

# Payson Transportation Study

## FINAL REPORT

March, 2011

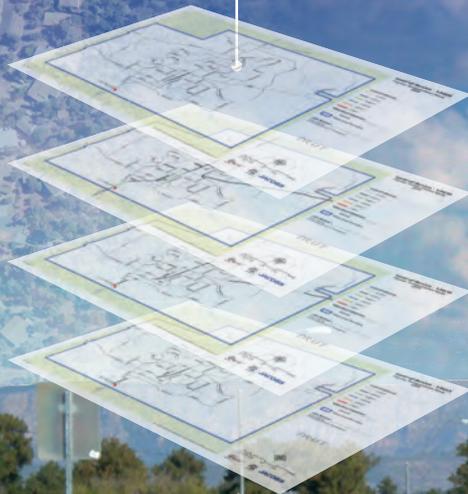
Prepared for:



Town of Payson &



Arizona Department of Transportation



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**TOWN OF PAYSON**  
**PAYSON TRANSPORTATION STUDY**

**Prepared for:**

**Town of Payson**  
**Arizona Department of Transportation**

**Prepared by:**

**Jacobs Engineering**

**March, 2011**

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## STUDY OBJECTIVES

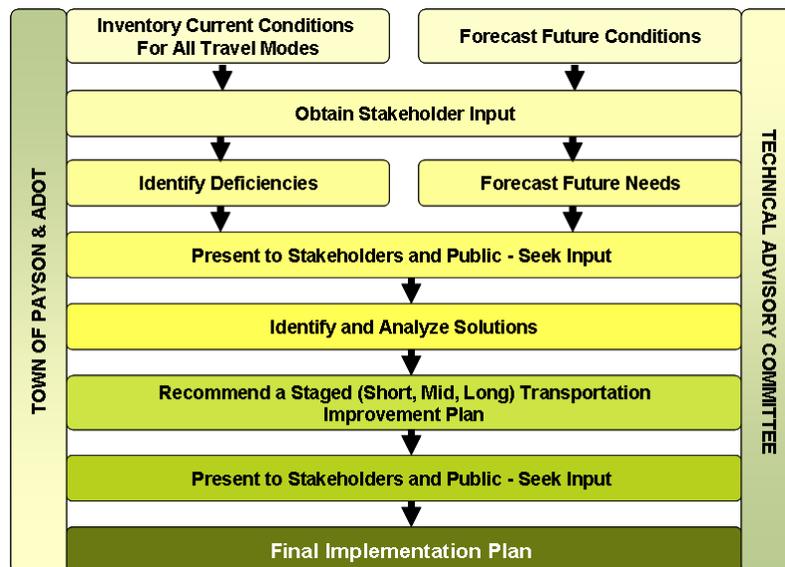
Large capital investments in transportation infrastructure will be required during the next 20 years to accommodate projected levels of growth and development in the Payson area. With guidance from Payson’s General Plan’s Circulation Element, 1999 Transportation Study, Transit Feasibility Study, and interviews with members of the Technical Advisory Committee (TAC) and local stakeholders, the following objectives became the focal point of this study:

- Establish a 20-year vision for transportation in the Town of Payson.
- Develop a transportation plan that will guide transportation decision making.
- Include recommendations for roads, transit, bicycle, and pedestrian modes.
- Evaluate the need for an alternate route to alleviate traffic congestion on SR 87 and SR 260 corridors. If need is established, evaluate potential alternate route concepts.

## STUDY PROCESS

The study was guided by a TAC that included representatives from the Town of Payson, ADOT, Gila County, Central Arizona Association of Governments (CAAG), Tonto Apache Tribe, Town of Star Valley, and Tonto National Forest. The role of the TAC was to provide guidance, support, advice, and recommendations, and to perform document reviews throughout the study process. A first public open house was held on September 9, 2009. A second public open house was held on August 10, 2010. The *Payson Public Involvement Final Report* outlines comments from the public meetings. The study process is illustrated in Figure 1.2.

FIGURE 1.2: STUDY PROCESS



## 2. EXISTING CONDITIONS

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### EXISTING LAND USE AND SOCIOECONOMIC CONDITIONS

#### Land Ownership Status

The Payson planning boundary covers roughly 19.5 square miles of land area. Approximately 65.5% of the land in the Town is privately owned, while 33.7% of the land is managed by Tonto National Forest and the remainder is managed by either the Arizona State Land Department or owned by the Tonto Apache Tribe. Currently, a portion of the Forest Service land is in the process of becoming eligible to be exchanged to non-federal owners; however, the land exchange process may take several years to complete. Figure 2.1 displays the current land ownership status in the study area.

#### Socioeconomic Conditions

Creating an inventory of the study area's socioeconomic characteristics and understanding this data is a critical element to the development of the travel demand model to forecast traffic volumes. Below is a list of key statistics for the Town of Payson.

- Land Area: 19.5 square miles
- Population (Year 2008): 16,965
- Housing Units (Year 2008): 8,526
- Civilian Labor Force (Year 2007): 5,988
- Median Age: 49
- Median Household Income: \$33,638
- Below Poverty Percentage: 10%
- Principal Economic Activities: Tourism, retirement, and construction industries, with a growing emphasis on manufacturing and service firms

#### *Population and Housing Unit Growth Trends*

According to the 2000 U.S. Census, the Town had a population of approximately 13,620 people. Since 2000, the Town has experienced a population growth rate of 3.07% per year, which is slightly lower than the average statewide growth rate of 3.65% per year. Furthermore, the Town has had a 2.65% annual increase in the number of housing units since 2000. The typical household size in Payson is 2.3 according to 2000 U.S. Census,

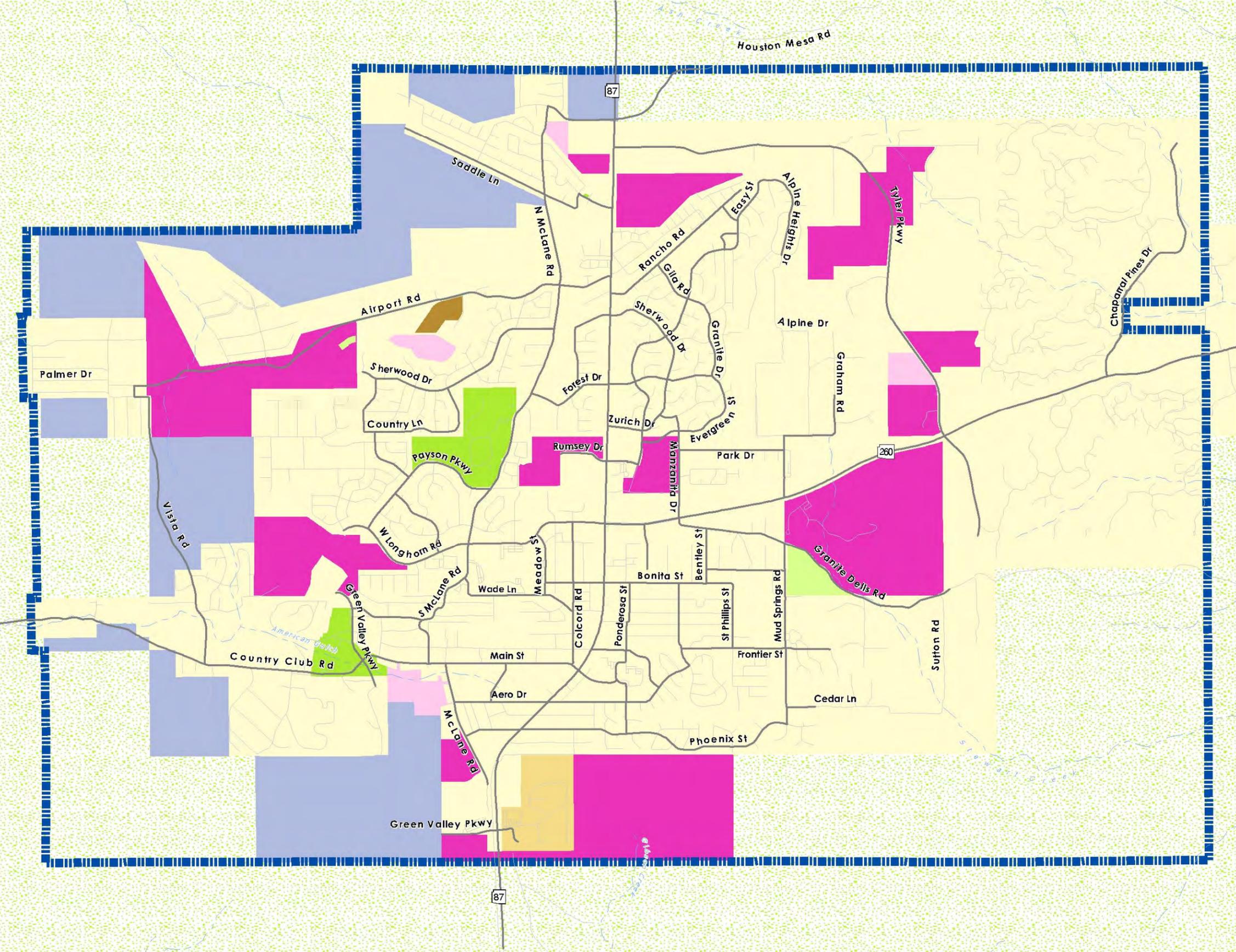
which is lower than the statewide average of 2.64. Table 2.1 summarizes the population and housing growth rates for the Town.

**TABLE 2.1: POPULATION AND HOUSING UNIT GROWTH TRENDS**

Geographic Area	Population		Population Growth Rate	Housing Units		Housing Units Growth Rate
	2000	2008		2000	2008	
Town of Payson	13,620	16,965	3.07%	7,033	8,526	2.65%
Gila County	51,335	57,361	1.47%	28,189	-	-
State of Arizona	5,130,632	6,629,455	3.65%	2,189,189	-	-

Source: U.S. Census Bureau, Arizona Department of Commerce

**Figure 2.1  
Land Ownership**



**Land Ownership Type:**

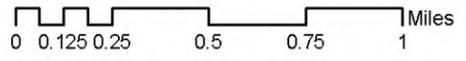
- Private Land
- Potential Forest Service Land Exchange Properties
- Currently Planned Developments
- Future Developments
- Existing Parks
- Future Parks
- State Trust Land
- Tonto National Forest
- Tonto Apache Reservation

**Reference Features:**

- Major Roads
- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation  
 Arizona Land Resource Information System



### *Employment Overview*

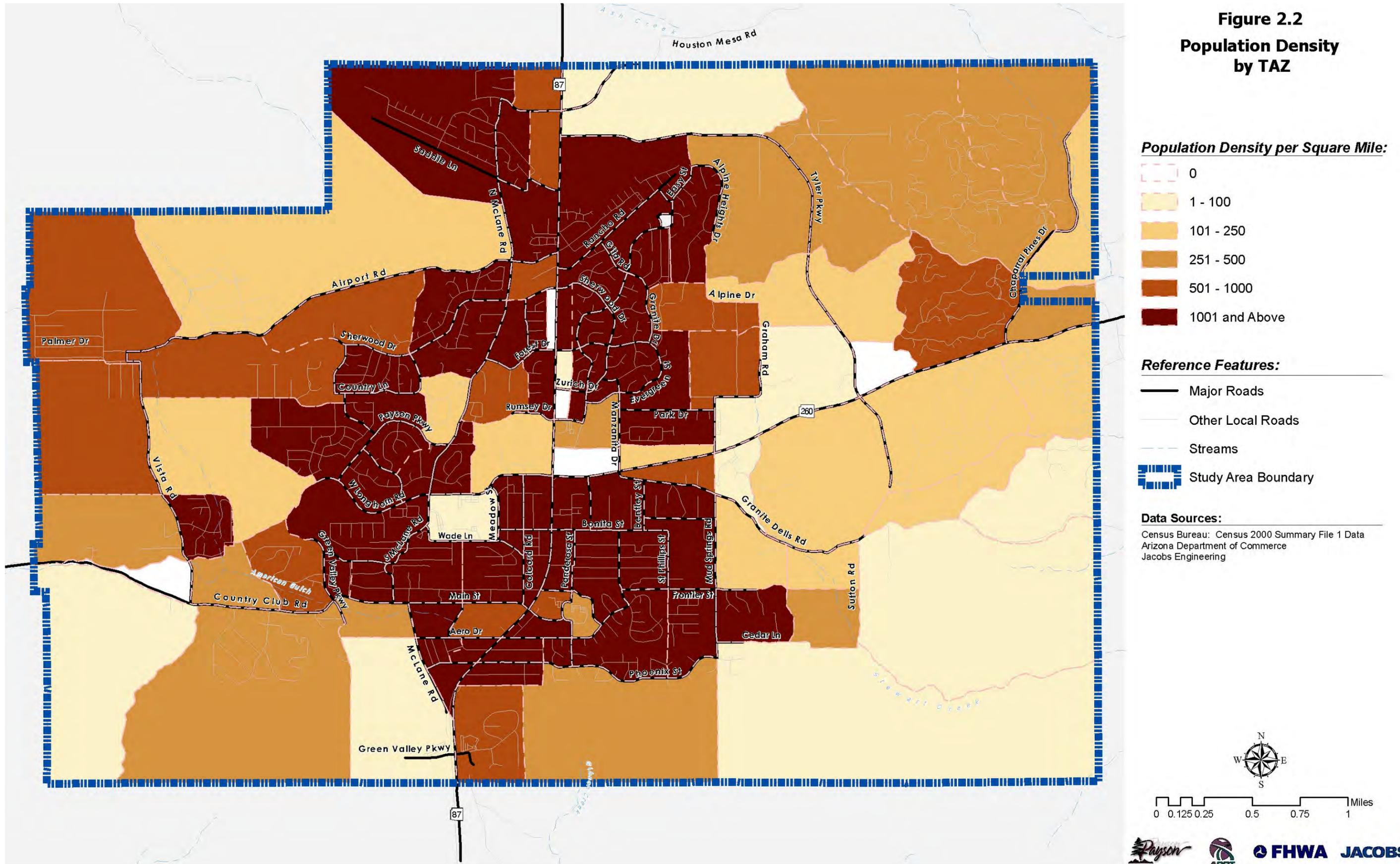
Tourism, in-migrating retirees, and seasonal residents are the primary drivers of Payson’s economy. Currently, the Town has approximately 6,714 employees. Major employers in the community include the Payson Regional Medical Center, Town and County governments, the school district, Payson Care Center, and the Mazatzal Casino. Table 2.2 summarizes the total number of employees of the four largest employers within the Town. In addition, Mazatzal Casino, Wal-Mart, Home Depot, and Safeway are the major activity centers in the Town. The Town has seven schools: three public elementary schools, one middle school, two high schools, and one private school.

**TABLE 2.2: MAJOR EMPLOYERS**

<b>Major Employers</b>	<b>Employees</b>
Payson Unified School District	430
Mazatzal Casino	360
Payson Regional Medical Center	290
Payson Care Center	125

As previously mentioned, socioeconomic data is one of the primary inputs for the travel demand model that is used to estimate current traffic volumes and forecast future traffic volumes on roadways in the study area. Population, housing units, and various types of employment categories were inventoried for each Traffic Analysis Zone (TAZ) in the study area. A TAZ is a geographic subdivision of the study area bounded by roads, political boundaries, natural and man-made geographical constraints (such as rivers, washes, etc.). For this study, a travel demand model was developed that includes 152 total TAZs. Figure 2.2 illustrates the population density and distribution per TAZ and Figure 2.3 illustrates the occupied housing units and employment estimates and distribution at the TAZ level.

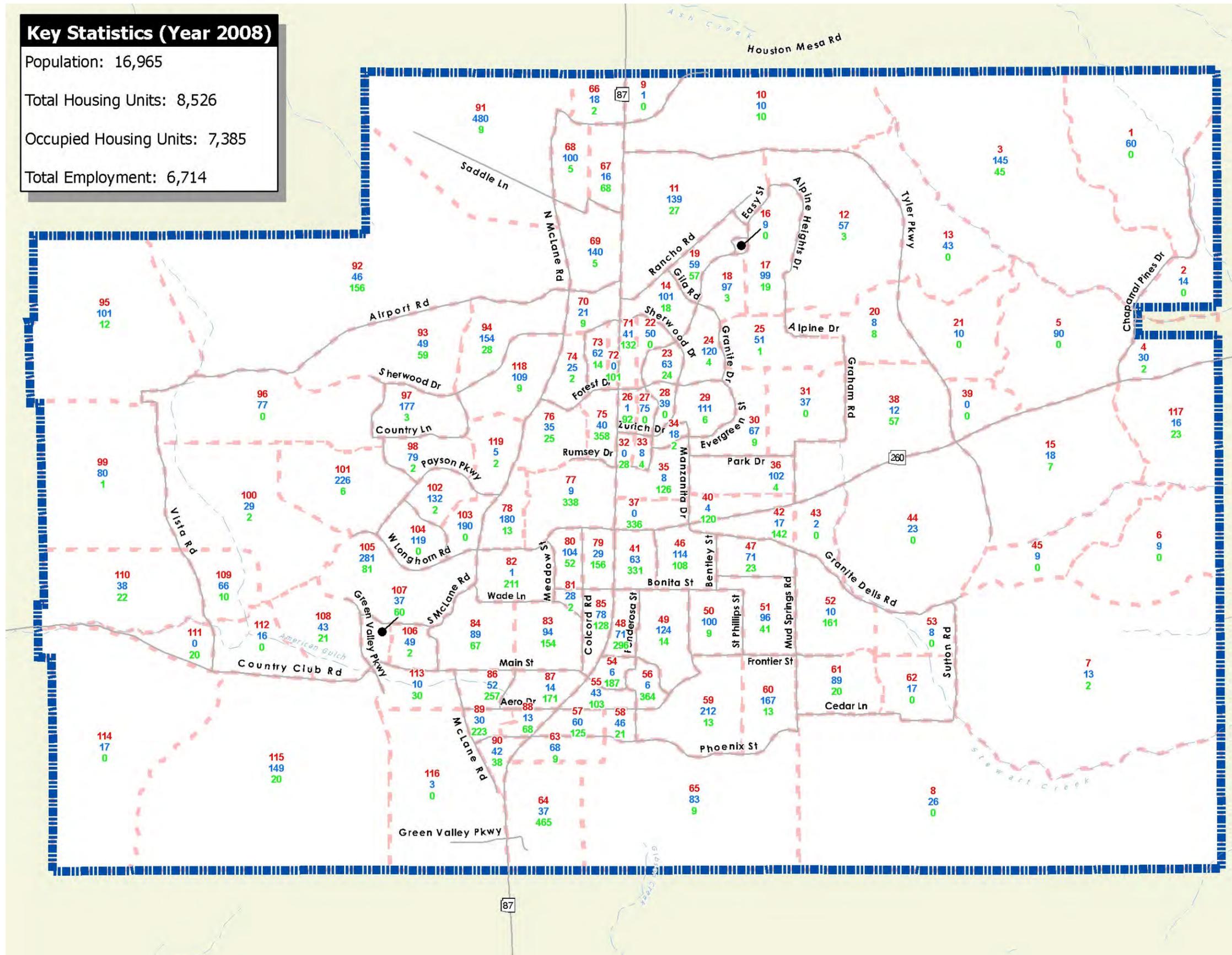
**Figure 2.2  
Population Density  
by TAZ**



**Key Statistics (Year 2008)**

Population: 16,965  
 Total Housing Units: 8,526  
 Occupied Housing Units: 7,385  
 Total Employment: 6,714

**Figure 2.3  
 Occupied Dwelling Units  
 and Employment by  
 Traffic Analysis Zone  
 Year 2008**



**Socioeconomic Data:**

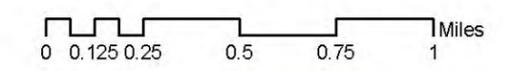
- TAZ Boundary
- XX TAZ Number
- XX Occupied Dwelling Units
- XX Total Employment

**Reference Features:**

- Major Roads
- Streams
- Study Area Boundary

**Data Sources:**

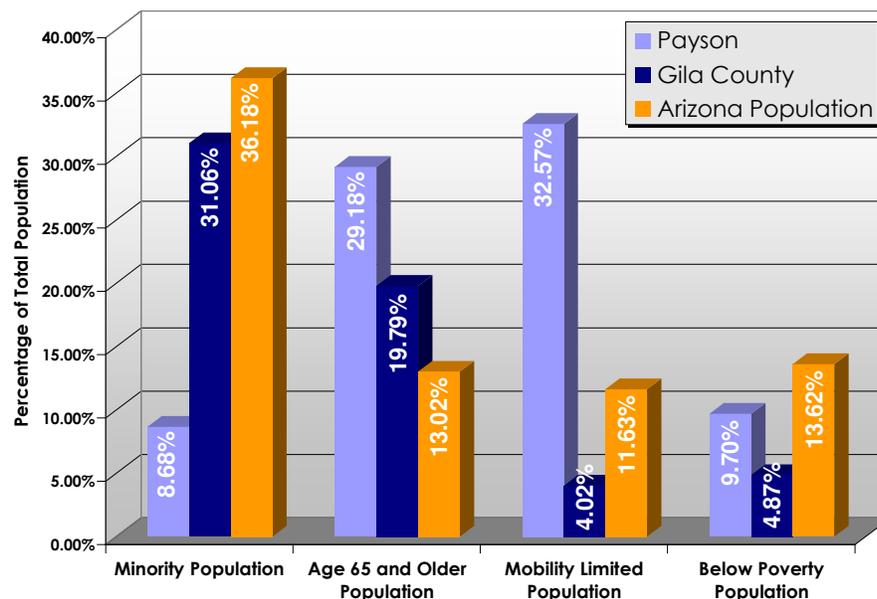
Town of Payson  
 Arizona Department Of Commerce  
 Jacobs Engineering



## Environmental Justice Review (Title VI)

Title VI of the Civil Rights Act of 1964 and related statutes require that individuals are not discriminated against based on race, color, national origin, age, sex, or disability. Executive Order 12898 on Environmental Justice dictates that any programs, policies, or activities to be implemented are not to have disproportionately high adverse human health and environmental effects on minority populations. Thus, in relation to this study, transportation improvements should not adversely impact such groups disproportionately. In addition to assuring that these policies are adhered to, a variety of possible alternatives should be developed and considered in order to make sure all groups are fairly represented in the amount and type of transportation services provided. Below is a summary of the Title VI review; additional detail is presented in Working Paper 1. Figure 2.4 compares the Title VI data reviewed for the Town of Payson, Gila County, and the State of Arizona.

**FIGURE 2.4: MINORITY, AGE 65 AND OLDER, MOBILITY LIMITED, AND BELOW POVERTY POPULATION COMPARISON**



### *Minority Population*

Minority population consists of individuals who are members of the following population groups: Native American or Native Alaskan, Asian or Pacific Islander, Black, and Hispanic. According to the 2000 U.S. Census data:

- 8.7% of total population in the Town of Payson is a minority.
- Hispanics are the largest minority group.

