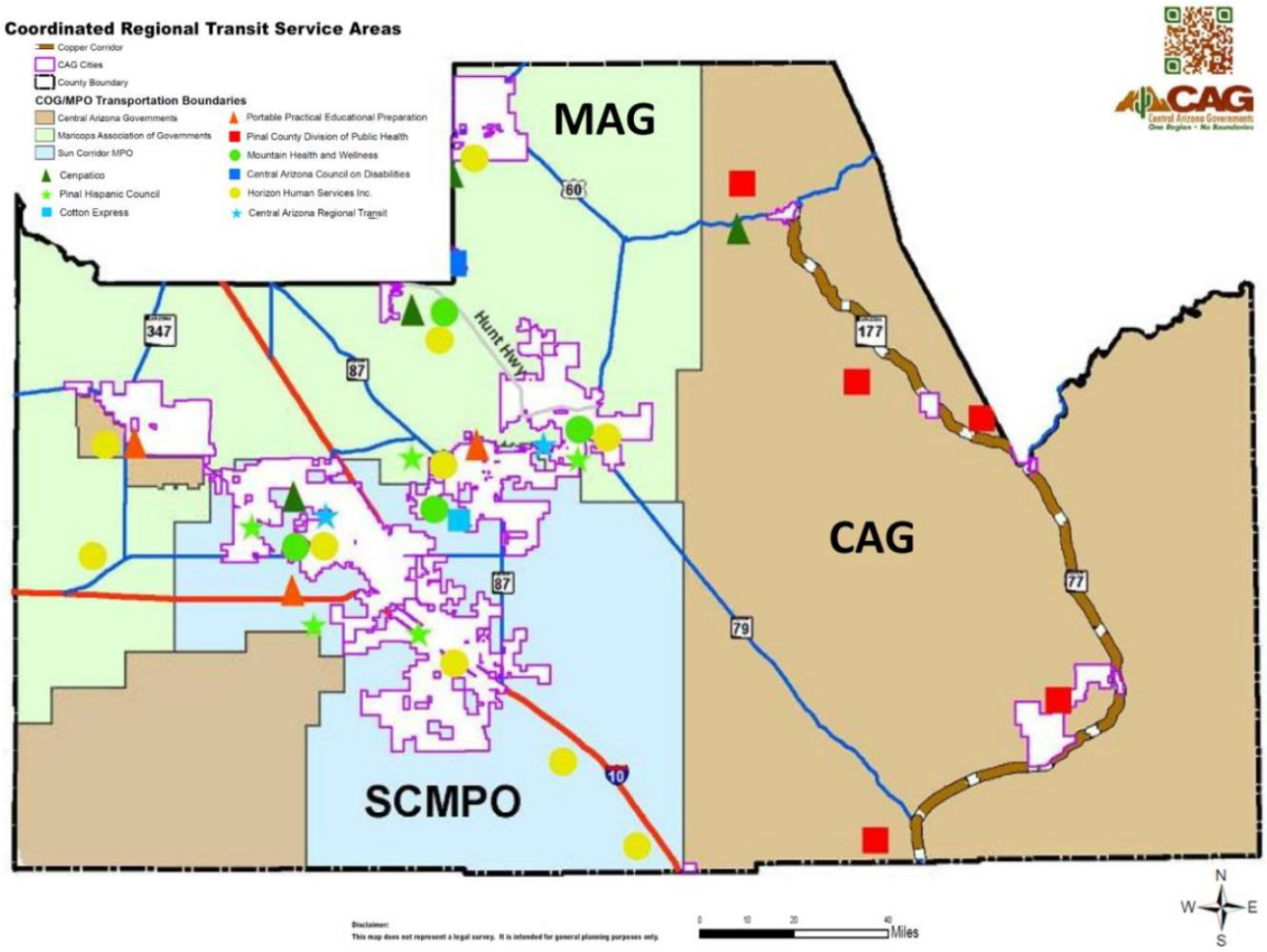


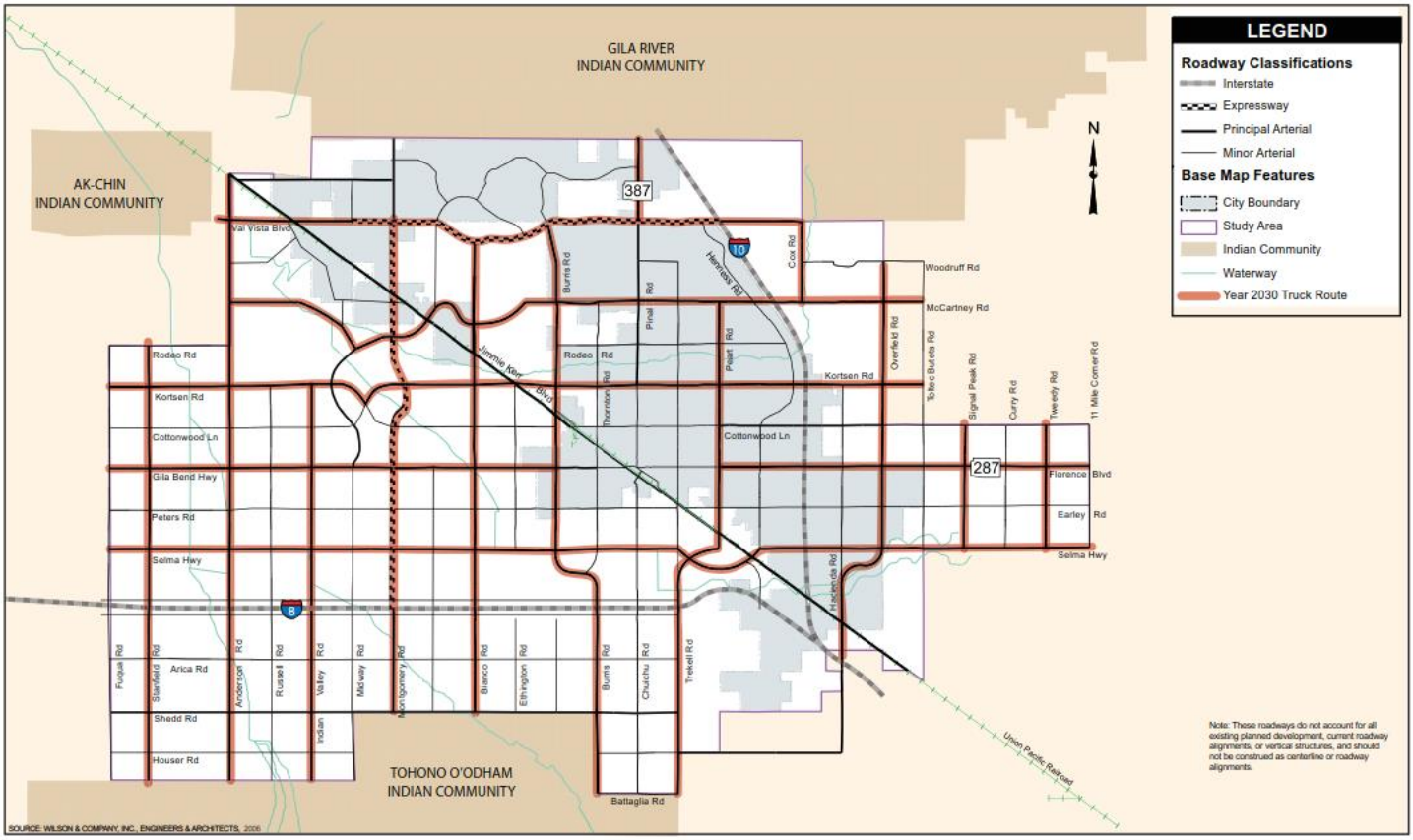
Figure 7.6 – Coordinated Regional Transit Service Areas

Designated Truck Routes

Freight represents a significant portion of economic activity within the Sun Corridor MPO region. New distribution centers, warehouses, and manufacturing facilities continue to be developed along the I-10, I-8, and SR 87 corridors. To access these facilities, commercial trucks utilize the region's arterials and collector streets, many of which are not designed to handle the volume of heavy loads. Statewide and nationally, priority freight routes and improvement needs are being identified through the Arizona State Freight Plan (described on page 78) and the federal NHFN (described on pages 78-79), respectively.

It is recommended that the Sun Corridor MPO jurisdictions collaboratively develop an SCMPO Regional Truck Route and Freight Network Plan. A designated freight network should include arterial and collector street connections between I-8, I-10, and industrial and commercial areas in the region. The freight network should also consider connections to other freight transportation modes such as rail terminals, airports, and inland ports. Development of a freight network should consider current freight movements as well as future planned developments.

A starting point for the development of a freight network is the routes identified in the Regionally Significant Routes for Safety and Mobility (2008) study. As mentioned previously, key truck routes in the Sun Corridor MPO region include SR 84 (Gila Bend Highway), SR 287 (Florence Boulevard), and SR 387 (Pinal Avenue), which are used by local industries as a connection between local routes and the interstate system. Other roads include SR 87, Houser Road, Thornton Road, Cottonwood Lane, and Burris Road as regional truck routes. An example is the Truck Route Plan developed in the Casa Grande Small Area Transportation Study (2007), shown in **Figure 7.7**.



Source: Casa Grande Small Area Transportation Study (2007)

Figure 7.7 – 2030 Truck Route Plan

The freight network should identify roadways that should be constructed to higher design standards, which include the following considerations:

- ⇒ Increased pavement sections to accommodate heavier weight loads
- ⇒ Sufficient turning radii at road intersections, appropriately wide curb cuts at facility ingress/egress points
- ⇒ Traffic signaling that is timed for large vehicles
- ⇒ Highway accessibility that allows the trucks to enter and exit safely. In addition, the freight network should be accompanied by:
    - Ability to enforce truck restrictions by city and county ordinance, including definition of the types of trucks to which the ordinance applies, and to whom (for example, vehicles over 10 tons in gross vehicle weight)
    - Regulatory signage (e.g. "Truck Route" and "Weight Limit 10 Tons"), consistent with the MUTCD

- Enforcement planning to ensure that all necessary agencies understand the truck regulations and how member agencies should work together to effectively enforce them

Freight network identification, development, and implementation will require the collaboration of all Sun Corridor MPO agencies and jurisdictions. Each agency will need to understand the goals and needs outlined in the freight network program and the role of each agency in the program's execution.

8. IMPLEMENTATION

8. Implementation

This chapter summarizes the recommended transportation system investment approach proposed for the Sun Corridor MPO planning area within the RTP horizon year (2040).

Separate implementation plans are presented for three transportation elements: roadway, transit, and aviation.

Revenues at the federal and state level for these elements are associated with distinct funding sources, and funding requirements are not transferable except in special cases.

The roadway system implementation plan encompasses all RTP elements not specifically covered by the transit and aviation implementation plans. The roadway system implementation plan is the focus of the 2040 RTP, as the roadway element is the most comprehensive of the three elements and Sun Corridor MPO member jurisdictions have control over the allocation of the revenues associated with the roadway element.

Roadway System Implementation Plan

A roadway transportation system investment approach was selected in collaboration with the Sun Corridor MPO TAC and is fiscally constrained—that is, the level of investment serves as a "budget" for federal transportation funding that is projected to be available to the Sun Corridor MPO region over the next 20 years.

Funding Sources

The Surface Transportation Block Grant (STBG) program and the HSIP represent the primary federal funding sources for transportation system improvements in the Sun Corridor MPO region.

The STBG program is allocated to states and MPOs for projects to preserve and improve the conditions and performance on federal-aid roadways, bridge, and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects. STBG funds are obligated in proportion to their relative share of the state's population. STBG funds vary by year, but for the 20-year period (2020 to 2040), the Sun Corridor MPO anticipates receiving approximately $590,879 per year.

The HSIP funds highway safety improvements with the purpose of achieving a significant reduction in traffic fatalities and serious injuries on all public roads. The HSIP emphasizes a data-driven, strategic approach to improving highway safety that focuses on results. Currently these funds are allocated through a statewide competitive process. The Sun Corridor MPO region has been highly successful in applying for HSIP funding; however, to be conservative, only currently awarded funds are assumed to be available in the future. The Sun Corridor MPO jurisdictions will continue to pursue HSIP projects consistent with the Sun Corridor MPO STSP and Pinal County STSP. The HSIP revenues shown include a recently awarded HSIP project for Fiscal years 2024/2025 to address angle crashes at thirteen intersections in Pinal County by replacing stop signs with solar-powered LED stop signs.

STBG and HSIP funds that are projected to be available in the Sun Corridor MPO region are identified in **Table 8.1**. Note that **Table 8.1** does not include other local or state revenue that is anticipated to be available to local agencies for transportation investments.

Highway User Revenue Fund (HURF) Exchange

The Highway User Revenue Fund (HURF) Exchange was created by the Arizona Legislature in 1997 and is run at ADOT's discretion to benefit rural cities, town, and counties. The program allows planning organizations and their local agencies to swap out federal funds for state highway funds to design and construct projects. The program was active from 1998 to 2009 and launched again in 2017. The program offers less restrictive design and construction standards, fewer requirements, less project oversight, and lower project costs.

Table 8.1 – STBG and HSIP Revenues, 2020-2040

Revenues		
Time Period	**STBG Program Funds**	**Highway Safety Improvement Funds**
2020-2025	$3,545,274	$7,223,986
2026-2030	$2,954,395	0
2031-2035	$2,954,395	0
2036-2040	$2,954,395	0
Totals	**$12,408,459**	**$7,223,986**

Source: Sun Corridor MPO

Roadway Recommended Investment Strategy (RIS)

A primary purpose of the RTP is to identify how federal funds will be expended over the next 20 years. Roadway improvements are categorized into three general categories of investments; preservation, modernization, and expansion, as defined in **Figure 8.1**. These categories are consistent with the ADOT Long Range Transportation Plan.

PRESERVATION: Activities that protect transportation infrastructure by sustaining asset condition or extending asset service life; preservation includes regular maintenance and resurfacing of pavements.

MODERNIZATION: Roadway improvements that upgrade efficiency, functionality, and safety without adding capacity; examples of modernization activities include widening of narrow lanes, access control, bridge replacement, hazard elimination, lane reconstruction and sidewalks.

EXPANSION: Improvements that add transportation capacity through the addition of new facilities and or services; expansion activities include adding new roadway lanes and construction of new roadway facilities.

Figure 8.1 – Investment Strategy Categories

The Sun Corridor MPO RTP 2040 Update uses an RIS for expenditure of federal funds within the Sun Corridor MPO region. The RIS priorities were largely developed based on a technical analysis of recent and programmed projects, but also included public and stakeholder input received through stakeholder outreach as well as Sun Corridor TAC member directives. The RIS does not apply to HURF or other state sources.

The RIS recognizes the public's and stakeholders' priority to maintain existing infrastructure yet provides sufficient flexibility to modernize and expand the transportation system as needed. The RIS drives the allocation of resources

and influences project selection yet is sufficiently flexible to allow Sun Corridor MPO agencies to accommodate and respond to changing needs and emerging priorities.

The RTP TAC recommended that federal funding be distributed approximately consistent with the below percentages (**Figure 8.2**):

- ⇒ 35% preservation
- ⇒ 50% modernization
- ⇒ 15% expansion

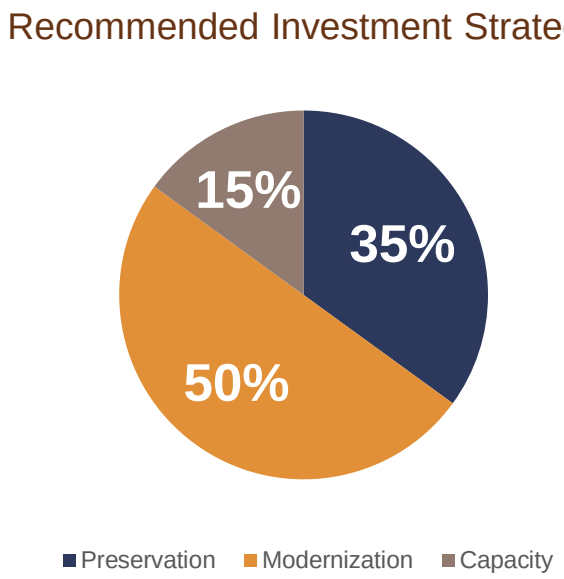


Figure 8.2 – RIS

Financial Strategies to Ensure the Implementation of Transportation Control Measures in the State Implementation Plan

Per federal guidance in 23 CFR part 450.324(f)(11)(vi), for air quality nonattainment and maintenance areas, the financial plan shall address the specific financial strategies required to ensure the implementation of Transportation Control Measures (TCMs) in the Arizona State Implementation Plan (SIP). There are two areas within the Sun Corridor MPO region that have been designated as nonattainment areas for particulate matter (see Chapter 9 for more information). A map of the nonattainment areas is provided in **Figure 9.1** on page 122.

- ⇒ West Pinal PM-10 Nonattainment Area – This area is in nonattainment status for particulate matter (dust) smaller than ten micrometers (PM-10).
- ⇒ West Central Pinal PM-2.5 Nonattainment Area - This area is in nonattainment status for particulate matter (dust) less than 2.5 micrometers in diameters.

The Sun Corridor MPO works closely with the Maricopa Association of Governments (MAG) through a Memorandum of Understanding, to ensure that Clean Air Act requirements are met. In addition, staff coordinates with the Arizona Department of Transportation and the Arizona Department of Environmental Quality to meet Clean Air Act requirements. This coordination work by SCMPO staff is funded through Federal Metropolitan Planning funds.

As part of this effort, MAG maintains an extensive air quality planning process through which TCMs are identified, selected, and implemented as part of the SIP. Collectively, these agencies generate information on emissions inventories, air quality modeling, and the description, assumptions, and cost effectiveness of TCMs.

An example of a control measure is the Pinal County Air Quality Department's dust control program which requires dust permits for construction of expansion or extension of paved roads, unpaved roads, road shoulders, and/or alleys and public right-of-way, particularly in non-attainment areas. Dust control measures are also required for special events. Therefore, the project funding for roadway improvements in this plan assumes that dust control measures are part of the construction requirements. Additionally, Pinal County's travel reduction program also helps to reduce vehicle emissions in the region. The Pinal County Air Quality Department is funded through air quality grants, air quality permits, and the Pinal County General fund.

Projects of Opportunity

Transportation needs in the Sun Corridor MPO region exceed federal STBG program funds that are anticipated to be available over the next 20 years (2040). The Sun Corridor MPO will continue to explore and pursue any available opportunity to fund needed transportation improvements. Should additional federal funding for local projects become available, the jurisdictions in the region have identified several high-priority projects opportunities. These projects are listed in **Appendix E**.

Strategic Projects

A number of transportation planning initiatives will have a major impact on transportation within the Sun Corridor MPO region as well as adjacent planning areas and jurisdictions. These include:

- ⇒ Pinal Regional Transportation Authority Plan Projects
- ⇒ East-West Corridor
- ⇒ North-South Corridor
- ⇒ I-11 Project
- ⇒ Phoenix-Tucson Passenger Rail Study
- ⇒ I-10 Widening from SR 202 to SR 387

The Sun Corridor MPO supports these studies and will continue to collaborate with ADOT and other regional planning partners to implement these projects.

Pinal Regional Transportation Authority Plan Projects

The RTP for Pinal County, overseen by the Pinal RTA, sets forth a comprehensive, multimodal plan that includes a list of major roadway projects and public transportation to be developed over the next 20 years. The RTP has been developed to meet the transportation needs of the rapidly growing region and seeks to meet the ongoing mobility needs of Pinal County residents. This RTP (Proposition 416) was approved by voters in November 2017, as well as a transaction privilege (sales) tax (Proposition 417) to fund the plan. The Pinal RTA Plan project list is shown in **Table 8.2** and is shown graphically in **Figure 8.3**. Currently the results of the vote are being challenged in a lawsuit that has yet to be resolved. However, the court has granted Pinal County's request to continue collecting taxes that could eventually fund various transportation projects.

The Pinal Regional Transportation Authority recognizes that not all communities within Pinal County directly benefit from the list of voter-approved projects. Therefore, the City of Eloy (as well as the towns of Kearney, Mammoth, and Superior will receive the greater of 1% of the Transportation Excise Tax or $300,000 per year to be utilized on local roadway development.

