

# **North-South Segment 1, Tier 2 Environmental Impact Statement and Design Concept Report**

## **Preliminary Purpose and Need**

---

**Arizona Department of Transportation  
Project # 999 PN 000 F0491**

**April 11, 2025**

# Contents

<b>1</b>	<b>Introduction.....</b>	<b>1</b>
<b>2</b>	<b>Decision to Develop the North-South Corridor .....</b>	<b>3</b>
2.1	Tier 1 Environmental Impact Statement and Record of Decision.....	3
2.2	Implementation of the North-South Corridor.....	3
2.3	Funding Status .....	3
<b>3</b>	<b>Relationship to Other Transportation Plans and Projects .....</b>	<b>4</b>
3.1	General and Regional Plans.....	4
3.2	Corridor and Transportation Studies .....	5
<b>4</b>	<b>Purpose and Need .....</b>	<b>8</b>
4.1	Tier 1 Purpose and Need .....	8
4.2	Needs Assessment for Segment 1 .....	8
4.2.1	Existing and Projected Land Use .....	8
4.2.2	Population and Employment Growth.....	10
4.2.3	Transportation System Connectivity.....	14
4.2.4	Travel Demand.....	14
4.2.5	Summary of Segment 1 Purpose and Need .....	18
4.3	Public and Agency Input.....	19
4.4	Other Desired Outcomes of the Proposed Action.....	19
<b>5</b>	<b>References .....</b>	<b>21</b>

## List of Figures

Figure 1. State Location Map.....	1
Figure 2. Project Vicinity Map.....	2
Figure 3. Select Transportation Improvement Studies.....	7
Figure 4. Existing and Future Land Use in the Study Area.....	9
Figure 5. Population per Square Mile, 2020 and 2050.....	12
Figure 6. Employment per Square Mile, 2020 and 2050.....	13
Figure 7. Level of Service Flow Conditions.....	15
Figure 8. Level of Service, 2023 and 2050 Future.....	16
Figure 9. Miles of Congested Roads (Daily), 2023 and 2050 (No Build).....	17
Figure 10. Vehicle Hours Traveled (Daily), 2023 and 2050 (No Build).....	17
Figure 11. Vehicle Miles Traveled (Daily), 2023 and 2050 (No Build).....	17

## List of Tables

Table 1. Population and Employment Projections, 2020 to 2050.....	10
Table 2. Peak Period Travel Times between City Pairs, 2023 and 2050 (No Build Alternative).....	18

# 1 Introduction

The Arizona Department of Transportation (ADOT) is performing engineering and environmental studies as part of the North-South Segment 1 Tier 2 Environmental Impact Statement (EIS) and Design Concept Report (DCR), U.S. Highway 60 (US 60) to Arizona Farms Road (State Route [SR] 505). Completed in 2021, the Tier 1 EIS process established the 55-mile-long, 1,500-foot-wide Selected Corridor Alternative between US 60 and Interstate 10 (I-10). The North-South Segment 1 EIS/DCR will identify an approximately 20-mile-long, 400-foot-wide highway alignment between US 60 and Arizona Farms Road in Pinal County, Arizona (**Figure 1** and **Figure 2**).

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by ADOT pursuant to 23 U.S. Code 327 and a Memorandum of Understanding dated June 25, 2024, and executed by the Federal Highway Administration (FHWA) and ADOT.

The study area shown in **Figure 2** was identified to support the preliminary purpose and need refinement and was used to revisit population, employment, and travel demand model data. As the Study moves forward, a different study area may be defined for use in the EIS evaluation process. The northern, eastern, and western boundaries are the same as the Tier 1 study area, providing a consistent geographic framework for revisiting the transportation data used to refine purpose and need. The southern boundary of the study area is SR 287. The study area contains State Trust lands, federal lands managed by the Bureau of Land Management and Bureau of Reclamation (BOR), and private lands. The Central Arizona Water Conservation District manages the Central Arizona Project (CAP) Canal, which crosses the study corridor. The study area also includes federally withdrawn lands and power lines managed by the Salt River Project Improvement and Power District (SRP) and the Magma Arizona Railroad, owned by Resolution Copper.

Cooperating agencies for this Study are the U.S. Army Corps of Engineers, BOR, U.S. Fish and Wildlife Service, U.S. Environmental Protection Agency, Arizona Game and Fish Department, Arizona State Land Department, and Pinal County. Participating agencies are the Federal Railroad Administration (FRA), Arizona State Historic Preservation Office, Arizona State Parks, Maricopa Association of Governments (MAG), Maricopa County Department of Transportation, City of Apache Junction, Gila River Indian Community (GRIC), and San Carlos Apache Tribe.

**Figure 1. State Location Map**

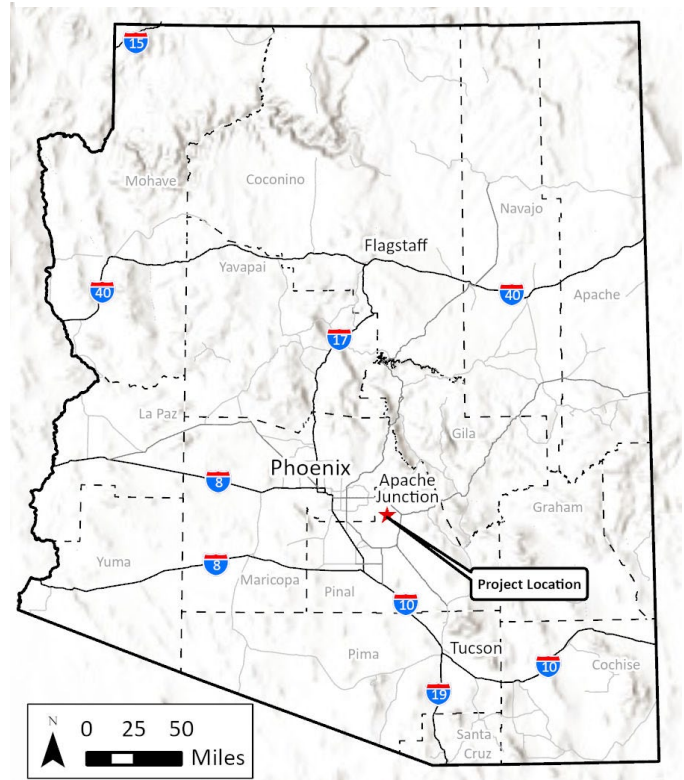
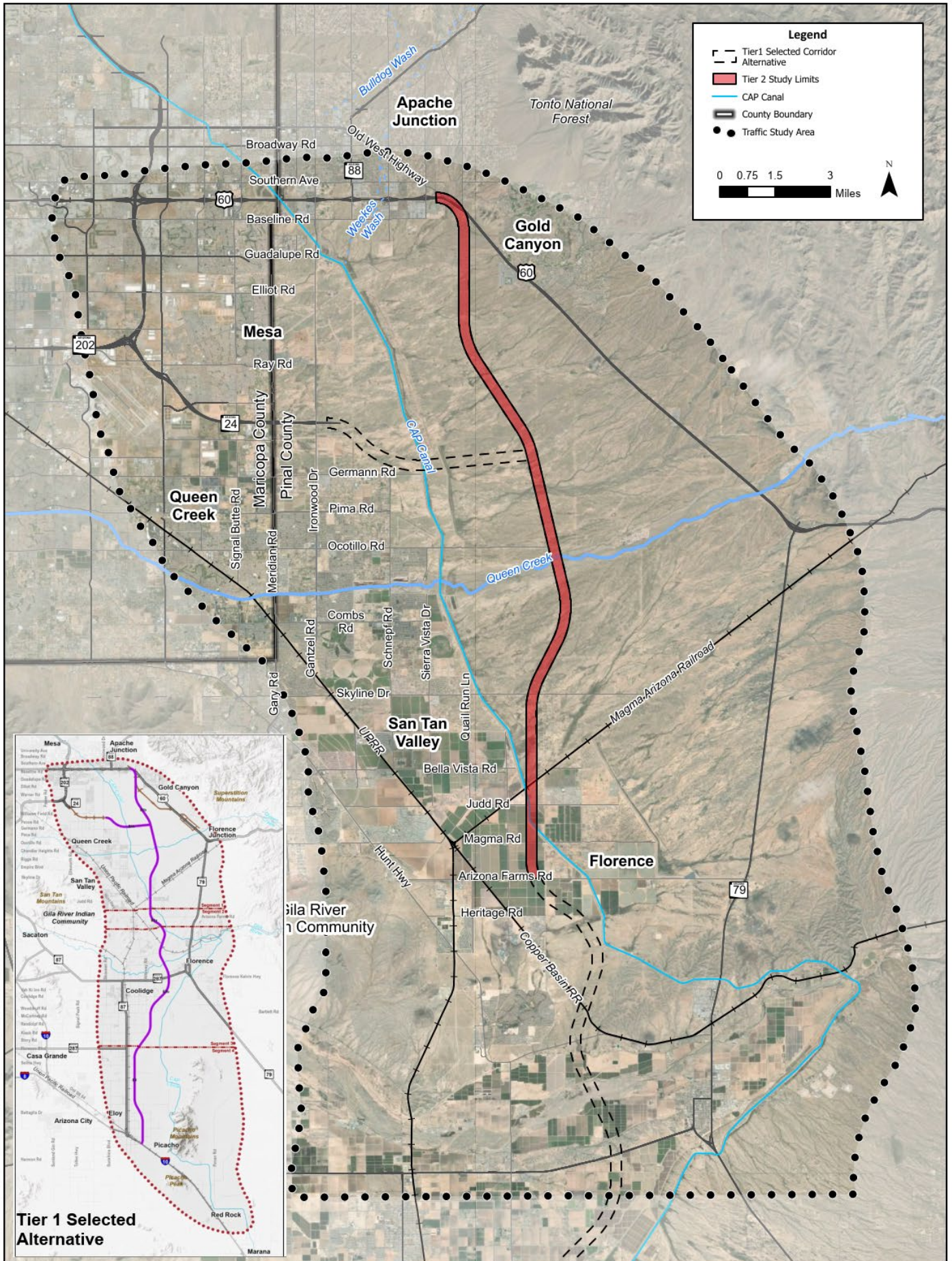