- Minority population is lower than the countywide estimate of 31.1%.
- Minority population is lower than the statewide estimate of 36.2%.

Figure 2.5 illustrates the minority population concentrations in the Town of Payson.

### *Population Age 65 and Over*

According to the 2000 U.S. Census data:

- Median age in the Town of Payson is 49 years old.
- Approximately 29.2% of the town’s population over 65 years of age.
- Population over 65 years of age is higher than the countywide estimates of 19.8%.
- Population over 65 years of age is higher than the statewide estimates of 13%.

Figure 2.6 displays the age 65 and over population concentrations in the Town of Payson.

### *Below Poverty Population*

The U.S. Census Bureau uses a set of money income thresholds that vary by family size and composition to determine below-poverty population. If a family’s total income is less than the family’s threshold, then that family and every individual in it is considered in poverty. The 2000 U.S. Census data shows that:

- 9.7% of the total population in the Town is classified as below poverty.
- Below poverty status is higher than the countywide estimate of 4.9%.and lower than the statewide estimate of 13.6.

Figure 2.7 illustrates the below poverty population concentrations.

### *Mobility-Limited Population*

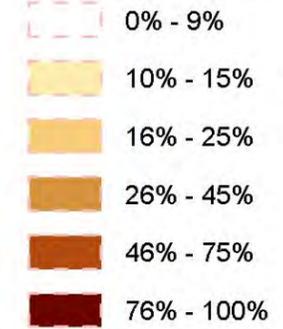
Mobility-limited population is made up of individuals who have a physical or mental disability that prohibits them from operating an automobile. In general, mobility-limited population groups require access to public transportation and hence for transportation planning purposes, it is critical to identify the locations with a high concentration of this population group. The 2000 U.S. Census data shows that:

- 32.6% of the total population in the Town is mobility-limited.
- The Town’s mobility-limited population is three times higher than the statewide estimate of 11.6%.

Figure 2.8 shows the mobility-limited population concentrations in the study area.

**Figure 2.5**  
**Minority Population<sup>①</sup>**  
 (Census Block)

**Minority Population Percentage by Census Block:**



Percentage of Minority Population in:  
 Payson = 9%  
 Gila County = 31%  
 State of Arizona = 36%

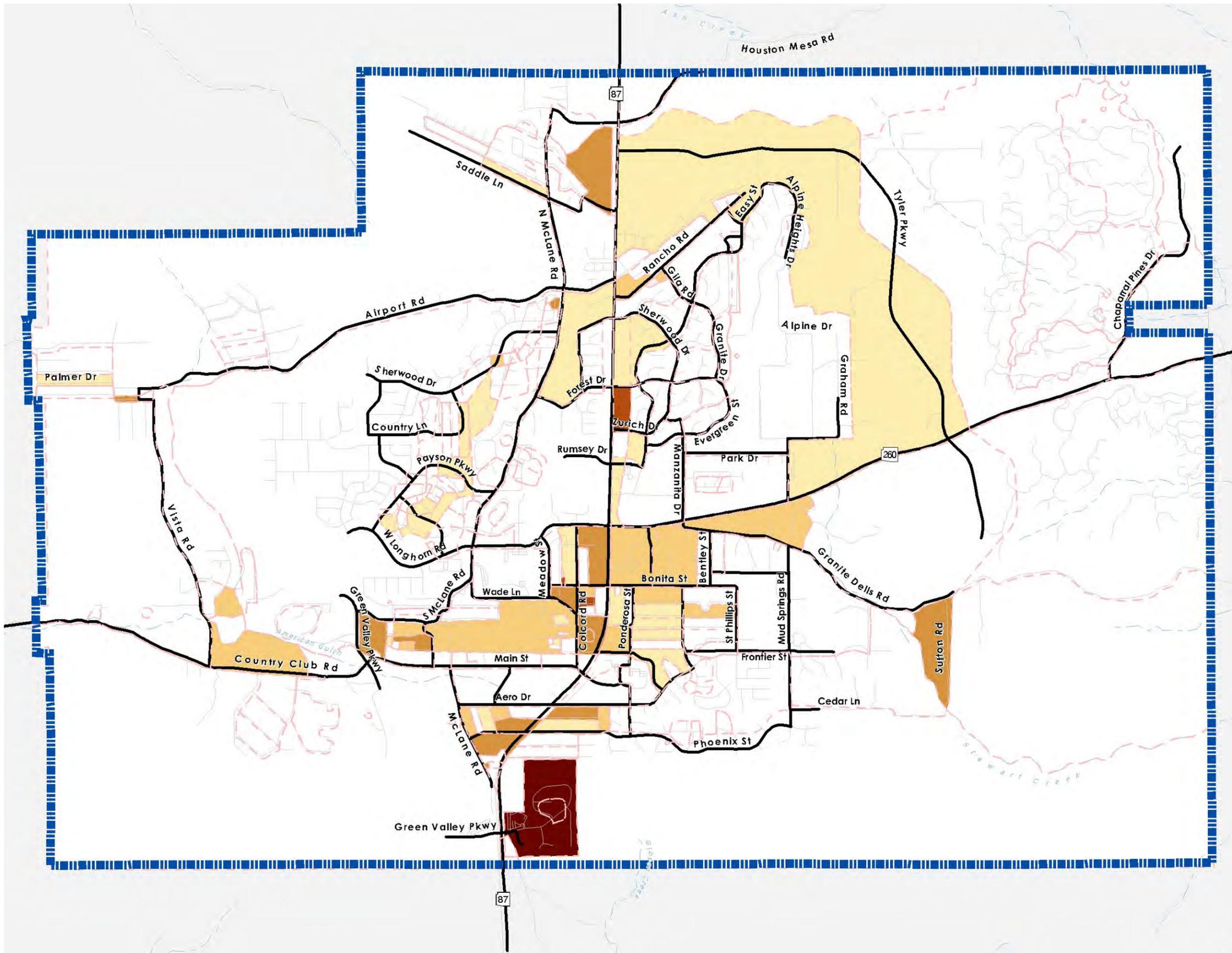
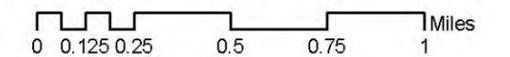
Minority population consists of individuals who are members of the following population groups:  
 Native American or Alaskan Native, Asian or Pacific Islander, Black, and Hispanic.

<sup>①</sup> Census blocks with percentage of minority population greater than the percentage of minority population for Payson.

A high percentage of minority population does not necessarily mean that there is a lot of minority population in the area. The map shows what percentage of people living in the census block are minority.

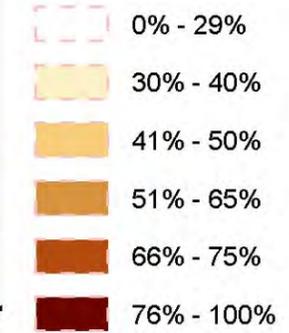
**Data Sources:**

Census Bureau: Census 2000 Summary File 1 Data



**Figure 2.6**  
**Elderly Population**<sup>①</sup>  
 (Census Block)

**Elderly Population Percentage by Census Block:**

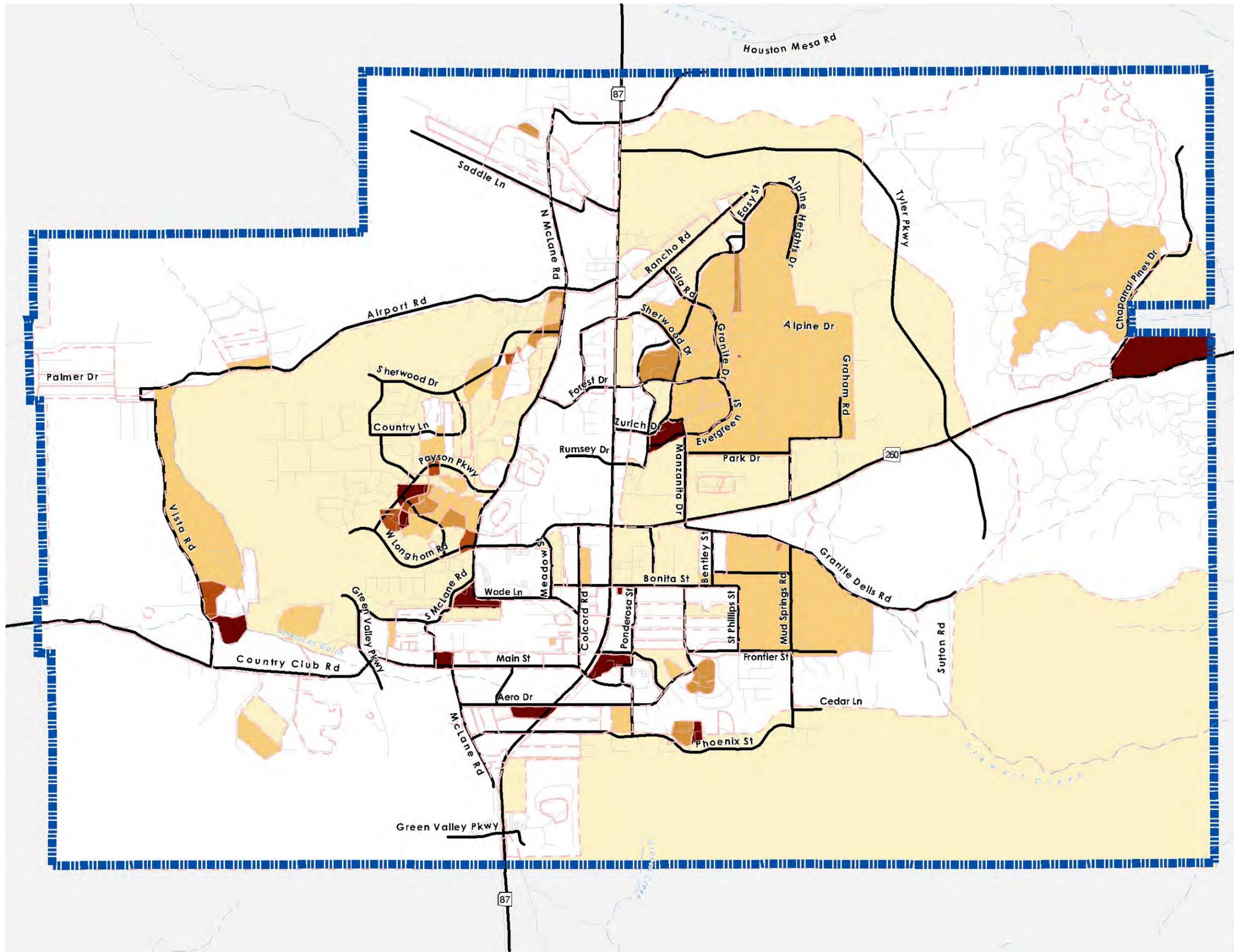
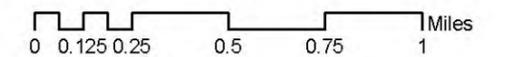


Percentage of Population Over 65 in:  
 Payson = 29%.  
 Gila County = 20%.  
 State of Arizona = 13%.

① Census blocks with percentage of elderly population greater than the percentage of elderly population for Payson.

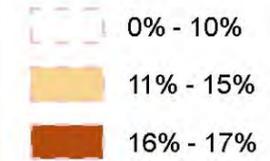
A high percentage of elderly population does not necessarily mean that there is a lot of elderly population in the area. The map shows what percentage of people living in the census block are elderly.

**Data Sources:**  
 Census Bureau: Census 2000 Summary File 1 Data



**Figure 2.7**  
**Below Poverty** <sup>①</sup>  
**Population**  
 (Census Block Group)

**Below Poverty Population Percentage by Census Block Group:**



Percentage of Below Poverty Population in:  
 Payson = 10%.  
 Gila County = 5%.  
 State of Arizona = 14%.

The Census Bureau uses a set of income thresholds that vary by family size and composition to determine below poverty population as shown in Table 3.6 if this report.

<sup>①</sup> Census block groups with percentage of poverty population greater than the percentage of poverty population for Payson.

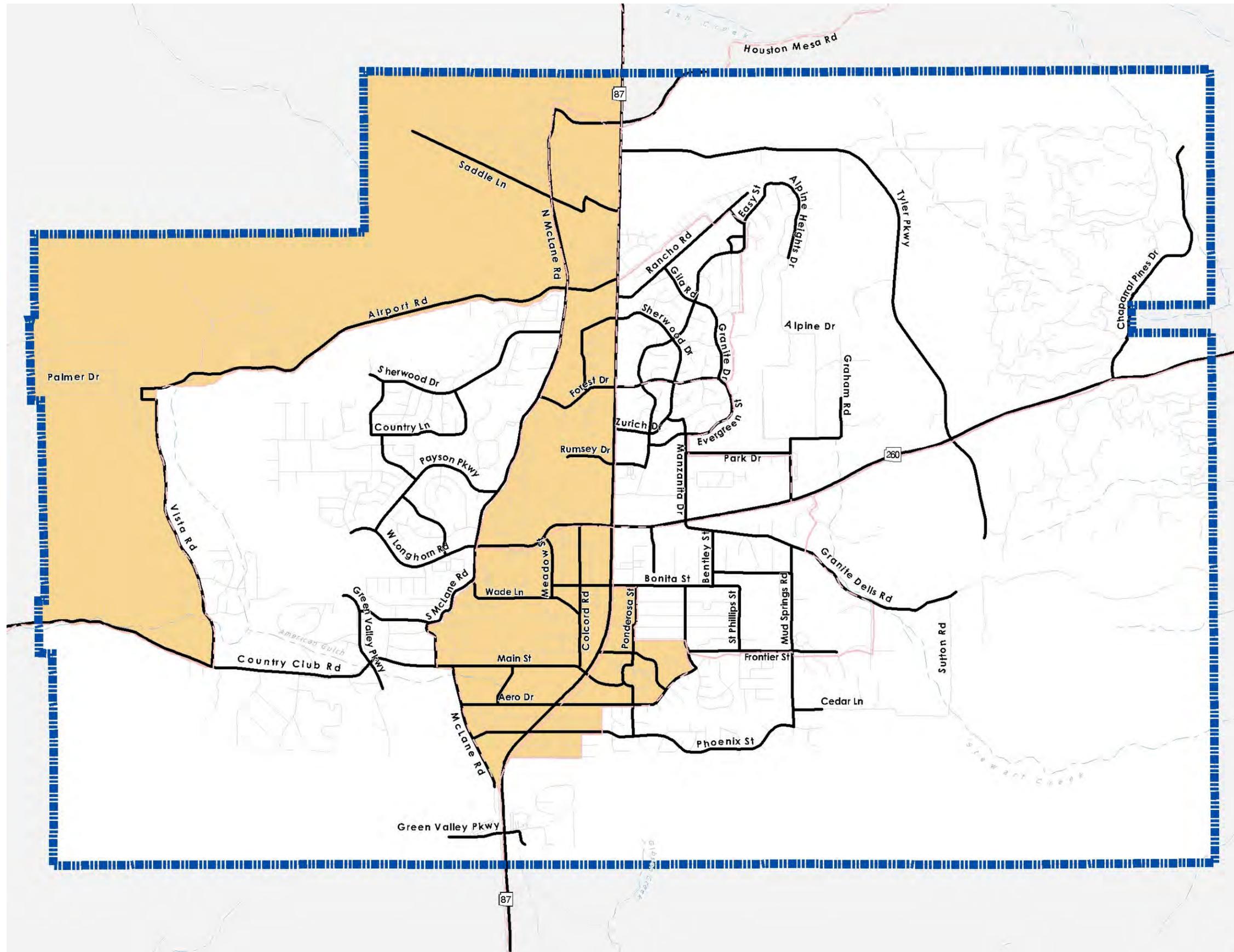
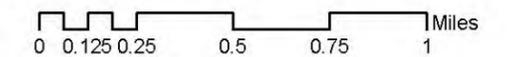
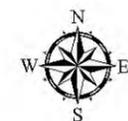
A high percentage of poverty population does not necessarily mean that there is a lot of poverty population in the area. The map shows what percentage of people living in the census block group are below poverty.

**Data Sources:**

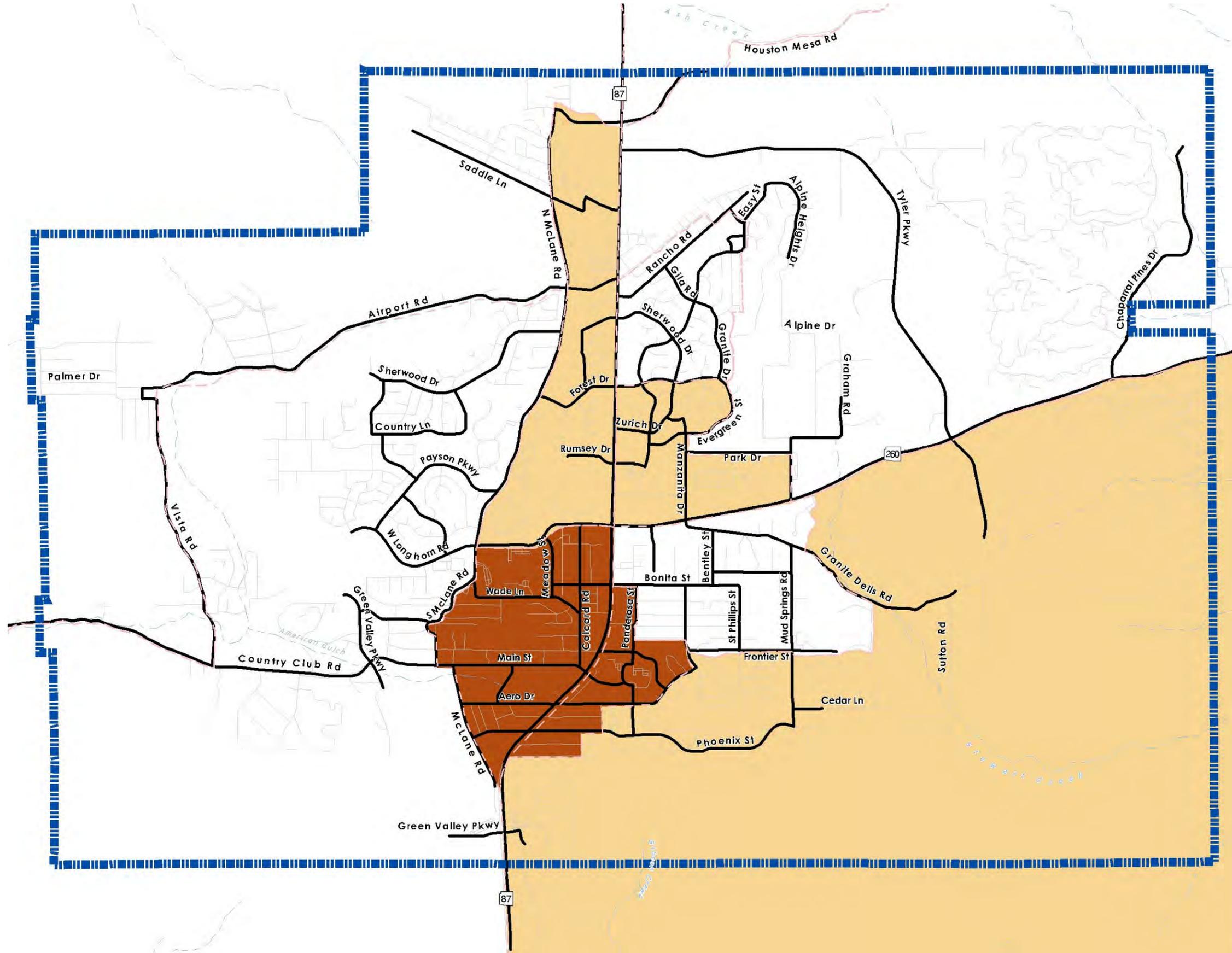
Census Bureau: Census 2000 Summary File 1 & Summary File 3 Data

**Note:**

Several census block groups displayed extend beyond study area boundary



**Figure 2.8**  
**Mobility Limited<sup>①</sup>**  
**Population**  
 (Census Block Group)



**Limited Mobility Population Percentage by Census Block Group:**

- 0% - 13%
- 14% - 20%
- 21% - 30%

Percentage of Mobility Limited Population in:  
 Payson = 12%.  
 Gila County = 4%.  
 State of Arizona = 33%.

The mobility-limited population is made up of individuals who have a physical or mental disability that prohibits them from operating an automobile.

① Census block groups with percentage of mobility limited population greater than the percentage of mobility limited population for Payson.

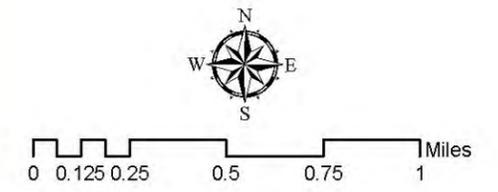
A high percentage of population does not necessarily mean that there is a lot of mobility limited population in the area. The map shows what percentage of people living in the census block group are mobility limited.

**Data Sources:**

Census Bureau: Census 2000 Summary File 1 & Summary File 3 Data

**Note:**

Several census block groups displayed extend beyond study area boundary



## Environmental and Cultural Resources

### *Environmental Overview*

The Town of Payson is located at the foot of the Mogollon Rim at an elevation of 5,000 feet. Payson is surrounded by the Mogollon highland to the north, the Sonoran Desert to the south and the Tonto National Forest to the southwest. Three varieties of vegetation exist in the Town of Payson, Great Basin Conifer Woodland, Interior Chaparral, and Petran Montaine Conifer Forest. Major hydrological features in the area include Stewart Creek, Gibson Creek, and American Gulch.

### *Areas of Concern*

Figure 2.9 shows the areas of environmental concerns in the study area.

- *Leaking Underground Storage Tanks:* The Arizona Department of Environmental Quality (ADEQ) has identified 64 locations in Payson that are former or existing underground storage tank sites.
- *Air Quality:* The Town of Payson is classified as a PM-10 maintenance area.
- *Superfund Sites:* Payson has two Superfund locations and ADEQ is funding the effort to clean up these sites.
- *Flooding:* The intersection of Main Street and SR 87 is in a floodplain and experiences flooding during periods of heavy rainfall.
- *Endangered Species:* Arizona Game and Fish Department (AZGFD) has identified several endangered species within the proximity of the planning area as shown in Figure 2.9.