Table 8.2 – Pinal RTA Projects in the Sun Corridor MPO Region

Pinal RTA Projects in the Sun Corridor MPO Region						
Fiscal Year	Sponsor	Name	Location	Length (Miles)	Work	Type
19/20	Pinal County	North-South Corridor - Right-of-Way Phase	Kortsen/Kleck Rd-I-10	15.00	Right-of-Way	Parkway
19/20	Pinal County	West Pinal Freeway	Maricopa/Pinal County Boundary-I-8	31.00	Right-of-Way	Parkway
19/20	Casa Grande	Thornton Rd	SR 84-I-8	3.50	Right-of-Way	Arterial
19/20	Casa Grande	Thornton Rd	SR 84-I-8	3.50	Design	Arterial
19/20	Casa Grande	Kortsen Rd - Phase 1	Henness Rd-Hacienda Rd	2.00	Design	Arterial
20/21	Casa Grande	Thornton Rd	SR 84-I-8	3.50	Construction	Arterial
19/20	Casa Grande	Peters Rd	Burris Rd-Thornton Rd	1.00	Right-of-Way	Arterial
19/20	Casa Grande	Peters Rd	Burris Rd-Thornton Rd	1.00	Design	Arterial
21/22	Casa Grande	Kortsen Rd - Phase 1	Henness Rd-Hacienda Rd	2.00	Right-of-Way	Arterial
20/21	Casa Grande	Peters Rd	Burris Rd-Thornton Rd	1.00	Construction	Arterial
22/23	Casa Grande	Kortsen Rd - Phase 1	Henness Rd-Hacienda Rd	2.00	Construction	Arterial
25/26	Casa Grande	Kortsen Rd (Kleck Rd) - Phase 2	Hacienda Rd-SR 87	9.00	Right-of-Way	Arterial
26/27	Casa Grande	Kortsen Rd (Kleck Rd) - Phase 2	Hacienda Rd-SR 87	9.00	Design	Arterial
27/28	Casa Grande	Montgomery Rd	I-8-East-West Corridor	10.00	Right-of-Way	Arterial
27/28	Pinal County	East-West Corridor - East Phase	Montgomery Rd-I-10	8.00	Right-of-Way	Parkway
27/28	Casa Grande	Kortsen Rd-Phase 3	SR 87-North-South Corridor	4.00	Right-of-Way	Arterial
27/28	Pinal County	North-South Corridor - South Phase	SR 287-Kleck Rd	6.00	Right-of-Way	Parkway
28/29	Casa Grande	Kortsen Rd (Kleck Rd) - Phase 2	Hacienda Rd-SR 87	9.00	Construction	Arterial
28/29	Casa Grande	Montgomery Rd	I-8-East-West Corridor	10.00	Design	Arterial
28/29	Pinal County	East-West Corridor - East Phase	Montgomery Rd-I-10	8.00	Design	Parkway
28/29	Casa Grande	Kortsen Rd-Phase 3	SR 87-North-South Corridor	4.00	Design	Arterial
29/30	Casa Grande	Montgomery Rd	I-8-East-West Corridor	10.00	Construction	Arterial
29/30	Pinal County	North-South Corridor - South Phase	SR 287-Kleck Rd	6.00	Design	Parkway
30/31	Pinal County	East-West Corridor - East Phase	Montgomery Rd-I-10	8.00	Construction	Parkway

Table 8.2 – Pinal RTA Projects in the Sun Corridor MPO Region, Cont.

Pinal RTA Projects in the Sun Corridor MPO Region						
Fiscal Year	**Sponsor**	**Name**	**Location**	**Length (Miles)**	**Work**	**Type**
30/31	Casa Grande	Kortsen Rd - Phase 3	SR 87-North-South Corridor	4.00	Construction	Arterial
30/31	Pinal County	East-West Corridor - West Phase	SR 347-Montgomery Rd	11.00	Right-of-Way	Parkway
31/32	Pinal County	North South Corridor - South Phase	SR 287-Kleck Rd	6.00	Construction	Parkway
31/32	Pinal County	East-West Corridor - West Phase	SR 347-Montgomery Rd	11.00	Design	Parkway
31/32	Casa Grande	Selma Hwy	Thornton Rd-North-South Corridor	16.00	Right-of-Way	Arterial
32/33	Pinal County	East-West Corridor - West Phase	SR 347-Montgomery Rd	11.00	Construction	Parkway
33/34	Casa Grande	Selma Hwy	Thornton Rd-North-South Corridor	16.00	Design	Arterial
34/35	Casa Grande	Selma Hwy	Thornton Rd-North-South Corridor	16.00	Construction	Arterial

Source: Pinal RTA 2019 Transportation Improvement Program, http://pinalrta.org/wp-content/uploads/2019/08/20YR_TIP_Draft2019.pdf

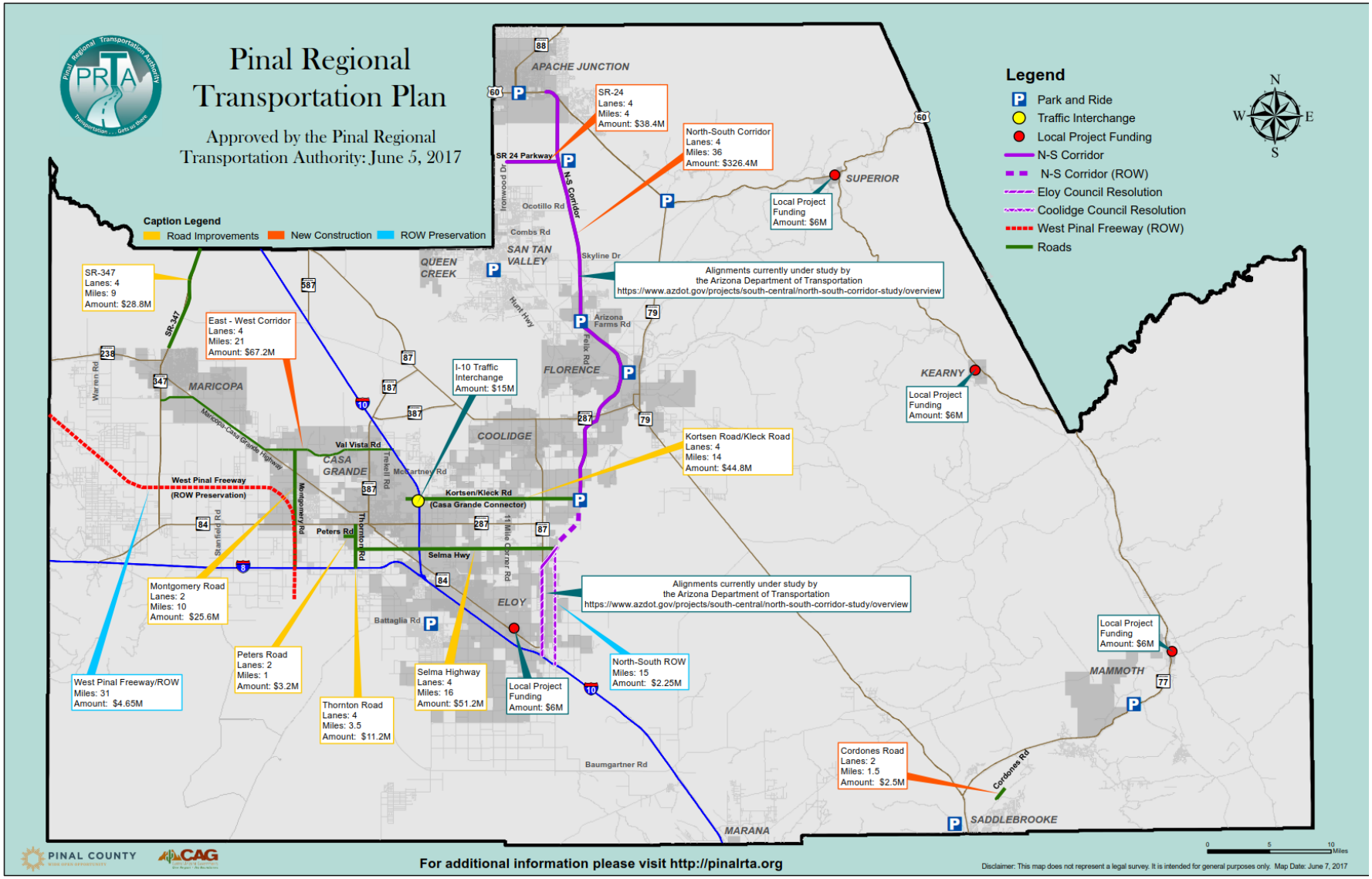


Figure 8.3 – Pinal Regional Transportation Plan

North-South Corridor Study

A study of a new highway corridor in Pinal County that would improve regional connectivity, provide additional access between the East Valley, SCMPO communities, and Tucson, and address current and future transportation needs in a growing area is nearing completion. The North-South Corridor would connect US 60 to I-10. The project scope also incorporates the extension of SR 24 from Ironwood Drive to the North-South Corridor, that provides direct access to Phoenix-Mesa Gateway Airport. On September 6, 2019, the ADOT released the Draft Tier 1 Environmental Impact Statement (Draft Tier 1 EIS) for the North-South Corridor Study. The Draft Tier 1 EIS compares the Build Corridor Alternatives against a No-Build Alternative (do-nothing option). The preferred alternative is depicted in **Figure 8.4**. A Record of Decision is anticipated in 2020.

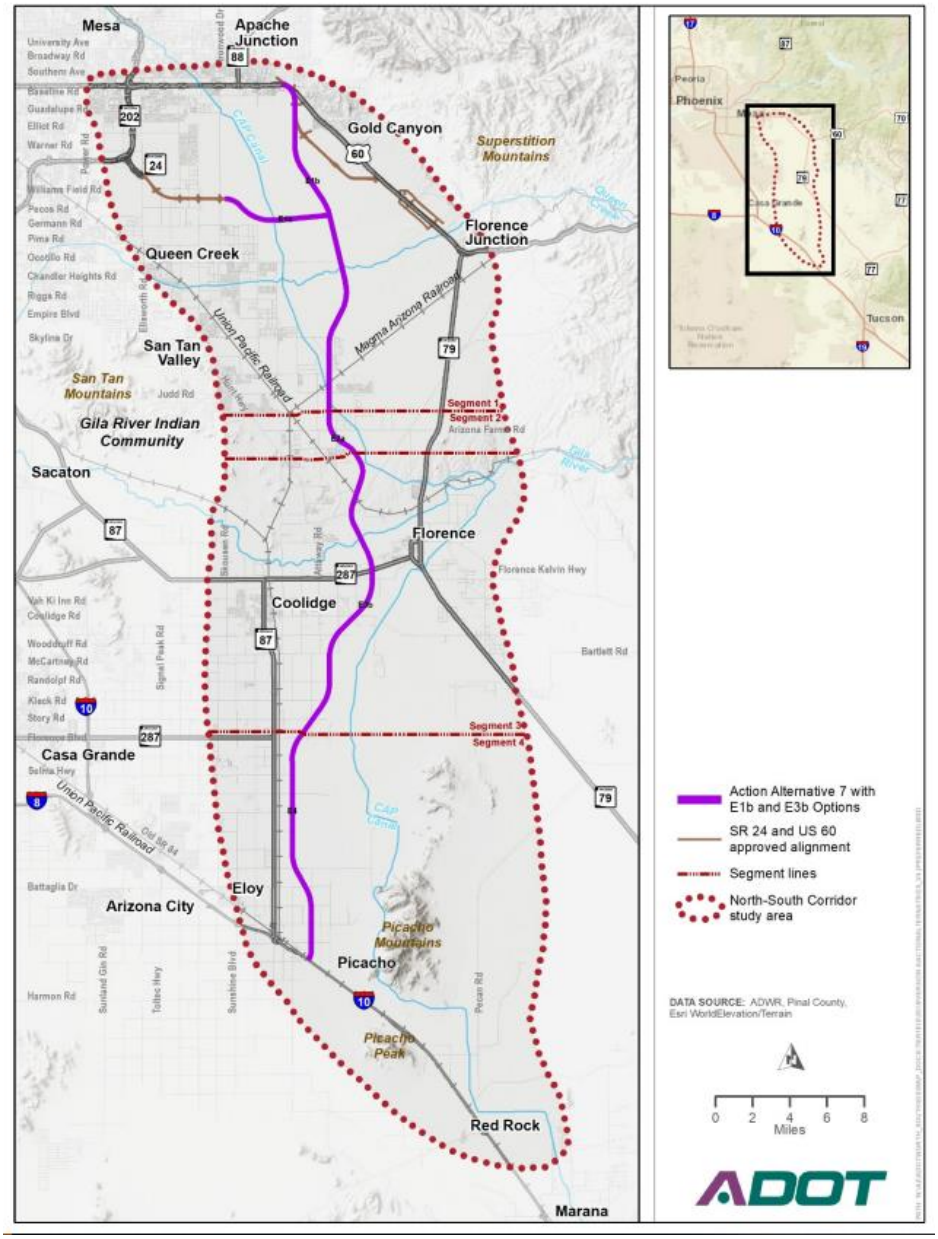


Figure 8.4 – North-South Corridor Route Alternatives

I-11 Project

In 2015, the FAST Act formally designated I-11 as a proposed transportation route in Arizona. It stated that the I-11 corridor will generally follow SR 189 and I-19 from Nogales to Tucson, I-10 from Tucson to Phoenix, and US 93 from Wickenburg to the Nevada state line (much of US 93 has been upgraded to a four-lane divided roadway).

ADOT is currently funding and conducting the first step in a tiered environmental study to identify a potential corridor for I-11 between Nogales and Wickenburg. The environmental review process will consider both Build Corridor Alternatives and the No-Build Alternative. The Tier 1 Environmental Impact Statement (EIS), required by the National Environmental Policy Act (NEPA), is expected to be complete in 2020. If a Build Corridor Alternative is selected, Tier 2 environmental studies would then be required to determine the alignment and specific design details, such as the width of the median, frontage roads, traffic interchange locations, and other roadway features.

I-11 has been identified as a critical piece of multimodal infrastructure that would support and connect the economies of Arizona and Nevada. It also could be connected to a larger north-south transportation corridor, linking Mexico and Canada. I-11 is intended to provide a high-priority, access-controlled transportation corridor that has the potential to enhance the movement of people and freight and facilitate regional connectivity, trade, communications, and technology in an ever-evolving global marketplace. The recommended corridor alternative for this project is shown in **Figure 8.5**.

Figure 8.5 – I-11 Recommended Corridor Alternative

I-10 Widening Project Through the Gila River Indian Community

ADOT, in collaboration with MAG and the Gila River Indian Community, has begun the design concept report and environmental study on I-10, between Queen Creek Road and State Route 387. The project is studying the possibility of adding travel lanes in each direction and improvements to existing interchanges.

The printed 2020-2024 ADOT Five Year Program identifies $20 million for the final Design Concept Report, Scoping, and Environmental Assessment in FY 2020 and $50 million for construction in FY 2023.

Transit Implementation Plan

As noted in Chapter 7, there may be new transit systems established in the future as well as potentially new transit governance in the region. However, until this occurs, the transit implementation plan assumes current funding levels and transit system operations.

Transit Revenue Forecasts

Key sources of transit funding for the region are provided through FTA Formula Grant Programs:

Section 5311 – Rural Areas: This program provides capital, planning, and operating assistance to states to support public transportation in rural areas with populations of less than 50,000. Currently, the Cotton Express and CART use this funding program. In fiscal year 2019, the Cotton Express and CART transit systems had $1,015,665 in total funding for operating, administration, and capital expenses through the federal 5311 monies and local match funds. In fiscal year 2020, the level of funding is $978,000. These funding levels are summarized in **Table 8.3**.

Assuming an average funding of $997,000 per year (average of FY 2019 and 2020 funding), total grant funding for the 20-year period is $19,940,000.

Section 5310 – Enhanced Mobility of Seniors and Individuals with Disabilities: This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations. Since this is a discretionary program and is based on a competitive process, estimates for this source are not provided.

Section 5307 – Urbanized Area Formula Funding: This program provides transit capital and operating assistance and for transportation related planning in urbanized areas over 50,000 population. This funding is available to the City of Casa Grande when they implement transit service over the next few years. Just over $1 million in funding is available.

Programmed Projects

Transit projects that have been awarded 5311 grant funding are summarized in **Table 8.3**.

Table 8.3 – Section 5311 Funding Grants, FY 2019-2020

Section 5311 Transit Funding					
FY	**Sponsor Name**	**Description**	**Federal Funds**	**Local Match**	**Total**
2019	Cotton Express/CART	Operating, Administration, and Capital Expenses	$682,895	$332,700	$1,015,665
2020	Cotton Express/CART	Operating, Administration, and Capital Expenses	$671,700	$306,300	$978,000

Source: City of Coolidge

Transit providers that are in the process of applying for Section 5310 transit funds are shown in **Table 8.4**.

Table 8.4 – Section 5310 Transit Funding Applications, FY 2019-2020

Section 5310 Transit Funding					
Site	**Sponsor Name**	**Project Description**	**Federal Funds**	**Local Match**	**Total**
Casa Grande	The Opportunity Tree	Replacement Van	$50,400	$12,600	$63,000
Casa Grande	The Opportunity Tree	Replacement Van	$36,800	$9,200	$46,000
Casa Grande	The Opportunity Tree	Replacement Van	$36,800	$9,200	$46,000
Eloy	Pinal Hispanic Council	Replacement Van	$50,400	$12,600	$63,000
Eloy	Pinal Hispanic Council	Replacement Van	$20,800	$5,200	$26,000
Eloy	Pinal Hispanic Council	Preventative Maintenance 2019	$4,800	$1,200	$6,000
Eloy	Pinal Hispanic Council	Preventative Maintenance 2020	$4,800	$1,200	$6,000

Source: CAG/SCMPO 2019 Human Service Transportation Coordination Plan

Aviation Implementation Plan

Aviation Revenues

In conjunction with Arizona's public airports and the FAA, ADOT develops the Five-Year Airport Capital Improvement Program (ACIP) to parallel the FAA's ACIP. The ACIP includes projects that are recommended in the airport master plans for each airport. The ACIP has the dual objective of maximizing the use of state dollars for airport development and maximizing FAA funding for Arizona airports. Federal monies are derived mainly from taxes on airline tickets and are distributed by the FAA directly to local airports through the national Airport Improvement Program. State funding comes mainly from flight property tax, aircraft lieu tax, aircraft registration, and aviation fuel tax. The ACIP development process allocates money from the State Aviation Fund and distributes these funds through the Airport Development Program.

The ADOT 2019-2023 Five-Year Transportation Facilities Construction Program contains project listings is those improvements that have been submitted to FAA for grant award. Currently no projects are in this category for Sun Corridor MPO region airports; however, capital improvement projects for each airport in the region are reported from airport master plans or capital improvement plans.

Coolidge Municipal Airport

Planned improvements are based on information on the Coolidge Municipal Airport website.[2] The following short-term projects are planned at the airport for fiscal years 2019 through 2023, provided in **Table 8.5**.

[2] City of Coolidge, Coolidge Municipal Airport CIP, https://www.coolidgeaz.com/index.asp?Type=B_BASIC&SEC={4DD53681-CD51-4788-A124-F602CC9824CE}

Coolidge received a $9.5 million grant from the Federal Aviation Administration (FAA) for the development of a new runway along with the installation of new lighting and lighting controls. The City of Coolidge received another $450k for runway and runway lighting reconstruction and installing a navigation aid.

Table 8.5 – Coolidge Municipal Airport CIP

Coolidge Municipal Airport Capital Improvement Projects			
Fiscal Year	**Project Name**	**Description**	**Total Cost**
2019	Runway Reconstruction Design	Design Runway 5-23, improvements	$750,000
2019	Rehabilitate Runway Lighting, Electrical Vault	Design/construct Runway 5-23 vertical/visual guidance system, PAPI/REIL, electrical vault upgrade, and MIRLs	$1,140,000
2020	Reconstruct Runway	Reconstruct Runway 5-23	$9,400,000
2021	Apron: Construct Apron	Design/reconstruct Taxiway A3, Taxiway A	$1,450,000
2022	Airport Master Plan Study	Master Plan Update, including ALP Update, drainage study, and electrical needs	$400,000
2023	Install New Wildlife Deterrent Fencing	Design and construct airport property perimeter wildlife deterrent fence	$670,000
2023	Reconstruct Apron	Reconstruct apron	$8,500, 000

Source: Coolidge Municipal Airport Capital Improvement Program

Casa Grande Municipal Airport

Planned improvements for the Casa Grande Municipal Airport are based on information in the Airport Layout Plan Update and Narrative Report (2015). The recommendations span a 20-year period and are summarized in **Table 8.6**.