Figure 2. Project Vicinity Map



## 2 Decision to Develop the North-South Corridor

---

### 2.1 Tier 1 Environmental Impact Statement and Record of Decision

This section contains a summary of the Tier 1 EIS study process, including the purpose and need. Further details and Tier 1 study documents can be found at <https://azdot.gov/planning/transportation-studies/north-south-corridor-study/north-south-corridor-study-proposed-new>.

The North-South Corridor Study began as a project-level EIS in 2010 and was converted to a Tier 1 EIS in 2016. The Tier 1 EIS process included the publication and public review of a Draft Tier 1 EIS in 2019 that identified a 1,500-foot-wide Preferred Corridor Alternative as a build alternative. A combined Final Tier 1 EIS and Record of Decision (ROD) was published in 2021. The Selected Corridor Alternative presented in the ROD was the same as the Preferred Corridor Alternative in the Draft Tier 1 EIS. The Tier 1 Selected Alternative is shown in **Figure 2**. The ROD included potential mitigation strategies to avoid, minimize, or mitigation impacts to be considered during the Tier 2 study process.

### 2.2 Implementation of the North-South Corridor

ADOT is moving forward with the North-South Corridor to be developed as needed and available funding dictate. Subsequent Tier 2 studies will study smaller sections of the 55-mile corridor to address site-specific details and determine the lane configuration. The Tier 1 ROD included an Implementation Plan that proposed Sections of Independent Utility (SIU). Each SIU was found to have independent utility and logical termini and could go through Tier 2 studies independently. This Segment 1 Study is within SIU A and B.

### 2.3 Funding Status

There is currently no funding for final design, right-of-way (ROW) acquisition, or construction of the North-South Corridor. While the 2017 Pinal County Regional Transportation Plan (RTP) in place at the time of the Tier 1 ROD identified funding for ROW acquisition and construction of portions of the North-South Corridor, the sales tax supporting the plan has subsequently been found invalid by the courts, and the RTP has not been implemented. However, in 2022 and 2023, the Arizona Legislature approved funding from the state general fund to conduct the Segment 1 Study for the North-South Corridor in Pinal County.

### 3 Relationship to Other Transportation Plans and Projects

---

As an area of active and future growth, there are multiple recent and ongoing plans and projects in the region surrounding the North-South Corridor. Identifying these plans and projects is important to understand the short- and long-term goals of agencies and municipalities with planning jurisdiction in the study area. MAG, Pinal County, Apache Junction, Florence, and Queen Creek are all planning for growth and development throughout the study area and the need to address the congestion, mobility, and transportation access. Coordinating transportation planning efforts improves outcomes for regional and local mobility.

General and regional plans described in Section 3.1 include those prepared by the City of Apache Junction, Town of Florence, City of Mesa, Town of Queen Creek, Pinal County, Maricopa County, and the regional planning organization MAG. A majority of the land within the study area is currently vacant, undeveloped State Trust land managed by the Arizona State Land Department. The eventual development of State Trust land is subject to planning and zoning regulations of the local jurisdiction, and the long-term outlook for undeveloped State Trust land in the study area is best understood by consulting the city or town's General Plan or Pinal County's Comprehensive Plan (ASLD 2025).

#### 3.1 General and Regional Plans

**MAG Regional Transportation Plan (2021)**—MOMENTUM is MAG's RTP that funds regional multimodal transportation over a 20-year period. The plan includes commitments to large capital projects, such as new freeway and high-capacity transit infrastructure, as well as investments in program areas such as safety, air quality, and nonmotorized infrastructure. In accordance with federal requirements that metropolitan planning areas (MPAs) must encompass the contiguous area expected to become urbanized within a 20-year forecast, the MAG MPA includes the portion of Pinal County within which the North-South Corridor is located.

The MAG RTP investigated the potential future congestion of existing transportation facilities if no investment was made. It was anticipated that multiple roadways within the vicinity of the North-South Corridor would experience a failing level of service (LOS) by 2025. By 2050 this situation would become dire, with nearly all roadways experiencing congestion without continued investment. The North-South Corridor is included as an illustrative project (i.e., a project that could potentially be included in the RTP if additional resources beyond the reasonably available financial resources identified in the plan are available). Potential investment strategies identified include ADOT funds (FHWA formula funding and Highway User Revenue Fund revenues), federal discretionary funds (competitive grants or congressional authorizations), and the Pinal Regional Transportation Authority half-cent sales tax (MAG 2025).

**Pinal Regional Transportation Plan**—At the time of the Tier 1 EIS ROD in August 2021, the legality of the half-cent sales tax supporting the Pinal RTP was being challenged and funding held in reserve until such time as the issue would be resolved in the courts. The Arizona Supreme Court ruled the structure of the tax invalid in March 2022, and the RTP has not been implemented. In November 2024, the Pinal Regional Transportation Authority took action to pursue development of a long-range transportation framework study in lieu of continuing to work on a new RTP. The regional framework study will identify

the county's significant transportation needs with an emphasis on funding strategies, regional corridors, and their connection to the arterial road system (Pinal RTA 2024).

**Pinal County Comprehensive Plan Update (2021)**—The North-South Corridor is listed as a proposed freeway connecting US 60 to I-10. The plan lists a major east to west high-capacity corridor connecting eastern Maricopa County to the north-to-south freeway. Although a specific alignment for the North-South Corridor is not shown in the plan, future land use in the vicinity of the study area is shown to be developed with residential and employment land uses. A high-intensity activity center is shown on the anticipated location of the SR 24 extension; another is shown at the location of the SR 24 and North-South Corridor junction. Movement arrows are shown between employment areas and high-intensity activity centers approximately at the alignment of Segment 1, indicating the need for the North-South Corridor to support the Land Use Plan.

**Queen Creek General Plan (2018)**—The Queen Creek General Plan shows a number of alternatives for the North-South Corridor and SR 24 extension. The plan identifies these facilities as imperative to expand accessibility to the town and alleviate congestion caused by regional population growth. SR 24 would link the town with the Superstition Vistas Planning Area to the east. The North-South Corridor would expand regional connectivity between Phoenix and Tucson.

**Apache Junction General Plan 2050 (2020)**—The Apache Junction General Plan lists the North-South Corridor and the SR 24 extension as being included in the Pinal County RTP. The recommended street network, active transportation network, and existing transportation system plans show the North-South Corridor and SR 24 extension alternatives that were being considered at the time.