**Figure 2.9  
Environmental  
Concerns**

Within the proximity of the study area Arizona Game & Fish has identified the following species and habitat as:

<b>Species of Concern:</b>	<b>Sensitive Species:</b>
<u>Animal Life (Fauna):</u> Arizona Toad Desert Sucker Maricopa Tiger Beetle Narrow-headed Gartersnake Bobolink	<u>Animal Life (Fauna):</u> Common Black-Hawk
<u>Plant Life (Flora):</u> Baboquivari Giant Hyssop	<u>Plant Life (Flora):</u> Flannel Bush
<b>Candidate Species:</b>	
<u>Animal Life (Fauna):</u> Headwater Chub	

**Features of Environmental Concern:**

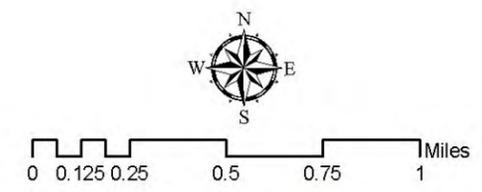
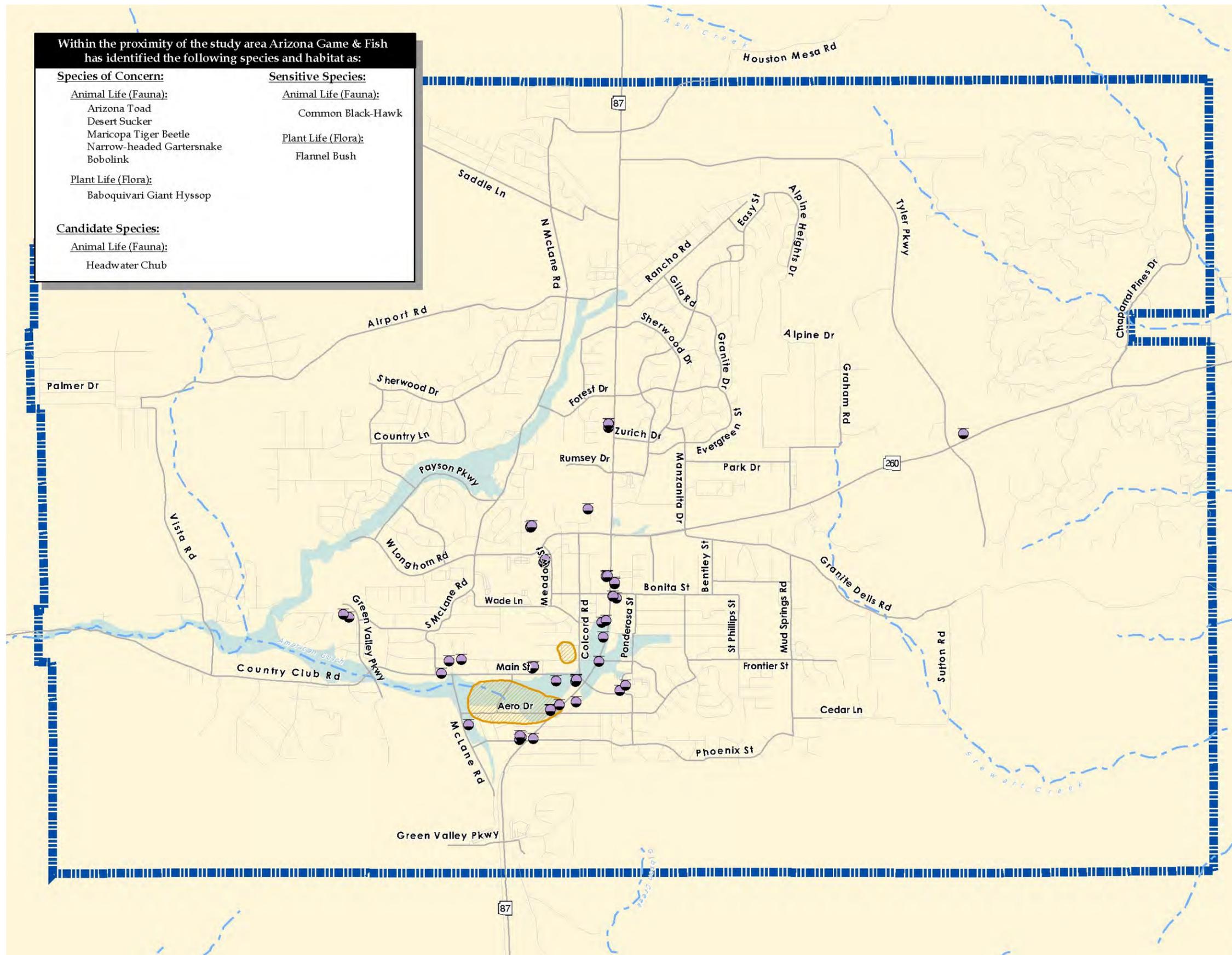
-  Former or Existing Underground Storage Tanks
-  Superfund Sites
-  Flood Hazard Areas
-  PM-10 Maintenance Area

**Reference Features:**

-  Major Roads
-  Other Local Roads
-  Streams
-  Study Area Boundary

**Data Sources:**

- Arizona Department Of Environmental Quality
- Arizona Land Resource Information System
- Arizona Department of Game and Fish



## TRANSPORTATION CONDITIONS

This section inventories major elements of the existing transportation system and documents the status/condition of each element. Major elements inventoried include bridges, pavement condition, crashes, traffic conditions, roadway performance, and other modes of transportation in the study area.

### Existing Roadway System

#### *Major Roadways*

- *SR 87/Beeline Highway* is an ADOT-owned north-south highway that serves as the primary gateway for visitors entering Payson. Local and regional traffic rely heavily on SR 87 as it connects to Phoenix in the south, SR 260, local Payson roads, and commercial and residential areas.
- *SR 260* is an east-west highway that serves both local and regional traffic. SR 260 intersects SR 87 in the center of Payson.
- *McLane Road* is a north-south minor arterial street running almost parallel to SR 87 that serves local traffic. The road extends from Main Street in the south and continues north where it intersects SR 87 north of the study area.
- *Main Street* is an east-west minor arterial that extends between SR 87 in the east and Green Valley Parkway in the west. Payson first developed along Main Street, but as the Beeline Highway and SR 260 developed, businesses relocated along these highways.

(Note: These major roadways are shown below in Figure 2.10)

#### *Roadway Functional Classification*

Functional Classification is the grouping of streets and highways by the character of service they area intended to provide. The three main functional classes, as defined by the FHWA, are arterial, collector, and local. Table 2.3 lists the functional classification types and definitions for major roadways defined by the Town of Payson's General Plan. Figure 2.10 shows the existing functional classification of these roads as defined by the Town of Payson's General Plan.

**TABLE 2.3: ROADWAY FUNCTIONAL CLASSIFICATION DEFINITIONS**

<b>CLASSIFICATION</b>	<b>DESCRIPTION</b>
<b>Major Arterial</b>	Defined as the State Highways through the planning area. These roadways are designed to carry high volumes of traffic across the region. Within the Payson planning area, these routes generally have four to six travel lanes coupled with a two-way left turn lane.
<b>Minor Arterial</b>	Designed with continuity that is intended to carry greater portion of through traffic from one area of the town to another. These roadways generally have two travel lanes and may be constructed with a two-way left turn lane.
<b>Collector</b>	Designed with primary purpose of collecting and distributing traffic to and from the arterial streets. In the Payson area, these streets typically connect local streets with arterials.
<b>Local Roads</b>	All other roads are classified as local roads. Primary purpose of these roads is to collect and distribute traffic to and from homes and businesses to the collector streets.

*Source: Town of Payson General Plan*

***Lanes and Posted Speed Limits***

A field review was conducted to inventory the number of lanes and posted speed limits for major roadways in the study area. In addition, traffic control type (signals, roundabouts, stop signs, etc.) at major intersections was also inventoried. Figure 2.11 displays the number of lanes for each roadway, speed limits, and traffic signal locations.

***Pavement Condition***

Pavement condition information for state highways in the study area was obtained from the ADOT Pavement Management System and pavement condition data for major local roads were obtained from the Town of Payson. Table 2.4 lists the pavement serviceability rating as defined by the ADOT Pavement Management Section, American Association of State Highway and Transportation Officials (AASHTO), and the pavement condition rating as defined by the National Center for Pavement Preservation. Figure 2.12 displays the pavement conditions of major roads in the study area based on these ratings. Approximately 0.6 miles of Payson roadways are in poor condition, 0.3 miles are in very poor condition, and the remainder of the roads are in fair to very good condition. Table 2.5 lists the roads with pavement condition rating of poor and very poor. As illustrated in Figure 2.12, Manzanita Drive has the lowest pavement condition rating of very poor.

**TABLE 2.4: PAVEMENT SERVICEABILITY AND PAVEMENT CONDITION RATING**

Pavement Serviceability Rating	Condition	Pavement Condition Rating	Condition
5	Perfect	90-100	Very Good
4 - 5	Very Good	75 - 90	Good
3 - 4	Good	65 - 75	Fair
2 - 3	Fair	55 - 65	Fair to Poor
1 - 2	Poor	40 - 55	Poor
0 - 1	Very Poor	0 - 40	Very Poor
0	Impassable		

Source: ADOT Pavement Management Section, AASHTO, and the National Center for Pavement Preservation

**TABLE 2.5: PAYSON ROADS PAVEMENT CONDITION**

Street Name	Beginning	Ending	Length	Pavement Rating	Condition
Bonita Street	SR 87	Ponderosa Street	632	45	Poor
Bonita Street	Ponderosa Street	St Phillips Street	2,560	45	Poor
Manzanita Drive	Evergreen Street	S. Line of Plat	141	28	Very Poor
Manzanita Drive	SR 260	N. Line Shopping Center	625	54	Poor
Manzanita Drive	N. Line Shopping Center	S. Lot Line 407	1,400	40	Very Poor

Source: ADOT Pavement Management System, Town of Payson

***Bridges and Culverts***

The Town of Payson has three major bridge structures that cross the American Gulch. These bridges are located on Vista Road, Green Valley Parkway, and Westerly Road. Table 2.6 lists the condition of Payson bridges based on these sufficiency ratings. As shown in Table 2.6, all bridge structures within the study area are currently in good condition. Bridge location and conditions are also further illustrated in Figure 2.12.

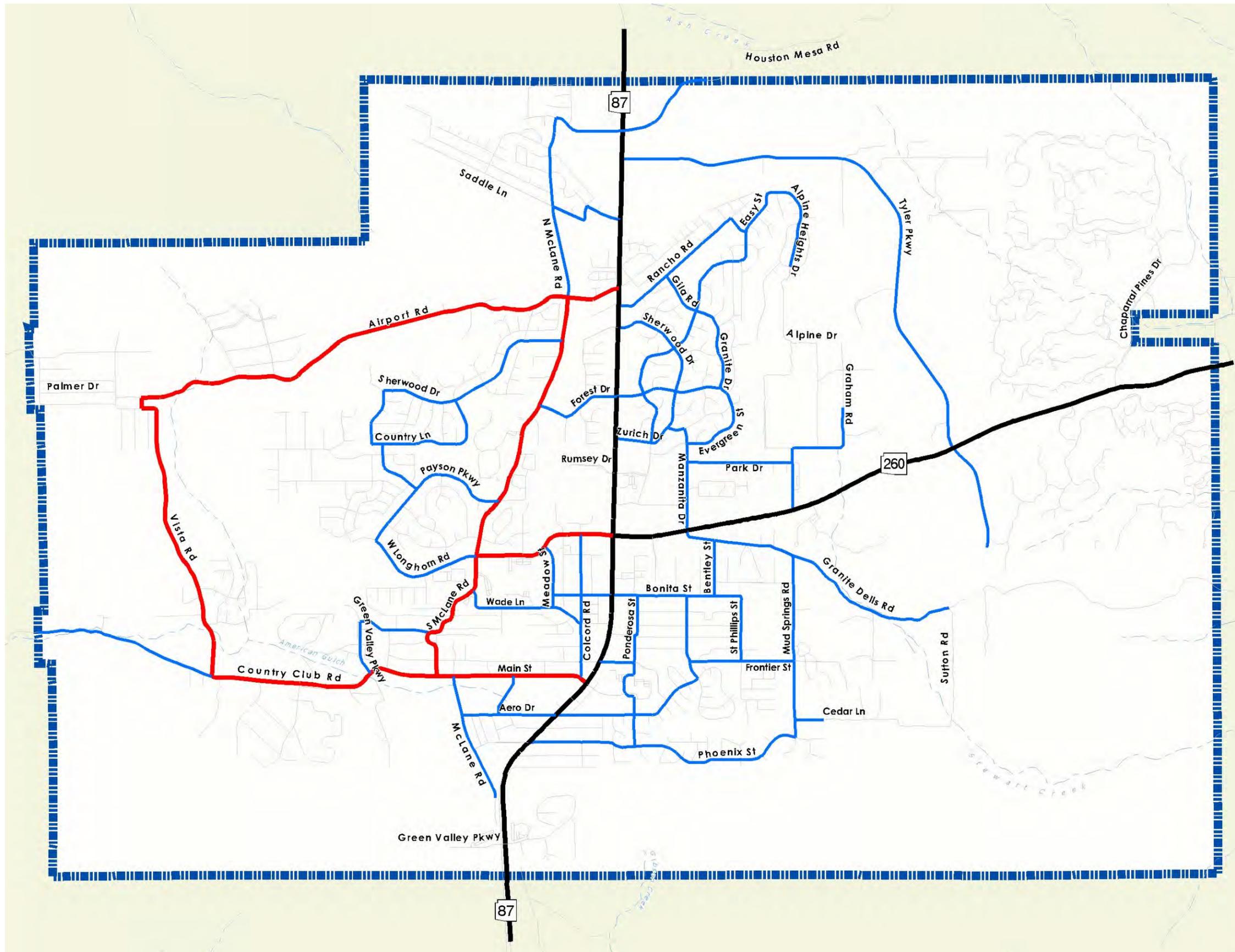
**TABLE 2.6: PAYSON BRIDGE CONDITION**

Bridge Name	Road Name	Crossing Feature	Sufficiency Rating	Condition
American Gulch RCB	Westerly Road	American Gulch	99.89	Good Condition
Green Valley Park RCB	Green Valley Parkway	American Gulch	82.94	Good Condition
American Gulch Bridge	Vista Road	American Gulch	98.96	Good Condition

\* Bridge Sufficient Rating:  
 <50 = Eligible for Replacement  
 50 - 80 = Eligible for Rehabilitation  
 >80 = Good Condition

Source: Arizona Department of Transportation 1999 Status and Condition Report

**Figure 2.10  
Existing Roadway  
Functional Classification**



**Functional Classification:**

-  Major Arterial Roadway
-  Minor Arterial Roadway
-  Collector Roadway
-  Local Roadway

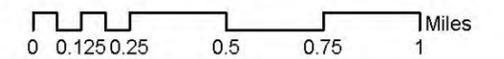
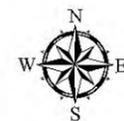
**Reference Features:**

-  Streams
-  Study Area Boundary

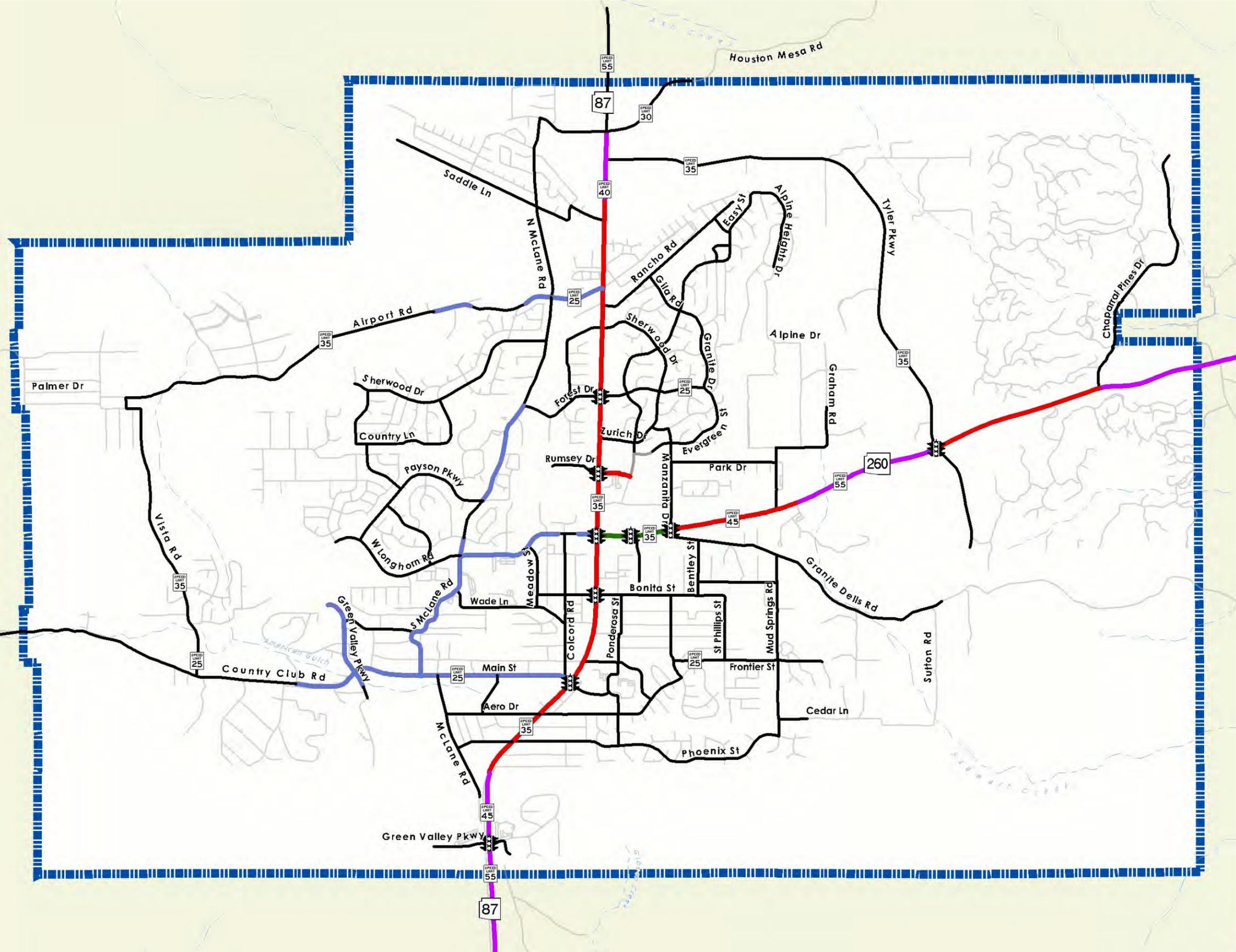
Functional Classification is the grouping of streets and highways by the character of service they intend to provide. The three main functional classes as defined by the Federal Highway Administration (FHWA) are arterial, collector, and local.

**Data Sources:**

- Town of Payson
- Arizona Department Of Transportation



**Figure 2.11**  
**Existing Number**  
**of Lanes and Posted**  
**Speed Limits**



**Number of Lanes for Major Roads:**

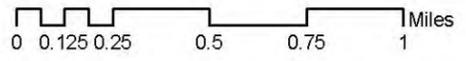
- 6 Lanes Paved
- 5 Lanes Paved
- 4 Lanes Paved
- 3 Lanes Paved
- 2 Lanes Paved
- 2 Lanes Unpaved

**Reference Features:**

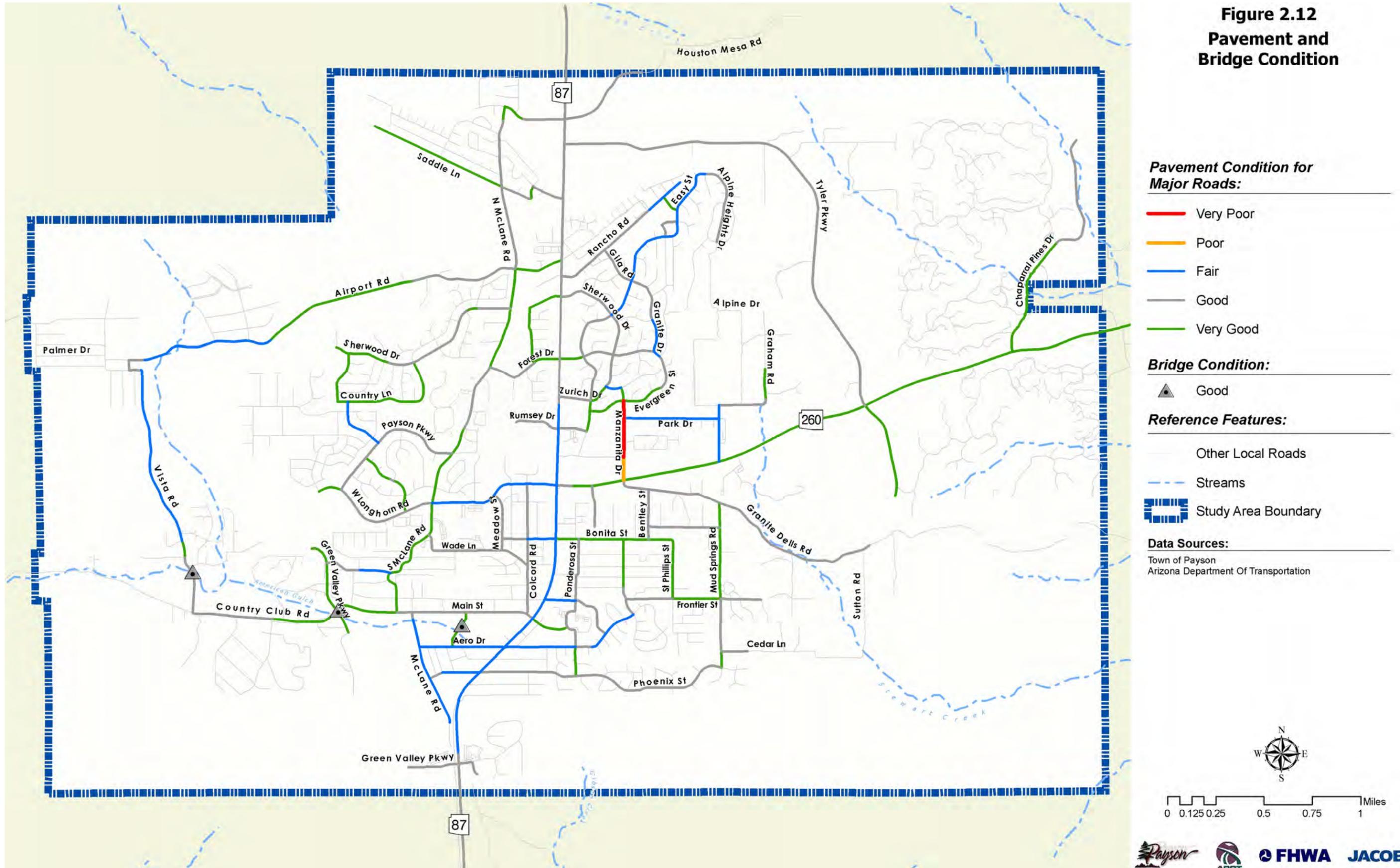
- Signalized Intersection
- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation



**Figure 2.12  
Pavement and  
Bridge Condition**



### ***Crash Data***

Crash analysis was conducted for major roadways in the study area to identify trends, patterns, predominant crash reasons, and high crash rate intersections and corridors. All crashes in the study area occurring between January 2004 and December 2008 were obtained from ADOT’s Accident Location Identification Surveillance System (ALISS) database. A total of 1,147 crashes occurred in the study area over the five year period. Analysis of the crash data found an unusually high percentage of:

- Intersection and driveway related crashes totaling 58.9% of all crashes;
- Injury crashes totaling 33% of all crashes; and
- Crashes involving pedestrians and pedalcyclists, which is significantly high for a rural community such as Payson.