Table 8.6 – Casa Grande Municipal Airport Capital Improvement Projects

Casa Grande Municipal Airport Capital Improvement Projects		
Number	**Project Description**	**Total Cost**
Phase 1, Short-Term Projects (1-5 years)		
A1	Reconstruct Taxiway E	$750,000
A2	Construct helicopter parking apron	$900,000
A3	Construct bypass taxiways (both runway ends)	$400,000
A4	Construct connector taxiway	$180,000
A5	Construct T-hangar	$300,000
A6	Environmental Assessment – reroute existing wash on the Runway 5 end	$450,000
Phase II, Medium-Term Projects (6-10 years)		
B1	Construct T-hangar	$300,000
B2	Reroute existing wash and fence relocation from G5 critical area on Runway 5 end	$2,500,000
Phase III, Long-Term Projects (11-20 years)		
C1	Acquire easement (Runway 5 RPZ)	$350,000
C2	Construct T-hanger	$300,000
C3	Construct aircraft parking apron	$1,560,000
C4	Expand passenger terminal building and vehicle parking lot	$750,000
C5	Expand aircraft parking apron	$2,350,000
Total Cost		**$11,090,000**

Source: Casa Grande Municipal Airport, Airport Layout Plan Update and Narrative Report, September 2015, p. 4-2

Eloy Municipal Airport

Planned improvements for the Eloy Municipal Airport are based on the Airport Master Plan (2011). The short-term, intermediate-term and long-term projects are shown in **Table 8.7**. Eloy Municipal Airport will receive a $150,000 FAA grant for taxiway reconstruction.

Table 8.7 – Eloy Municipal Airport ACIP

Eloy Municipal Airport Capital Improvement Projects		
Year or Number	**Project Description**	**Total Cost**
Short-Term Projects (1-5 years)		
2019	Acquire land for expansion of airfield facilities	N/A
2019-2020	Design and Construction of Runway Overlay (Pavement Preservation	$525,500
2020	Design of Taxiway 'A' relocation, floodplain Improvements, including runway lighting and security fencing	$457,400
2021-2022	Construction of Taxiway 'A' relocation, floodplain Improvements, including runway lighting and security fencing	$4,700,00
Intermediate-Term Projects (6-10 years)		
1	Acquire land for the expansion of landside facilities (5.5 acres)	$63,250
2	Construct T-hangar taxilanes	$391,200
3	Construct apron	$968,000
4	Construct wash rack	$250,000
5	Extend N. Lear Drive, utilities, and construct parking lot	$500,000
6	Pavement maintenance	$1,500,000
Long-Term Projects (11-20 years)		
1	Conduct Environmental Assessment for the extension of Runway 2-20	$200,000
2	Extend Runway 2-20 and Taxiway A	$1,086,000
3	Install distance remaining signage	$174,000
4	Construct T-Hanger taxilanes	$391,200
5	Expand vehicle parking lots and utilities	$200,000
6	Upgrade to PAPI-4s on each runway end	$200,000
7	Pavement maintenance	$3,000,000
Total Cost		**$8,923,650**

Source: City of Eloy email updates (August 2019) and Eloy Municipal Airport, Airport Master Plan (May 2013)

Pinal Airpark

Planned improvements for the Pinal Airpark are based on the Airport Master Plan (2015). The recommendations span a 20-year period and are summarized in **Table 8.8**.

Table 8.8 – Pinal Airpark Capital Improvement Program

Pinal Airpark Capital Improvement Program		
Number	**Project Description**	**Total Cost**
Short-Term Projects (0-5 Years)		
1-1	Runway/Taxiway A Rehabilitation, Pavement Remarkings, and Relocation of Taxiway A1 Hold Line	$3,383,000
1-2	Threshold Displacement and Associated Markings, Installation of PAPIs	$550,000
1-3	Replacement of Electrical Vault	$276,800
1-4	Mitigation of On-Airport Obstructions	$10,000
1-5	Replacement and Relocation of Wind Cones Outside of ROFA	$100,400
1-6	Relocation of Segmented Circle	$81,400
1-7	Land Acquisition of ROFA That Extends onto USSOCOM PTTF	$10,000
1-8	Avigation Easements for RPZs	$20,000
1-9	Repositioning of Distance Remaining Signs and Replacement of Signage	$395,200
1-10	Realignment and Rehabilitation of Access Road and Rehabilitation of Vehicle Parking Lot	$296,200
1-11	Reconfiguration and Installation of New Chain Link Fencing	$286,800
1-12	Construction of Taxilane to New GA Development Area	$774,000
1-13	Construction of T-hangar	$2,882,000
1-14	Construction of New Teardown Area with Access	$3,000,000
1-15	Construction of Paved Taxilane to Storage Area, Unimproved Tug Taxilane, and Teardown Pad	$2,242,400
1-16	Construction of Taxilane to Silver Bell Army Heliport (SBAH)	$365,600
Mid-Term Projects (5-10 Years)		
2-1	Taxiway Reconstruction (Rename and Remark) and Taxiway Safety Area	$7,958,200
2-2	Widen Taxiways to 75 Feet Where Necessary and Provide 35-Foot Shoulders	$5,600,000
2-3	Reconfiguration of Taxiway A1	$724,600
2-4	Upgrade Taxiway Edge Indicators to MITLs	$1,011,200
2-5	Apron Reconstruction (Note that could be reduced to below $22 million if constructed at least one-third of the apron area to a lighter load bearing capacity, i.e., for private GA aircraft)	$23,413,200
2-6	Purchasing of Landside and Airside Equipment	$200,000
2-7	Construction of Apron for Run-Ups and Installation of Blast Fencing	$8,323,800

Table 8.8 – Pinal Airpark Capital Improvement Program, Cont.

Pinal Airpark Capital Improvement Program		
Number	**Project Description**	**Total Cost**
Long-Term Projects (10-20 Years)		
3-1	Land Acquisition within Runway 30 ROFA And RSA that Extend off Airport Property (note that this was a placeholder cost, to be determined; land exchange may be possible)	$50,000
3-2	Realignment of Southern Perimeter Road and Fencing	$300,000
3-3	Runway Reconstruction and Widening of Shoulders, and Restoring of the Runway Threshold/Removal of Declared Distances	$18,000,000
3-4	Upgrade of Runway Lighting to HIRLs and Installation of REILs	$932,200
Total Cost		**$81,187,000**

Source: Pinal Airpark, Airport Master Plan, September 2015

Regional Aviation System Plan (RASP)

Currently, the Sun Corridor MPO region does not have a formal RASP. A RASP is developed to provide an independent analysis of future aviation trends in a region. Identified airport facility and system requirements are used together with the airport planning process to establish a proposed set of improvements for enhancing the regional airport system. Preparation of a RASP includes derivation of forecasts of future operations at each airport. The RASP is primarily an advisory and informational document. Development of the RASP is coordinated with the State Aviation System Plan (SASP).

Summary of Recommendations

Recommendations are provided for several topics in this RTP. These are summarized in **Table 8.9**.

Table 8.9 – Summary of Recommendations

Summary of Recommendations	
Topic	**Recommendation**
RIS for expenditure of federal funds	⇒ 35% preservation ⇒ 50% modernization ⇒ 15% expansion
Access Management	Each Sun Corridor MPO member agency adopt a consistent regional access management policy to guide roadway improvements within their respective jurisdictions. The existing Pinal County Access Management Guidelines may serve as a starting point.
Complete Streets	Each Sun Corridor MPO member jurisdiction develop and adopt a complete streets policy.

Table 8.9 – Summary of Recommendations, Cont.

Summary of Recommendations	
Topic	**Recommendation**
Bicycle and Pedestrian Facilities	All new roadway projects include adequate right-of-way dedication to incorporate bicycle and pedestrian facilities.
Travel Demand Management	Sun Corridor MPO member jurisdictions should encourage employers and developers to consider travel demand management strategies and approaches. The corridor between Coolidge and Eloy would be a good location to implement travel demand management practices because of planned industrial development.
Signal Coordination	Sun Corridor region invest in communications infrastructure (wireless or fiber optic cable) to better enable traffic signal coordination along major corridors.
Autonomous Vehicles	Sun Corridor MPO member jurisdictions take steps to modernize traffic control infrastructure once the new MUTCD is published as quickly as feasible to accommodate the rapidly-changing technology of vehicles.
Pavement Management	It is recommended that the Sun Corridor MPO region consider acquisition of an ARAN van that can become a shared and valuable resource for the Sun Corridor MPO member agencies. Acquisition of an ARAN or contracting for this type of service would provide consistent collection of pavement conditions throughout the entire Sun Corridor MPO region.
Designated Truck Routes	It is recommended that the Sun Corridor MPO jurisdictions collaboratively develop an SCMPO Regional Truck Route and Freight Network Plan.

Source: Individual recommendations throughout this report

9. AIR QUALITY

9. Air Quality

The Sun Corridor MPO has the responsibility to ensure that the transportation projects, plans, and programs within the Sun Corridor region conform to state air quality plans for the federal air quality standards. Specifically, the Sun Corridor MPO's Five-Year TIP and this RTP must be consistent with and conform to the purpose of air quality plans for the National Ambient Air Quality Standards (NAAQS).

Conformance with Air Quality Standards

NAAQS have been established through the Clean Air Act for six principal pollutants, which are called "criteria" pollutants. Two areas within the Sun Corridor MPO region have been designated as nonattainment areas:

- ⇒ West Pinal PM-10 Nonattainment Area – This area is in nonattainment status for particulate matter (dust) smaller than ten micrometers (PM-10).
- ⇒ West Central Pinal PM-2.5 Nonattainment Area – This area is in nonattainment status for particulate matter (dust) less than 2.5 micrometers in diameters. It should be noted that since the U.S. Environmental Protection Agency (EPA) or ADEQ has not determined whether nitrogen oxide (NOx) emissions are an insignificant contributor to the PM-2.5 attainment problem, NOx analysis must be included in the build/no-build analysis for the Pinal PM-2.5 Nonattainment Area.

Dust particles of these sizes can be drawn into the lungs and cause respiratory or other health problems.

The nonattainment areas are shown in **Figure 9.1**. Both the Sun Corridor MPO planning area boundary and the MAG planning area boundaries include portions of these nonattainment areas.

Air Quality Conformity Analysis

The Sun Corridor MPO is required to undertake an air quality conformity analysis for two specific reasons:

1. To ensure that transportation investments in the TIP and RTP, taken as a whole, conform to state air quality plans for the federal air quality standards; and
2. To ensure that neither the transportation system as a whole cause new air quality violations or worsen existing conditions.

The air quality conformity process establishes the connection between transportation planning and air quality. A regional emissions analysis must be conducted to assess the impacts that the TIP and RTP, taken as a whole, will have on emissions within an air quality nonattainment area.

Because the Pinal PM-10 and PM-2.5 nonattainment areas overlap the MAG and Sun Corridor MPO planning area boundaries, MAG and the Sun Corridor MPO have entered into a Memorandum of Understanding to complete air quality conformity analyses for the Sun Corridor MPO region.

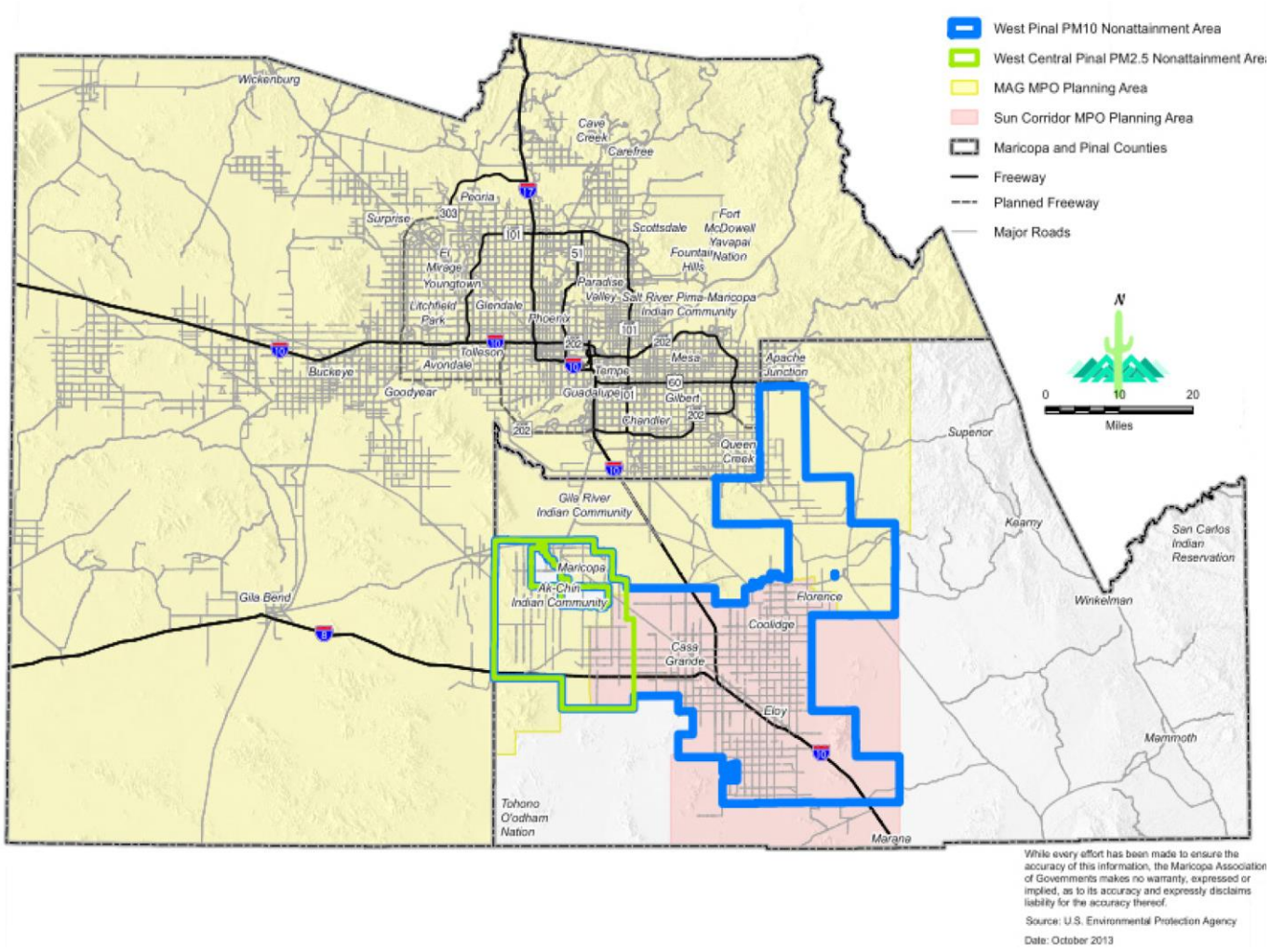


Figure 9.1 – Sun Corridor MPO and MAG Planning Areas and Air Quality Nonattainment Areas

Conformity tests were conducted for analysis years of 2020, 2025, 2035, and 2040 for the build and no-build scenarios. For each test, the required emissions estimates are developed using the transportation and emission modeling approaches required under the Federal Transportation Conformity Rule.

The tests are conducted for PM-10 for the West Pinal PM-10 Nonattainment Area and for PM-2.5 and NOx for the West Central Pinal PM-2.5 Nonattainment Area. Findings indicated that the conformity interim emission tests were satisfied for all of these pollutants.

All analyses were conducted using the latest planning assumptions and emissions models in force at the time the conformity analysis began on October 23, 2019. The conformity analysis indicates that the RTP satisfies the criteria specified in the Federal Transportation Conformity Rule for a conformity determination. A finding of conformity is therefore supported.

Criteria for Air Quality Projects

To ensure that transportation projects are reflected in the air quality conformity analysis conducted for the region, a number of criteria regarding the types of projects must be included in the analysis. These criteria include:

1. All **federally-funded** transportation projects
2. All regionally significant transportation projects that are **locally or privately funded (developer)** for the current year through 2040. **Regionally significant** projects include:
   - ⇒ Widening of a large collector roadway or higher functional classification for 1/4 of a mile or longer
   - ⇒ Construction of a new large collector or higher functional classification
   - ⇒ Construction of a new interchange; adding or upgrading connections to freeways, freeway ramps, or roadways that carry traffic over or under a freeway interchange
   - ⇒ Construction of a park and ride lot or transit center
3. A public agency's CIP, long-range plan, or master plan transportation projects that are **locally or privately funded (developer)** for the current year through 2040. These transportation projects include:
   - ⇒ Arterials (capacity additions, widening, or intersection improvements)
   - ⇒ All paving or stabilization (e.g., gravel or dust suppressants) of unpaved roads and shoulders of roads
   - ⇒ Regionally significant routes for safety and mobility projects that meet the above criteria
4. Projects that the agency's zoning and permits division/department have permitted and would be on an existing or new major or minor arterial

Federal Transportation Conformity regulations define a **regionally significant project** as a transportation project (other than an exempt project) that is on a facility that serves regional transportation needs (such as access to and from the area outside of the region; major activity centers in the region; major planned developments such as new retail malls, sport complexes, etc.; or transportation terminals as well as most terminals themselves) and would be included in the modeling of a metropolitan area's transportation network, including at a minimum all principal arterial highways and all fixed-guideway transit facilities that offer an alternative to regional highway travel.

Transportation Control Measures for Particulates

One of the most important ways to reduce dust emissions is to pave, stabilize, and or reduce travel on dirt roads. Other examples of dust control measures are:

- ⇒ Watering during construction activities
- ⇒ Applying chemical stabilizers/dust suppressants during construction
- ⇒ Reducing vehicle speeds on unpaved roads and parking lots

Appendix A – Regulatory Framework Compliance Checklist

Sun Corridor MPO Regional Transportation Plan Regulatory Framework Compliance Checklist

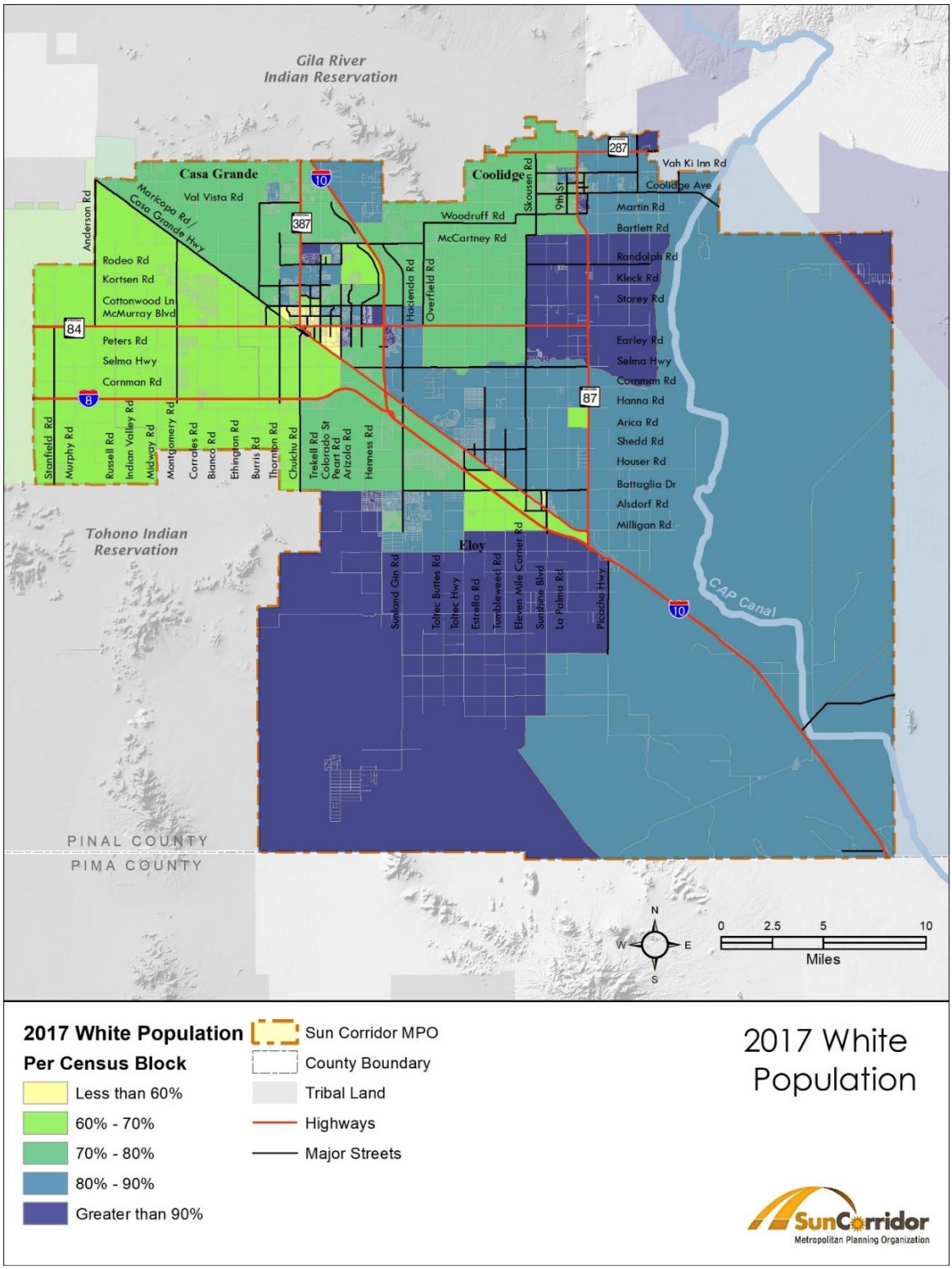
Requirement	Code of Federal Regulation (CFR) Reference	Yes/No	RTP Chapter
General Requirements			
Does the RTP address no less than a 20-year planning horizon?	23 CFR 450.324(a)	Yes	Chapter 1, Chapter 8
Does the RTP include both long-range and short-range strategies/actions?	23 CFR 450.324(b)	Yes	Chapter 8
Identify the general location of uses, residential densities, and building intensities within the region?	Recommended Best Practice	Yes	Chapter 4, jurisdiction meetings
Identify growth areas within the region and where net migration into the region, population growth, household formation, and employment growth will occur.	Recommended Best Practice	Yes	Chapter 5
Utilize the most recent planning assumptions, considering local general plans and other factors.	Recommended Best Practice	Yes	Chapters 4, 5, 8
Does the RTP comply with the Federal Clean Air Act?	Section 176 of the Federal Clean Air Act (42 U.S.C Section 7506)	Yes	Chapter 9
Does the RTP include project intent, i.e. plan-level purpose and need statements?	Recommended Best Practice	Yes	Chapter 1
Does the RTP specify how TDM methodology, results, and key assumptions were developed as part of the RTP process?	Recommended Best Practice	Yes	Chapter 7
Consultation/Cooperation Requirements			
Does the RTP contain a public involvement program that provides adequate public notice of public participation activities and time for public review and comment at key decision points, including a reasonable opportunity to comment on the proposed metropolitan transportation plan and the TIP?	Title 23, CFR 450.316(a)	Yes	Chapter 2
Provision of timely notices and reasonable access to information about transportation issues and processes?	Title 23, CFR 450.316(a)	Yes	Chapter 2
Utilization of visualization techniques to describe metropolitan transportation plans and TIPs?	Title 23, CFR 450.316(a)	Yes	Chapter 1
Is public information (technical information and meeting notices) available in electronically accessible formats and means, such as the internet?	Title 23, CFR 450.316(a)	Yes	Chapter 2, SCMPO website
Public meetings held at convenient and accessible locations and times?	Title 23, CFR 450.316(a)	Yes - held at Casa Grande Council Chambers	Chapter 2
Demonstration of explicit consideration and response to public input received during development of the RTP and the TIP?	Title 23, CFR 450.316(a)	Yes	Chapter 2