**Florence General Plan (2022)**—The North-South Corridor is of significant focus in the Florence General Plan. The plan's Land Use Policy 13 is specifically to maximize potential for properties within the vicinity of the North-South Corridor. Four of the six identified growth areas directly rely on the North-South Corridor, and a fifth area is directly adjacent to the corridor. The sixth growth area is itself the North-South Corridor. The north employment growth area and the Arizona Farms Corridor are within or adjacent to Segment 1. The Florence General Plan states that the development of the full North-South Corridor with planned commuter rail would forever change the town. The full corridor would solve many of the congestion and commuting challenges faced by Florence and make it one of the most connected rural towns in Arizona.

## 3.2 Corridor and Transportation Studies

**Figure 3** at the end of this section shows the location of select transportation improvement studies in relation to the North-South Corridor.

**Superstition Vistas Multimodal Transportation Planning Study (SVMTPS) (Ongoing)**—The SVMTPS study area extends from approximately the Loop 202 Highway (SR 202L) to the west, Arizona Farms Road to the south, SR 79 and US 60 to the east, and Southern Avenue to the north. The Segment 1 study area travels directly through the middle of the SVMTPS study area and is identified as the most impactful new roadway within the SVMTPS study area. The MAG SVMTPS study team and ADOT's North-South Segment 1 Study team are closely coordinating to establish consistency in the underlying planning assumptions



and so that SVMTPS recommendations are considered as North-South Segment 1 moves forward. A final report of SVMTPS study recommendations and an implementation/funding plan are anticipated in summer 2025 (MAG 2025).

**State Route 24 (Ongoing)**—In July 2024, ADOT began the design phase for improvements to SR 24 between SR 202L and Ironwood Drive. The project would widen the existing SR 24 roadway between SR 202L and Ironwood Drive into a full freeway with three to four general purpose lanes in each direction, overpass bridges at the crossroads, and new connector ramps to SR 202L. The project is included in the Regional Strategic Transportation Infrastructure Investment Plan and is funded in part through Proposition 479, a dedicated half-cent sales tax for transportation approved by Maricopa County voters in 2024. Public meetings to present the final design plans are expected in summer 2025 (ADOT 2025a).

Pinal County is performing a study for future segments of the SR 24 corridor from Ironwood Drive to US 60. The county will be the lead agency for a study to evaluate this extension, with participation by ADOT. The extension is not currently funded so there is no time frame for when SR 24 might be extended east (Pinal County 2025).

**Central Arizona Parkway (CAZP) (Ongoing)**—Pinal County is currently conducting a planning study to identify an initial location for a new north-south roadway through Pinal County between the future SR 24 extension and Arizona Farms Road. The CAZP is intended to address local traffic and accommodate growing populations in the San Tan Valley and Queen Creek communities. A draft DCR was released in January 2025 for planning purposes. The recommended corridor in the draft DCR is west of the CAP Canal. Between the SR 24 extension and Skyline Drive, the CAZP is recommended to be constructed as a fully access-controlled highway. Due to space constraints, a narrower parkway configuration is recommended between Skyline Drive and Arizona Farms Road. The future location of the North-South Corridor is cited as one of the key factors considered in identifying the general location of the parkway. The final design phase, construction phase, utility relocations, and ROW acquisition associated with the project improvements are not currently funded (Pinal County 2025).

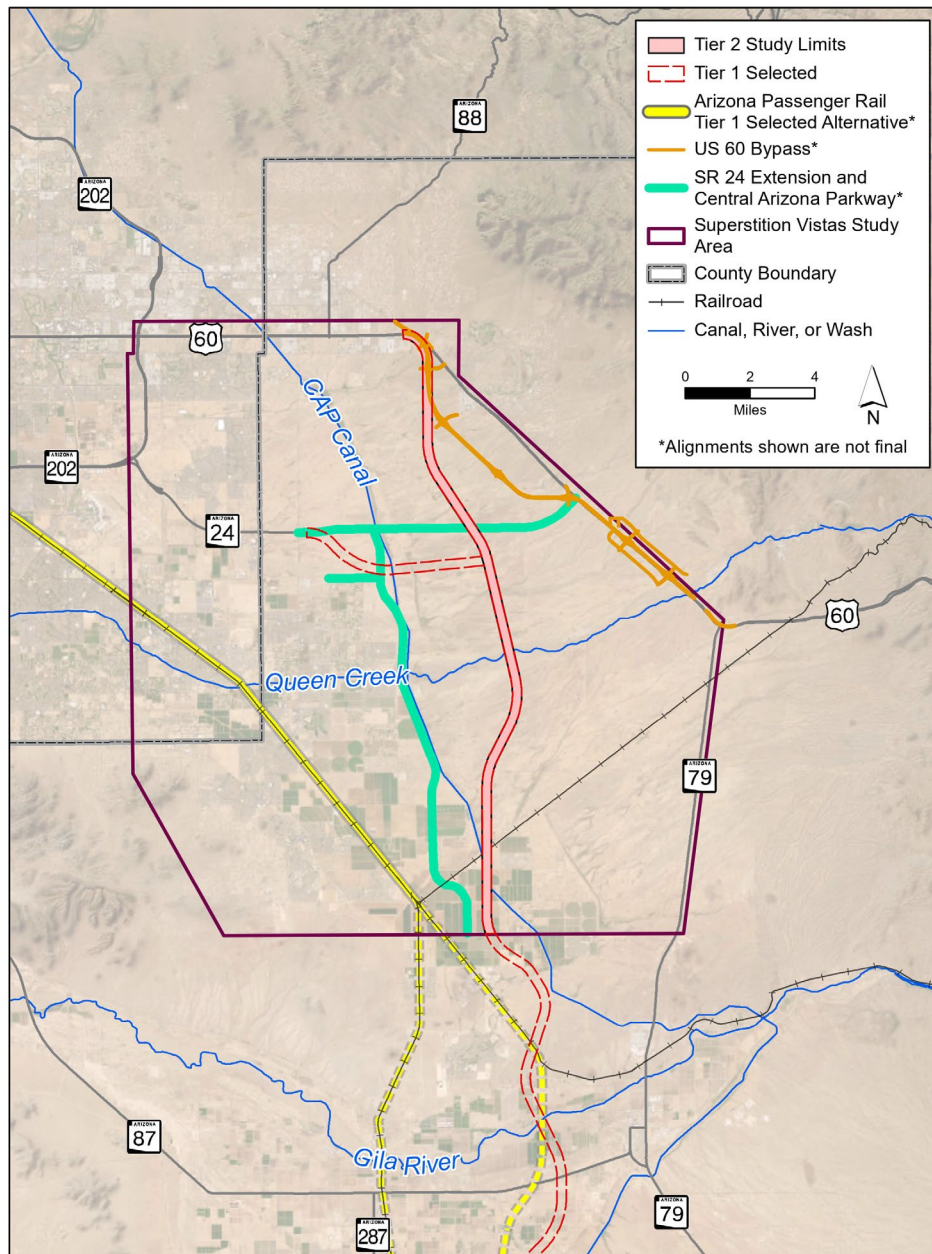
**US 60 Alignment Study, Superstition Freeway to Florence Junction (2012)**—In 2012, ADOT released a Final DCR for US 60 re-alignment and improvement from approximately Mountain View Road to Florence Junction. The proposed project would alleviate traffic congestion in Gold Canyon from ordinary highway traffic and special event traffic from the Renaissance Festival grounds. The DCR proposes constructing a new highway alignment approximately 1.5 miles southwest of US 60 from Mountain View Road to Milepost 206. The existing US 60 alignment would become an extension of the Old West Highway with access to the new highway only at planned intersections. The project has not been constructed, ROW for the project has never been acquired, and the project is not listed in the 2025 to 2029 ADOT 5-Year Program.

**Phoenix-Tucson Intercity Passenger Rail Corridor Study (Ongoing)**—In December 2024, ADOT and the FRA announced the beginning of the Phoenix-Tucson Intercity Passenger Rail Corridor Study. This study will prepare a Service Development Plan for proposed passenger rail service along a 158-mile corridor between Phoenix and Tucson. The route under study was established in a 2016 Tier 1 EIS and ROD. The study will include detailed analysis of engineering, environmental factors, and operational

conditions. The project is currently in Step 1 of the FRA Corridor Identification and Development Program (ADOT 2025b).