Figure 2.14 illustrates the location and number of crashes at each site over the past five years and the location of the four fatal crashes that occurred in the study area. Table 2.7 lists the top seven predominant violation types for all crashes in the study area. The predominant violation type for all crashes in the study area were “Speed too fast for conditions,” “Failed to yield right-of-way,” and “Inattention”.

**TABLE 2.7: CRASHES - TOP SEVEN PREDOMINANT VIOLATION TYPES**

<b>VIOLATION TYPE</b>	<b>CRASHES</b>	<b>PERCENTAGE</b>
Speed Too Fast for Conditions	257	22.41%
Failed to Yield Right-Of-Way	248	21.62%
Inattention	182	15.87%
Other	104	9.07%
Unknown	97	8.46%
No Improper Driving	76	6.63%
Followed Too Closely	46	4.01%

Crash rates were estimated for various sections and key intersections along the SR 87 – SR 260 corridor. Table 2.8 lists the roadway segment crash rates and Table 2.9 lists the crash rates at key intersections along SR 87 and SR 260, which had the highest number of crashes in the area. Crash rates for roadway segments are expressed in terms of crashes per million vehicle miles traveled and crash rates for intersections are expressed in terms of crashes per million vehicles entering the intersection. Several intersections along SR 87 experienced a higher than average number of crashes; often these crashes

occurred at intersections where at least one leg of the intersection has a skewed approach angle. Excessive numbers of driveways along SR 87 may be the next leading cause for several crashes on SR 87.

**TABLE 2.8: CRASH RATE FOR ROADWAY SEGMENTS**

Road	Beginning	Ending	Length	Average AADT	Crashes	Crash Rate*
SR 87	Bonita Street	SR 260	0.28	26,213	75	5.60
SR 87	Main Street	Bonita Street	0.44	23,932	57	2.97
SR 260	SR 87	Manzanita Drive	0.35	19,741	28	2.22
SR 87	SR 260	Rancho Road	1.08	19,740	69	1.77
SR 87	Rancho Road	MP 255	1.3	10,767	31	1.21
SR 260	Tyler Parkway	Valley Road	1.38	16,582	45	1.08
SR 87	Study Boundary	Main Street	1.37	18,116	41	0.91
SR 260	Manzanita Drive	Tyler Parkway	1.32	17,677	35	0.82

\*Crash rate is expressed in terms of crashes per million vehicle miles traveled.

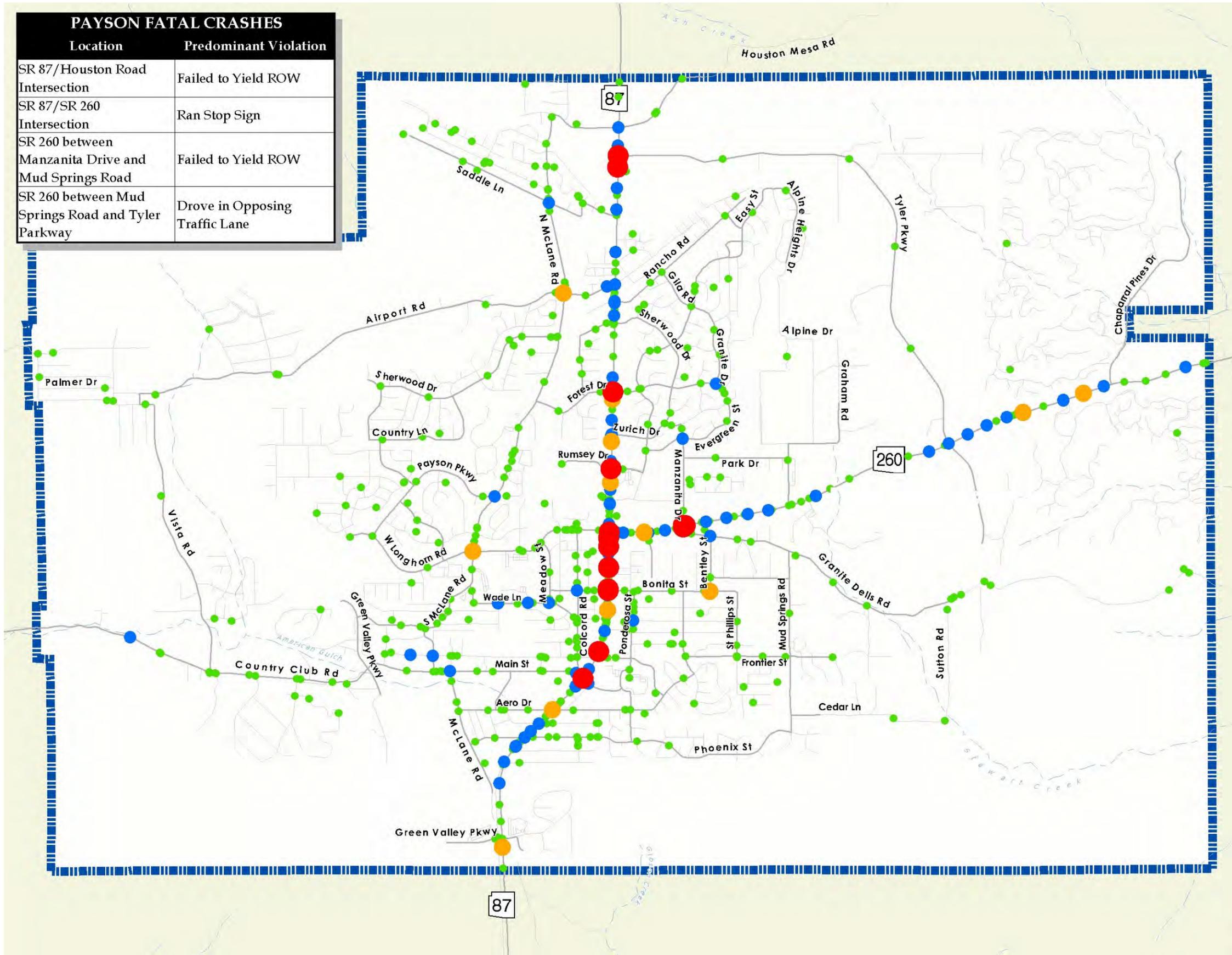
**TABLE 2.9: CRASH RATE FOR INTERSECTIONS**

Intersection	Crashes	Volume	Intersection Crash Rate*
SR 260 & Manzanita Drive	29	14,301	1.11
SR 87 & SR 260	41	36,279	0.62
SR 87 & Bonita Street	29	27,965	0.57
SR 87 & Tyler Parkway	10	10,579	0.52
SR 87 & Main Street	23	27,287	0.46
SR 87 & Forest Drive	13	22,540	0.32
SR 260 & Goodnow Road	12	20,405	0.32
SR 87 & Rancho Road	8	16,766	0.26
SR 260 & Rumsey Dr	11	23,928	0.25
SR 87 & Aero Drive	9	21,116	0.23

\*Intersection crash rate is expressed in terms of crashes per million vehicles entering the intersection.

**Figure 2.13  
Crashes Summary**

PAYSON FATAL CRASHES	
Location	Predominant Violation
SR 87/Houston Road Intersection	Failed to Yield ROW
SR 87/SR 260 Intersection	Ran Stop Sign
SR 260 between Manzanita Drive and Mud Springs Road	Failed to Yield ROW
SR 260 between Mud Springs Road and Tyler Parkway	Drove in Opposing Traffic Lane



**Number of Crashes per Location:**

- 7 - 19 Crashes
- 5 - 6 Crashes
- 2 - 4 Crashes
- 1 Crash

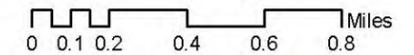
**Reference Features:**

- Major Roads
- Other Local Roads
- Streams

- Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation  
 Accident Location Identification Surveillance System  
 Database (April 2002-March 2007)



## Existing Roadway Traffic Conditions

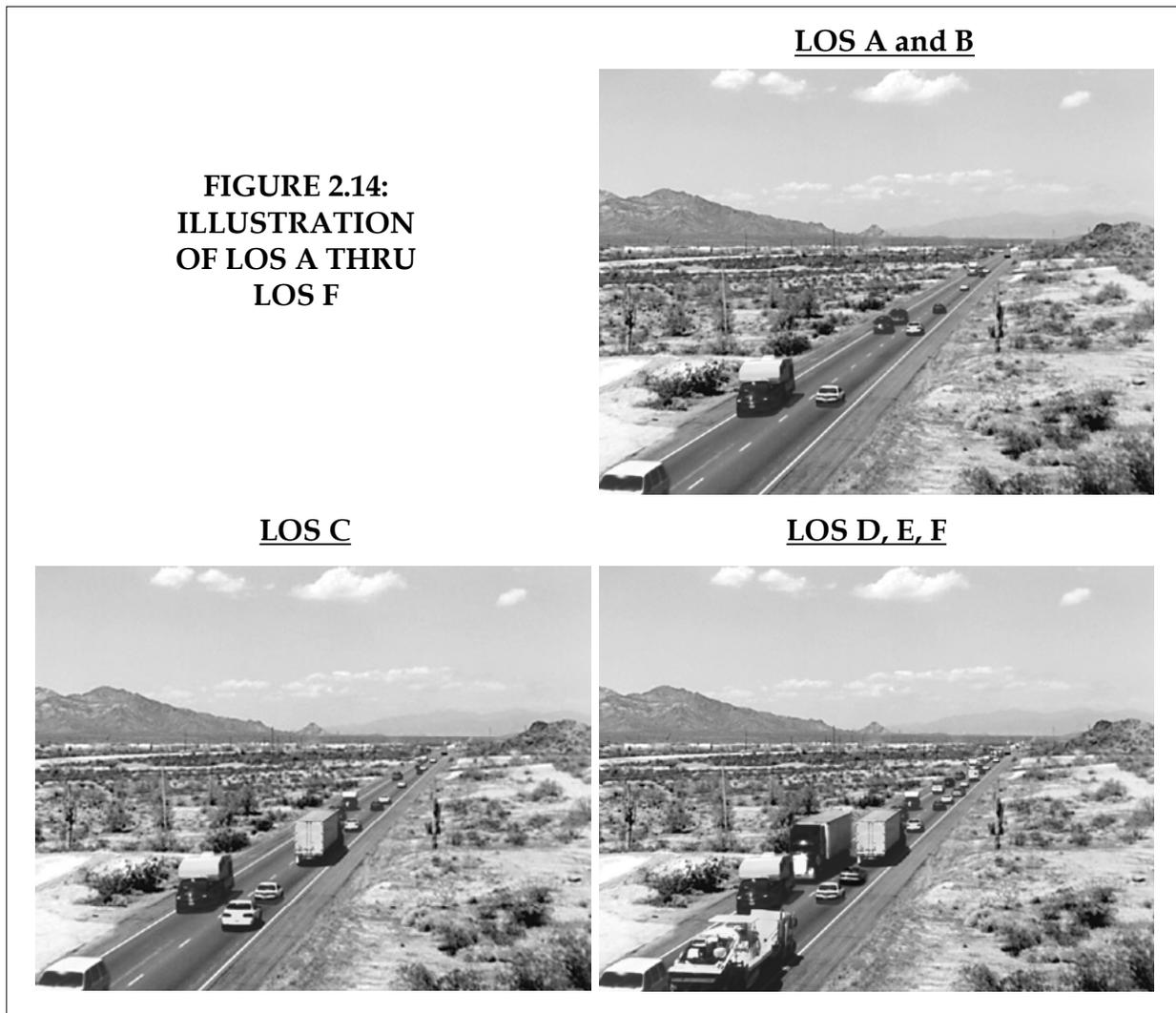
Traffic congestion on major roadways in the Town of Payson was estimated using existing traffic count data. The degree of traffic congestion is commonly expressed in terms of Level of Service (LOS). LOS is a measure of traffic flow conditions and its values range from LOS A to LOS F, with LOS A representing excellent traffic flow conditions where vehicles experience minimal delays, and LOS F representing failure conditions where vehicles experience long delays.

For a planning level analysis, the roadway LOS is determined based on the ratio of traffic volume on the road to capacity of the road. Capacity of the road is a function of the number of lanes, functional classification, speed, and roadway geometrics, and provides thresholds for the maximum number of cars allowed to travel on a lane for the peak or daily conditions. Highway Capacity Manual published by the Transportation Research Board (TRB) characterizes LOS as:

- LOS A:** ■ Best free flow operations (on uninterrupted flow facilities) and very low delay (on interrupted flow facilities). Freedom to select desired speeds and to maneuver within traffic is extremely high.
- LOS B:** ■ Flow is stable, but presence of other users is noticeable. Freedom to select desired speeds is relatively unaffected, but there is a slight decline in the freedom to maneuver within traffic.
- LOS C:** ■ Flow is stable, but the operation of users is becoming affected by the presence of other users. Maneuvering within traffic requires substantial vigilance on the part of the user.
- LOS D:** ■ High density but stable flow. Speed and freedom to maneuver are severely restricted. The driver is experiencing a generally poor level of comfort and convenience.
- LOS E:** ■ Flow is at or near capacity. All speeds are reduced to a low, but relatively uniform value. Freedom to maneuver within traffic is extremely difficult. Comfort and convenience levels are extremely poor.
- LOS F:** ■ Worst flow operations. Facility has failed or a breakdown has occurred.

In general for rural areas, LOS A & B represents no congestion, LOS C represents moderate congestion, and LOS D, E, & F represent severe congestion. Figure 2.14 is a pictorial representation of LOS A thru F.

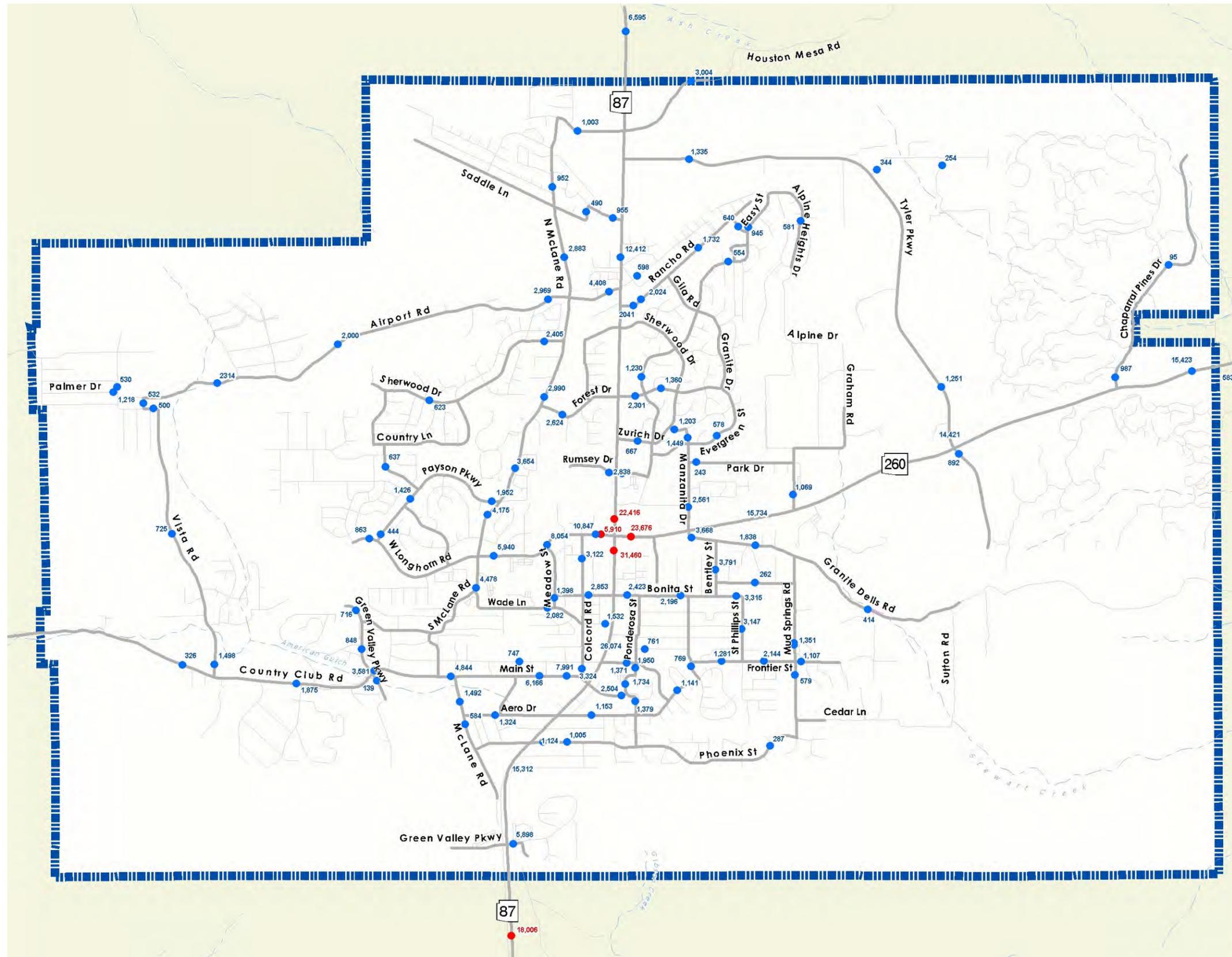
**FIGURE 2.14: ILLUSTRATION OF LOS A THRU LOS F**



*Source: Highway Capacity Manual*

Tourism, in-migrating retirees, and seasonal residents are the primary drivers of the Payson economy; as a result the Town of Payson roads carry at least 15% – 30% more traffic during the peak summer season (more than yearly average or winter season). Existing daily traffic count data was obtained from the Town of Payson, CAAG, and ADOT. In addition, new daily traffic counts were collected at key locations throughout the study area. Figure 2.15 displays the daily traffic counts. As shown in the Figure 2.15, SR 87 and SR 260 are carrying the highest amount of traffic.

**Figure 2.15**  
**Daily Traffic Counts**



**Traffic Count Type:**

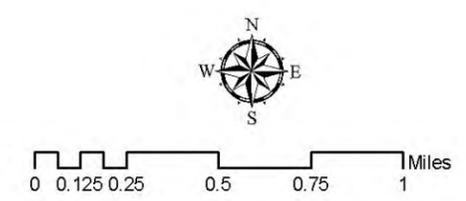
- Weekday Daily Traffic Counts
- Weekend Daily Traffic Counts

**Reference Features:**

- Major Roads
- Other Local Roads
- Streams
- ▭ Study Area Boundary

**Data Sources:**

Arizona Department Of Transportation  
Central Arizona Association of Governments  
Town of Payson



### *Current Roadway Level of Service*

Figure 2.16 illustrates the current LOS for roadways within the Town of Payson. The following is a summary of roadway LOS conditions:

**LOS F:** ■ Entrance road to the Mazatzal casino (operated by the Tonto Apache Tribe)

**LOS D:** ■ SR 87 between SR 260 and Bonita Street

**LOS C:** ■ SR 87: Green Valley Parkway to Phoenix Street.  
■ SR 87: Main Street to Bonita Street.  
■ SR 87: SR 260 to Forest Drive.  
■ SR 260: SR 87 to Goodnow Road.  
■ Rumsey Drive: entire section.  
■ Saddle Lane: West of McLane Road.  
■ Main Street: East of SR 87.

**LOS A & B:** ■ All other roads operate at LOS B or better.

### *Current Intersection Level of Service*

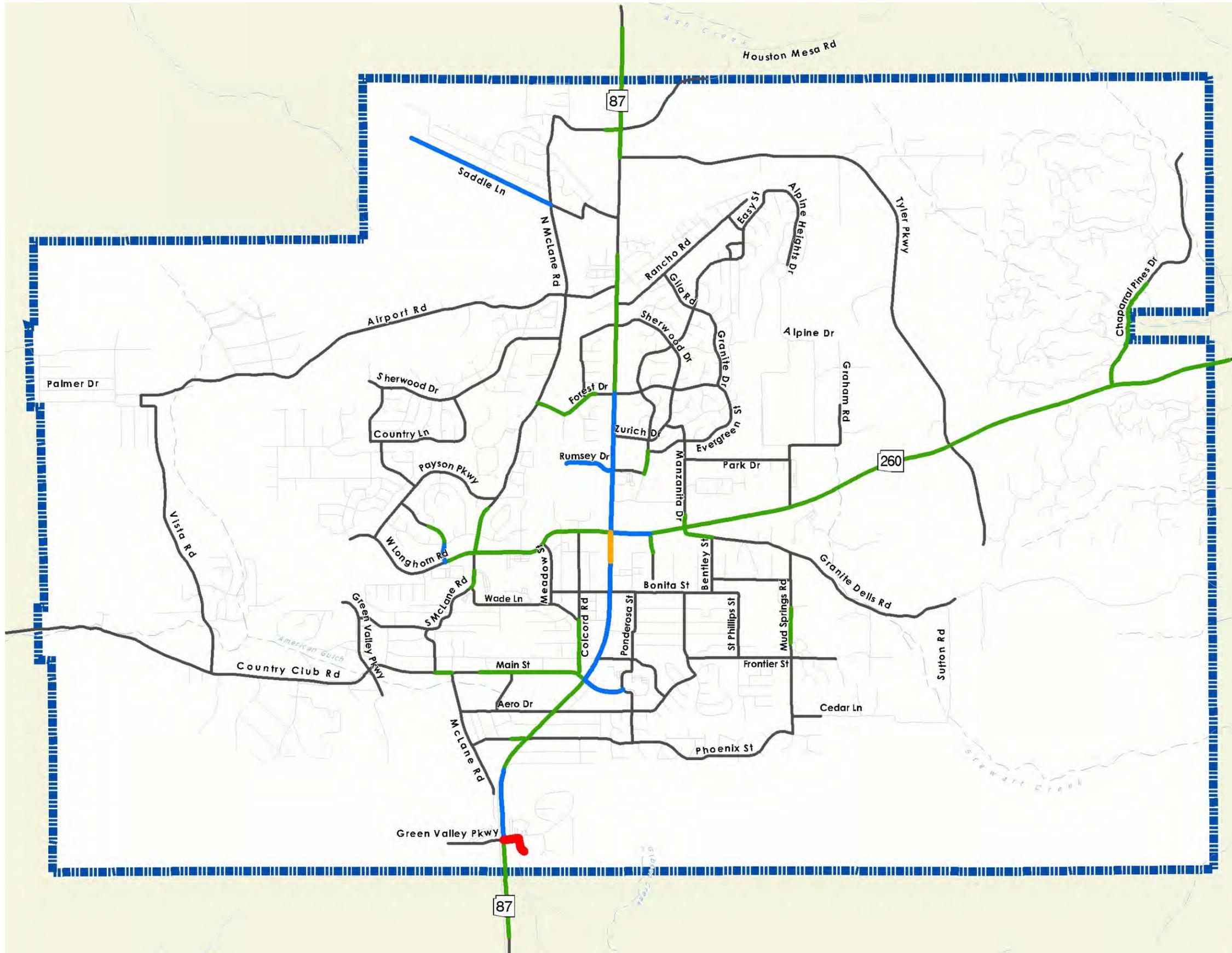
Figure 2.17 illustrates the current overall intersection LOS, and LOS at for each turn movement for each leg/approach of the intersection. The following is a summary of intersection LOS conditions.