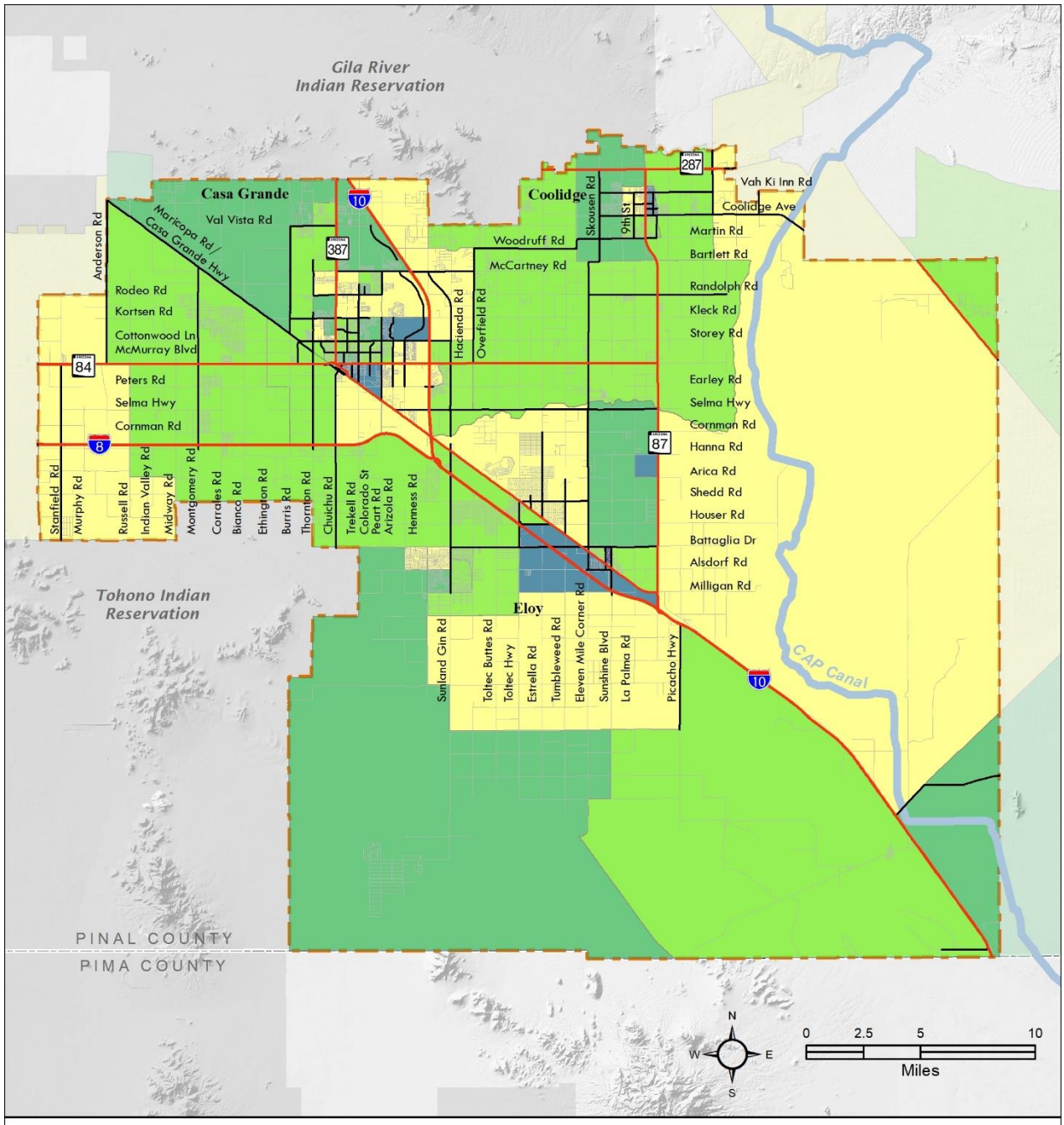
Requirement	Code of Federal Regulation (CFR) Reference	Yes/No	RTP Chapter
Did the process seek out and consider the needs of those traditionally underserved by existing transportation systems, such as low-income and minority households, who may face challenges accessing employment and other services?	Title 23, CFR 450.316(a)	Yes, through social media for public meeting, and outreach to stakeholders representing underserved populations	Chapter 2, Chapter 5 (describes demographics and Title VI and Environmental Justice requirements
Did the process provide an additional opportunity for public comment, if the final RTP or TIP differs significantly from the version that was made available for public comment by the MPO and raises new material issues that interested parties could not reasonably have foreseen from the public involvement efforts?	Title 23, CFR 450.316(a)	N/A	Not anticipated to differ significantly
Was the RTP coordinated with statewide transportation planning public involvement and consultation processes, and a periodic review of the effectiveness of the procedures and strategies contained in the public participation plan completed, to ensure a full and open participation process?	Title 23, CFR 450.316(a)	Yes	ADOT is on the RTP TAC
Does the RTP contain a summary, analysis, and report on the disposition of significant written and oral comments received on the draft RTP as part of the final RTP and TIP?	CFR 450.316(a)(2)	Yes	Chapter 2 and Appendix E
Did the MPO consult with the appropriate State and local representatives including representatives from environmental and economic communities: airport; transit; freight during the preparation of the RTP?	23 CFR 450.316(b)	Yes	Chapters 2, 6, 8
Did the MPO who has federal lands within its jurisdictional boundaries involve the federal land management agencies during the preparation of the RTP?	23 CFR 450.316(d)	Yes	Chapter 2 stakeholder outreach
Where does the RTP specify that the appropriate state and local agencies responsible for land use, natural resources, environmental protection, conservation, and historic preservation were consulted?	23 CFR 450.324(g)	Yes	Chapter 2 stakeholder outreach
If the MPO has a federally recognized Native American Tribal Government(s) and/or historical and sacred sites or subsistence resources of these Tribal Governments within its jurisdictional boundaries, are tribal concerns addressed in the RTP through consultation with the Tribal Government(s)?	23 CFR 450.316(c)	N/A	No Tribal communities in the Sun Corridor MPO region
Does the RTP address how the public and various specified groups were given a reasonable opportunity to comment on the plan using the public participation plan?	23 CFR 450.316(a) and 23 CFR 450.316(a)(i)	Yes	Chapter 2
Does the RTP contain a discussion describing the private sector involvement efforts that were used during the development of the plan?	23 CFR 450.316(a)	Yes	Chapter 2
Does the RTP contain a discussion describing the coordination efforts with MAG and regional air quality planning authorities?	23 CFR 450.316(a)(2)	Yes	Chapter 9

Requirement	Code of Federal Regulation (CFR) Reference	Yes/No	RTP Chapter
Is the RTP coordinated and consistent with the Public Transit-Human Services Transportation Plan?	23 CFR 450.306(h)	Yes	Chapter 6
Were the draft and adopted RTP posted on the internet?	23 CFR 450.324(k)	Yes	SCMPO website
Title VI and Environmental Justice Requirements			
Does the public participation plan describe how the Sun Corridor MPO will seek out and consider the needs of those traditionally underserved by the existing transportation system, such as low-income minority households, who may face challenges accessing employment and other services?	23 CFR 450.316 (a)(i)(vii)	Yes	Chapter 5 references process when projects are planned to be implemented
Modal Discussions			
Does the RTP discuss intermodal and connectivity issues?	Recommended Best Practice	Yes	Chapter 6
Does the RTP include a discussion of highways?	Recommended Best Practice	Yes	Chapter 6
Does the RTP include a discussion of mass transportation?	Recommended Best Practice	Yes	Chapter 6
Does the RTP include a discussion of the regional airport system?	Recommended Best Practice	Yes	Chapter 6
Does the RTP include a discussion of regional pedestrian needs?	Recommended Best Practice	Yes	Chapters 6 and 7
Does the RTP include a discussion of regional bicycle needs?	Recommended Best Practice	Yes	Chapters 6 and 7
Does the RTP include a discussion of rail transportation?	Recommended Best Practice	Yes	Chapter 6
Does the RTP include a discussion of goods movement?	Recommended Best Practice	Yes	Chapter 6
Programming/Operations			
Is the RTP consistent (to the maximum extent practicable) with the development of the regional ITS architecture?	23 CFR 450.306(g)	Yes	Chapter 7
Does the RTP identify the objective criteria used for measuring the performance of the transportation system?	Recommended Best Practice	Yes	Chapter 3
Does the RTP contain a list of fiscally un-constrained projects?	Recommended Best Practice	Yes	Chapter 8, Appendix E
Financial Requirements			
Does the RTP include a financial plan consistent with federal requirements?	23 CFR 450.324(f)(11)	Yes	Chapter 8
Do the projected revenues in the RTP reflect fiscal constraint?	23 CFR 450.324(f)(11)(ii)	Yes	Chapter 8
Do the cost estimates for implementing the projects identified in the RTP reflect “year of expenditure dollars” to reflect inflation rates?	23 CFR 450.324(f)(11)(iv)	Yes	Chapter 8, Appendix D and E, per jurisdiction input
Does the RTP contain estimates of costs and revenue sources that are reasonably expected to be available to operate and maintain the freeways, highway, and transit within the region?	23 CFR 450.324(f)(11)(i)	Yes	Chapter 8

Requirement	Code of Federal Regulation (CFR) Reference	Yes/No	RTP Chapter
Does the RTP address the specific financial strategies required to ensure the identified transportation control measures from the State Implementation Plan can be implemented? (nonattainment and maintenance MPOs only)	23 CFR part 450.324(f)(11)(vi)	Yes	Chapter 8
Environmental			
Does the RTP contain a list of projects specifically identified as transportation control measures?	Recommended Best Practice	Yes	Chapters 8 and 9
Does the RTP contain a discussion of State Implementation Plan conformity?	Recommended Best Practice	Yes	Chapter 9
Does the RTP specify environmental mitigation activities?	23 CFR 450.324(f)(10)	Yes	Chapter 6

Appendix B – Demographic Maps





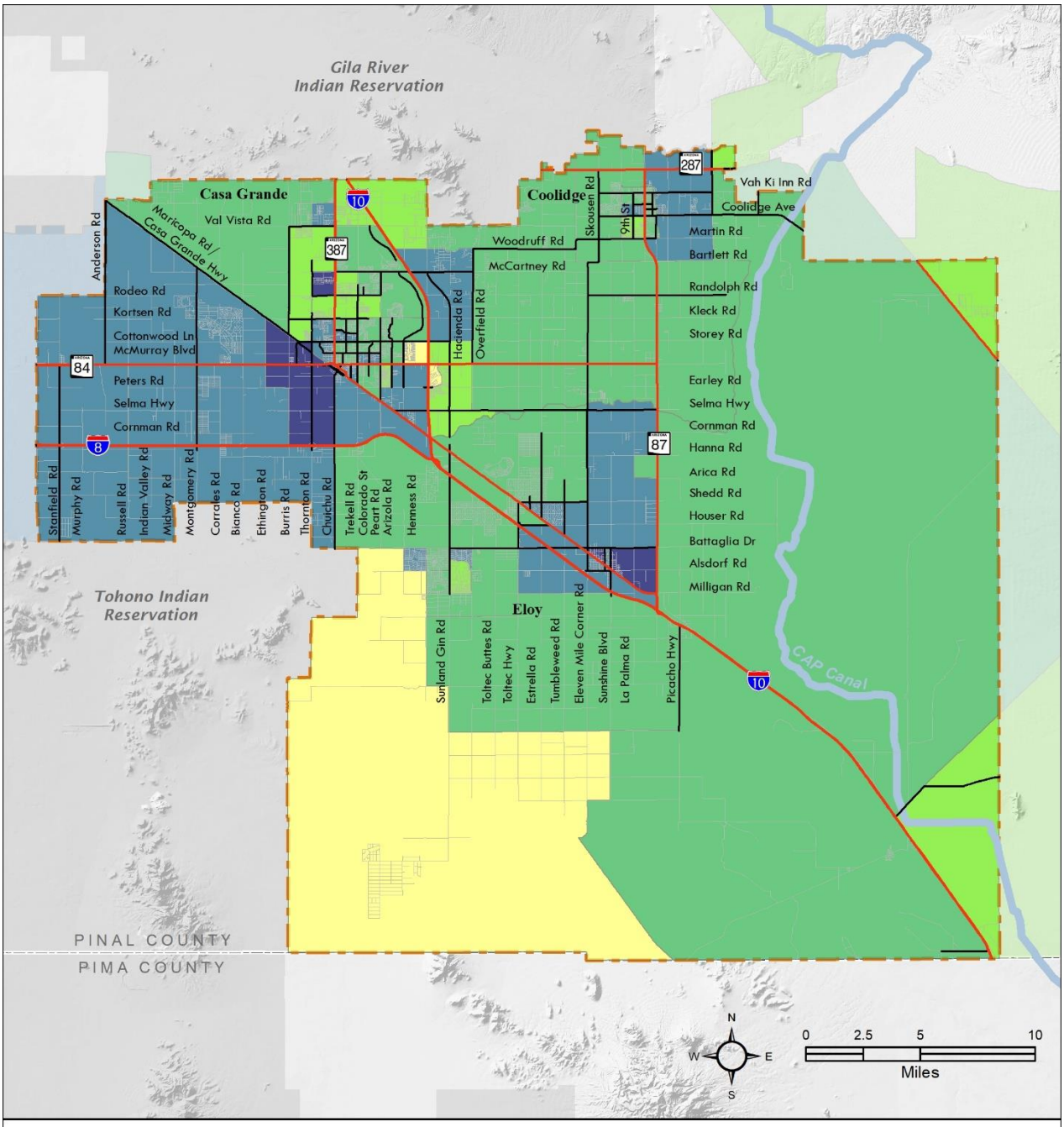
2017 African American Population Per Block Group

- Less than 1%
- 1% - 5%
- 5% - 10%
- 10% - 20%
- Greater than 20%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 African American Population

SunCorridor Metropolitan Planning Organization

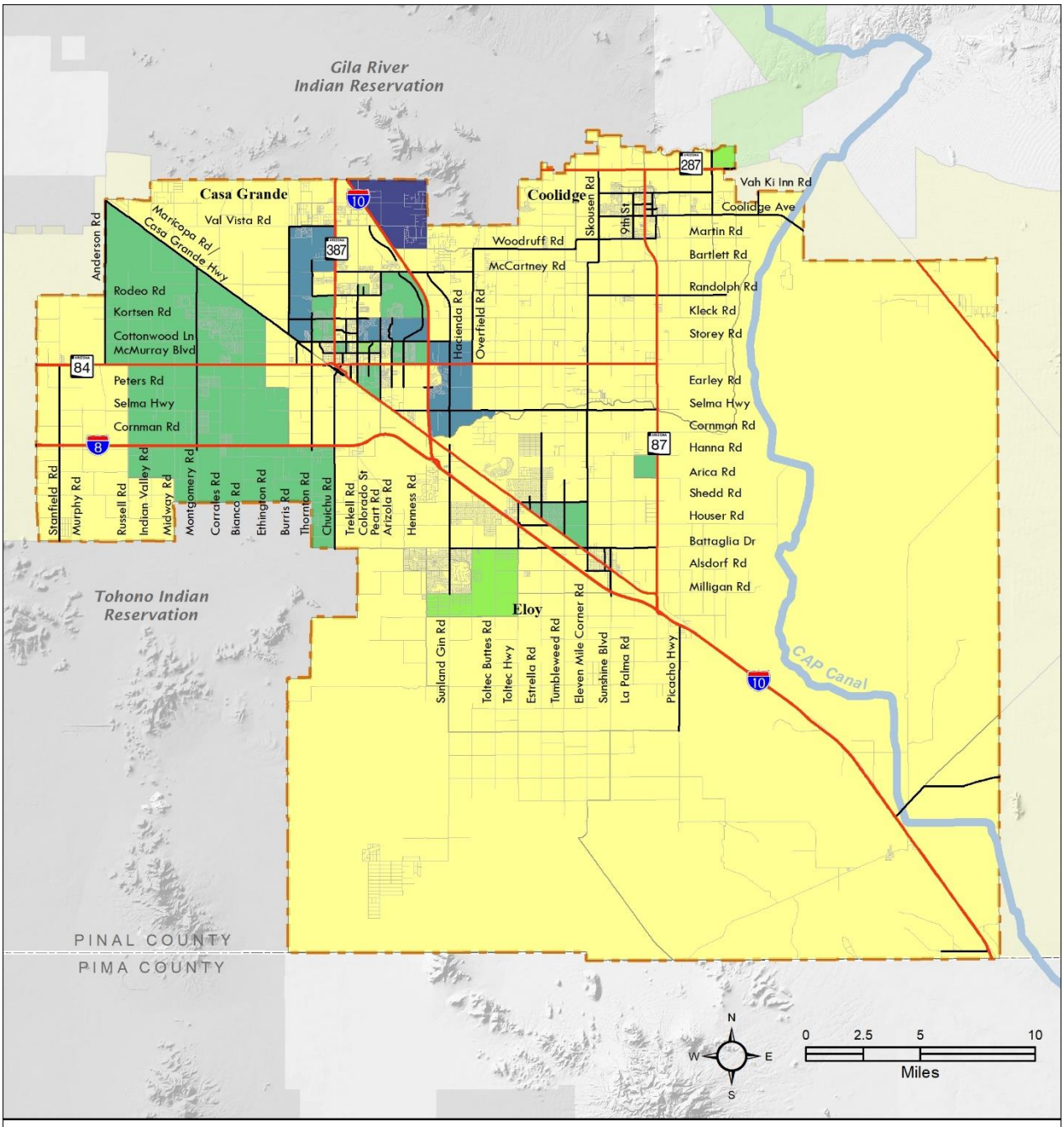


2017 Hispanic or Latino Population
Per Block Group

- Less than 10%
- 10% - 25%
- 25% - 50%
- 50% - 75%
- Greater than 75%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Hispanic or Latino Population