**SR 287/SR 87 Corridor Profile Study (Ongoing)**—ADOT is currently conducting a study of SR 287 between SR 87 and SR 79 and SR 87 between I-10 and SR 587. The purpose of the study is to conduct performance-based planning to identify areas of need and efficiently use available funding to provide an efficient transportation network. The study will inventory past improvement recommendations, define corridor goals and objectives, identify specific solutions that can provide quantifiable benefits based on performance, and prioritize solutions for future implementation.

**Figure 3. Select Transportation Improvement Studies**



## 4 Purpose and Need

---

### 4.1 Tier 1 Purpose and Need

The purpose and need of the North-South Corridor between US 60 and I-10 was established during the Tier 1 EIS study process. A summary of the characteristics and transportation deficiencies that drive the need for a continuous north-to-south transportation facility between US 60 and I-10 is listed below:

- Insufficient infrastructure to accommodate projected population and employment growth and to support local, regional, and statewide planning efforts.
- Inadequate roadway capacity to meet future demand.
- Lack of transportation system connectivity and need to enhance system linkages.
- Limited alternatives to avoid congestion on I-10.

As defined in the Tier 1 EIS, the purpose of the North-South Corridor is to provide a continuous, access-controlled north-to-south transportation corridor that would:

- Enhance the transportation network to accommodate existing and future populations.
- Improve access to future activity centers.
- Improve regional mobility.
- Provide an alternative to avoid congestion on I-10.
- Improve north-to-south connectivity.
- Integrate the region's transportation network.

### 4.2 Needs Assessment for Segment 1

ADOT has identified the following study area characteristics and transportation deficiencies as driving the need for Segment 1 between US 60 and Arizona Farms Road:

- Existing and projected land use
- Population and employment growth
- Transportation system connectivity
- Travel demand

The Tier 1 study evaluated characteristics and deficiencies driving the need for a continuous transportation facility between US 60 and I-10. This approximately 22-mile-long segment of the North-South Corridor is an essential component of the overall approximately 55-mile North-South Corridor. As the northern terminus of the North-South Corridor, it would provide 22 miles of additional north-to-south capacity and a connection to US 60, but Segment 1 would not connect to I-10 in Pinal County.

#### 4.2.1 Existing and Projected Land Use

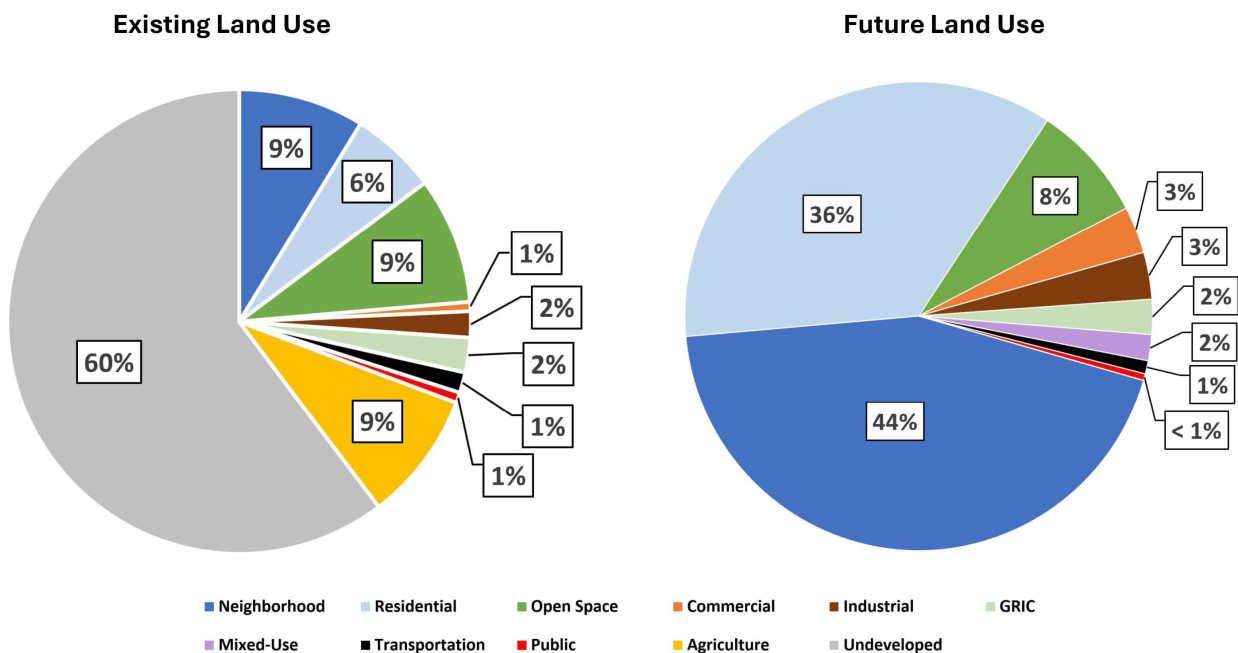
The study area includes the incorporated areas of Apache Junction, Florence, Queen Creek, and unincorporated Pinal County. As shown in **Figure 4**, 60 percent of the study area is comprised of undeveloped land (primarily State Trust land), 9 percent open space primarily consisting of the CAP Canal and other small parks, 9 percent dense neighborhoods primarily located in the incorporated

municipalities, 9 percent agricultural lands, and 6 percent rural residential land. The remaining 7 percent is made up of 2 percent industrial purposes such as solar energy production, waste sites, or military; 2 percent lands comprised of the GRIC; 1 percent public uses such as schools or hospitals; 1 percent commercial businesses; and 1 percent existing roads or railroads. The MAG database does not include the mixed-use designation. However, land uses listed as neighborhood, residential, or commercial likely contain a portion of land that could be categorized as mixed use.

Information on future land use is based on the Apache Junction General Plan 2020 to 2050 (Apache Junction 2020), Florence General Plan (Florence 2022), Mesa 2040 General Plan (Mesa 2014), Queen Creek General Plan (Queen Creek 2018), and Pinal County Comprehensive Plan (Pinal County 2021) (see **Section 3. Relationship to Other Transportation Plans and Projects**). Collectively, these general and comprehensive plans demonstrate that local jurisdictions are planning for development throughout the study area, with little remaining undeveloped land. Future development is primarily in neighborhoods and residential, increasing from 15 percent of the study area under existing conditions to 80 percent of the study area land use in the future. These planning documents represent the development goals of the municipality and do not give a definitive date for when full build-out would occur.

The land use plans used to determine future conditions all include recommendations for a major north-to-south corridor. Florence and Apache Junction explicitly show the North-South Corridor from the Tier 1 EIS. Improvements to the transportation network will be needed to support local plans.

**Figure 4. Existing and Future Land Use in the Study Area**



Source: MAG Existing Land Use for Maricopa and Pinal Counties 2022 geospatial database (Apache Junction 2020; Florence 2022; MAG 2022; Mesa 2014; Pinal County 2021; and Queen Creek 2018).

### 4.2.2 Population and Employment Growth

The Sun Corridor Region (Phoenix, Tucson, and cities in Pinal County) has long been a focus area for its future growth potential and has seen substantial growth since the post-World War II era when the area transitioned from the “old” Arizona to the megapolitan location it is growing towards today (Morrison Institute of Public Policy 2008). Between 2008 and 2023, Arizona had the 10th highest growth rate in the U.S. Population growth is projected to increase from 7.6 million people in 2024 to between 9.2 and 12.1 million by 2060 (Arches Arizona Research Center 2024).

Population and employment growth examined for the Tier 1 EIS demonstrated growth in Pinal County through 2040 was expected to outpace growth in Maricopa County and Pima County. Updated population and employment projections were collected for 2020 and 2050 (MAG 2023) and are summarized in **Table 1**. Socioeconomic projections are available at the traffic analysis zone (TAZ) level, which divides MPAs into smaller geographies based on major roads and landmarks. Population and employment density is presented in **Figure 5** and **Figure 6**, respectively.