**LOS D:** ■ SR 87 /SR 260 intersection during weekend AM/PM peak hour.

**LOS C:** ■ SR 87/SR 260 intersection during weekday AM/PM peak hour.  
■ SR 87/Forest Drive intersection operates at LOS A. However, Forest Drive approach operates at LOS C.  
■ SR 87/Bonita Street intersection operates at LOS A. However, Bonita Street approach operates at an LOS of C.  
■ Main Street/Colcord Street intersection operates at LOS C.

**LOS A & B:** ■ All other roads operate at LOS B or better.

**Figure 2.16**  
**Level of Service**  
**Year 2009**



**Level of Service for Major Roads:**

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

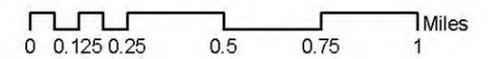
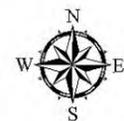
**Reference Features:**

- Other Local Roads
- Streams
- ▭ Study Area Boundary

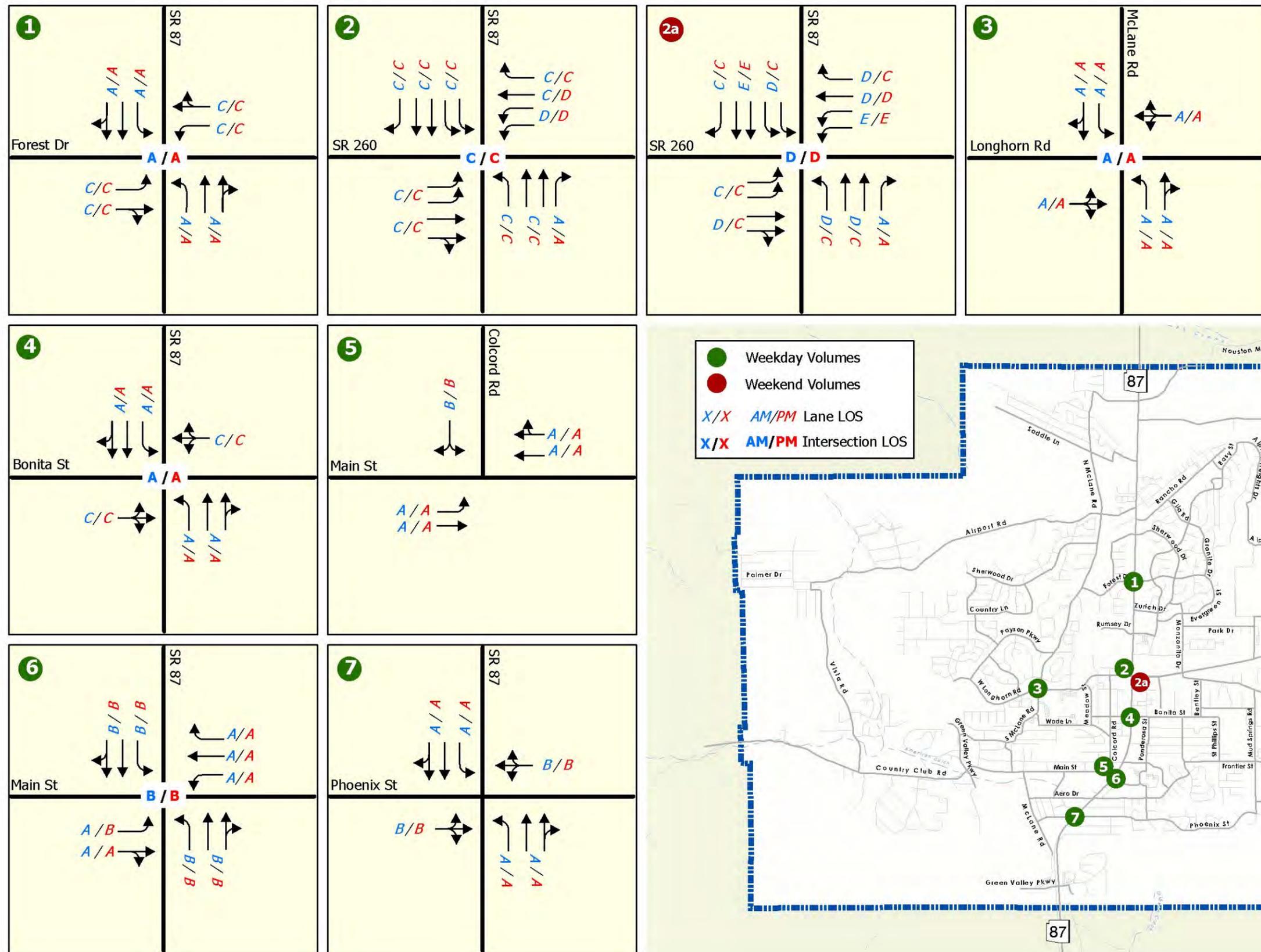
Level-of-service (LOS) is a measure-of-effectiveness to determine the quality of service for roadways and intersections. LOS values range from letters A through F, with A being best traffic flow condition and F being worst traffic flow condition.

**Data Sources:**

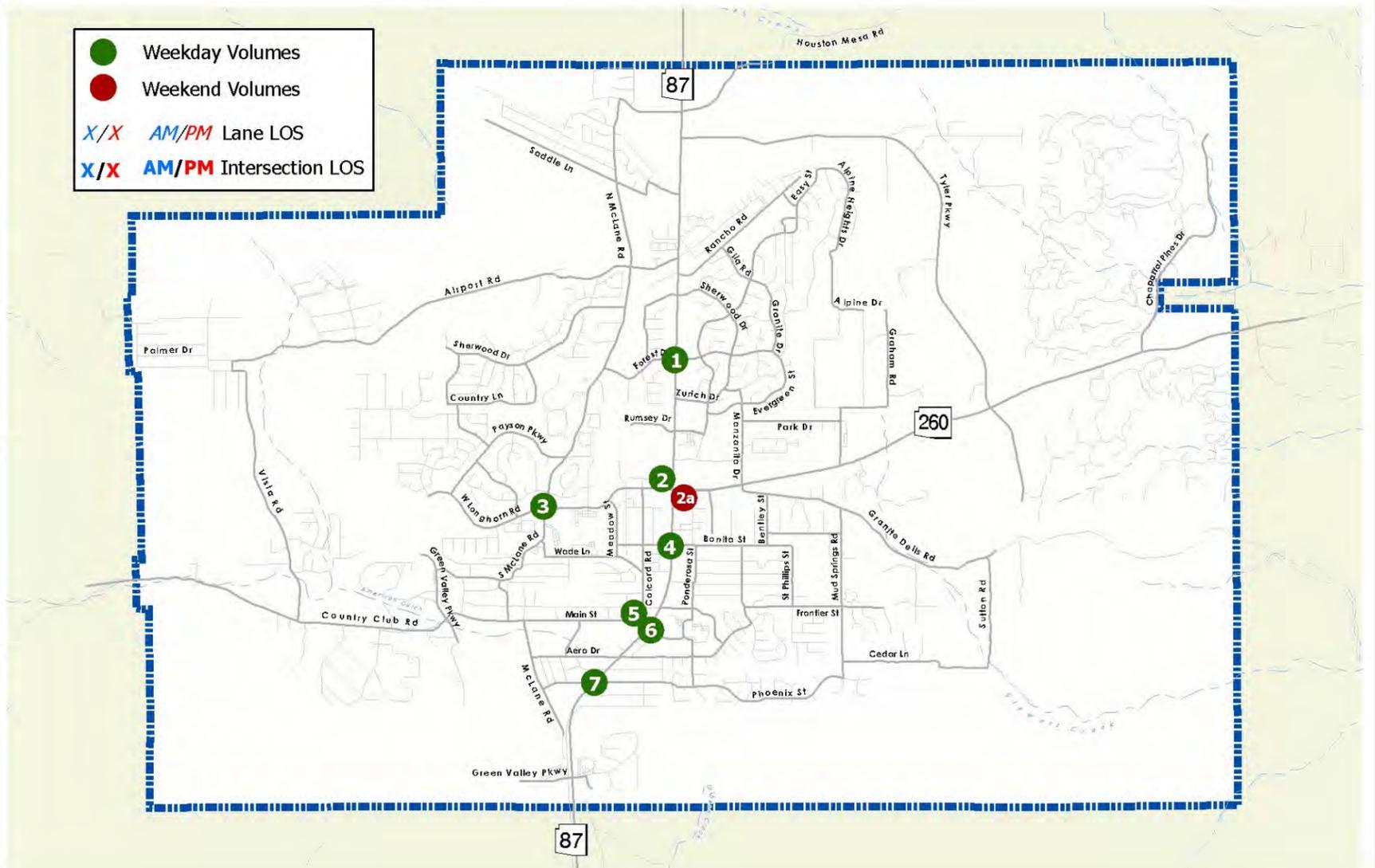
- Town of Payson
- Arizona Department Of Transportation



**Figure 2.17**  
**Year 2009 Intersection Lane**  
**Configuration and Peak Hour**  
**Level of Service**



- Weekday Volumes
- Weekend Volumes
- X/X AM/PM Lane LOS
- X/X AM/PM Intersection LOS



## Other Modes of Transportation

### *Pedestrian and Bicycle Facilities*

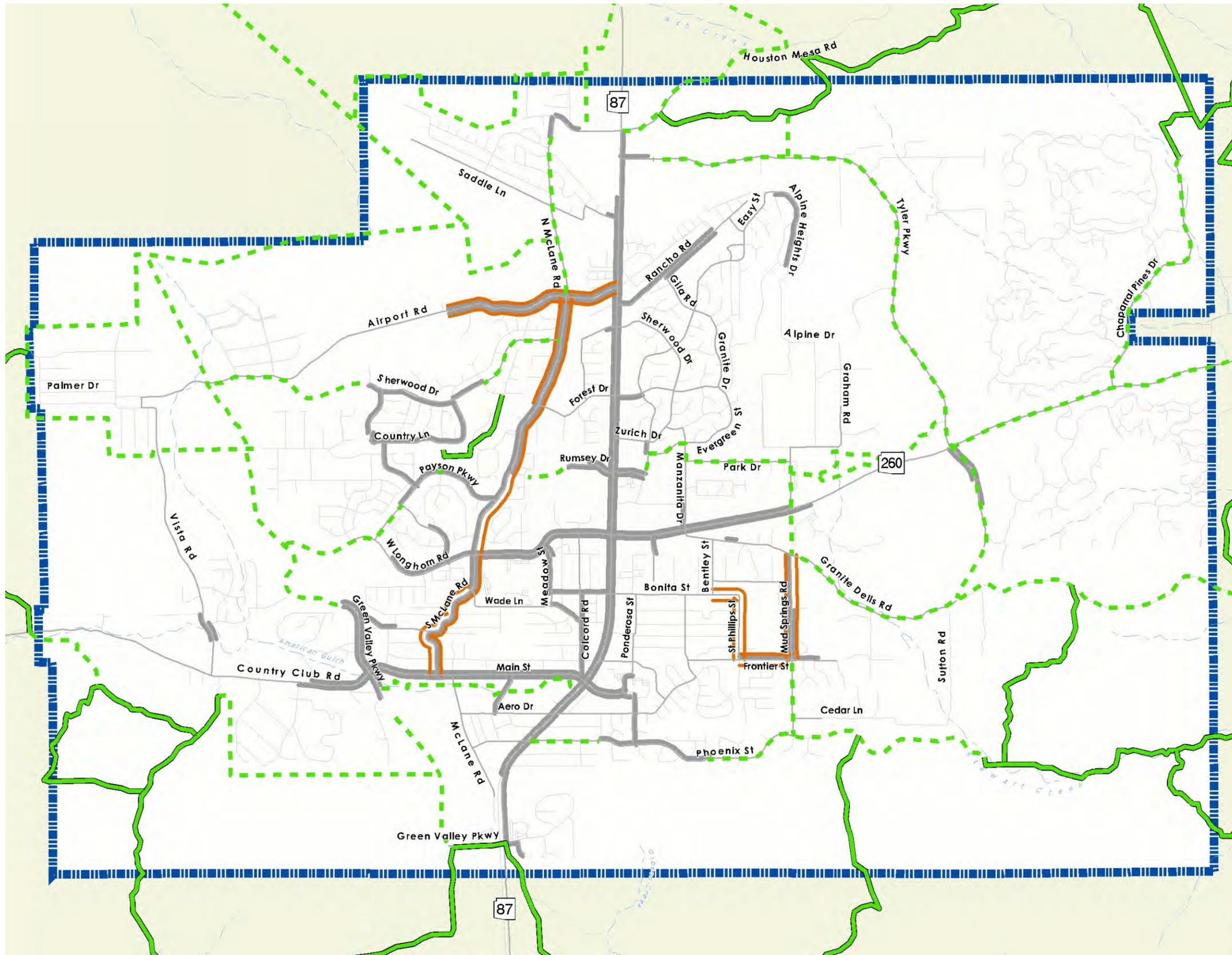
Figure 2.18 illustrates the comprehensive trail plan completed by the Town of Payson to accommodate recreational travel. The system is comprised of a series of sidewalks, bike lanes, trails (located both in the Town and in U.S. Forest Service land).. The Town of Payson currently maintains approximately 19 miles of sidewalks and three miles of bike lanes.

### *Transit*

According to the 2005 Town of Payson *Public Transit Feasibility Report*, the Town is served by private carriers; however, no formal intercity public fixed transit operation currently exists. Currently, two shuttle services provide transfers to Phoenix Sky Harbor Airport to neighboring towns. Local and regional transit service is provided by:

- *White Mountain Passenger Lines* provides passenger bus and express package delivery service from Arizona White Mountain communities to the Phoenix metro area. The service operates daily except Sundays and select holidays and stops at Payson Packaging.
- *Timberline VIP* makes round trips daily, including weekends and holidays, between Springerville and Phoenix Sky Harbor International Airport.
- *Special Needs Services in the Payson Area: Safe Ride Services* provides transportation services for the disabled. The Senior Center operates a small bus and a van that are used to transfer seniors and to deliver meals. Two nursing homes in Payson, the Payson Care Center and Rim Country North, also use vehicles to transport their residents.
- *Touch of Class Limousine Service* provides service to/from Phoenix Sky Harbor Airport. According to previous studies, Touch of Class has expressed an interest in being a contract operator for the Town.
- *Casino Transportation:* The Mazatzal Casino operates an on-demand-response service to bring tourists from Payson area motels and residences to the Casino. Mazatzal Casino also operates group tours to bring patrons from the Phoenix area to Payson and vice versa. No regularly scheduled service is provided.

**Figure 2.18  
Payson Trails with  
Existing Bicycle and  
Pedestrian Facilities**



**Bicycle and Pedestrian Facilities and Trails:**

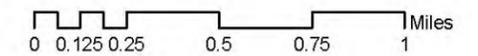
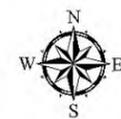
- Existing Trails
- - - Proposed Trails
- Bike Lane
- Sidewalk

**Reference Features:**

- Major Roads
- Other Local Roads
- - - Streams
- - - Study Area Boundary

**Data Sources:**

Town of Payson  
Arizona Department Of Transportation



## **Access Management**

Access management is the practice of a range of strategies and techniques that improves the safety and efficiency of roads by managing access to land developments while preserving traffic flow on surrounding roadways. The Town of Payson does not currently have an access management policy in place. Access to the state highway system is managed through Arizona Administrative Rule R17-3-712, Encroachments in Highway Rights-of-Way. Permits for driveways are granted by ADOT's Engineering Districts in accordance with Rule R17-3-712, when the request meets all engineering and safety standards. ADOT is presently revising its access management guidelines for the state highway system, which includes SR 87 and SR 260 through Payson.

### 3. FUTURE CONDITIONS

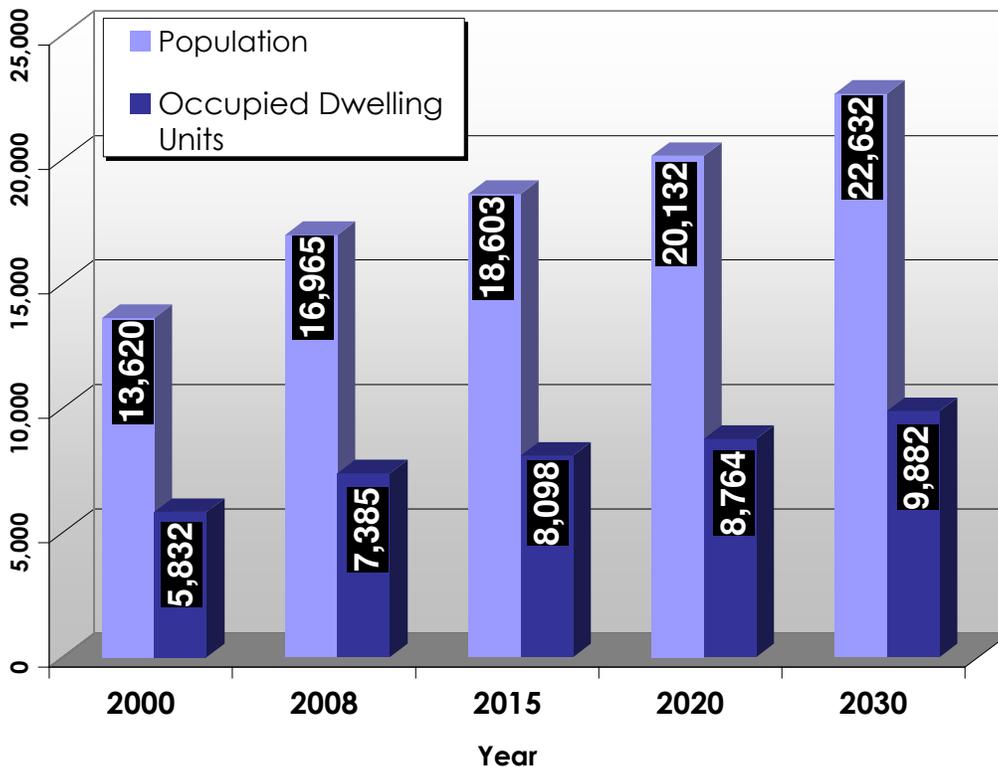
The future horizon years for the Payson Long Range Transportation Planning Study are years 2015, 2020, and 2030.

#### FUTURE SOCIOECONOMIC CONDITIONS

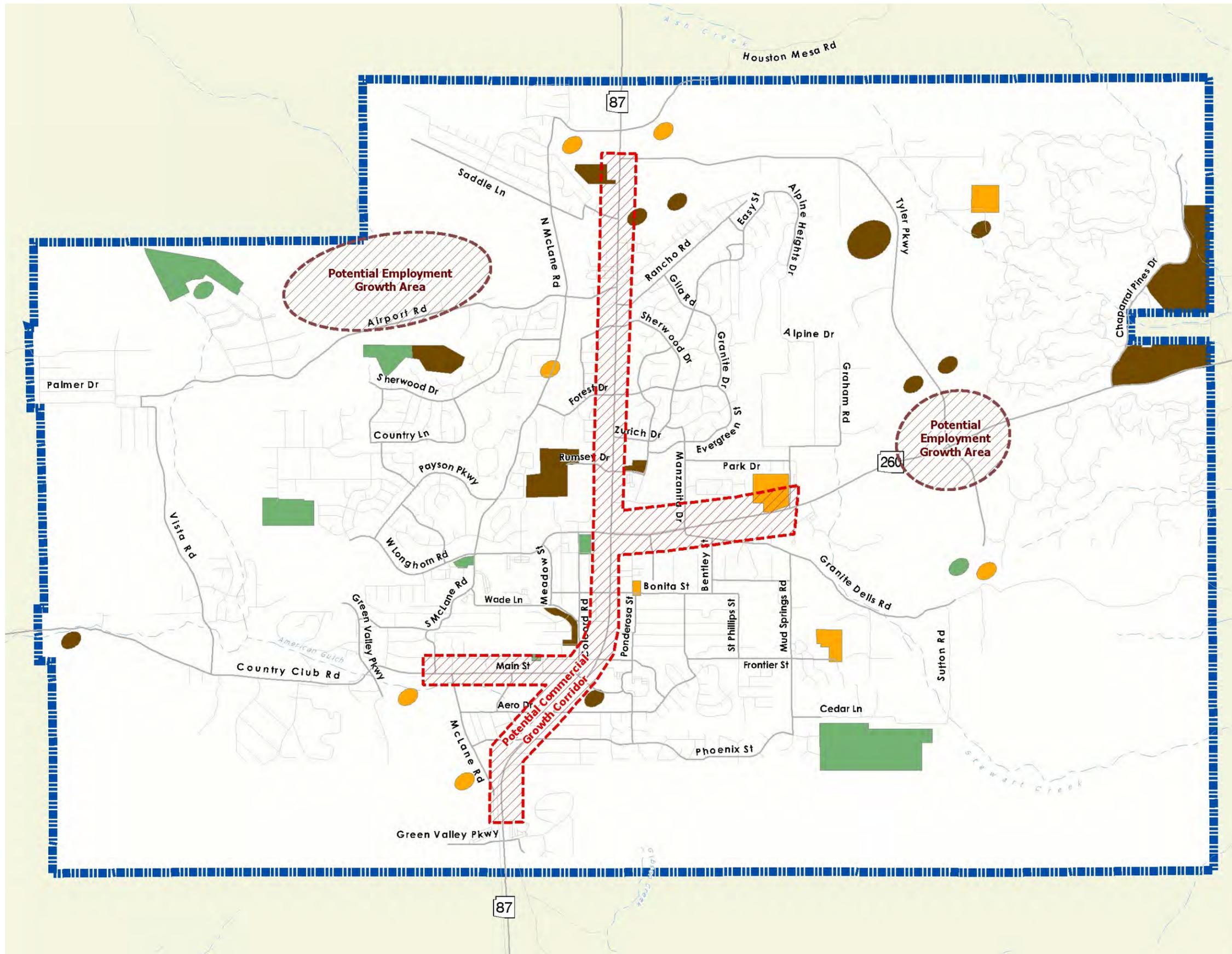
##### Population, Housing Unit, and Employment Forecasts

This study utilized the Arizona Department of Commerce population forecasts of 18,603 by 2015, a population of 20,132 by 2020, and a population of 22,632 by 2030 for the Town. Furthermore, it was assumed that the current population to occupied housing unit ratio of 2.30 in the Town of Payson will continue for future horizon years. Based on this assumption, it was estimated that the Town of Payson will have 8,098 occupied housing units in 2015, 8,764 occupied housing units in 2020, and 9,882 occupied housing units in 2030. Figure 3.1 is a graphical illustration of the population and occupied housing unit growth trends. Figure 3.2 displays the approximate locations of future developments.