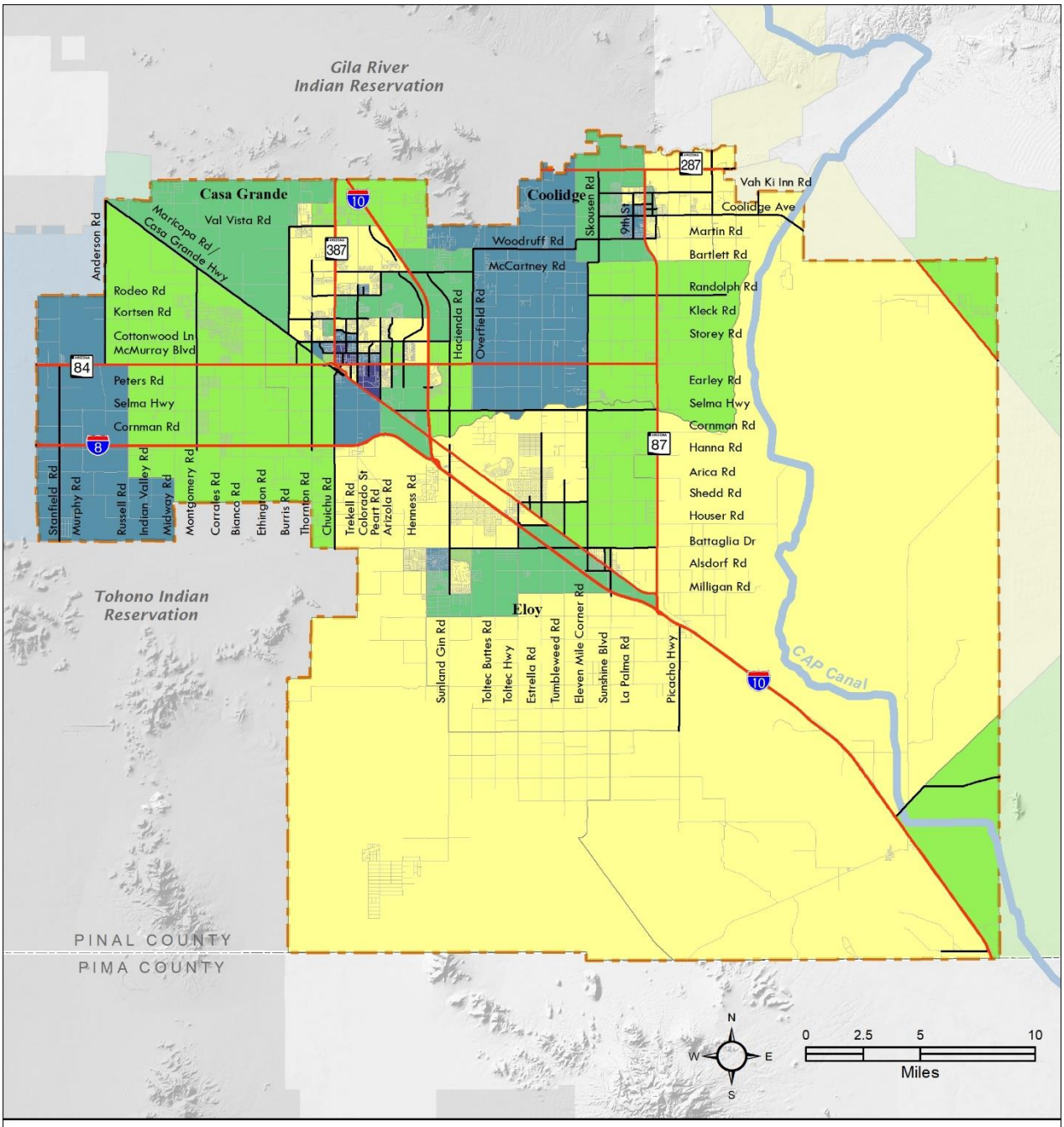


2017 Asian Population Per Block Group

- Less than 1%
- 1% - 2%
- 2% - 5%
- 5% - 10%
- Greater than 10%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Asian Population



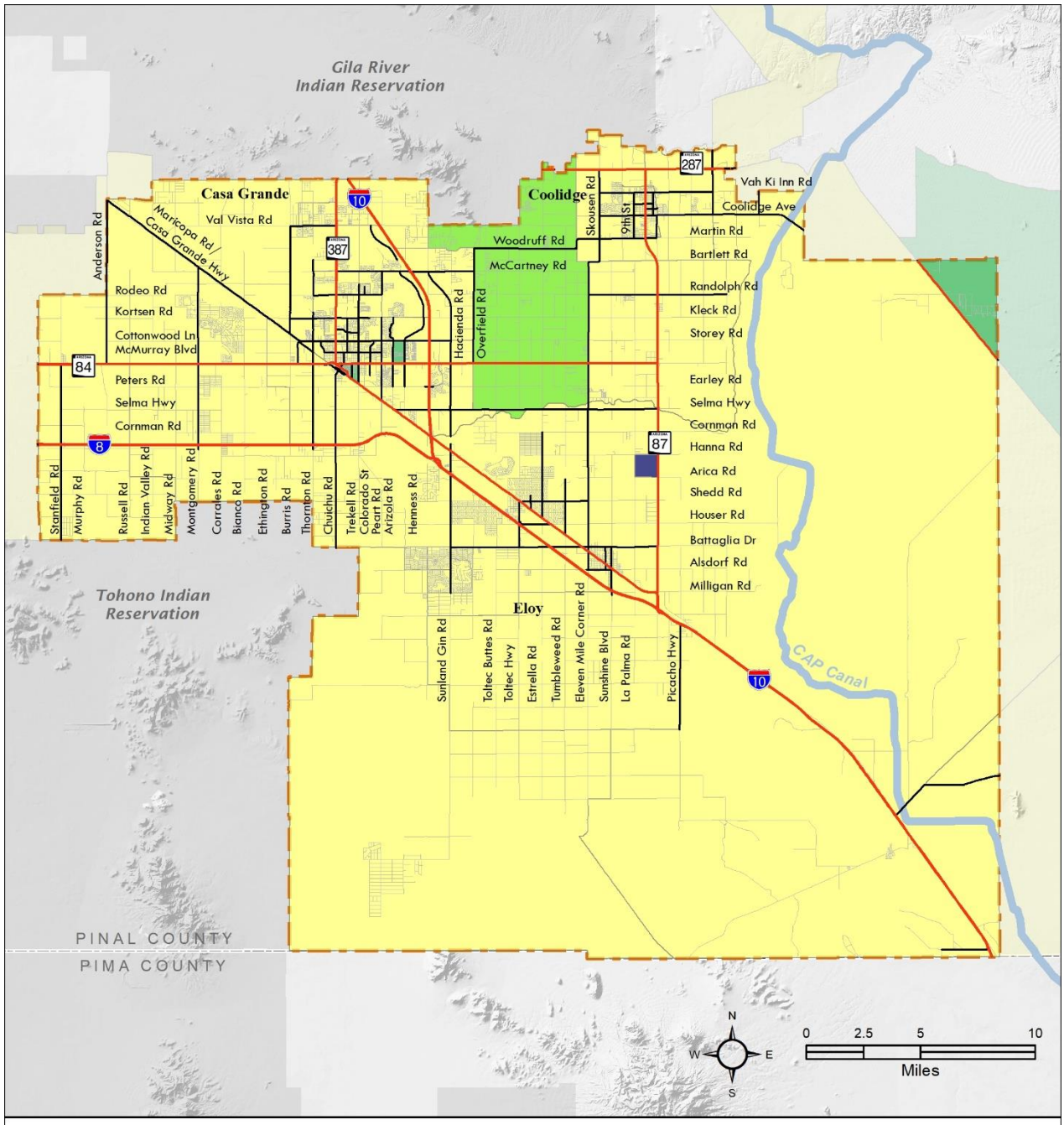
2017 Native American Population Per Block Group

- Less than 1%
- 1% - 5%
- 5% - 10%
- 10% - 20%
- Greater than 20%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Native American Population

SunCorridor Metropolitan Planning Organization

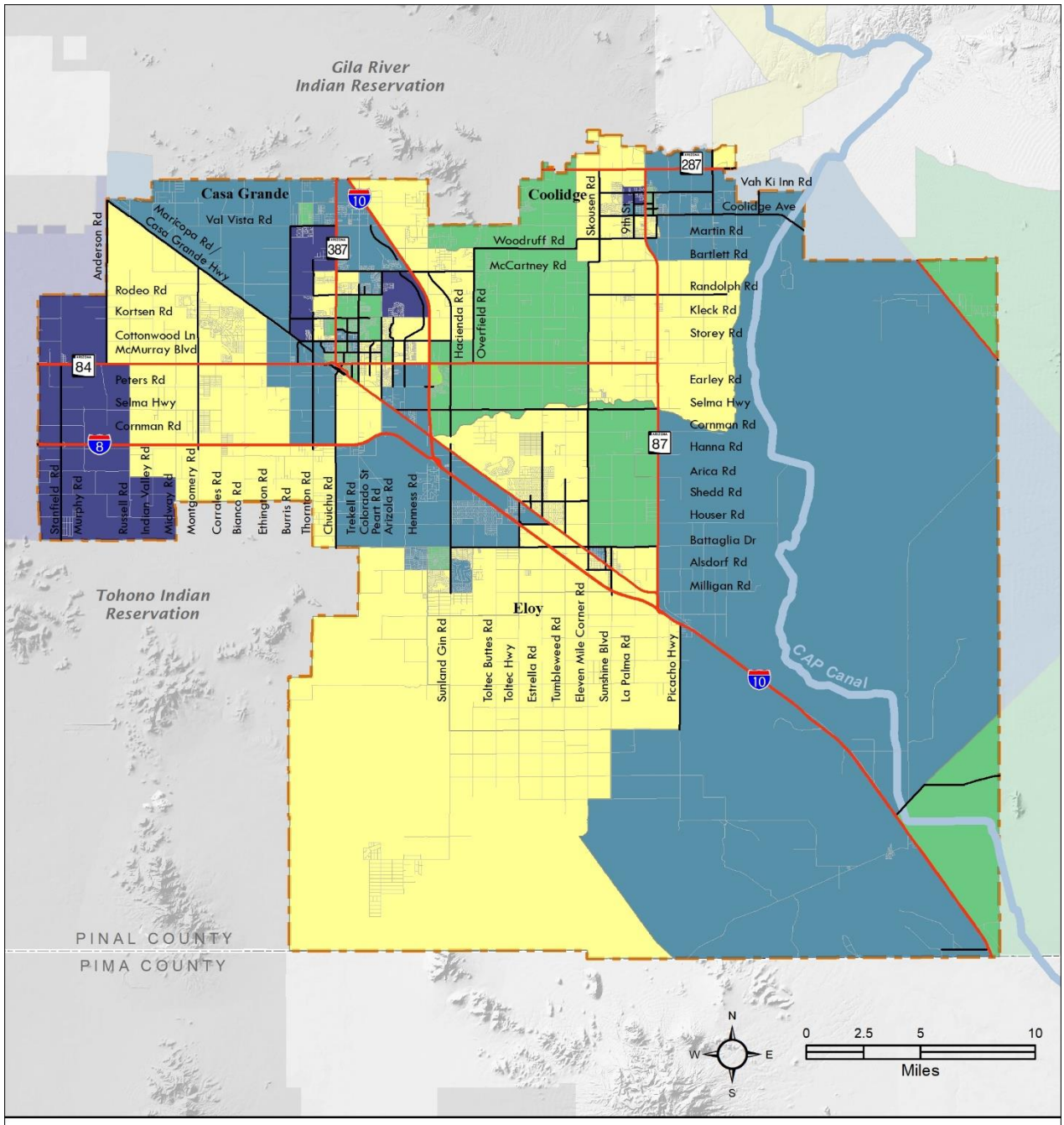


2017 Native Hawaiian Population Per Block Group

- 0%
- Less than 1%
- 1%-2%
- 2%-5%
- Greater than 5%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Native Hawaiian Population

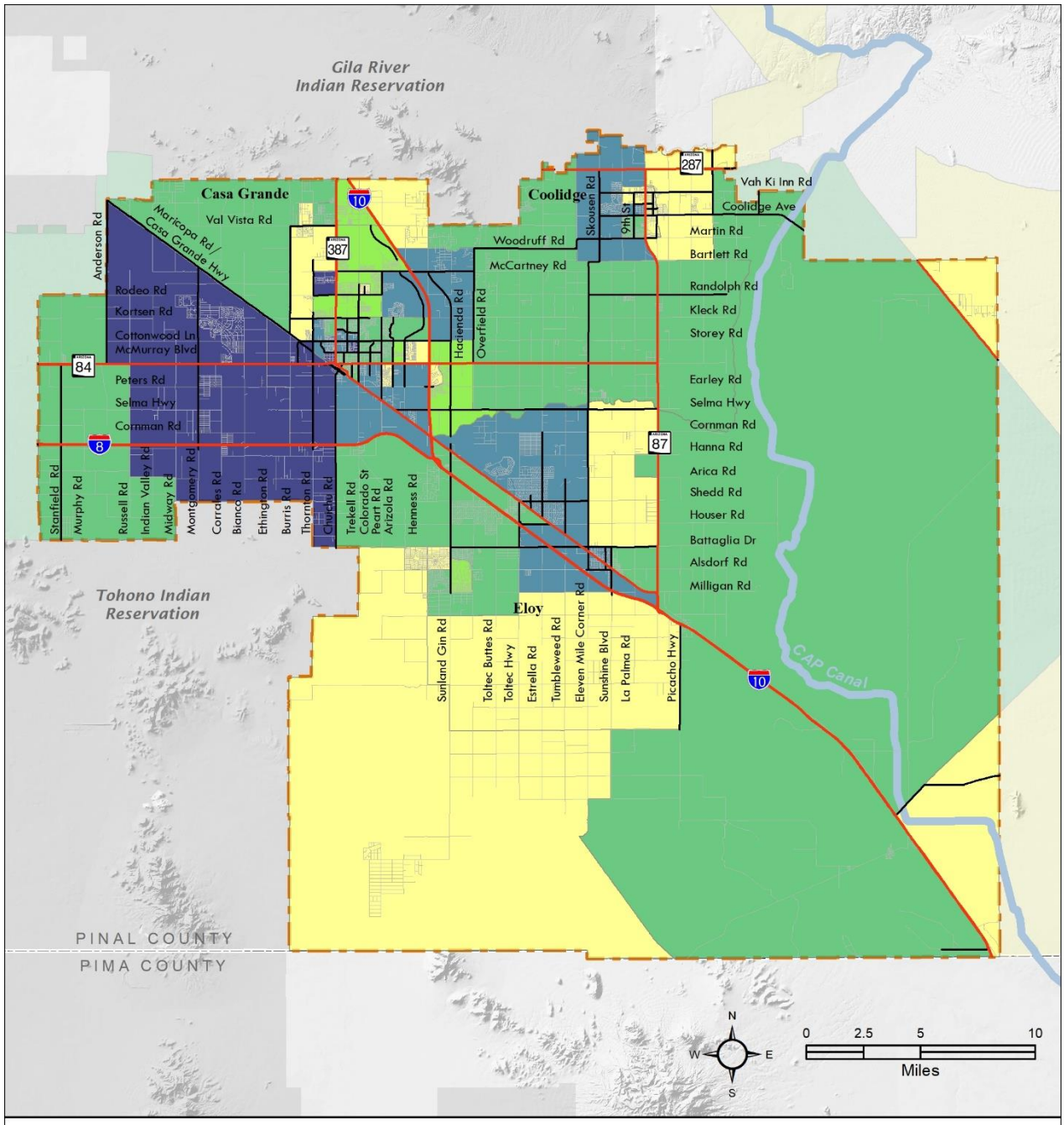


2017 2 or More Races Population Per Block Group

- Less than 1%
- 1% - 2%
- 2% - 5%
- 5% - 10%
- Greater than 10%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Two or More Races Population

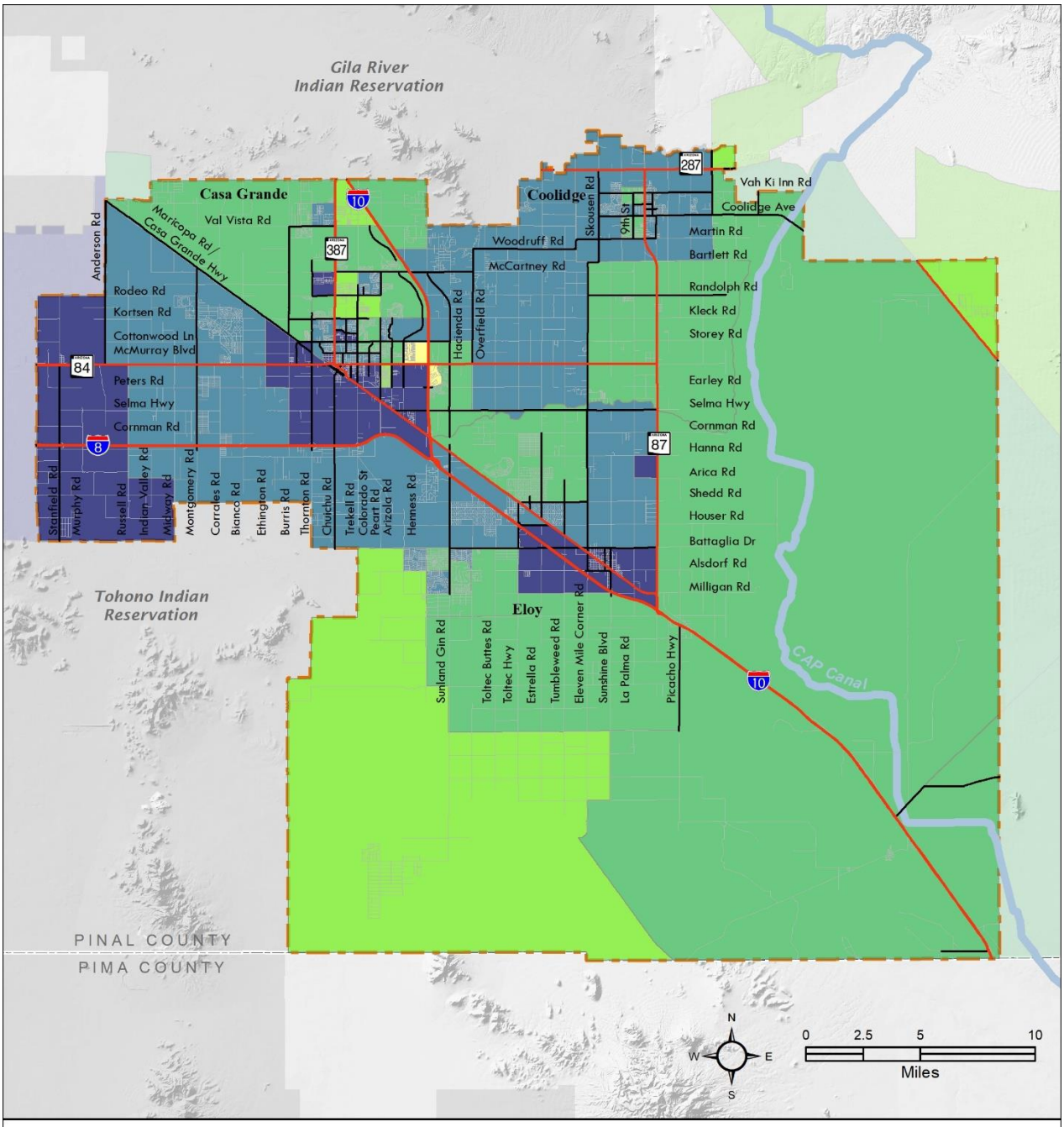


2017 Other Race Population Per Block Group

- Less than 1%
- 1% - 5%
- 5% - 10%
- 10% - 20%
- Greater than 20%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Other Race Population