**Table 1. Population and Employment Projections, 2020 to 2050**

Geographic Area	2020	2050	Percent Change
<b>Population</b>			
Study Area <sup>1</sup>	325,759	620,375	90%
Apache Junction <sup>2</sup>	59,426	112,471	89%
Florence <sup>2</sup>	68,370	181,468	165%
Mesa <sup>2</sup>	550,342	645,471	17%
Queen Creek <sup>2</sup>	73,423	156,273	113%
Maricopa County <sup>3</sup>	4,436,697	6,186,126	39%
Pinal County <sup>3</sup>	428,220	994,187	132%
<b>Employment</b>			
Study Area <sup>1</sup>	69,392	181,961	162%
Apache Junction <sup>2</sup>	8,476	24,046	184%
Florence <sup>2</sup>	9,184	25,281	175%
Mesa <sup>2</sup>	197,421	308,902	56%
Queen Creek <sup>2</sup>	21,191	39,944	88%
Maricopa County <sup>3</sup>	2,139,150	3,272,995	53%
Pinal County <sup>3</sup>	66,620	189,659	185%

1- TAZs within the Traffic Analysis Area shown in **Figure 6**.

2 - TAZs within with the Municipal Planning Boundary

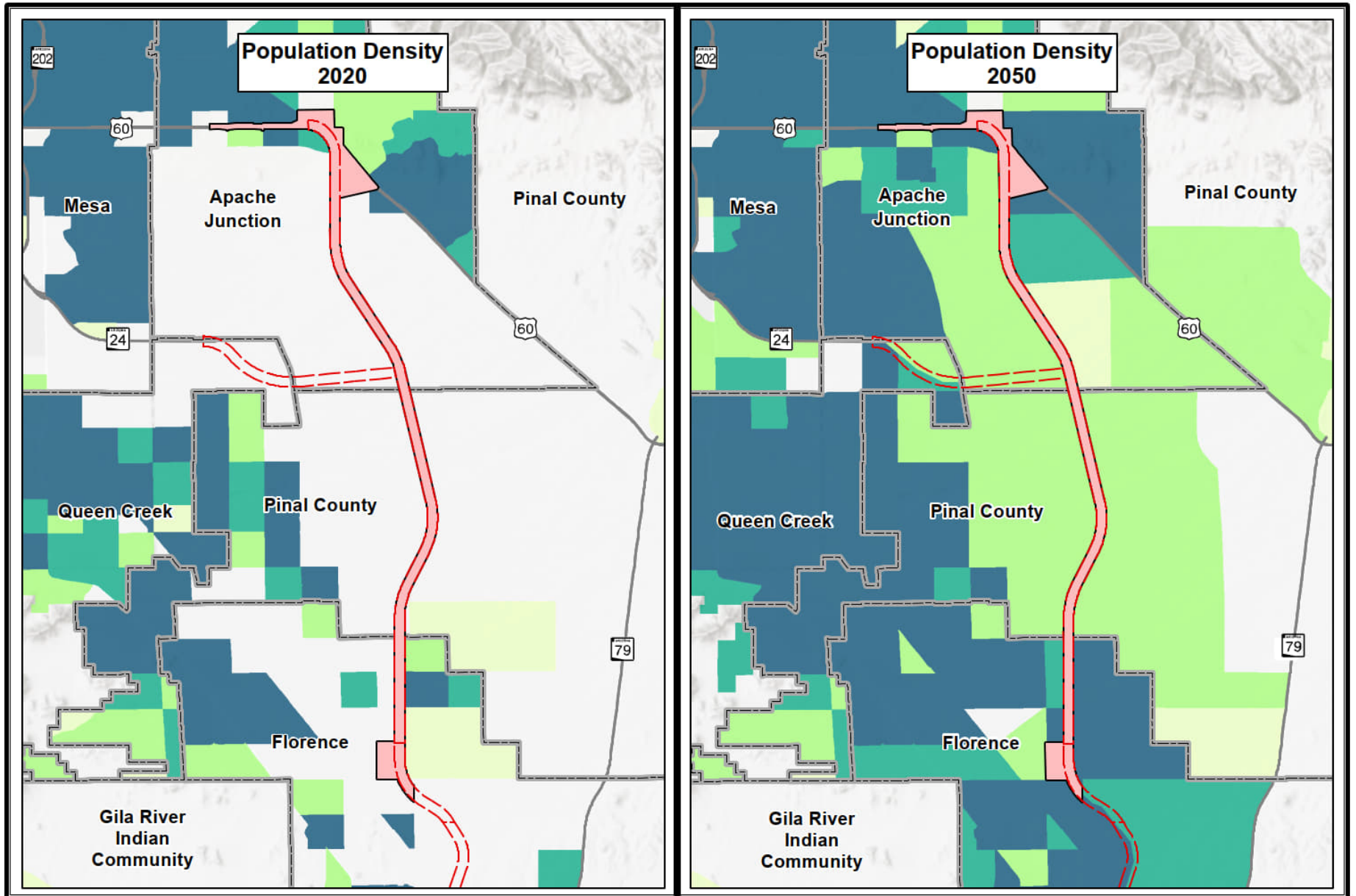
3 - TAZs within the County Boundary

Source: MAG 2023




Population and employment growth trends surrounding the North-South Corridor are consistent with those identified during the Tier 1 EIS process. Population growth in Pinal County is expected to outpace that of Maricopa County, and the growth rate in Florence specifically is projected to exceed Pinal County. By 2050, an additional 566,000 people are projected to live in Pinal County, and over half of Pinal County's additional population is projected to live within the study area (294,000). Apache Junction and Queen Creek would also see substantial population growth.

Employment growth in Pinal County is also expected to exceed Maricopa County's employment growth. By 2050, approximately 112,000 additional jobs are projected within the study area. The largest employment growth in the study area is projected in Apache Junction (approximately 15,600 additional jobs), with similar employment growth in Florence (approximately 16,100 additional jobs) and Queen Creek (approximately 18,800 additional jobs).

Figure 5. Population per Square Mile, 2020 and 2050



**Legend**

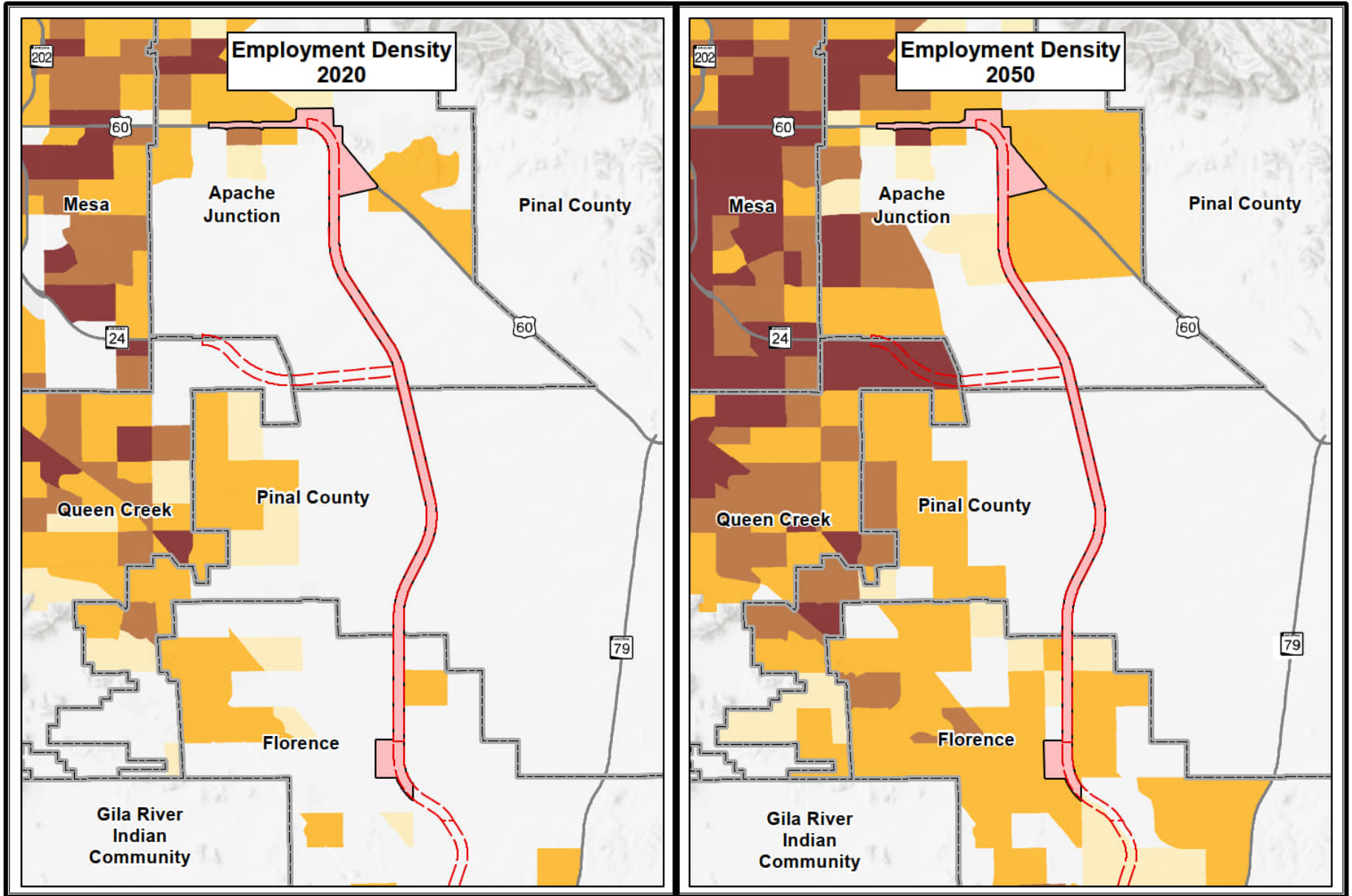
-  Tier 1 Selected Alternative
-  Tier 2 Study Corridor
-  Municipal Planning Boundary