**FIGURE 3.1: HISTORICAL AND PROJECTED POPULATION AND OCCUPIED HOUSING UNITS, 2000 - 2030**



**Figure 3.2  
Planned  
Developments\***



**Developments:**

- Year 2015
- Year 2020
- Year 2030

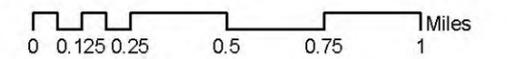
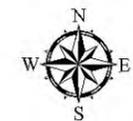
\* Represents approximate location and not actual location

**Reference Features:**

- Major Roads
- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

Town of Payson  
Arizona Department Of Transportation



The Town’s General Land Use Plan was used as a guide in developing the estimate of future employment. Currently, the Town of Payson’s employment to population ratio is 0.39. For this study, it was assumed that this ratio will remain constant for all future horizon years. Based on this assumption, the Town of Payson will have approximately 7,350 employees in 2015, 7,887 employees in 2020, and 8,952 employees in 2030. Table 3.1 shows a tabular summary of projected employment for the Town of Payson.

**TABLE 3.1: PROJECTED EMPLOYMENT, 2008 - 2030**

	2008	2015	2020	2030
Population	16,965	18,603	20,132	22,632
Total Employment	6,714	7,350	7,887	8,952
Employment/Population Ratio	0.39	0.39	0.39	0.39

### **Socioeconomic Data for Travel Demand Model**

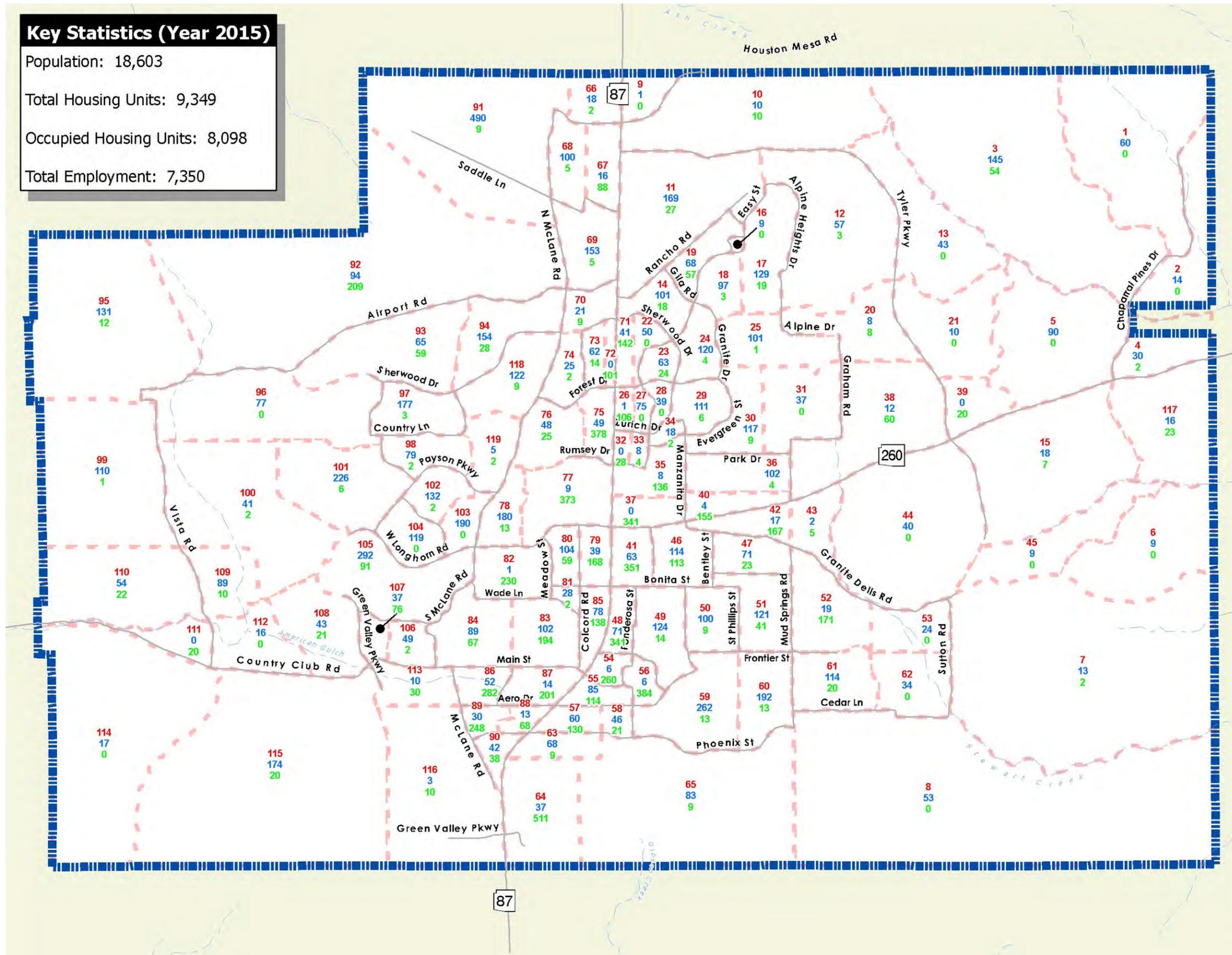
A travel demand model was developed using TransCAD software to estimate current traffic volumes and to forecast future traffic volumes for horizon years 2015, 2020, and 2030. Traffic volumes were forecasted for all major roads in the study area.

Future socioeconomic data (population, housing units, and employment), was disaggregated into the travel model’s TAZs. Housing units were distributed to appropriate TAZs based on the location of future planned developments and the Town’s General Land Use Plan. Employment data was also distributed to appropriate TAZs for each employment category based on locations identified in the General Land Use Plan. According to the town’s General Land Use Plan, the commercial growth will continue to concentrate along SR 87 and SR 260 with the addition of Main Street. Other employment growth areas include Airport Road and the vicinity of the SR 260 and Tyler Parkway intersection. Figures 3.3 through 3.5 display the occupied housing units and total employment in each TAZ for 2015, 2020, and 2030 respectively.

### Key Statistics (Year 2015)

Population: 18,603  
 Total Housing Units: 9,349  
 Occupied Housing Units: 8,098  
 Total Employment: 7,350

**Figure 3.3**  
**Projected Occupied Dwelling**  
**Units and Employment by**  
**Traffic Analysis Zone**  
**Year 2015**



#### Occupied Dwelling Units:

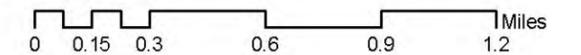
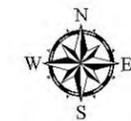
- TAZ Boundary
- XX TAZ Number
- XX Occupied Dwelling Units
- XX Total Employment

#### Reference Features:

- Major Roads
- Streams
- Study Area Boundary

#### Data Sources:

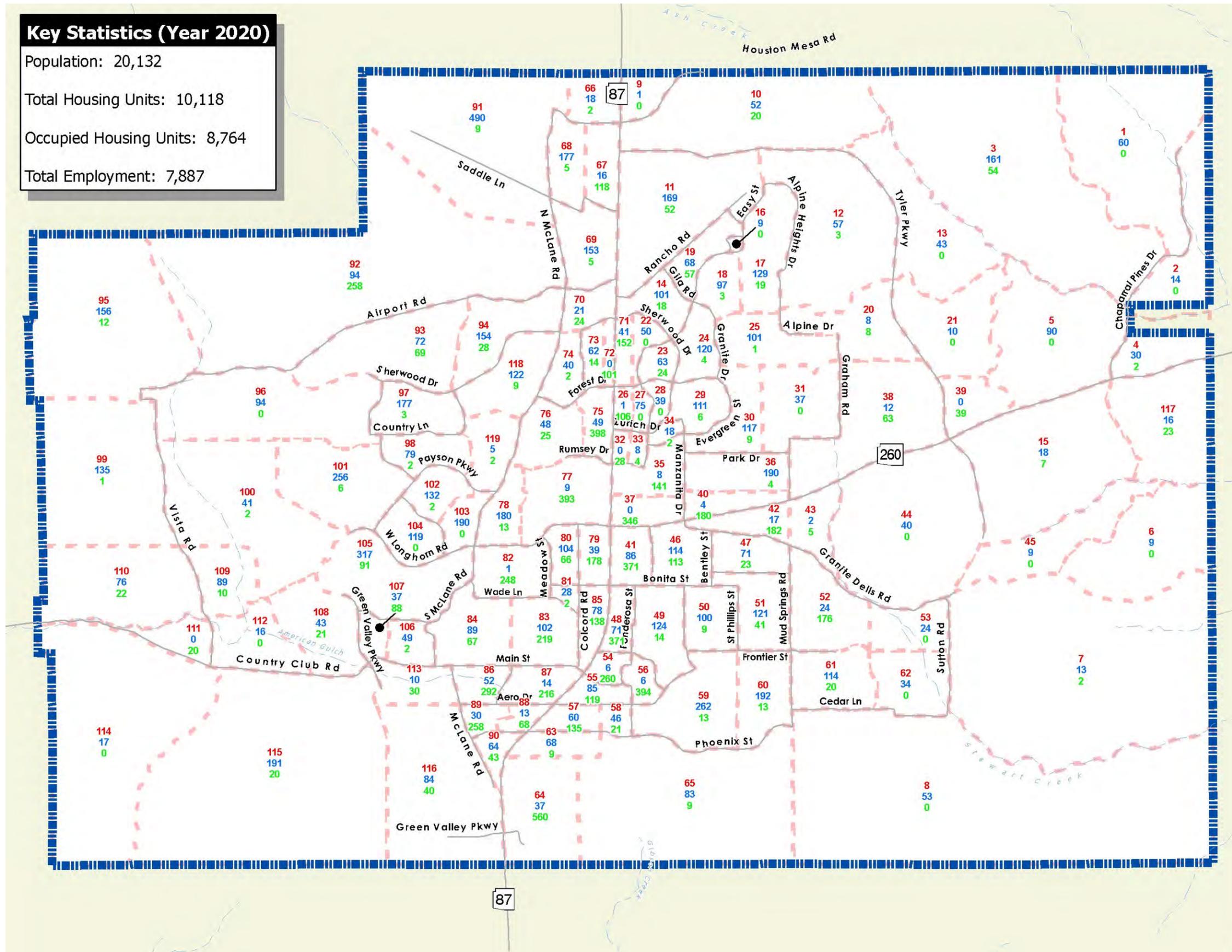
Town of Payson  
 Arizona Department Of Commerce  
 Jacobs Engineering



**Key Statistics (Year 2020)**

Population: 20,132  
 Total Housing Units: 10,118  
 Occupied Housing Units: 8,764  
 Total Employment: 7,887

**Figure 3.4**  
**Projected Occupied Dwelling**  
**Units and Employment by**  
**Traffic Analysis Zone**  
**Year 2020**



**Occupied Dwelling Units:**

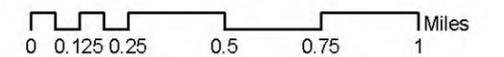
- TAZ Boundary
- XX TAZ Number
- XX Occupied Dwelling Units
- XX Total Employment

**Reference Features:**

- Major Roads
- Streams
- Study Area Boundary

**Data Sources:**

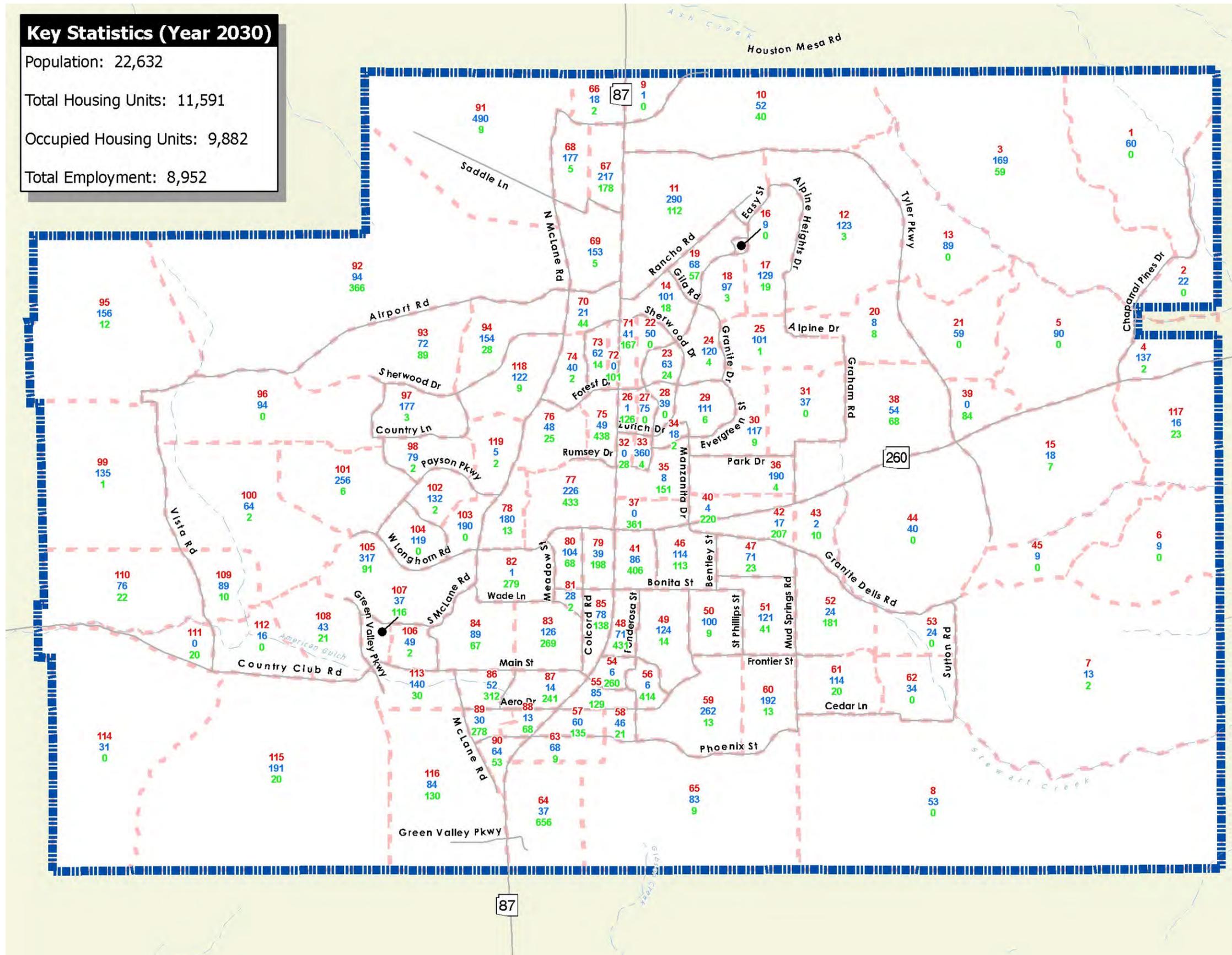
Town of Payson  
 Arizona Department Of Commerce  
 Jacobs Engineering



### Key Statistics (Year 2030)

Population: 22,632  
 Total Housing Units: 11,591  
 Occupied Housing Units: 9,882  
 Total Employment: 8,952

**Figure 3.5**  
**Projected Occupied Dwelling**  
**Units and Employment by**  
**Traffic Analysis Zone**  
**Year 2030**



#### Occupied Dwelling Units:

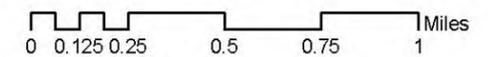
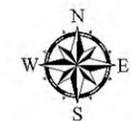
- TAZ Boundary
- XX TAZ Number
- XX Occupied Dwelling Units
- XX Total Employment

#### Reference Features:

- Major Roads
- Streams
- Study Area Boundary

#### Data Sources:

Town of Payson  
 Arizona Department Of Commerce  
 Jacobs Engineering



## FUTURE TRANSPORTATION CONDITIONS

The primary purpose of forecasting future traffic volumes is to estimate the additional travel demand added to existing roadways and to forecast congestion levels due to projected growth in population and employment.

### Projected 2015 No-Build Average Weekday Traffic Conditions

Figure 3.6 displays the projected 2015 traffic volumes and LOS for the current roadway network with projected 2015 socioeconomic conditions *if no roadway improvements are made (No-Build)*. Traffic volumes and LOS results in this section represent average annual daily traffic conditions. Peak season traffic volumes and LOS levels are higher.

### Projected 2015 Roadway Level of Service

The following is a summary of roadway LOS conditions:

- LOS F:** ■ Entrance road to the Mazatzal Casino (operated by the Tonto Apache Tribe).
- LOS D:** ■ SR 87: SR 260 and Bonita Street.  
■ Main Street: SR 87 and Mariposa Lane.
- LOS C:** ■ SR 87: Green Valley Parkway to Bonita Street.  
■ SR 87: SR 260 to Forest Drive.  
■ SR 87: Tyler Parkway to Houston Mesa Road.  
■ SR 260: SR 87 to Goodnow Road.  
■ SR 260: Manzanita Drive to east end of study area.  
■ Rumsey Drive: Entire section.  
■ Saddle Lane: West of McLane Road.
- LOS A & B:** ■ All other roads operate at LOS B or better.

### Projected 2015 Intersection Level of Service

Figure 3.7 presents the LOS of overall intersections and for each turn movement of the intersections. The following is summary of intersection LOS conditions:

- LOS D:** ■ SR 87/SR 260 intersection during weekend AM/PM peak hour and weekday PM peak hour.
- LOS C:** ■ SR 87/SR 260 intersection during weekday AM peak hour.  
■ Main Street/SR 87 intersection during PM peak hour.
- LOS A & B:** ■ All other intersections operate at LOS B or better.

**Figure 3.6**  
**Projected Average**  
**Daily Traffic Volumes**  
**and Level of Service with**  
**No Improvements**  
**Year 2015**

**Average Daily Traffic Volumes:**

XXX Daily Traffic Volumes (thousands)

**Level of Service:**

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

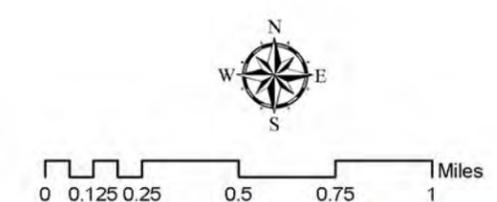
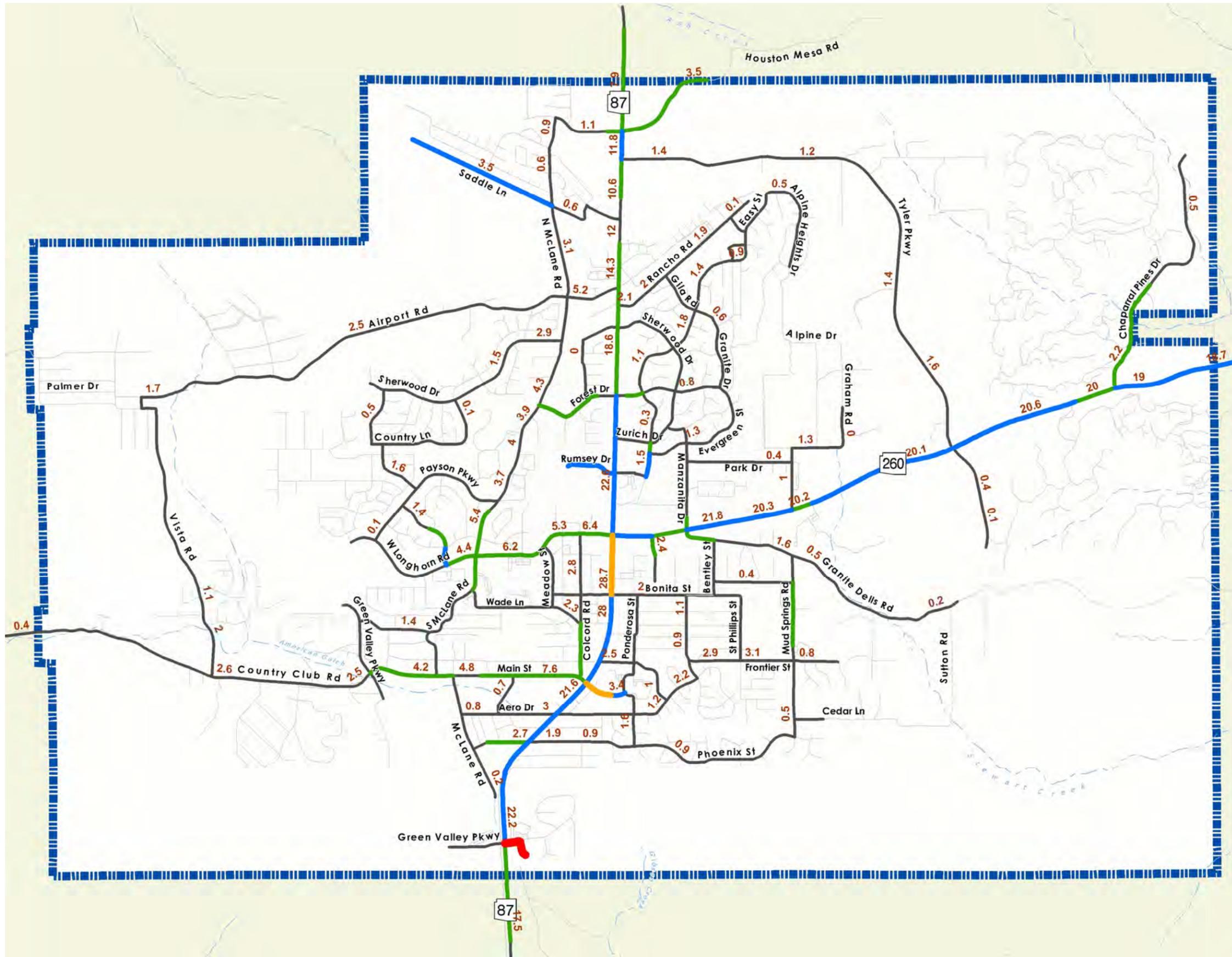
**Reference Features:**