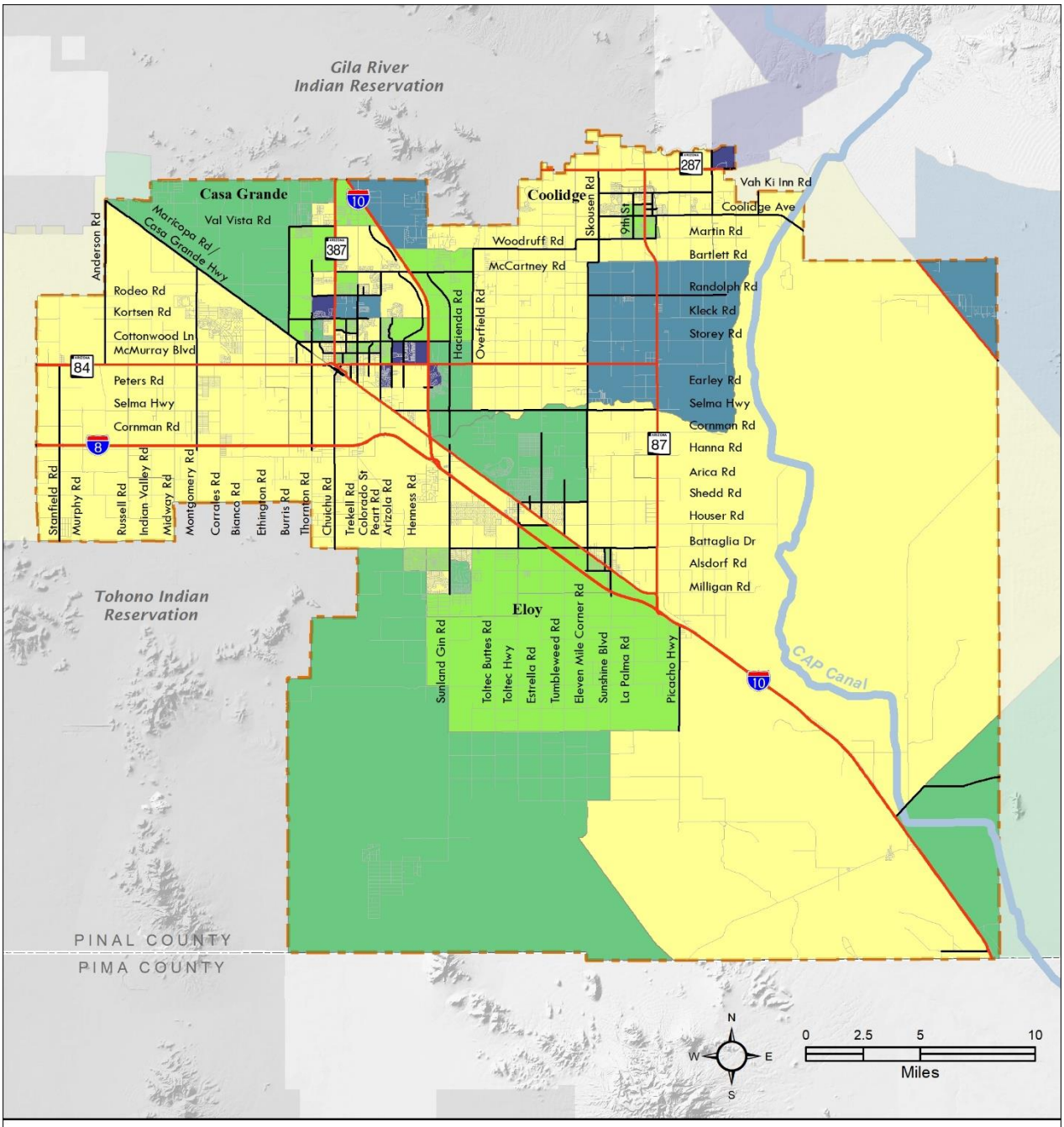


2017 Total Minority Population
Per Block Group

- Less than 10%
- 10% - 25%
- 25% - 50%
- 50% - 75%
- Greater than 75%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Total Minority Population


Gila River
Indian Reservation
Casa Grande
Val Vista Rd
Maricopa Rd / Casa Grande Hwy
Anderson Rd
Rodeo Rd
Kortsen Rd
Cottonwood Ln
McMurray Blvd
Peters Rd
Selma Hwy
Cornman Rd
Stanfield Rd
Murphy Rd
Russell Rd
Indian Valley Rd
Midway Rd
Montgomery Rd
Corrales Rd
Bianco Rd
Ethington Rd
Burris Rd
Thornton Rd
Chuichiu Rd
Trekell Rd
Colorado St
Peart Rd
Arizola Rd
Henness Rd
Hacienda Rd
Overfield Rd
Woodruff Rd
McCartney Rd
Coolidge
Skousen Rd
9th St
Vah Ki Inn Rd
Coolidge Ave
Martin Rd
Bartlett Rd
Randolph Rd
Kleck Rd
Storey Rd
Earley Rd
Selma Hwy
Cornman Rd
Hanna Rd
Arica Rd
Shedd Rd
Houser Rd
Battaglia Dr
Alsdorf Rd
Milligan Rd
Eloy
Sunland Gin Rd
Toltec Buttes Rd
Toltec Hwy
Estrella Rd
Tumbleweed Rd
Eleven Mile Corner Rd
Sunshine Blvd
La Palma Rd
Picacho Hwy
CAP Canal
Tohono Indian
Reservation
PINAL COUNTY
PIMA COUNTY
N
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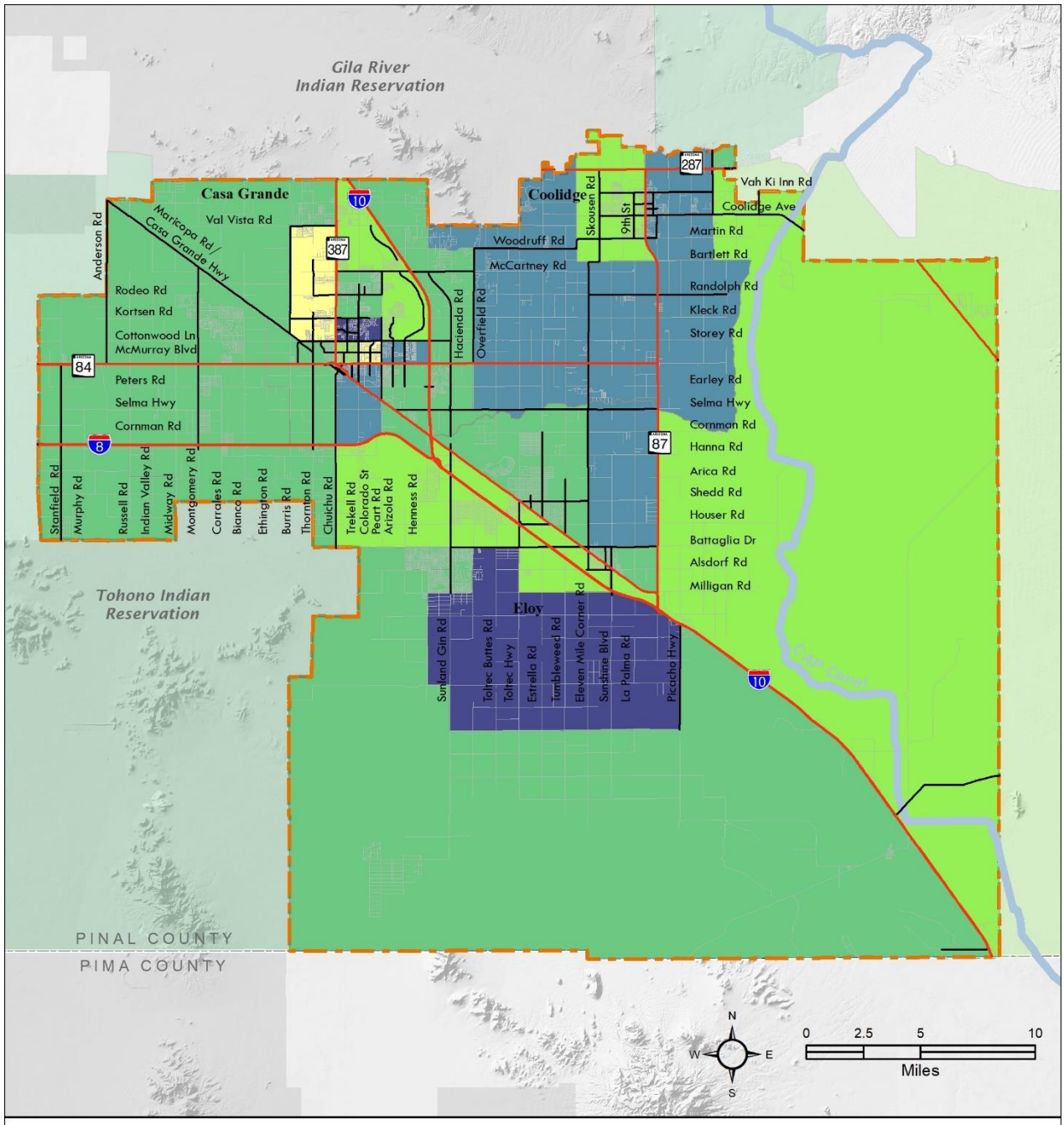
2.5
5
10
Miles
2017 Over 60 Population
Per Block Group
Less than 20%
20% - 30%
30% - 40%
40% - 50%
Greater than 50%
Sun Corridor MPO
County Boundary
Tribal Land
Highways
Major Streets
2017 Over 60
Population
SunCorridor
Metropolitan Planning Organization

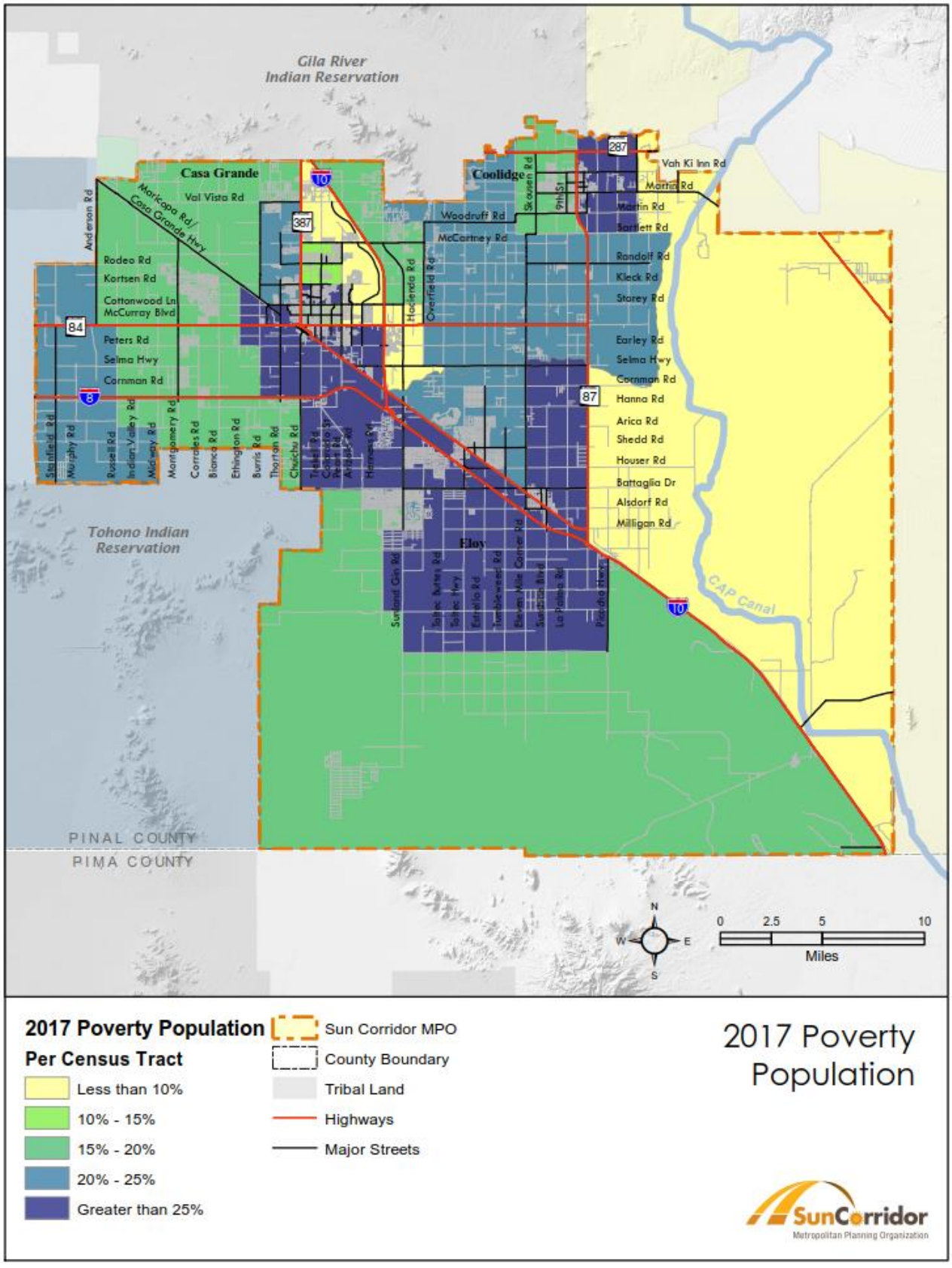


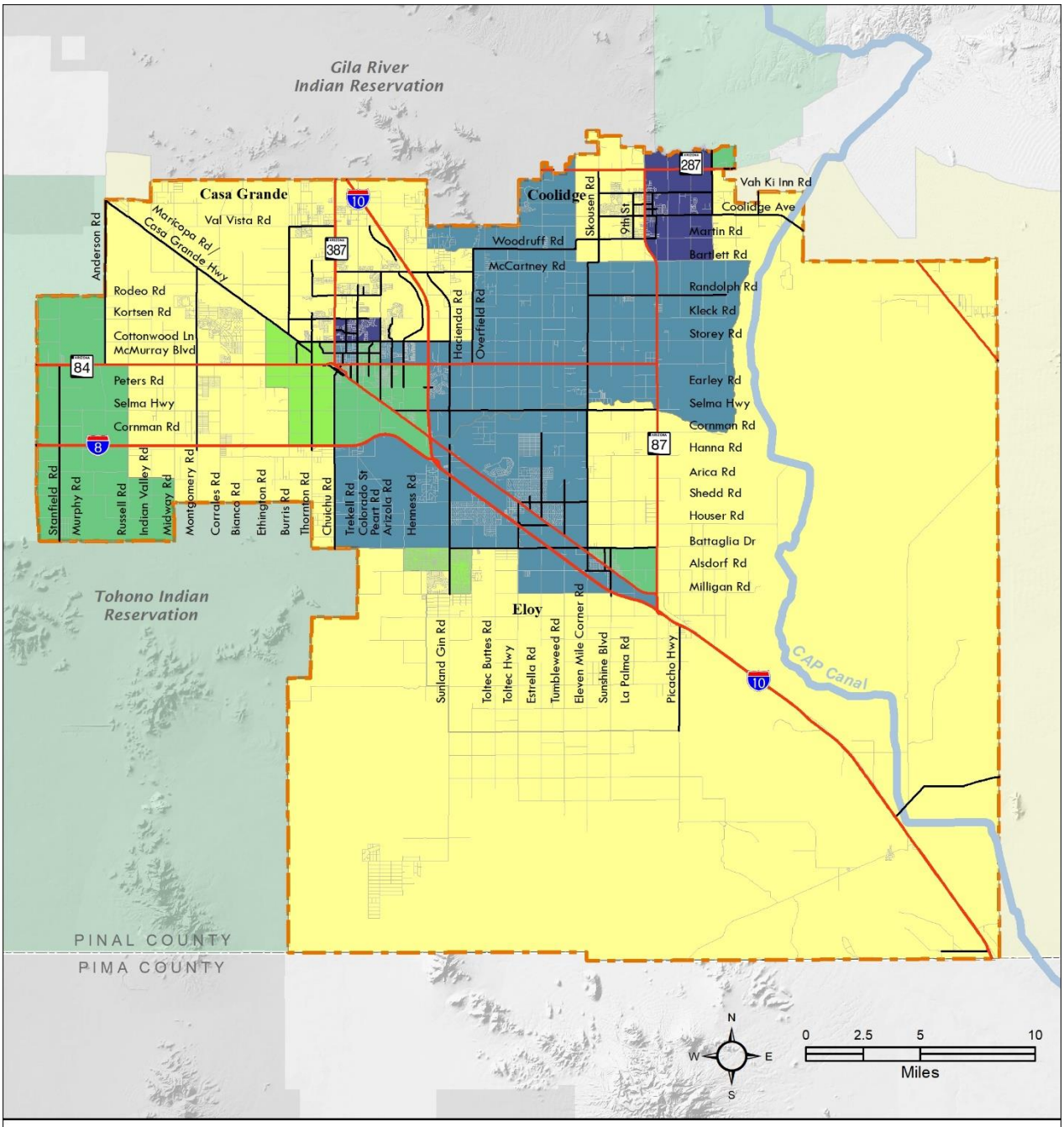
2017 Disability Population Per Census Tract

- Less than 13%
- 13% - 15%
- 15% - 18%
- 18% - 20%
- Greater than 20%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Disability Population


Gila River Indian Reservation
Casa Grande
Coolidge
Eloy
Tohono Indian Reservation
PINAL COUNTY
PIMA COUNTY
CAP Canal
Val Vista Rd
Woodruff Rd
McCartney Rd
Rodeo Rd
Kortsen Rd
Cottonwood Ln
McCurray Blvd
Peters Rd
Selma Hwy
Cornman Rd
Earley Rd
Hanna Rd
Arica Rd
Shedd Rd
Houser Rd
Battaglia Dr
Alsdorf Rd
Milligan Rd
Randolf Rd
Kleck Rd
Storey Rd
Vah Ki Inn Rd
Martin Rd
Bartlett Rd
Overfield Rd
Hacienda Rd
Anderson Rd
Stanfield Rd
Murphy Rd
Russell Rd
Indian Valley Rd
Midway Rd
Montgomery Rd
Corrales Rd
Bianca Rd
Ethington Rd
Burris Rd
Thornton Rd
Chuichu Rd
Hermes Rd
Sunland Gin Rd
Toltec Rd
Estrella Rd
Sunland Blvd
La Palma Rd
Pinal Ave
Skousen Rd
9th St
Maricopa Rd / Casa Grande Hwy
N
S
E
W
0
2.5
5
10
Miles
2017 Poverty Population
Per Census Tract
Less than 10%
10% - 15%
15% - 20%
20% - 25%
Greater than 25%
Sun Corridor MPO
County Boundary
Tribal Land
Highways
Major Streets
2017 Poverty Population
SunCorridor
Metropolitan Planning Organization