**Population Density (per square mile)**




- |   |  |
|---|--|
|  Less than 50 (no color) |  501 - 1,000        |
|  50 - 100                |  Greater than 1,000 |
|  101 - 500               |  |



Figure 6. Employment per Square Mile, 2020 and 2050



**Legend**

-  Tier 1 Selected Alternative
-  Tier 2 Study Corridor
-  Municipal Planning Boundary

**Employment Density (per square mile)**

-  Less than 50 (no color)
-  50 - 100
-  101 - 500
-  500 - 1,000
-  Greater than 1,000





### 4.2.3 Transportation System Connectivity

Transportation facilities between US 60 and Arizona Farms Road are limited to fragmented rural roads without any major north-to-south connections. Signal Butte Road is continuous between US 60 and Ocotillo Road, while Meridian Road is discontinuous through the same area. Ironwood Drive/Gantzel Road is the easternmost continuous north-south roadway between US 60 and Hunt Highway (Ironwood Drive turns into Gantzel Road south of Ocotillo Road). East of Ironwood Drive, there is an 8- to 12-mile gap with no continuous north-south roads until US 60 and SR 79. Both US 60 and SR 79 already operate at congested conditions during existing peak travel periods, which will worsen over time as population and employment growth continue.

East-west connectivity through this area is also limited, which further hampers navigation through the portion of Pinal County south of US 60 between Apache Junction, San Tan Valley, and Florence. The only major east-to-west facility is Arizona Farms Road, which connects SR 79 and Hunt Highway. Residents and employees in the Florence and San Tan Valley wanting to travel to Gold Canyon, Apache Junction, or other areas in the eastern Phoenix metropolitan area must take an indirect route through the discontinuous and congested rural roads or travel east to use SR 79 and US 60.

A continuous north-to-south transportation corridor connecting the study area to US 60 would help integrate the study area's surface transportation network. An integrated, multimodal transportation system requires additional unfragmented, north-to-south capacity to accommodate future needs. System connectivity and continuity will be critical in operational efficiency of individual roadway segments and intersections in the area.

### 4.2.4 Travel Demand

Travel purposes can include work, personal, movement of goods, and delivery of services; travel modes include cars, trucks, transit, bicycles, and walking. Taken in its entirety, the amount of travel occurring in a region is referred to as transportation (or travel) demand. Transportation planners use travel demand models to predict (or forecast) future travel patterns. This analysis is based on a travel demand model developed by MAG (MAG 2021) representing existing conditions in 2023 and future conditions in 2050 without the North-South Corridor, the Preliminary No Build condition. In the Preliminary No Build condition, the North-South Corridor would not be in place; however, it is assumed projects funded in the MAG long-range Regional Transportation Plan (RTP), known as Momentum 2050, Regional Strategic Transportation Infrastructure Investment Plan (RSTIIP), and the Transportation Improvement Program (TIP) would be constructed by 2050. These programs include transportation projects across the MAG Planning Area. Examples of major improvements in the vicinity of the Segment 1 study corridor include converting SR 24 to a full freeway with overpasses at crossroads between SR 202L and Ironwood Drive, widening on Hunt Highway, new roadway segments or widening on Meridian Road and Crismon Road, and roadway widenings on Ellsworth Road and Southern Avenue. There is currently no funded long-range regional transportation plan in Pinal County, therefore the Preliminary No Build Alternative includes reasonably foreseeable transportation projects in Pinal County that are assumed to be implemented by 2050.

Examples of improvements within Pinal County include:

- Extension of east-west arterials:
  - Guadalupe Road, 1 mile east
  - Ray Road, 6 miles east to connect to US 60
  - Pecos Road, 3 miles east
  - Ocotillo Road, 8 miles east
  - Judd Road, 4 miles east to connect to SR 79
- New sections of the following north-south arterials:
  - Idaho Road, 2 miles from Combs Road to Skyline Drive
  - Sierra Vista Drive, 3 miles from Judd Road to Skyline Drive
- Widen portions of numerous north-south and east-west arterials

Traffic operational characteristics are typically described in terms of LOS (also known as level of service). LOS is measured on a scale ranging from A to F (**Figure 7**), with A representing the best performance and F indicating the worst. LOS A corresponds to minimal delay at signalized intersections and free-flow conditions on highways. LOS F means long delays at signalized intersections and congested stop-and-go conditions on highways (TBR 2022).

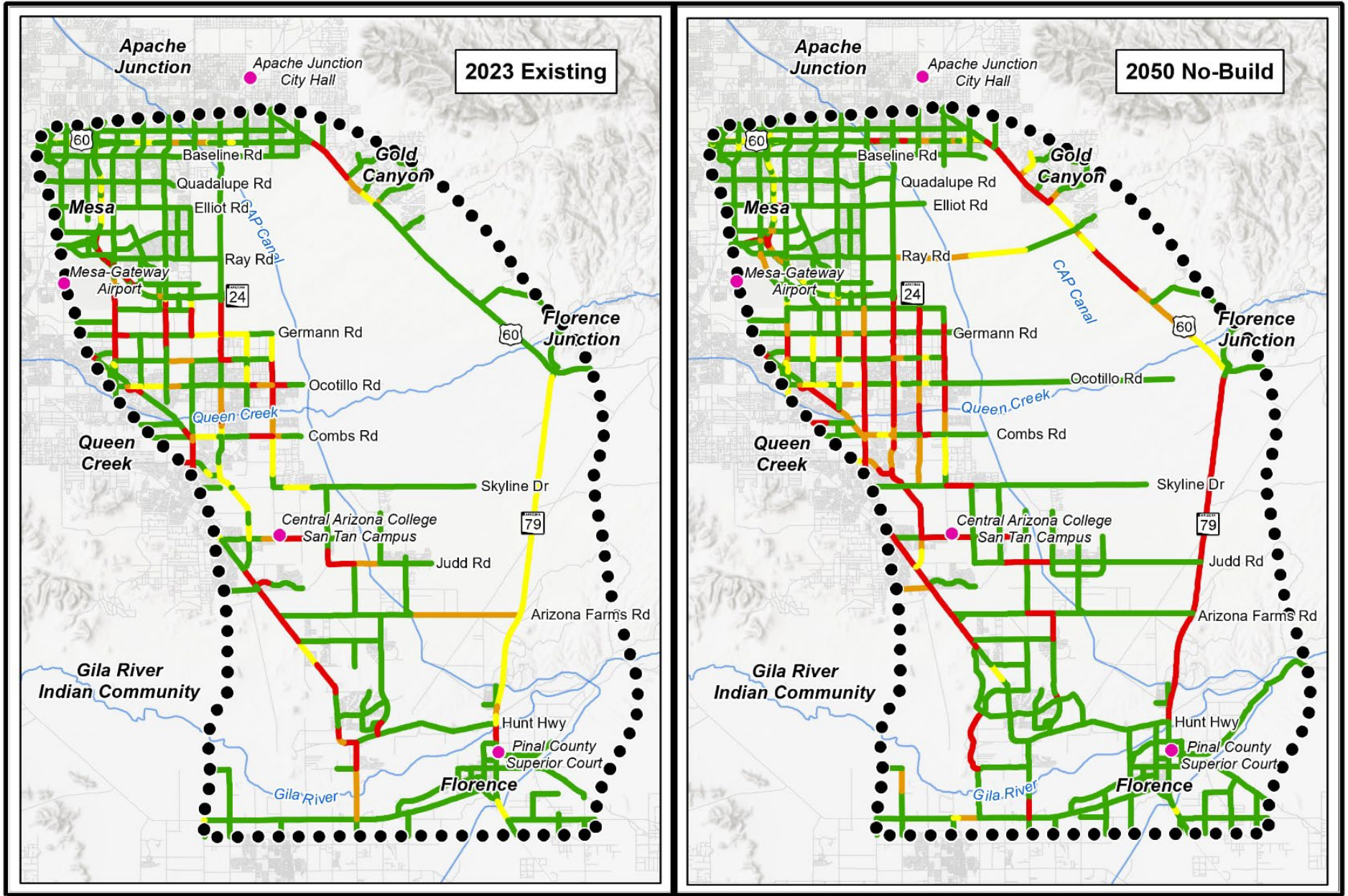
LOS and capacity are two related terms—capacity analysis tries to give a clear understanding of how much traffic a given transportation facility can accommodate, and LOS tries to answer how well a given facility is managing the traffic situation. Capacity and LOS vary with a number of factors, including the type of facility, prevailing traffic, road conditions, etc.