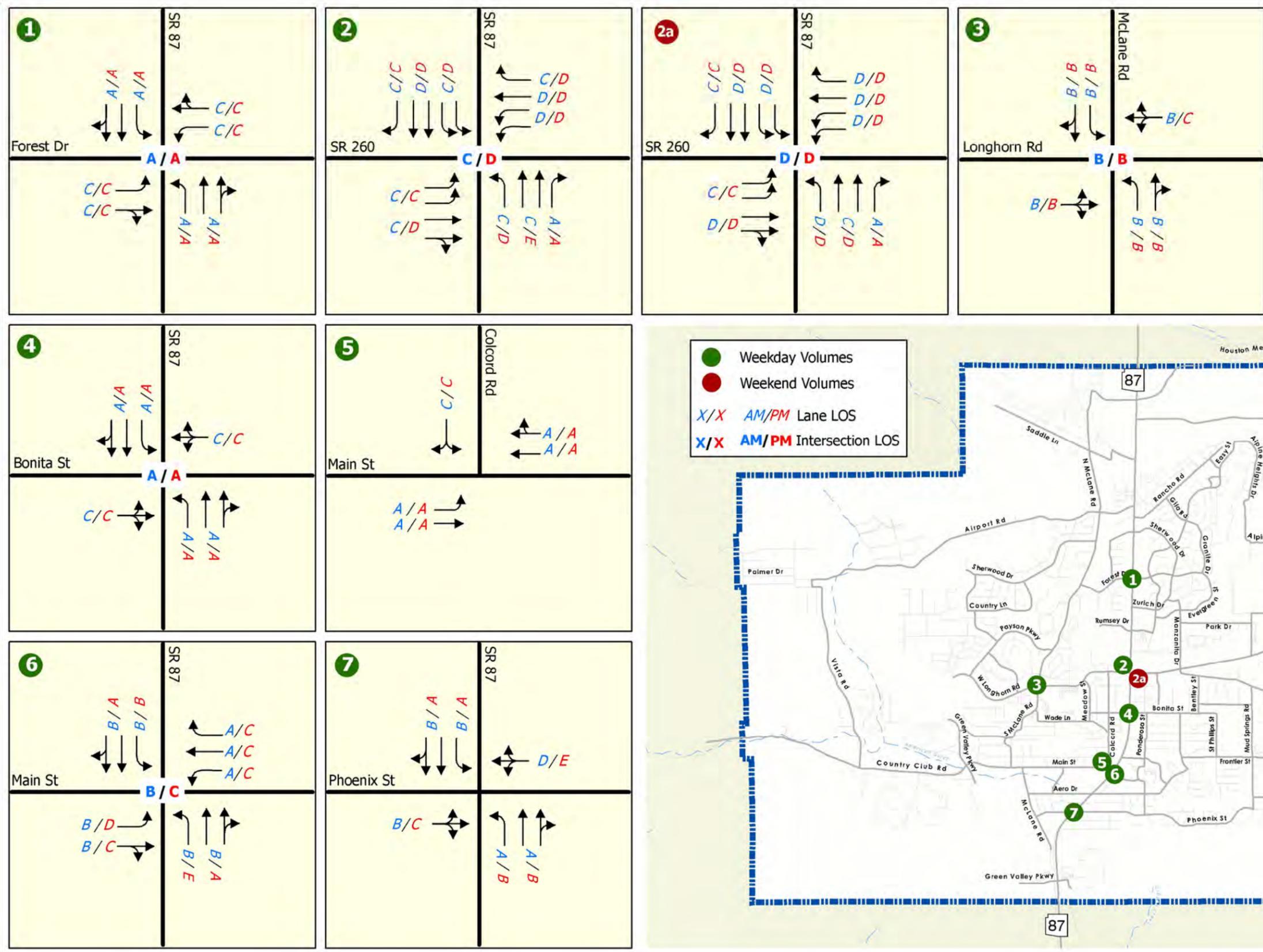
- Other Local Roads
- Streams
- ▭ Study Area Boundary

Level-of-service (LOS) is a measure-of-effectiveness to determine the quality of service for roadways and intersections. LOS values range from letters A through F, with A being best traffic flow condition and F being worst traffic flow condition.

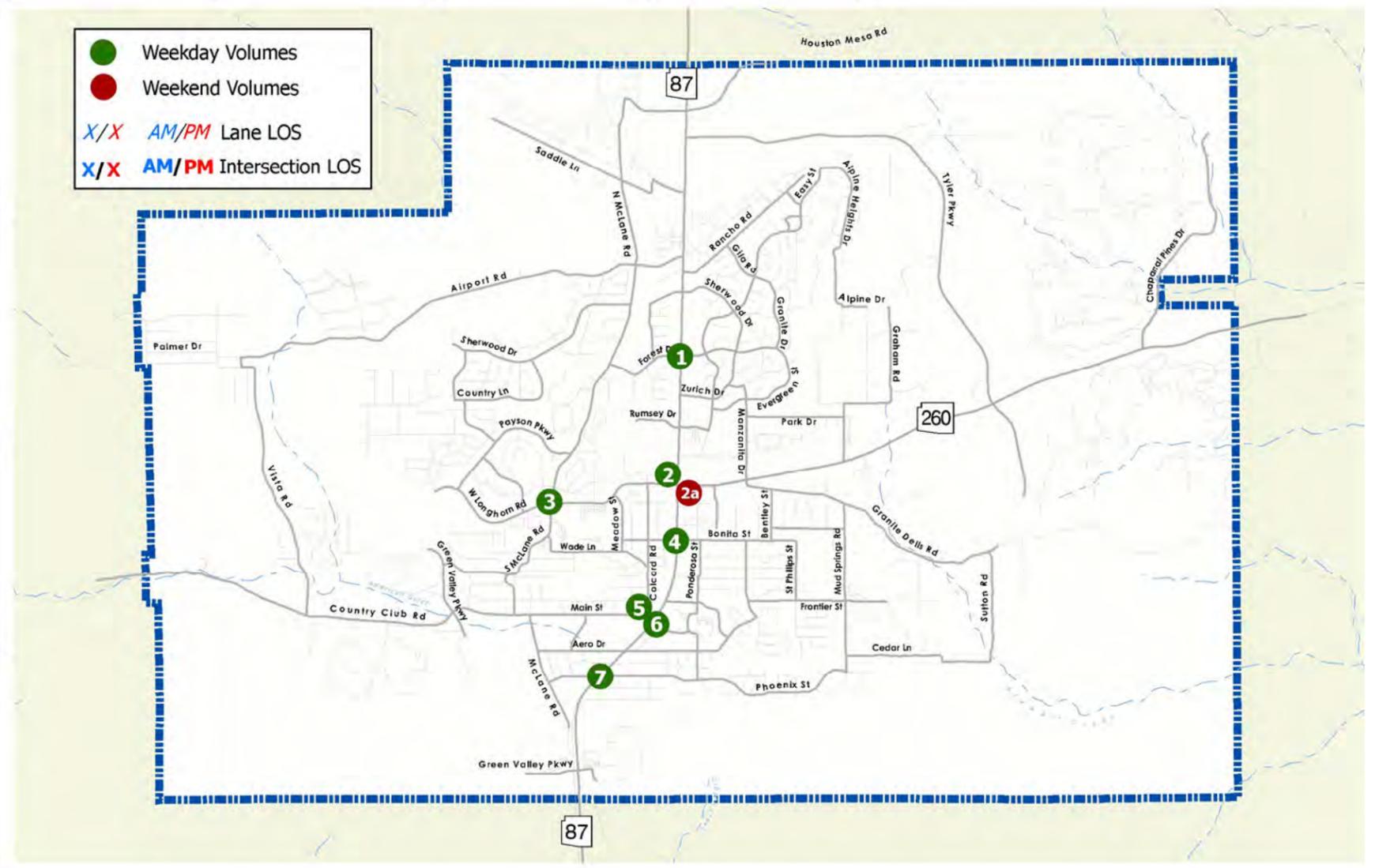
**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation





**Figure 3.7**  
**Projected 2015 Intersection**  
**Lane Configuration**  
**and Level of Service with**  
**No Improvements**



● Weekday Volumes  
● Weekend Volumes  
X/X AM/PM Lane LOS  
X/X AM/PM Intersection LOS

### **Projected 2020 No-Build Average Weekday Traffic Conditions**

Figure 3.8 displays the projected 2020 traffic volumes and LOS for the current roadway network with projected 2020 socioeconomic conditions *if no roadway improvements are made (No-Build)*. Traffic volumes and LOS results in this section represent average annual daily traffic conditions. Peak season traffic volumes and LOS levels are higher.

### ***Projected 2020 Roadway Level of Service***

The following is a summary of roadway LOS conditions:

- LOS F:** ■ Entrance road to the Mazatzal Casino (operated by the Tonto Apache Tribe).
- LOS E:** ■ SR 87: Bonita Street to SR 260.
- LOS D:** ■ SR 87: Frontier Street to Bonita Street.
  - Main Street: East of SR 87.
  - SR 260: Small section immediately to the east of SR 87/SR 260 intersection.
- LOS C:** ■ SR 87: Green Valley Parkway to Frontier Street.
  - SR 87: SR 260 to Sherwood Drive.
  - SR 87: Tyler Parkway to north of the study boundary.
  - SR 260: Goodnow Road to east end of study area.
  - Rumsey Drive: Entire section.
  - Saddle Lane: West of McLane Road.
  - Easy Street: Rumsey Drive to Zurich Drive.
- LOS A & B:** ■ All other roads operate at LOS B or better.

### ***Projected 2020 Intersection Level of Service***

Figure 3.9 presents the LOS of overall intersections and for each turn movement of the intersections. The following is summary of intersection LOS conditions:

- LOS D:** ■ SR 87/SR 260 intersection during weekend and weekday AM/PM peak hour.
- LOS C:** ■ McLane Road/ Longhorn Road intersection during PM peak hour.
  - Main Street/SR 87 intersection during PM peak hour.
- LOS A & B:** ■ All other intersections operate at LOS B or better.

**Figure 3.8**

**Projected Average Daily Traffic Volumes and Level of Service with No Improvements Year 2020**

**Average Daily Traffic Volumes:**

XXX Daily Traffic Volumes (thousands)

**Level of Service:**

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

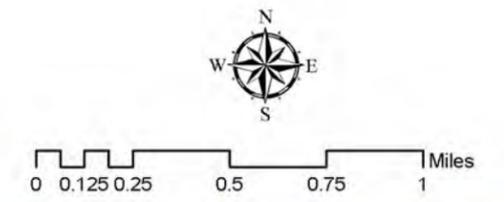
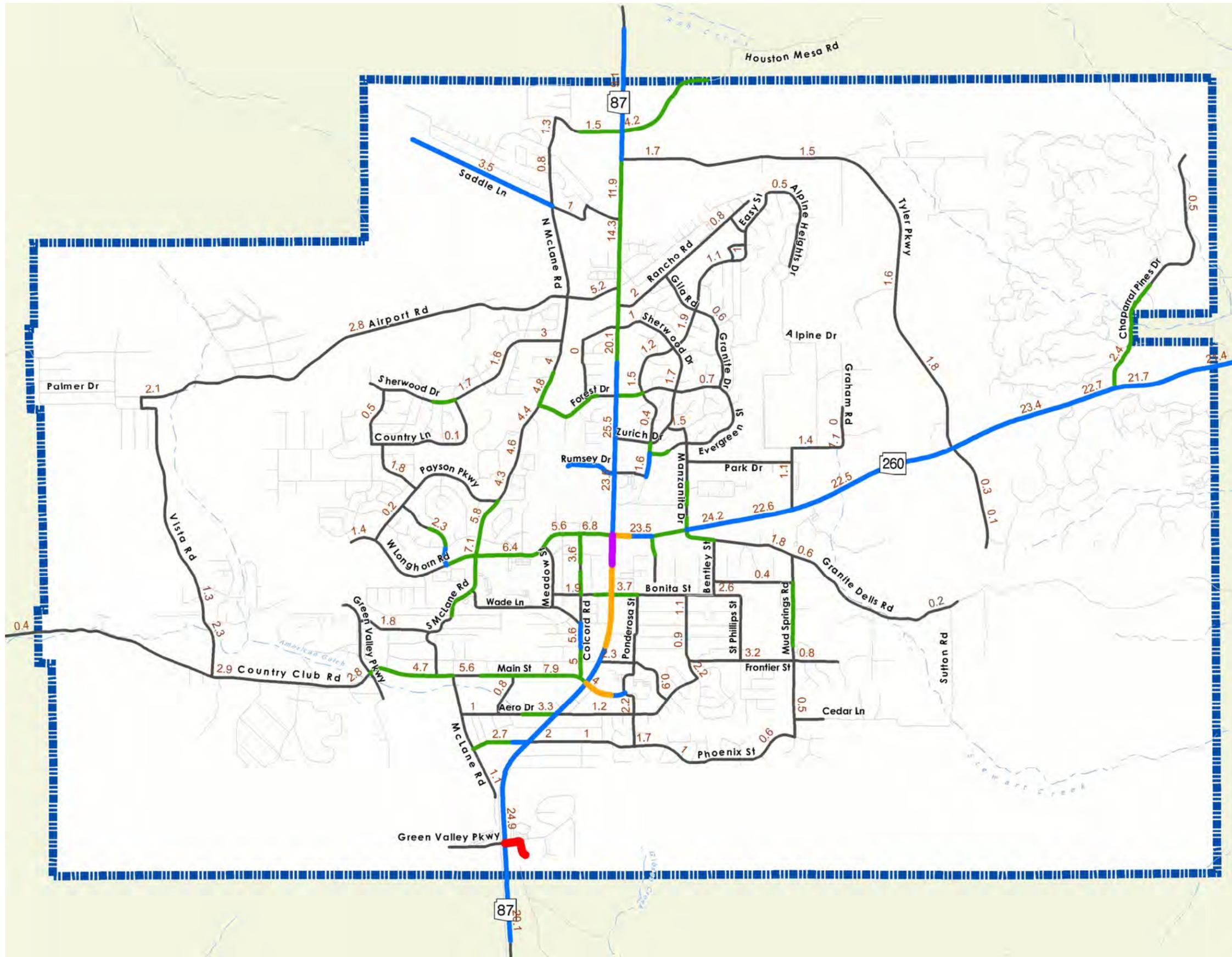
**Reference Features:**

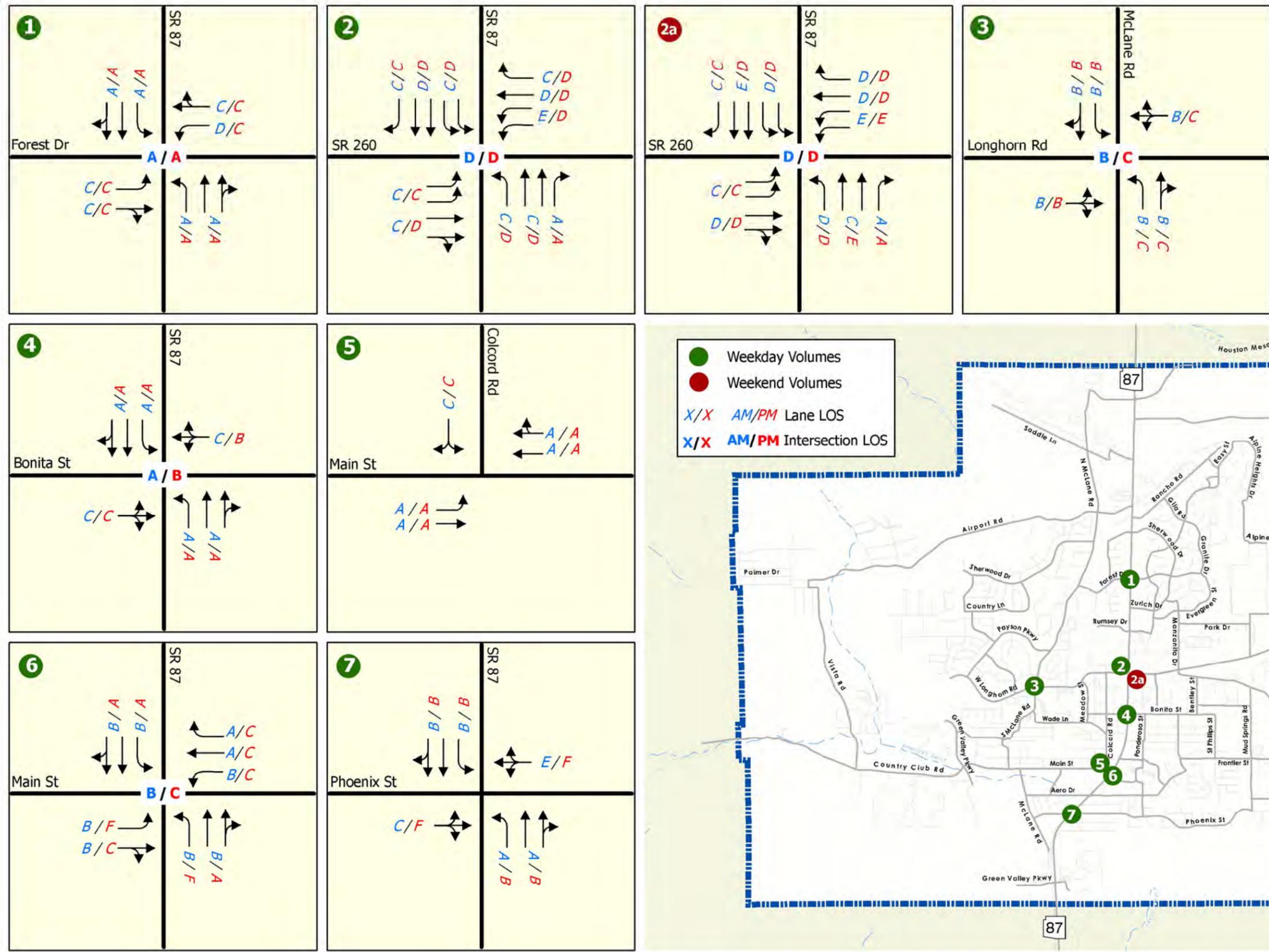
- Other Local Roads
- Streams
- ▭ Study Area Boundary

Level-of-service (LOS) is a measure-of-effectiveness to determine the quality of service for roadways and intersections. LOS values range from letters A through F, with A being best traffic flow condition and F being worst traffic flow condition.

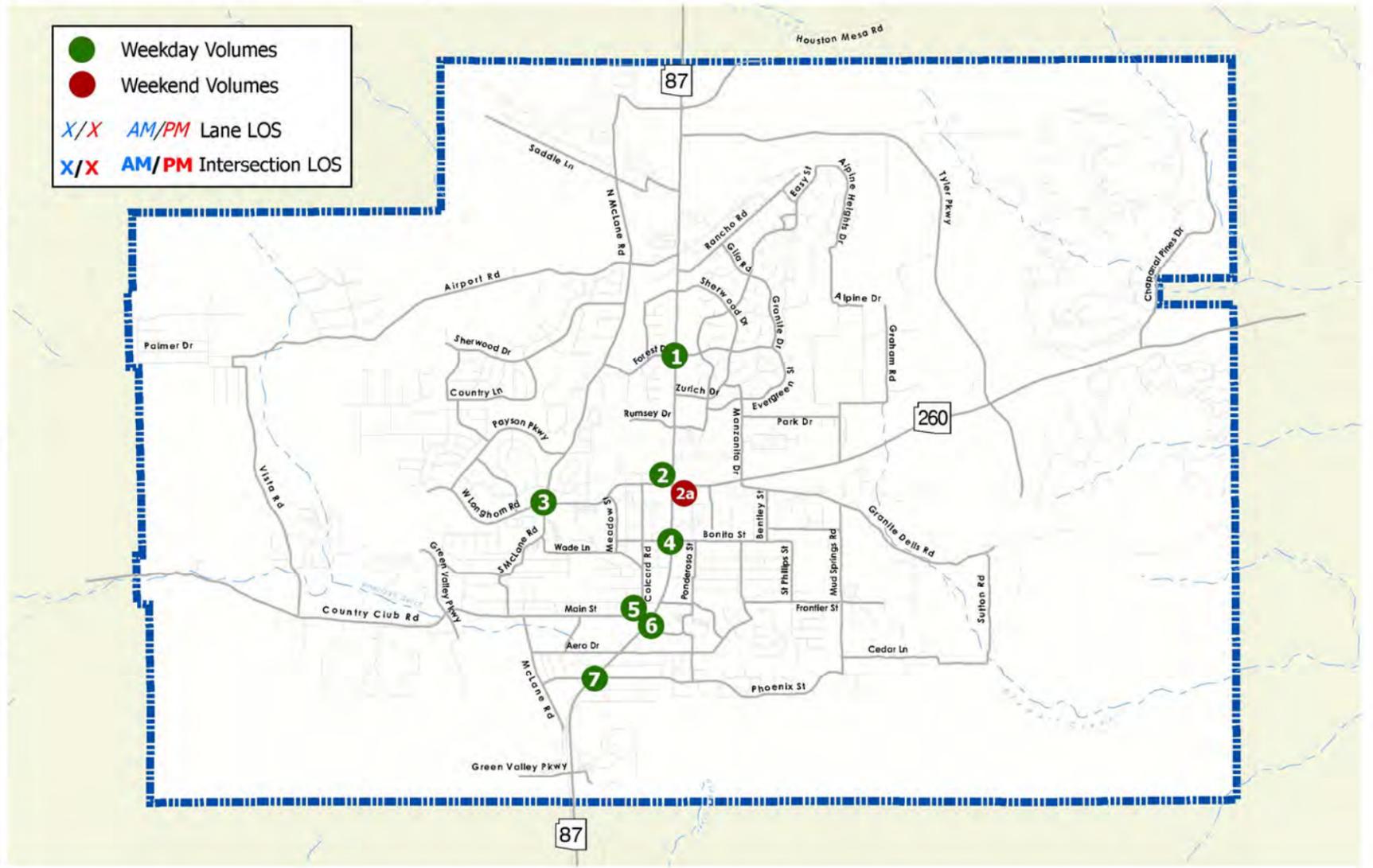
**Data Sources:**

Town of Payson  
Arizona Department Of Transportation





**Figure 3.9**  
**Projected 2020 Intersection**  
**Lane Configuration**  
**and Level of Service with**  
**No Improvements**



## Projected 2030 No-Build Average Weekday Traffic Conditions

Figure 3.10 displays the projected 2030 traffic volumes and LOS for the current roadway network with projected 2030 socioeconomic conditions *if no roadway improvements are made (No-Build)*. Traffic volumes and LOS results in this section represent average annual daily traffic conditions. Peak season traffic volumes and LOS levels are higher.