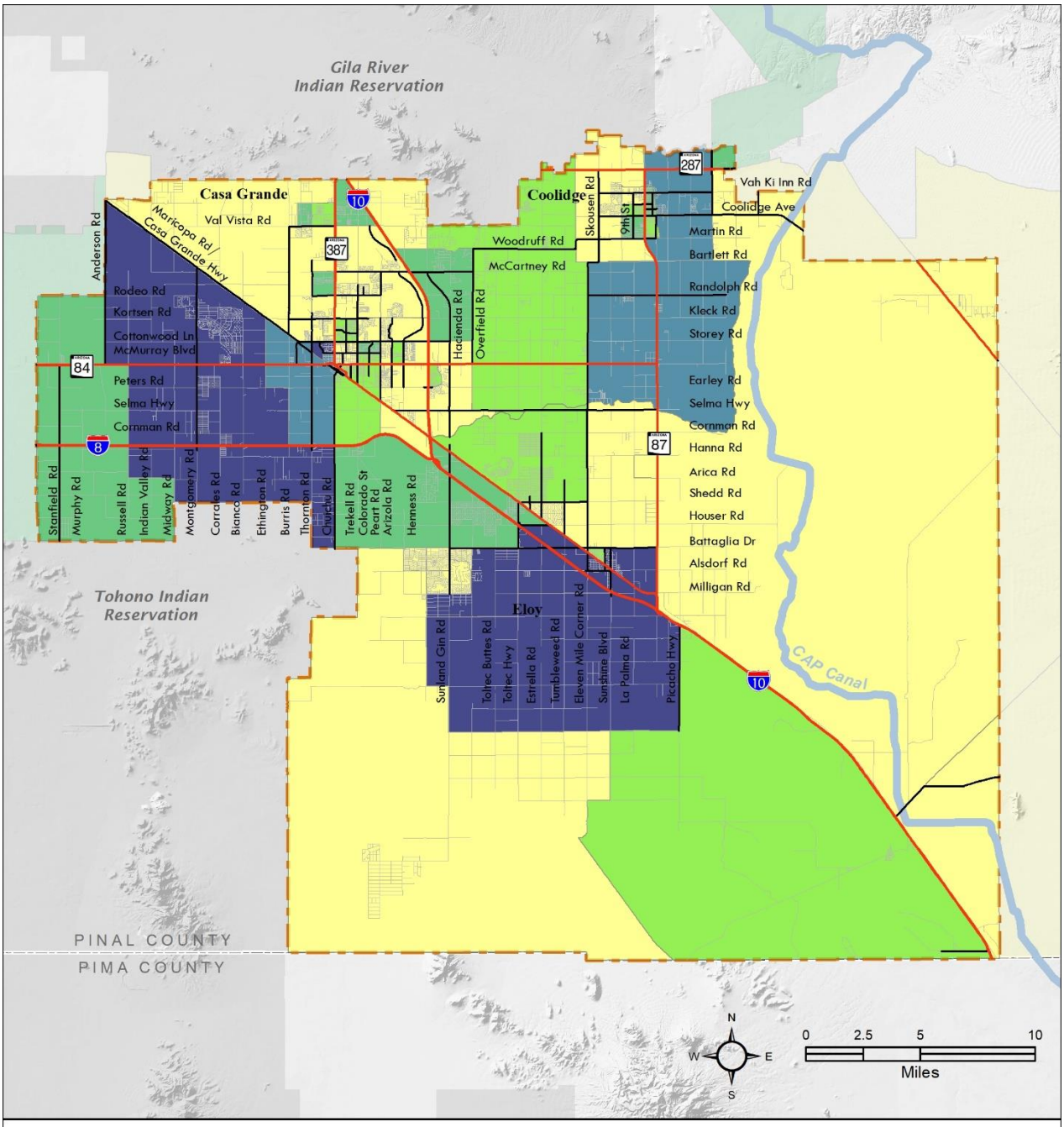


2017 Zero-Vehicle Households
Per Census Tract

- Less than 1%
- 1% - 2%
- 2% - 3%
- 3% - 5%
- Greater than 5%

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Zero-Vehicle Households



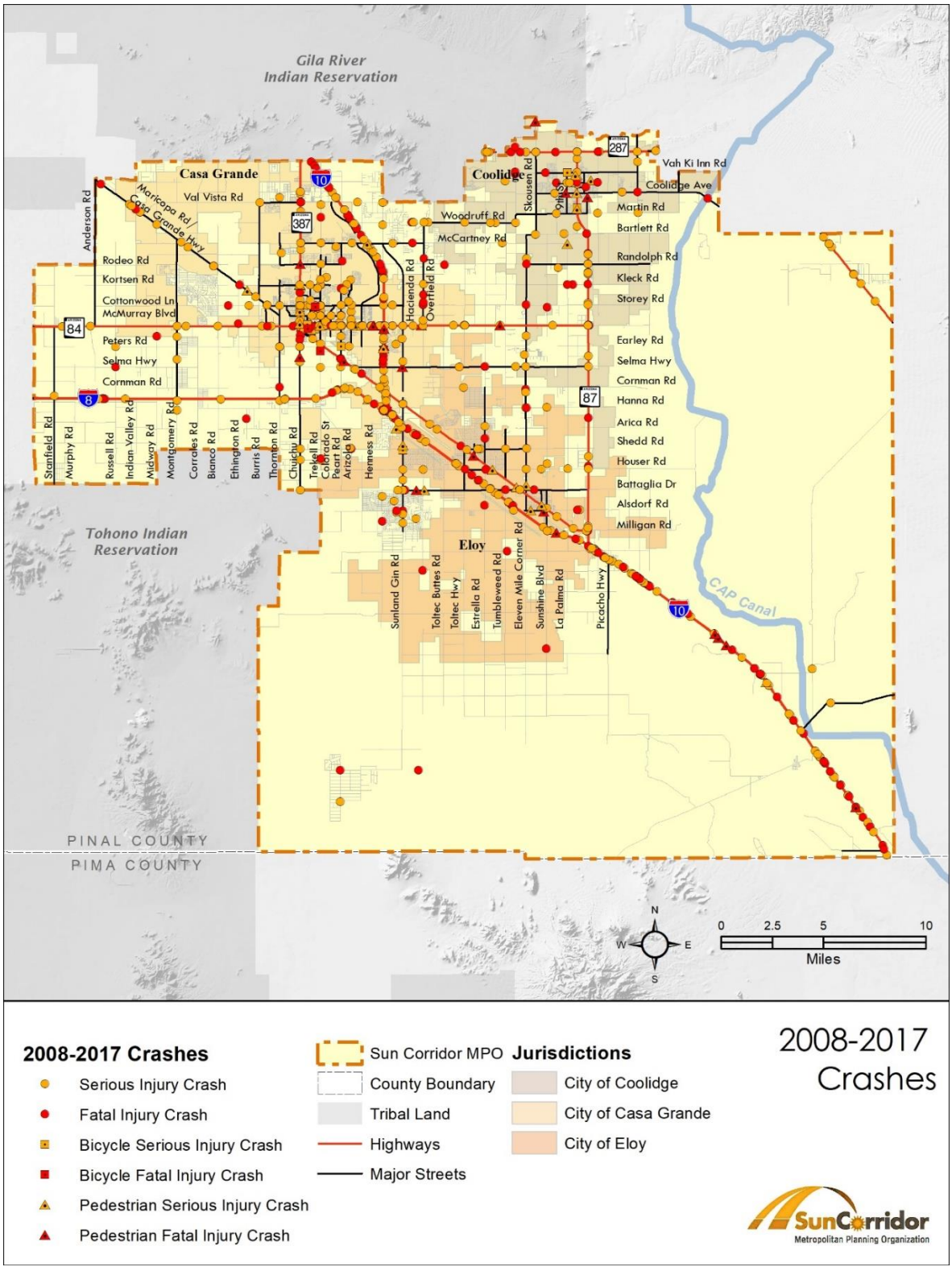
2017 Limited English-Speaking Households
Per Census Block Group

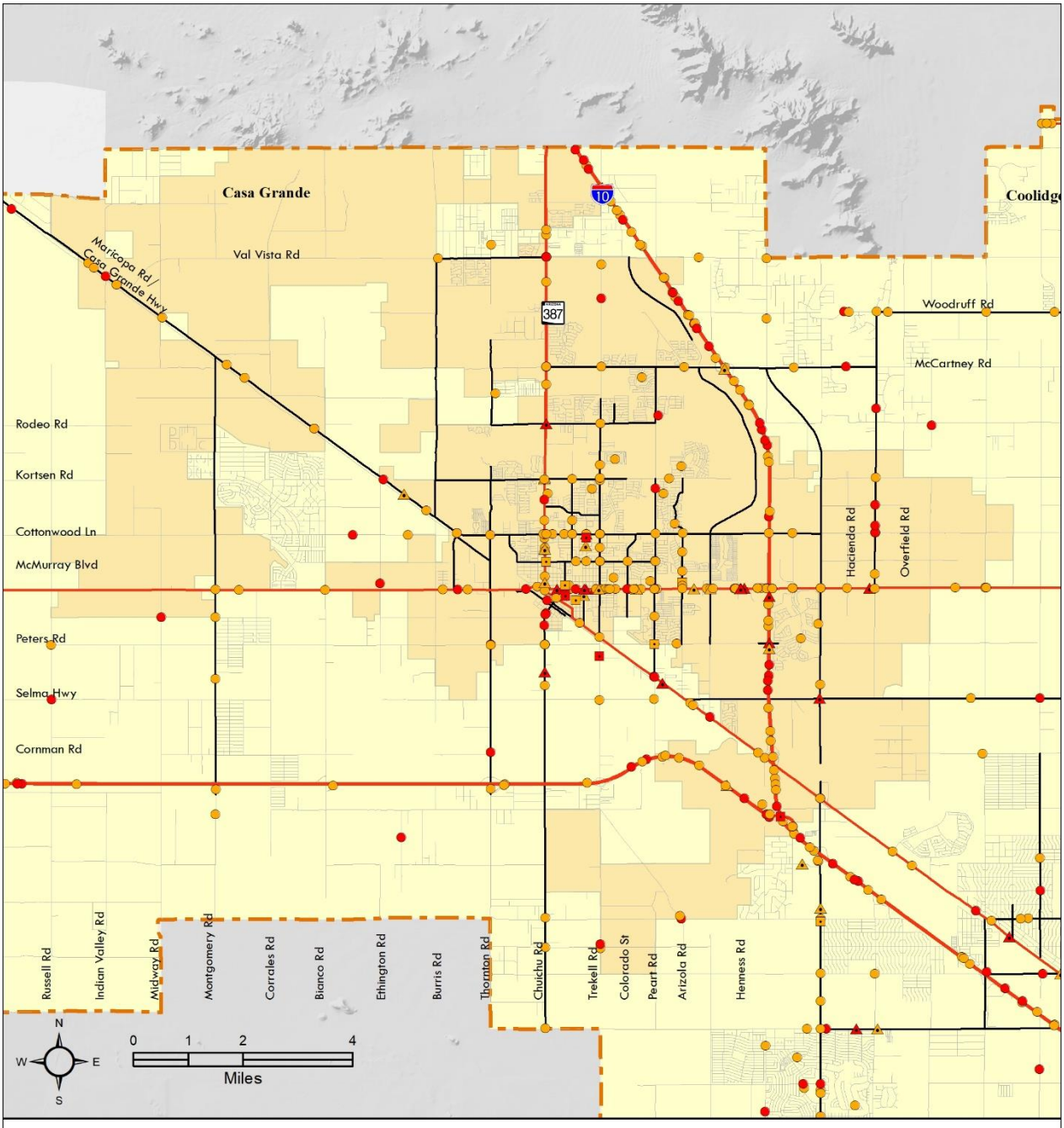
- 0%
- 1% - 5%
- 5% - 10%
- 10% - 15%
- Greater than 15%

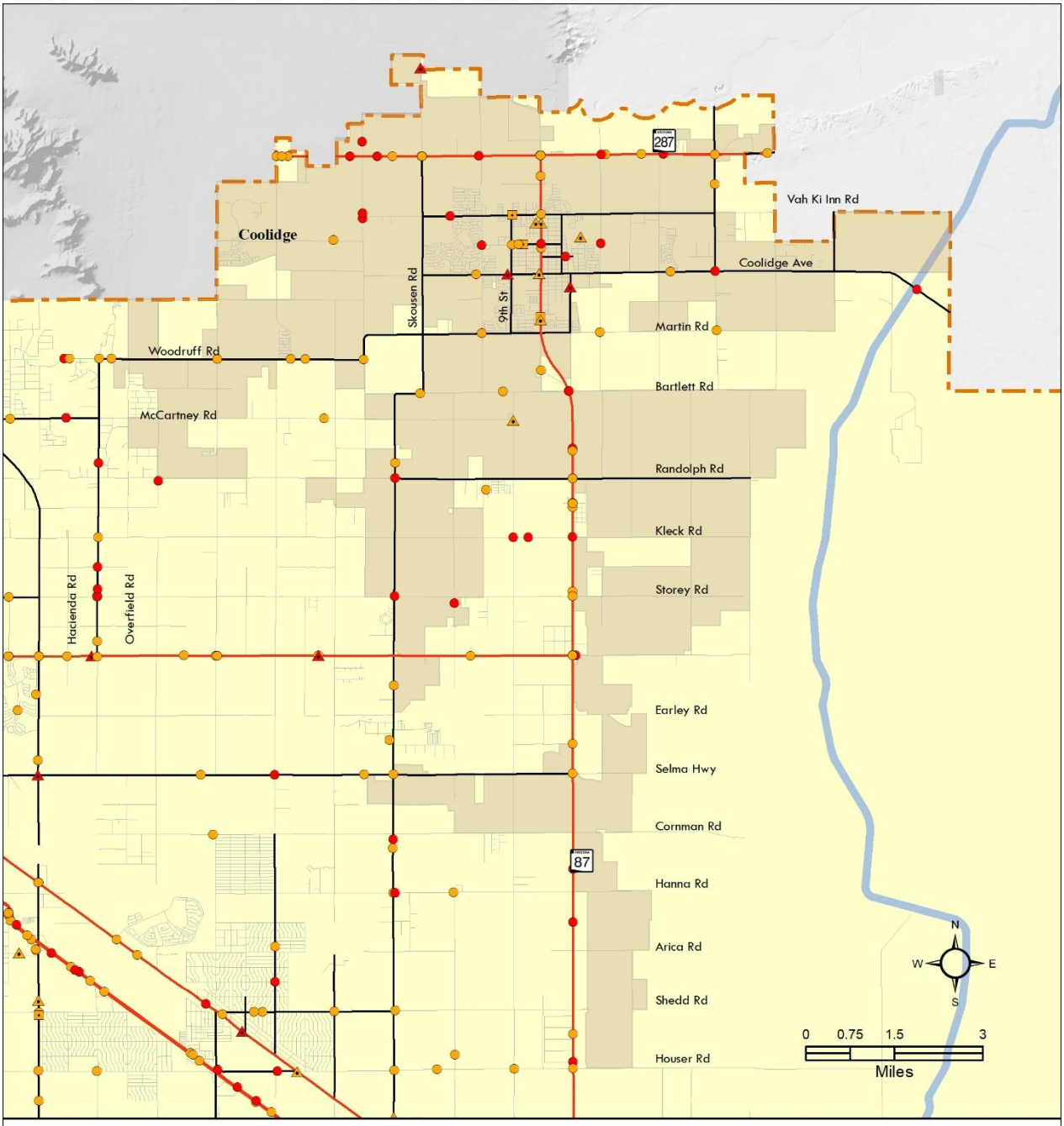
- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

2017 Limited English-Speaking Households

Appendix C – Crash Maps




Casa Grande
Coolidge
Maricopa Rd / Casa Grande Hwy
Val Vista Rd
10
387
Woodruff Rd
McCartney Rd
Rodeo Rd
Kortsen Rd
Cottonwood Ln
McMurray Blvd
Peters Rd
Selma Hwy
Cornman Rd
Hacienda Rd
Overfield Rd
Russell Rd
Indian Valley Rd
Midway Rd
Montgomery Rd
Corrales Rd
Bianco Rd
Ethington Rd
Burris Rd
Thornton Rd
Chuichu Rd
Trekell Rd
Colorado St
Peart Rd
Arizola Rd
Henness Rd
N
W
E
S
0 1 2 4
Miles
2008-2017 Crashes - Casa Grande Area
2008-2017 Crashes
Serious Injury Crash
Fatal Injury Crash
Bicycle Serious Injury Crash
Bicycle Fatal Injury Crash
Pedestrian Serious Injury Crash
Pedestrian Fatal Injury Crash
Sun Corridor MPO
County Boundary
Tribal Land
Highways
Major Streets
Jurisdictions
City of Coolidge
City of Casa Grande
City of Eloy
SunCorridor
Metropolitan Planning Organization



2008-2017 Crashes - Coolidge Area

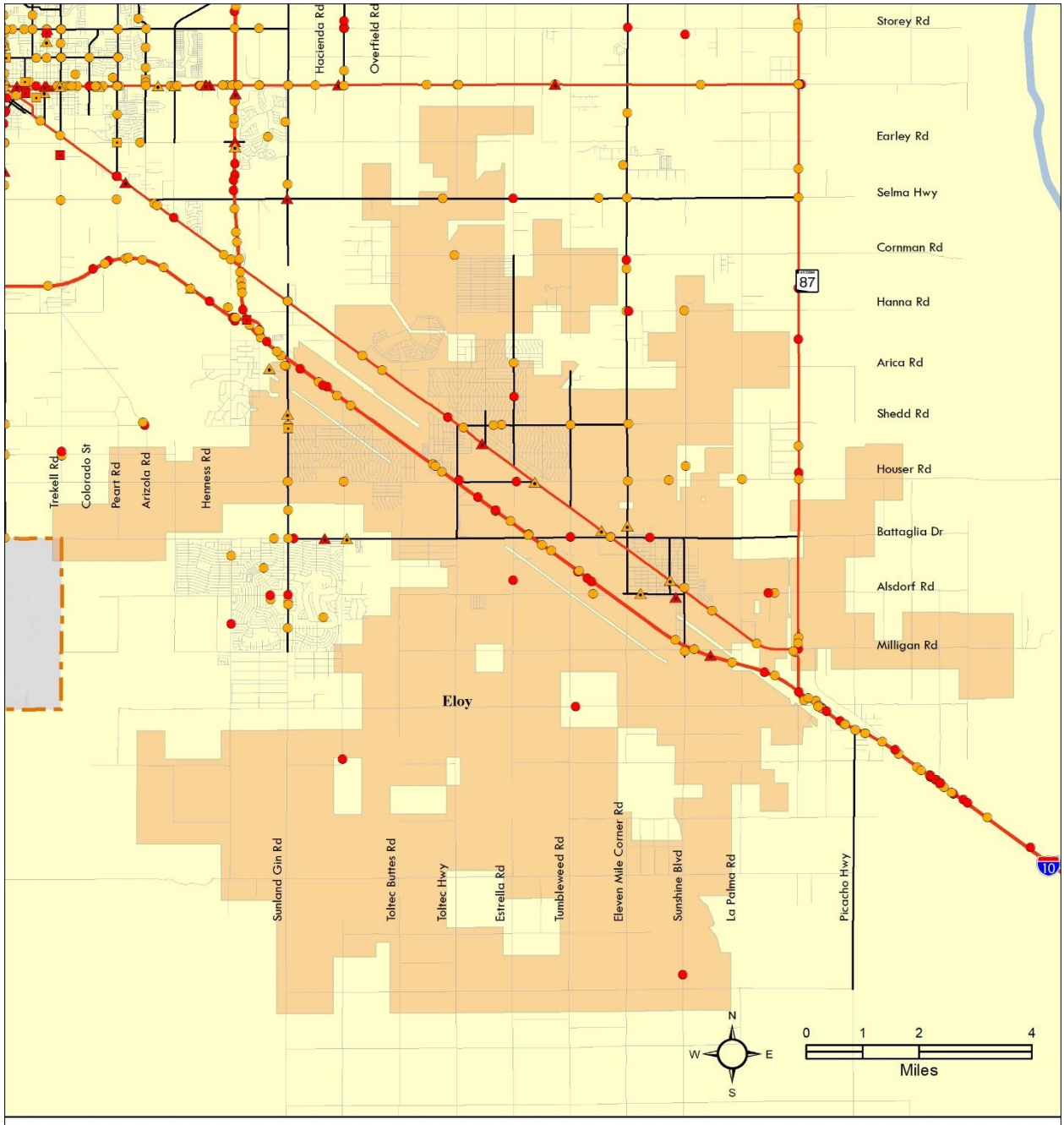
2008-2017 Crashes

- Serious Injury Crash
- Fatal Injury Crash
- Bicycle Serious Injury Crash
- Bicycle Fatal Injury Crash
- Pedestrian Serious Injury Crash
- Pedestrian Fatal Injury Crash

- Sun Corridor MPO
- County Boundary
- Tribal Land
- Highways
- Major Streets

Jurisdictions

- City of Coolidge
- City of Casa Grande
- City of Eloy


Storey Rd
Earley Rd
Selma Hwy
Cornman Rd
Hanna Rd
Arica Rd
Shedd Rd
Houser Rd
Battaglia Dr
Alsdorf Rd
Milligan Rd
Hacienda Rd
Overfield Rd
Trekell Rd
Colorado St
Peart Rd
Arizola Rd
Hennes Rd
Eloy
Sunland Gin Rd
Toltec Buttes Rd
Toltec Hwy
Estrella Rd
Tumbleweed Rd
Eleven Mile Corner Rd
Sunshine Blvd
La Palma Rd
Picacho Hwy
87
10
N
W
E
S
0 1 2 4
Miles
2008-2017 Crashes - Eloy Area
2008-2017 Crashes
Serious Injury Crash
Fatal Injury Crash
Bicycle Serious Injury Crash
Bicycle Fatal Injury Crash
Pedestrian Serious Injury Crash
Pedestrian Fatal Injury Crash
Sun Corridor MPO
County Boundary
Tribal Land
Highways
Major Streets
Jurisdictions
City of Coolidge
City of Casa Grande
City of Eloy
SunCorridor Metropolitan Planning Organization