LOS for Segment 1 was analyzed using the data for 2023 existing conditions and 2050 No Build conditions from the MAG Traffic Demand Model (TDM). The results of the LOS analysis are presented in **Figure 8**. The results show that in 2050, congestion on SR 79, US 60, SR 202L, and many other roadways within the study area will worsen, with LOS ratings of E or F.

**Figure 7. Level of Service Flow Conditions**

Level of Service	Flow Conditions	Technical Descriptions
<b>A</b>		Highest quality of service. Traffic flows freely with little or no restrictions on speed or maneuverability. <b>No Delays</b>
<b>B</b>		Traffic is stable and flows freely. The ability to maneuver in traffic is only slightly restricted. <b>No Delays</b>
<b>C</b>		Few restrictions on speed. Freedom to maneuver is restricted. Drivers must be more careful making lane changes. <b>Minimal Delays</b>
<b>D</b>		Speeds decline slightly and density increases. Freedom to maneuver is noticeably limited. <b>Minimal Delays</b>
<b>E</b>		Vehicles are closely spaced, with little room to maneuver. Driver comfort is poor. <b>Significant Delays</b>
<b>F</b>		Very congested traffic with traffic jams, especially in areas where vehicles have to merge. <b>Considerable Delays</b>

Figure 8. Level of Service, 2023 and 2050 Future



**Legend**

- Route Time Locations
- Traffic Analysis Area
- Canal, River, or Wash
- Railroad

**Level of Service (LOS)**

- LOS A - C
- LOS D
- LOS E
- LOS F



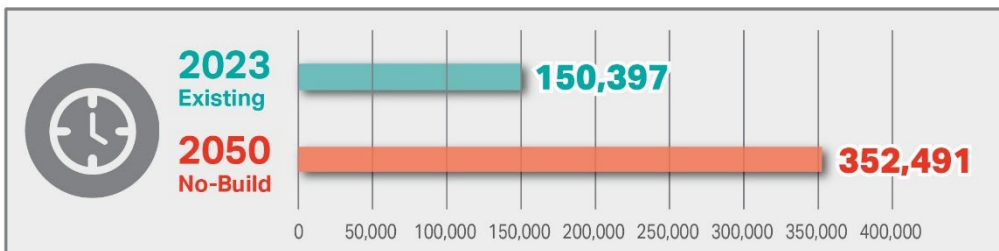
**Figure 9** through **Figure 11** show projected increases in vehicle miles traveled (VMT), vehicle hours traveled (VHT), and miles of congested roads. The results show that by 2050 the roadway network will experience an approximate doubling of VMT, VHT, and miles of congested roads. The congestion and delay that result from the lack of north-to-south capacity in this area will worsen over time with continued growth. An integrated, multimodal transportation system requires additional unfragmented, north-to-south capacity in the study area to accommodate these future needs. Without additional capacity, delays and congestion would hamper the efficiency of existing and planned roadway networks.

**Figure 9. Miles of Congested Roads (Daily), 2023 and 2050 (No Build)**



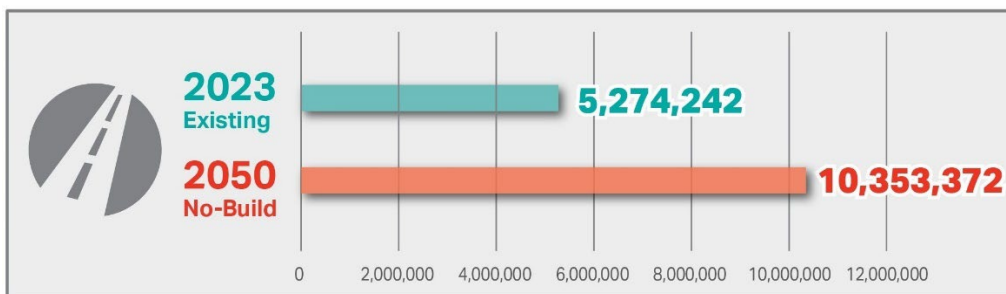
*Note: Miles congested roads includes all roads in the study area at LOS E and F.  
Source: MAG Travel Demand Model (2025) Existing 2023, No Build 2050 model information*

**Figure 10. Vehicle Hours Traveled (Daily), 2023 and 2050 (No Build)**



*Source: MAG Travel Demand Model (2025) Existing 2023, No Build 2050 model information*

**Figure 11. Vehicle Miles Traveled (Daily), 2023 and 2050 (No Build)**



*Source: MAG Travel Demand Model (2025) Existing 2023, No Build 2050 model information*

**Table 2** presents a comparison of peak period travel times for various trips between Florence, Apache Junction, Mesa, San Tan Valley, and Eloy. Morning travel times in the north and northwest bound directions (towards the Phoenix metro area) would experience increase by 32 to 65 minutes, with the

slowest travel speeds between San Tan Valley or Florence and the Phoenix-Mesa Gateway Airport (11 to 13 miles per hour [mph]). Evening travel times in the south and southeast bound directions (away from Phoenix metro area) would experience an increase of 19 to 40 minutes, with the slowest travel speeds between San Tan Valley or Florence and the Phoenix-Mesa Gateway Airport, or between San Tan Valley and Apache Junction (14 to 17 miles per hour).

**Table 2. Peak Period Travel Times between City Pairs, 2023 and 2050 (No Build Alternative)**

City Pair	Distance (Miles)	North/West Bound (morning)		South/East Bound (evening)	
		Travel Time (Minutes)	Average Speed (mph)	Travel Time (Minutes)	Average Speed (mph)
<b>2023 Existing</b>					
Florence – Phoenix-Mesa Gateway Airport	30	100	18	84	22
San Tan Valley – Phoenix-Mesa Gateway Airport	15	53	17	45	20
San Tan Valley – Apache Junction	21	60	21	50	25
Apache Junction – Florence	33	55	36	46	43
Eloy at I-10 – Apache Junction	61	103	36	93	40
<b>2050 No Build</b>					
Florence – Phoenix-Mesa Gateway Airport	30	135	13	104	17
San Tan Valley – Phoenix-Mesa Gateway Airport	15	85	11	64	14
San Tan Valley – Apache Junction	21	93	14	72	17
Apache Junction – Florence	33	112	17	78	26
Eloy at I-10 – Apache Junction	61	167	22	133	28

Notes: Origin and destination locations in Florence, Mesa, San Tan Valley, and Apache Junction are indicated in pink dot Route Time Locations in **Figure 8**.

Source: MAG Travel Demand Model (2025) Existing 2023, No Build 2050 model information

#### **4.2.5 Summary of Segment 1 Purpose and Need**

**Improve access to future activity centers**—Local land use and transportation plans call for a major north-to-south transportation facility to accommodate anticipated growth. An improved and expanded north-to-south transportation system is needed to provide the transportation infrastructure shown in statewide, regional, and local planning documents.

**Improve regional mobility**—There is inadequate roadway capacity south of US 60 in unincorporated Pinal County, Apache Junction, San Tan Valley, and Florence to meet future demand. The congestion, delay, and increased travel times resulting from the additional demand and lack of north-to-south capacity will worsen over time and hamper the efficiency of the existing and planned roadway network.

**Improve north-to-south connectivity**—There is a need to connect existing and future population growth areas in the Pinal County, Apache Junction, San Tan Valley, and Florence with destinations in the

eastern Phoenix metropolitan area. A continuous north-to-south transportation corridor would provide a critical missing link in the southeastern Maricopa County and Pinal County transportation system.

**Integrate the region's transportation network**—A continuous north-to-south facility would help integrate the study area's surface transportation network. System continuity and connectivity will be critical to improving the effectiveness of individual network segments, the use of transit, and congestion management strategies (such as intersection and traffic signal improvements, access management, and the application of —the use of technology to improve traffic flow).

**Accommodate existing and future population and employment**—There is insufficient infrastructure to accommodate projected population and employment growth and to support local, regional, and statewide planning efforts. The population in Pinal County is expected to more than double by 2050, adding nearly 300,000 additional people in Segment 1 alone. Employment in Pinal County is expected to nearly triple (an increase of 185 percent), with approximately 112,000 additional jobs projected in the study area.

### 4.3 Public and Agency Input

In 2023, ADOT initiated early coordination with stakeholder agencies, Tribal governments, and the public to seek their input. A Public Involvement Summary is available on the project website at <https://azdot.gov/planning/transportation-studies/north-south-corridor-study-proposed-new-transportation-route-pinal>.

Common themes found in the 183 submitted comments include concern with current and future traffic in the area surrounding the US 60 to Arizona Farms Road study corridor and expressions of overall support for the addition of a new highway in this area to relieve congestion. Comments also focused on specific interchange locations, the connection to US 60, and the property and environmental impacts of the potential new highway.

### 4.4 Other Desired Outcomes of the Proposed Action

The North-South Corridor is expected to integrate into the social, economic, and environmental fabric of the study area over the next 20 years. The Tier 1 EIS identified other desired outcomes for consideration in the Tier 2 studies for the North-South Corridor:

- Protecting and enhancing the natural environment along the Corridor.
  - Alignments developed in Tier 2 studies that allow for continued wildlife movement.
  - Limited disruption of sensitive wildlife habitat areas to reduce the possibility for growth-inducing impacts.
- Supporting local and regional land use plans and preservation goals.
  - Alignments developed in Tier 2 studies that allow for the protection of identified open space, agricultural, or other undeveloped land while providing adequate connectivity for future residential and business development.
  - Avoidance of culturally sensitive properties during Tier 2 studies to the extent feasible and practicable.
- Supporting equitable economic opportunities.

- Provision of access to employment, educational, and civic centers and institutions in the study area and the larger Phoenix metropolitan area.
- Complementing other planned transportation improvements along new and established corridors in the study area.
  - Maximization of efficiency of corridor mobility through coordination with other ongoing and planned projects.
  - Alignments developed in Tier 2 studies that integrate with the most current transportation and land use planning to respond to growth and not induce growth.

In evaluating the applicability of the other desired outcomes identified in the Tier 1 EIS, the goal of accommodating the ROW for intercity passenger rail was not carried forward for this Study. The Segment 1 study area does not overlap with the Tier 1 selected alternatives from the Arizona Passenger Rail Corridor Study.

## 5 References

---

- Arches Arizona Research Center for Housing Equity and Sustainability. 2024. State of Housing in Arizona. August 2024. Available online at <https://morrisoninstitute.asu.edu/sites/default/files/2024-08/state-of-housing-in-arizona-mr.pdf>. Last accessed March 25, 2025.
- Arizona Department of Transportation (ADOT). 2025a. SR 24 project website. Landing page. Available online at <https://azdot.gov/projects/central-district-projects/state-route-24>. Last accessed February 27, 2025.
- \_\_\_\_\_. 2025b. Phoenix-Tucson Intercity Passenger Rail Corridor Study project website. Available online at <https://azdot.gov/planning/transportation-programs/state-rail-plan/passenger-rail-study-tucson-phoenix>. Last accessed February 27, 2025.
- Arizona State Land Department. 2025. Frequently Asked Questions. Available online at <https://land.az.gov/faqs#rec-permits>. Last accessed March 25, 2025.
- Apache Junction. 2020. General Plan 2020 to 2050. <https://www.apachejunctionaz.gov/518/2020-General-Plan>.
- Town of Florence (Florence). 2022. Florence General Plan 2022. Available online at <https://www.florenceaz.gov/community-development/>. Last accessed February 27, 2025.
- Maricopa Association of Governments (MAG). 2021. *Conformity Analysis for the FY 2022-2025 MAG Transportation Improvement Program and the MOMENTUM 2050 Regional Transportation Plan*. Dated December 2021. Available online at <https://azmag.gov/Portals/0/Documents/MagContent/2021-MAG-Conformity-Analysis.pdf?ver=2y77CrBxik3oNG0WFD4wnA%3d%3d>. Last accessed February 27, 2025.
- \_\_\_\_\_. 2021. *Momentum 2050*. Available online at <https://azmag.gov/Programs/Transportation/Regional-Transportation-Plan-RTP>. Last accessed February 27, 2025.
- \_\_\_\_\_. 2022. Existing Land Use for Maricopa and Pinal Counties, Arizona, 2022. [https://geodata-azmag.opendata.arcgis.com/datasets/1c0c5792cc41449999e0ae91911ad52b\\_0/explore](https://geodata-azmag.opendata.arcgis.com/datasets/1c0c5792cc41449999e0ae91911ad52b_0/explore). Downloaded on September 10, 2024.
- \_\_\_\_\_. 2023. Projections of Population, Housing, and Employment for Maricopa and Pinal Counties, AZ, 2023. <https://geodata-azmag.opendata.arcgis.com/maps/c1990106ce3840d6af8bc476ca31c30e/about>. Downloaded on August 30, 2024.
- \_\_\_\_\_. 2025. Superstition Vistas Multimodal Transportation Planning Study *Technical Memorandum #1– Vision, Goals, and Existing/Forecasted Conditions Report*. Available online at [https://azmag.gov/Portals/0/Transportation/Studies/SVMTPS-TM1-2024-07-10.pdf?ver=Yq\\_TG9kfl2A6H\\_lpx3cjinw%3d%3d](https://azmag.gov/Portals/0/Transportation/Studies/SVMTPS-TM1-2024-07-10.pdf?ver=Yq_TG9kfl2A6H_lpx3cjinw%3d%3d). Last accessed February 27, 2025.
- City of Mesa (Mesa). 2014. Mesa 2040 General Plan. <https://www.mesaaz.gov/home/showpublished-document/12298/638060244087670000>.



- Morrison Institute of Public Policy. 2008. Megapolitan: Arizona's Sun Corridor. <https://morrisoninstitute.asu.edu/publication/megapolitan-arizonas-sun-corridor>. Last accessed March 27, 2025.
- Pinal County. 2021. Pinal County Comprehensive Plan. <https://www.pinal.gov/DocumentCenter/View/627/Comprehensive-Plan-2020-PDF?bidId=>.
- \_\_\_\_\_. 2025. *Central Arizona Parkway, SR 24 Extension to Arizona Farms Road, Draft Design Concept Report*. Draft dated January 10, 2025. Prepared by Dibble & Associates and Jacobs Engineering.
- Pinal Regional Transportation Authority (Pinal RTA). 2024. Website landing page and November 2024 Board Meeting Notes. Available online at <https://pinalrta.org/2024-full-agendas-and-materials/>. Last accessed February 27, 2025.
- Queen Creek. 2018. 2018 General Plan. [http://www.planqc.com/assets/documents/2018%20General\\_Plan\\_Print.pdf](http://www.planqc.com/assets/documents/2018%20General_Plan_Print.pdf).
- Transportation Research Board (TRB). 2022. *Highway Capacity Manual 7th Edition: A Guide for Multimodal Mobility Analysis*. Washington, DC: the National Academies Press. <https://doi.org/10.17226/26432>.