Appendix D - Projects of Opportunity List

PROJECT NAME	FROM	TO	PROJECT LENGTH (MILES)	PROJECT DESCRIPTION	ESTIMATED COST ($)	TIME FRAME - SHORT (1-5 YEARS), MID (6-10 YEARS), LONG (11-20 YEARS)	JUSTIFICATION (PRESERVATION, MODERNIZATION, OR CAPACITY NEEDED)	NOTES
City of Casa Grande								
Cottonwood Lane	Mission Parkway	North Signal Peak Road	3.5	Roadway widening, 2 to 6 lanes	N/A	Short	Capacity	
Trekell Road	Shedd Road	Houser Road	1.0	Double Chip Seal	N/A	Short	Preservation	
Doan Street	Trekell Road	Pottebaum Road	0.75	Construct Roadway Widening, 0 to 2 lanes	N/A	Short	Capacity	
Cottonwood Lane	Henness Road	Mission Parkway	1.5	Construct Roadway widening, 2 to 6 lanes	N/A	Short	Capacity	
Florence Boulevard	Hacienda Road	Signal Peak Road	3.0	Construct Roadway widening, 2 to 4 lanes	N/A	Short	Capacity	
Cornman Road	Henness Road	I-10	3.0	Pave Dirt Road	N/A	Mid	Preservation	
South Frontage Road on I-8, MP 176	Henness Road	Lamb/Cox Road	1.23	Construct New Frontage Road	N/A	Mid	Capacity	
Florence Boulevard	Hacienda Road	Signal Peak Road	3.0	Construct Roadway widening, 4 to 6 lanes	N/A	Mid	Capacity	
Selma Highway	Jimmy Kerr Boulevard	Signal Peak Road	5.5	Construct Roadway Widening, 2 to 4 lanes	N/A	Mid	Capacity	
Toltec Buttes Road	North of Storey Road	Kleck Road	1.0	Construct Roadway Widening, 2 to 4 lanes	N/A	Long	Capacity	
McCartney Road	Peart Road	I-10	1.5	Construct Roadway Widening, 2 to 4 lanes	N/A	Long	Capacity	

PROJECT NAME	FROM	TO	PROJECT LENGTH (MILES)	PROJECT DESCRIPTION	ESTIMATED COST ($)	TIME FRAME - SHORT (1-5 YEARS), MID (6-10 YEARS), LONG (11-20 YEARS)	JUSTIFICATION (PRESERVATION, MODERNIZATION, OR CAPACITY NEEDED)	NOTES
Thornton Road	Cottonwood Lane	SR 84	1.0	Construct Roadway Widening, 2 to 4 lanes	N/A	Long	Capacity	
Maricopa Casa Grande Highway	SCMPO Boundary	Val Vista Road	3.0	Construct Roadway Widening, 2 to 4 lanes	N/A	Long	Capacity	
Maricopa Casa Grande Highway	Val Vista Road	Florence Boulevard	7.2	Construct Roadway Widening, 2 to 4 lanes	N/A	Long	Capacity	
City of Coolidge								
Randolph Road	UPRR Crossing	Vail Road	0.75	Mill and Overlay	450,000	Short	Preservation	
Woodruff Road	Macrae Road	Signal Peak Road	2.50	Mill and Overlay	1,200,000	Short	Preservation	
McCartney Road	Signal Peal Road	Evans Road	1.50	Mill and Overlay	800,000	Short	Preservation	
Fifth Street	Martin Road	Bartlett Road	1.00	Rubber Chip Seal	100,000	Short	Preservation	
9th Street Sidewalks	Coolidge Avenue	Martin Road	1.00	Adding Sidewalks	450,000	Short	Modernization	
Vah Ki Inn Rd Sidewalks	9th Street	Kenworthy Road	0.50	Adding Sidewalks	300,000	Short	Modernization	
Northern Avenue Sidewalks	First Street	Arizona Boulevard	0.50	Adding Sidewalks	300,000	Short	Modernization	
Sidewalk Infill	Coolidge Avenue and Arizona Boulevard	Central Avenue, First Street	2.5 (total)	Adding Sidewalks	1,500,000	Mid	Modernization	
Kenworthy Road	Industrial Drive	Martin Road	0.5	Roadway Widening and Curb/gutter, Sidewalks	750,000	Mid	Capacity Needed/ Modernization	

PROJECT NAME	FROM	TO	PROJECT LENGTH (MILES)	PROJECT DESCRIPTION	ESTIMATED COST ($)	TIME FRAME - SHORT (1-5 YEARS), MID (6-10 YEARS), LONG (11-20 YEARS)	JUSTIFICATION (PRESERVATION, MODERNIZATION, OR CAPACITY NEEDED)	NOTES
Vah Ki Inn Road	Main Street	Christensen Road	0.66	Roadway Widening and Curb/gutter, Sidewalks, RR Crossing Upgrades	1,500,000	Long	Capacity Needed / Modernization	
McCartney Road	Signal Peak Road	Eleven Mile Corner Road	3.00	Construction	3,000,000	Long	Capacity Needed	
Town of Eloy								
Phillips Rd	Sunshine Blvd	SR-87	1.9	Reconstruction	1,670,000	Short	Modernization	Design & construction costs
Toltec Rd	Pretzer Rd	Harmon Rd	2	Reconstruction	1,760,000	Short	Modernization	Design & construction costs
Houser Rd	Toltec Rd	Eleven Mile Corner Rd	2.9	Chip Seal	250,000	Mid	Preservation	
Sunshine Blvd	Frontier St	Battaglia Rd	0.95	Pulverize and Dbl Chip Seal	500,000	Mid	Preservation	
Shedd Rd	Estrella Rd	Tumbleweed Rd	1	Reconstruction	4,330,000	Long	Capacity Needed	
Pinal County								
North-South Corridor - Right-of-Way Phase	Kortsen-Kleck Rd	I-10	15.00	Right-of-Way	2,250,000	Short	Capacity Needed	
West Pinal Freeway	Maricopa/Pinal County Boundary	I-8	31.00	Right-of-Way	4,650,000	Short	Capacity Needed	
Kortsen Rd - Phase 1	Henness Rd	Hacienda Rd	2.00	Design	3,980,000	Short	Capacity Needed	
Thornton Rd	SR 84	I-8	3.50	Right-of-Way	525,000	Short	Capacity Needed	

PROJECT NAME	FROM	TO	PROJECT LENGTH (MILES)	PROJECT DESCRIPTION	ESTIMATED COST ($)	TIME FRAME - SHORT (1-5 YEARS), MID (6-10 YEARS), LONG (11-20 YEARS)	JUSTIFICATION (PRESERVATION, MODERNIZATION, OR CAPACITY NEEDED)	NOTES
Thornton Rd	SR 84	I-8	3.50	Design	1,715,000	Short	Capacity Needed	
Kortsen Rd - Phase 1	Henness Rd	Hacienda Rd	2.00	Right-of-Way	300,000	Short	Capacity Needed	
Peters Rd	Burris Rd	Thornton Rd	1.00	Right-of-Way	150,000	Short	Capacity Needed	
Peters Rd	Burris Rd	Thornton Rd	1.00	Design	490,000	Short	Capacity Needed	
Thornton Rd	SR 84	I-8	3.50	Construction	8,960,000	Short	Capacity Needed	
Peters Rd	Burris Rd	Thornton Rd	1.00	Construction	2,560,000	Short	Capacity Needed	
Kortsen Rd - Phase 1	Henness Rd	Hacienda Rd	2.00	Construction	17,120,000	Short	Capacity Needed	
Kortsen Rd (Kleck Rd) - Phase 2	Hacienda Rd	SR 87	9.00	Right-of-Way	1,350,000	Mid	Capacity Needed	
Kortsen Rd (Kleck Rd) - Phase 2	Hacienda Rd	SR 87	9.00	Design	4,410,000	Mid	Capacity Needed	
Kortsen Rd - Phase 3	SR 87	North-South Corridor	4.00	Right-of-Way	450,000	Mid	Capacity Needed	
Montgomery Rd	I-8	East-West Corridor	10.00	Right-of-Way	1,200,000	Mid	Capacity Needed	
East-West Corridor - East Phase	Montgomery Rd	I-10	8.00	Right-of-Way	1,200,000	Mid	Capacity Needed	
North-South Corridor - South Phase	SR 287	Kleck Rd	6.00	Right-of-Way	900,000	Mid	Capacity Needed	
Kortsen Rd - Phase 3	SR 87	North-South Corridor	4.00	Design	1,470,000	Mid	Capacity Needed	
Kortsen Rd (Kleck Rd) - Phase 2	Hacienda Rd	SR 87	9.00	Construction	23,040,000	Mid	Capacity Needed	

PROJECT NAME	FROM	TO	PROJECT LENGTH (MILES)	PROJECT DESCRIPTION	ESTIMATED COST ($)	TIME FRAME - SHORT (1-5 YEARS), MID (6-10 YEARS), LONG (11-20 YEARS)	JUSTIFICATION (PRESERVATION, MODERNIZATION, OR CAPACITY NEEDED)	NOTES
Montgomery Rd	I-8	East-West Corridor	10.00	Design	3,920,000	Mid	Capacity Needed	
East-West Corridor - East Phase	Montgomery Rd	I-10	8.00	Design	3,920,000	Mid	Capacity Needed	
Montgomery Rd	I-8	East-West Corridor	10.00	Construction	20,480,000	Long	Capacity Needed	
North-South Corridor - South Phase	SR 287	Kleck Rd	6.00	Design	6,780,000	Long	Capacity Needed	
Kortsen Rd - Phase 3	SR 87	North-South Corridor	4.00	Construction	7,680,000	Long	Capacity Needed	
East-West Corridor - East Phase	Montgomery Rd	I-10	8.00	Construction	20,480,000	Long	Capacity Needed	
East-West Corridor - West Phase	SR 347	Montgomery Rd	11.00	Right-of-Way	1,950,000	Long	Capacity Needed	
Selma Hwy	Thornton Rd	North-South Corridor	16.00	Right-of-Way	2,400,000	Long	Capacity Needed	
East-West Corridor - West Phase	SR 347	Montgomery Rd	11.00	Design	6,370,000	Long	Capacity Needed	
North South Corridor - South Phase	SR 287	Kleck Rd	6.00	Construction	30,720,000	Long	Capacity Needed	

Appendix E – Public Responses and Errata to the SCMPO RTP 2040 Update

Table of Contents:

- The listing of Demographic Maps from Appendix B was relocated from Appendix B to the Table of Contents.
- The listing of Crash Maps from Appendix C was added to the Table of Contents.
- Spaces were added between the figures on different chapters.
- Indention was added to the second line of Table 5.4.
- A listing for a new Appendix E – Public Responses and Errata to the SCMPO RTP 2040 Update was added to the Table of Contents.

Page ix:

- The word Regional was omitted from the description of the CART acronym. The word has been added.

Page x:

- The possible letter grades (A-F) was omitted from the description of the LOS acronym. The possible letter grades have been added.

Page 2:

- The phrase "and Pinal County" was added to the sentence "The Sun Corridor MPO region within the state of Arizona **and Pinal County** is shown in Figure 1.1."
- The sentence "A more detailed map of the Sun Corridor MPO region is shown in Figure 1.2." was deleted. The description of the figure is referred to, with description, on page 4.
- A line space was added between the first and second paragraphs of the text box.

Page 3:

- The map utilized on Figure 1.1 had incorrect road names. The map has been updated with the correct road names.

Page 4:

- The figure has been updated to show major roadways in Arizona as well as all Sun Corridor MPO cities.

Page 5:

- The sentence "The RTP does not replace individual jurisdictions' transportation master plans, circulation plans, capital improvement plans (CIPs), or modal plans such as bicycle, pedestrian, or transit plans." has been edited to read "The RTP does not replace individual jurisdictions' general plans, transportation master plans, specific circulation plans, capital improvement plans (CIPs), or modal plans such as bicycle, pedestrian, trail or transit plans."

Page 6:

- Figure 1.3 was edited to include a segment for City/County General and Comprehensive Plans.

Page 7:

- The sentence "The Sun Corridor RTP 2040 Update presents an RIS for expenditure of federal funds within the Sun Corridor MPO region." was edited to read "The Sun Corridor RTP 2040 Update presents an RIS for the expenditure of federal funds within the Sun Corridor MPO region."

Page 13:

- Added a new sentence at the bottom of the page "There were recommended edits requested by a participating agency member on February 7, 2020, which is provided in Appendix E, which also includes changes made to the RTP."

Page 16:

- The sentence "For the RTP, the planning process led to development of goals in six areas:" was edited to read "For the RTP, the planning process led to the development of goals in six areas:"
- The sentence "The 2020 target is to increase the percentage of bridges in in good, very good, or excellent condition." was edited to read "The 2020 target is to increase the percentage of bridges in good, very good, or excellent condition."

Page 19:

- The right margin for paragraph 1 was not aligned. The margin has been adjusted.
- The sentence "2018 travel demand forecast model data indicated that the region is meeting this objective." has been edited to read "Year 2018 travel demand forecast model data indicated that the region is meeting this objective."

Page 25:

- Deleted the sentence "These data will be available later in 2019, when MAG runs the air quality model that reflects the road improvements planned in the region." Added the sentence "SCMPO has committed to helping ADOT achieve these targets."
- In Table 3.13, fourth column, deleted column header reading "Sun Corridor MPO Region Meeting Adopted Targets?" and revised column header to read "Progress Meeting Target?" Deleted sentence reading "TBD from air quality modeling results available later in 2019" and replaced the text with "SCMPO commitment as reflected in 2020-2029 Transportation Improvement Program".

Page 27 and 28:

- The bulleted lists of proposed economic development projects on pages 27 and 28 were reformatted into a table - Table 4.1. The table lists numbers for each proposed development project which were mapped on Figure 4.1.
- The sentence "Nikola Motor Company is a 400-acre development that is anticipated to occur in the Inland Port Arizona located within the city limits of Coolidge." has been edited to read "Nikola Motor Company is a 400-acre development that is anticipated to occur in the Inland Port Arizona located within the city limits of Coolidge and adjacent to Eloy."

Page 29:

- The title of Figure 4.1, "Economic Development Locations" has been edited to read "Proposed Major Economic Development Locations."
- Figure 4.1 has been edited to include all proposed economic development locations listed in Table 4.1.

Page 31:

- The current population estimate for Figure 5.1 was incorrectly identified as 2017. It has been edited to 2018.

Page 50-51:

- Table 6.2 uses multiple names for Frontier Street (Old SR-84). They have all been edited to Frontier Street (Old SR-84).
- Portions of Sunland Gin Road and Battaglia Drive are within portions of Unincorporated Pinal County. Table 6.2 has been edited to reflect this.

Page 55:

- Table 6.3 has been edited to include a column for Jurisdiction.

Page 73:

- The paragraph "Eloy has sidewalks on several residential streets as well as on segments of Main Street. Since 2015 Eloy has constructed sidewalks on C Street and Stuart Boulevard." has been edited to read "Eloy has sidewalks on many of its residential streets in the downtown area. Since 2015, Eloy has replaced sidewalks on C Street and Stuart Boulevard."
- Added new sentence "There is a bike lane on Shedd Road, between Giles Road and N. Estrella Road." Removed reference to "Shedd Road and" in the following sentence, so it reads "Sections of Sunshine Boulevard have a striped bicycle lane."

Page 74:

- The sentence "In November 2019, Pinal County will be opening the CAP Recreation Trail/Nona Road Trailhead." has been edited to read "In 2019, Pinal County opened the CAP Recreational Trail/Nona Road Trailhead."

Page 75:

- A new graphic for U.S. Bicycle Route 90 was inserted on this page which shows more details of the location of the route within the region.

Page 78:

- The sentence "One example, Skydive Arizona, which has grown into one of the busiest skydiving centers in the country." has been edited to read "One example, Sky Dive Arizona, which has grown into one of the busiest skydiving centers in the country."
- The sentence "This specialty aviation enterprise conducts over 150,000 jumps per year and served as host to the FAI Parachuting World Cup in October 2019." has been edited to read "This specialty aviation enterprise conducts over 150,000 jumps per year and served as host to the Federation Aeronatique Internationale Parachuting World Cup in October 2019."

Page 79:

- The sentence "An Airport Masterplan was prepared in 2013." has been edited to read "An approved Airport Masterplan was prepared in 2013."

Page 87:

- Inserted new sentence "The existing Pinal County Access Management Guidelines may serve as a starting point."

Page 90:

- Inserted new sentence "Eloy has a section on Parks, Trails, and Open Space in the General Plan."

Page 91:

- The sentence "it is recommended that all new roadway projects include, to the extent feasible and practical, bicycle and pedestrian facilities" has been edited to read "It is recommended that all new roadway projects include adequate right-of-way dedication to incorporate bicycle and pedestrian facilities."

Page 97:

- Deleted second bullet item reading "ADOT has taken steps to address the threat of wrong-way drivers, including installation of a first of its kind thermal camera detection system pilot project on I1-7 in Phoenix. Additionally, larger and lowered "wrong Way" and "Do Not Enter" signs have been installed on hundreds of freeway ramps and overpasses in Phoenix and other rural state highways."

Page 100:

- The sentence "It is recommended that the Sun Corridor MPO jurisdictions collaboratively develop a regional truck route and freight network." has been edited to read "It is recommended that the Sun Corridor MPO jurisdictions collaboratively develop an SCMPO Regional Truck Route and Freight Network Plan."

Page 101:

- Added sentence, "An example is the Truck Route Plan developed in the Casa Grande Small Area Transportation Study (2007), shown in **Figure 7.7**."
- A map showing the 2030 Truck Route Plan, excerpted from the Casa Grande Small Area Transportation Study, was added to the report as Figure 7.7.

Page 106:

- Added new sentence "A map of the nonattainment areas is provided in **Figure 9.1** on page 122."

Page 107:

- The Strategic Project "I-10; SR 202 – SR 387 Widening" was edited to read "I-10 Widening from SR 202 to SR 387."
- The sub header "Pinal Regional Transportation Authority Plan" was edited to read "Pinal Regional Transportation Authority Plan Projects".
- Under the sub header "Pinal Regional Transportation Authority Plan Projects," the following sentences were added "The PRTA recognizes that not all communities within Pinal County directly benefit from the list of voter-approved projects. Therefore, the City of Eloy (as well as the towns of Kearney, Mammoth, and Superior) will receive the greater of 1% of the Transportation Excise Tax or $300,000 per year to be utilized on local roadway development."

Page 111:

- The sentence "A study of a new high corridor in Pinal County that would improve regional connectivity, provide an additional way of getting around a growing area of the Sun Corridor, and address current and future transportation needs in a growing area is nearing completion." has been edited to read "A study of a new highway corridor in Pinal County that would improve regional connectivity, provide additional access between the East Valley, SCMPO communities, and Tucson, and address current and future transportation needs in a growing area is nearing completion."
- The sentence "The North-South Corridor would connect Apache Junction to Eloy." has been edited to read "The North-South Corridor would connect US 60 to I-10."

- The sentence “The project scope also incorporates the extension of SR 24 from Ironwood Drive to the North-South Corridor” has been edited to read “The project scope also incorporates the extension of SR 24 from Ironwood Drive to the North-South Corridor, that provides direct access to Phoenix-Mesa Gateway Airport. "

Page 113:

- The sentence “ADOT, in collaboration with MAG and the Gila River Indian Community, is planning a design concept report and environmental study on I-10, between Queen Creek Road and State Route 387.” has been edited to read “ADOT, in collaboration with MAG and the Gila River Indian Community, has begun the Design Concept Report and environmental study on I-10, between Queen Creek Road and State Route 387. The project is studying the possibility of adding travel lanes in each direction and improvements to existing interchanges. The printed 2020-2024 ADOT Five Year Program identifies $20 million for Final DCR, Scoping and Environmental Assessment in FY 2020 and $50 million for Construction in FY 2023."

Page 120:

- The sentence “The existing Pinal County Access Management Guidelines may serve as a starting point.” has been added to the Recommendation for Access Management in Table 8.9.

Page 121:

- The Recommendation for Bicycle and Pedestrian Facilities in Table 8.9 “All new roadway projects include, to the extent feasible and practical, bicycle and pedestrian facilities.” has been edited to read “All new roadway projects include adequate right-of-way dedication to incorporate bicycle and pedestrian facilities.”
- The Recommendation for Designated Truck Routes in Table 8.9 “It is recommended that the Sun Corridor MPO jurisdictions collaboratively develop a regional truck route and freight network.” has been edited to read “It is recommended that the Sun Corridor MPO jurisdictions collaboratively develop an SCMPO Regional Truck Route and Freight Network Plan.”

Page 126:

- The Table “Sun Corridor MPO Regional Transportation Plan Regulatory Framework Compliance Checklist” was moved to directly follow the Appendix A Title Sheet.

Page 127:

- Added the phrase “and Appendix E” to the row 4, column 4, so it reads “Chapter 2 and Appendix E”.

Page 130:

- The list of Demographic Maps has been moved to the Table of Contents, and the figures were shifted to begin on the Appendix B page.

Page 131:

- A duplicate 2017 Disability Population Map was replaced with 2017 Poverty Population Map.

Page 144:

- Crash maps were shifted to start after the Appendix C Title.

Page 148:

- The Projects of Opportunity table was shifted to begin immediately following the Appendix D title.

Page 153:

- Added Appendix E – Public responses and Errata to the SCMPO RTP 2040 Update.

Multiple Locations:

- Information sources were added to tables on the following pages: 11, 12, 17, 18, 20, 21, 22, 24, 25, 28, 33, 48, 51, 55, 59, 61, 63, 64, 96,105,114,115,116, 118,121.