## Projected 2030 Roadway Level of Service

The following is a summary of roadway LOS conditions:

- LOS F:**
- SR 87: SR 260 and Bonita Street.
  - Entrance road to the Mazatzal Casino (operated by the Tonto Apache Tribe).

- LOS E:**
- Easy Street: Rumsey Drive and Zurich Drive.
  - Small section of Phoenix Street immediately to the west of SR 87.

- LOS D:**
- SR 87: Green Valley Parkway to Bonita Street.
  - SR 87: SR 260 to Frontier Street.
  - SR 87: Tyler Parkway to Houston Mesa Road.
  - Main Street: SR 87 and Mariposa Lane.
  - SR 260: SR 87 to east end of study area.
  - McLane Road: Small section immediately to the west of SR 87.

- LOS C:**
- SR 87: Forest Drive to Airport Road.
  - SR 87: Houston Mesa Road to north of study area.
  - SR 87: South of Green Valley Parkway.
  - Rumsey Drive: Entire section.
  - Saddle Lane: West of McLane Road.
  - Longhorn Road: SR 87 to Colcord Road.
  - Longhorn Road: Meadow Street to McLane Road.
  - Phoenix Street: East of McLane Road.
  - Evergreen Street: Easy Street to Manzanita Drive.

- LOS A & B:**
- All other roads operate at LOS B or better.

## Projected 2030 Intersection Level of Service

Figure 3.11 presents the LOS of overall intersections and for each turn movement of the intersections. The following is summary of intersection LOS conditions:

- LOS F:**
- SR 87/SR 260 intersection during weekend PM peak hour.

- LOS E:**
- SR 87/SR 260 intersection during weekend AM and weekday PM peak hour

- LOS D:**
- SR 87/SR 260 intersection during weekday AM peak hour.
  - Main Street/SR 87 intersection during PM peak hour.

- LOS C:**
- McLane Road/Longhorn Road intersection during PM peak hour.

- LOS A & B:**
- All other intersections operate at LOS B or better.

**Figure 3.10**

**Projected Average Daily Traffic Volumes and Level of Service with No Improvements Year 2030**

**Average Daily Traffic Volumes:**

XXX Daily Traffic Volumes (thousands)

**Level of Service:**

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

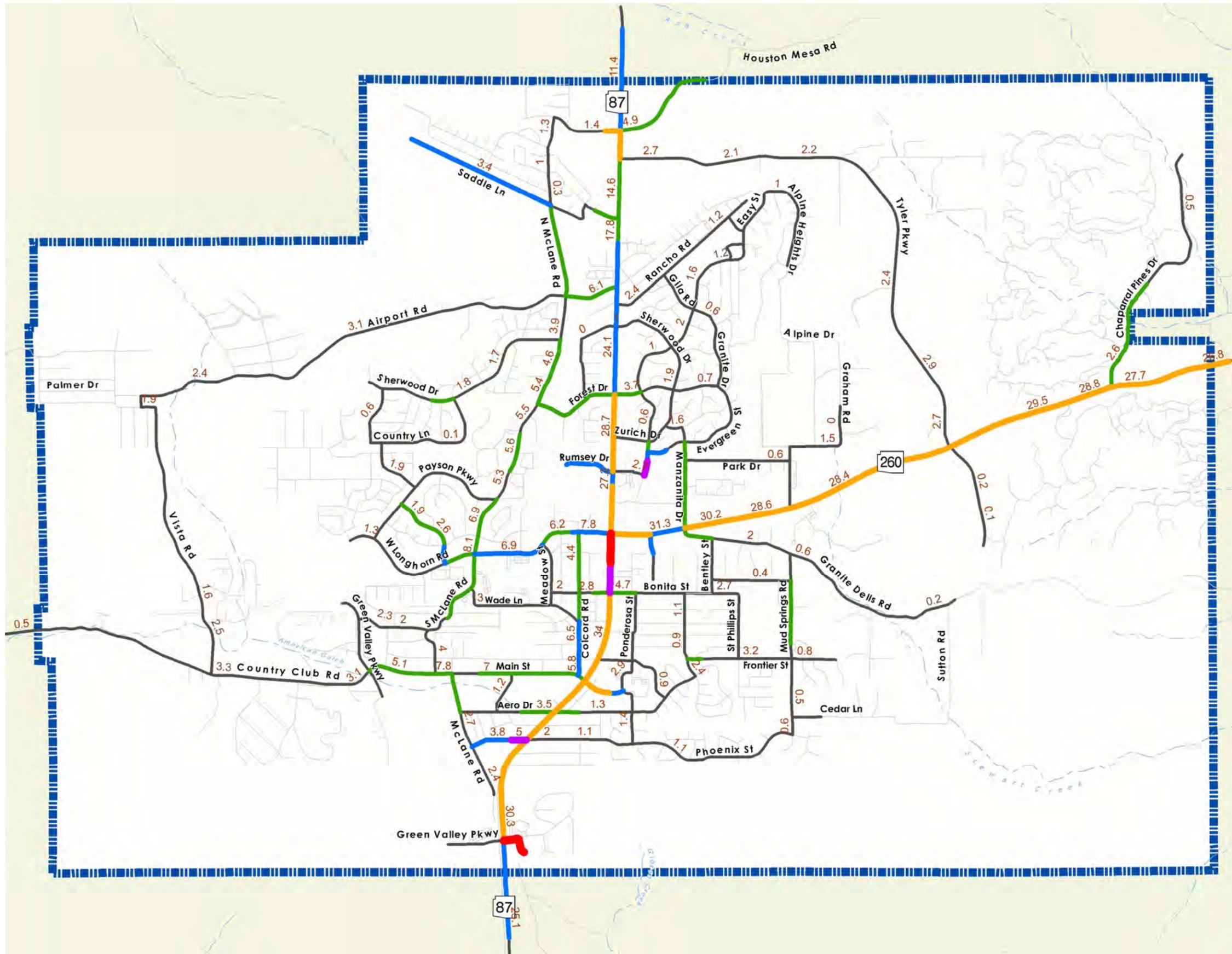
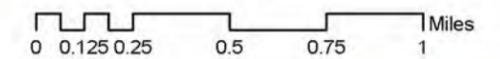
**Reference Features:**

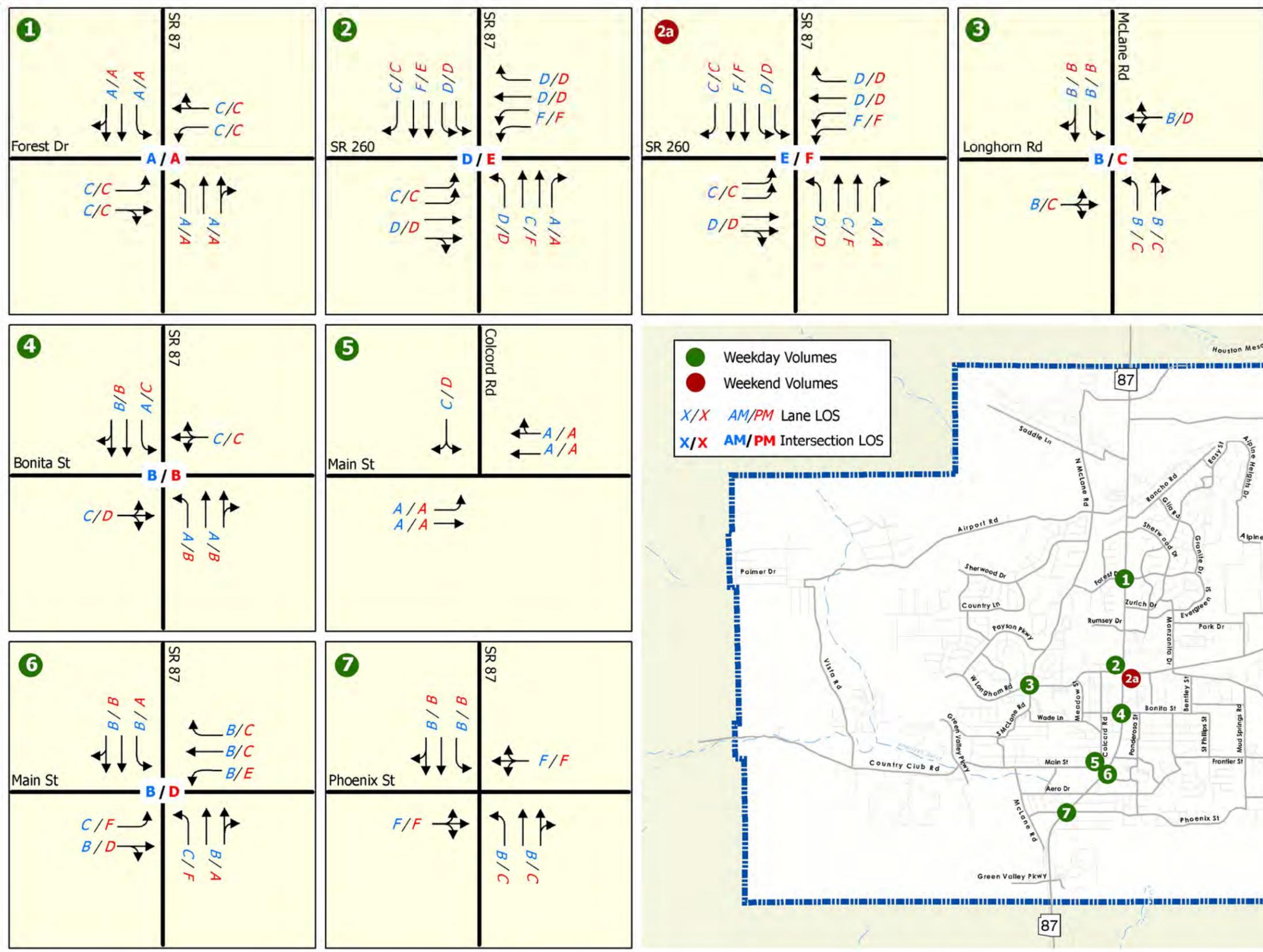
- Other Local Roads
- Streams
- ▭ Study Area Boundary

Level-of-service (LOS) is a measure-of-effectiveness to determine the quality of service for roadways and intersections. LOS values range from letters A through F, with A being best traffic flow condition and F being worst traffic flow condition.

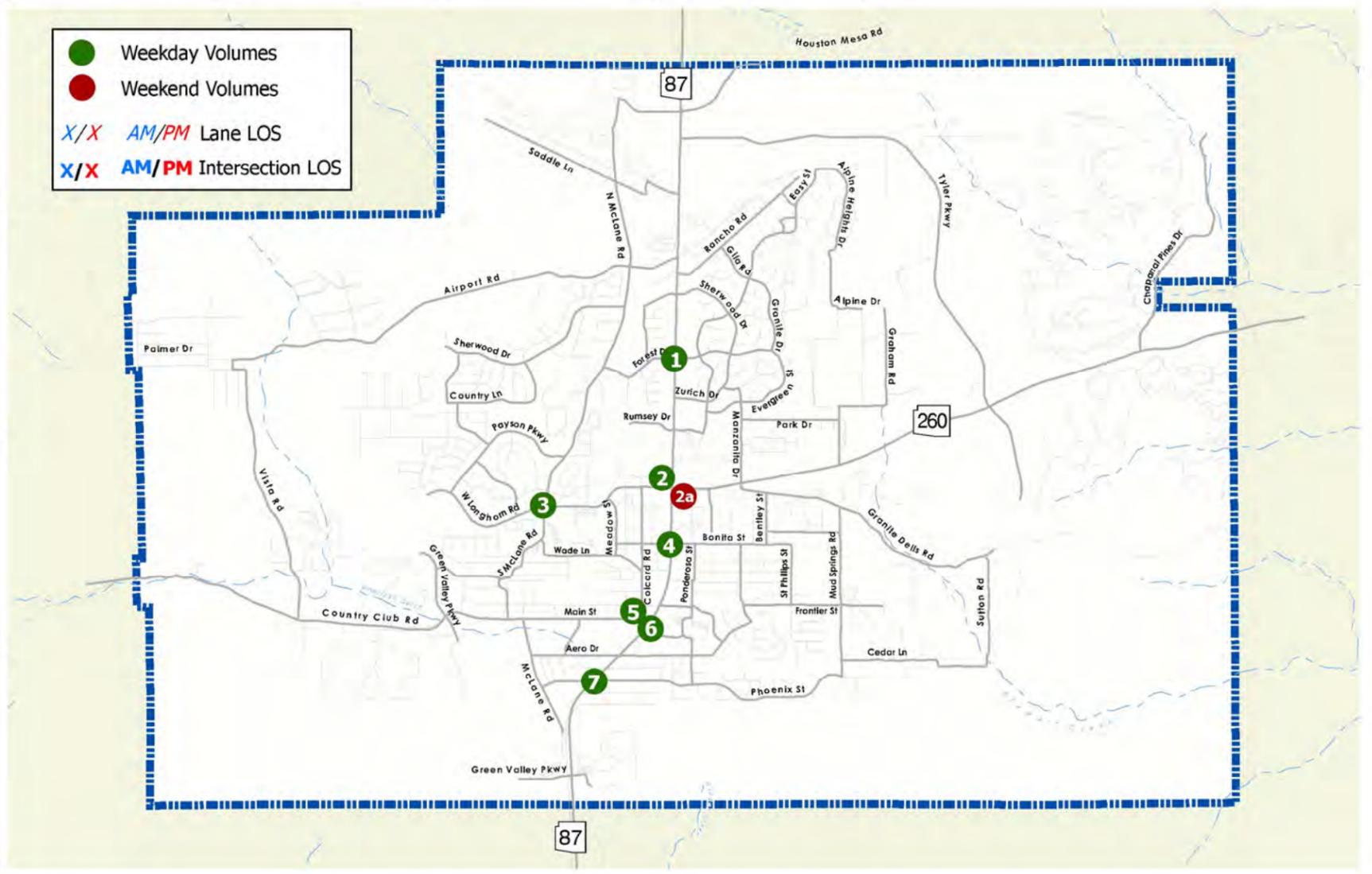
**Data Sources:**

Town of Payson  
Arizona Department Of Transportation





**Figure 3.11**  
**Projected 2030 Intersection**  
**Lane Configuration**  
**and Level of Service with**  
**No Improvements**



## Summary of Findings

The following is a summary of findings from the future conditions analysis, assuming no roadway improvements are made:

- Traffic volumes increase significantly in future years along the SR 87 northbound to SR 260 eastbound movement and vice versa. An alternate route would improve traffic circulation in the southeast portion of the study area. Moreover, if SR 87 or SR 260 were to be closed for any reason, there is no easy emergency exit route.
- Traffic volumes on SR 87 also increase steadily in future years. Improvements to the corridor will enable it to more effectively handle traffic volumes. Widening, intersection improvements, traffic signals or roundabouts, and establishing better access management guidelines are some of the improvement options that were considered.
- Due to increased traffic volumes in future years, the SR 87/SR 260 intersection will not operate effectively and cause increased traffic congestion.
- Traffic volumes increase along the SR 87 northbound to Main Street westbound movement and vice versa. An alternate route would improve traffic circulation in the southwest portion of the study area. Completing the Green Valley Parkway connection from Main Street to SR 87 would relieve congestion on SR 87 and Main Street. Moreover, it would also serve as an alternate emergency exit route.
- Improvements to the SR 87/Main Street/Colcord Road intersections would relieve traffic congestion as traffic volumes increase.
- Public transit options and other non-motorized modes of transportation are limited and may warrant expansion.
- Projects to improve internal traffic circulation would improve mobility for local travel.

### **Projected 2030 No-Build Average Weekend Traffic Conditions**

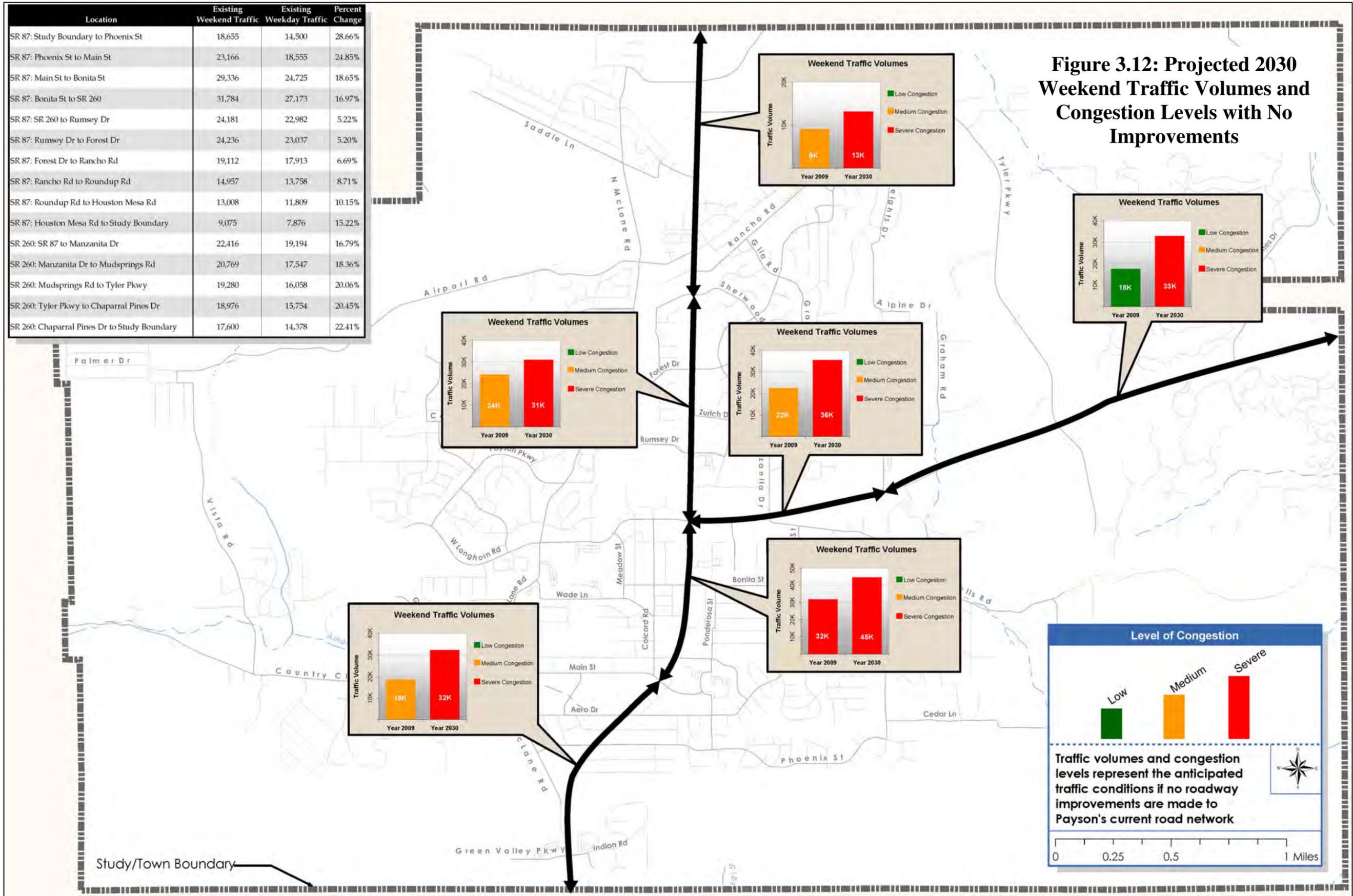
As a result of tourism, in-migrating retirees, and seasonal residents, the Town of Payson roads carry at least 15% - 30% more traffic during weekends and peak summer season (more than yearly average or winter season). SR 87 and SR 260 corridors are predominantly operating at LOS D or worse levels in annual average weekday traffic conditions in year 2030. For this weekend traffic analysis, the two corridors were divided into segments as shown in Figure 3.12. As shown in Figure 3.12, all segments along SR 87 and SR 260 operate at highly congested levels during weekends in year 2030.

### **Summary of Findings**

The following is a summary of findings from the future conditions analysis, assuming no roadway improvements are made:

- All segments of SR 87 and SR 260 corridors within the Town of Payson operate at highly congested levels in year 2030 during the weekends.
- Due to increased traffic volumes in future years, SR 87/SR 260 intersection will not operate effectively and cause increased traffic congestion during weekends.

Location	Existing Weekend Traffic	Existing Weekday Traffic	Percent Change
SR 87: Study Boundary to Phoenix St	18,655	14,500	28.66%
SR 87: Phoenix St to Main St	23,166	18,555	24.85%
SR 87: Main St to Bonita St	29,336	24,725	18.65%
SR 87: Bonita St to SR 260	31,784	27,173	16.97%
SR 87: SR 260 to Rumsey Dr	24,181	22,982	5.22%
SR 87: Rumsey Dr to Forest Dr	24,236	23,037	5.20%
SR 87: Forest Dr to Rancho Rd	19,112	17,913	6.69%
SR 87: Rancho Rd to Roundup Rd	14,957	13,758	8.71%
SR 87: Roundup Rd to Houston Mesa Rd	13,008	11,809	10.15%
SR 87: Houston Mesa Rd to Study Boundary	9,075	7,876	15.22%
SR 260: SR 87 to Manzanita Dr	22,416	19,194	16.79%
SR 260: Manzanita Dr to Mudsprings Rd	20,769	17,547	18.36%
SR 260: Mudsprings Rd to Tyler Pkwy	19,280	16,058	20.06%
SR 260: Tyler Pkwy to Chaparral Pines Dr	18,976	15,754	20.45%
SR 260: Chaparral Pines Dr to Study Boundary	17,600	14,378	22.41%



## 4. EVALUATION OF TRANSPORTATION IMPROVEMENTS

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### TRANSPORTATION ISSUES SUMMARY

Based on the inventory and analysis of existing conditions, the future condition of the Town's existing transportation system, deficiencies and issues were identified. These issues and deficiencies formed the basis for the next phase of the study which is the development of the long range transportation plan. Figure 4.1 displays the major transportation issues in the study area. Study area issues have been grouped into six categories and the key issues in each category are listed below.

- SAFETY ISSUES:**
- SR 87/Manzanita Drive has high crash rate.
  - SR 87 between Bonita Street and SR 260 has high crash rate.
  - At least one leg for several intersections on SR 87 approaches the intersection at a skewed angle resulting in sight distance issues.

- CONGESTION ISSUES:**
- SR 87 and SR 260 corridors are highly congested in future years due to increase traffic volumes.
  - SR 87/Main Street/Colcord Road intersections fail to meet future traffic volumes.
  - There are no alternate/emergency or circulation routes to the SR 87 North to SR 260 corridor.
  - There are no alternate/emergency or circulation routes to the SR 87 North to West Main Street corridor.

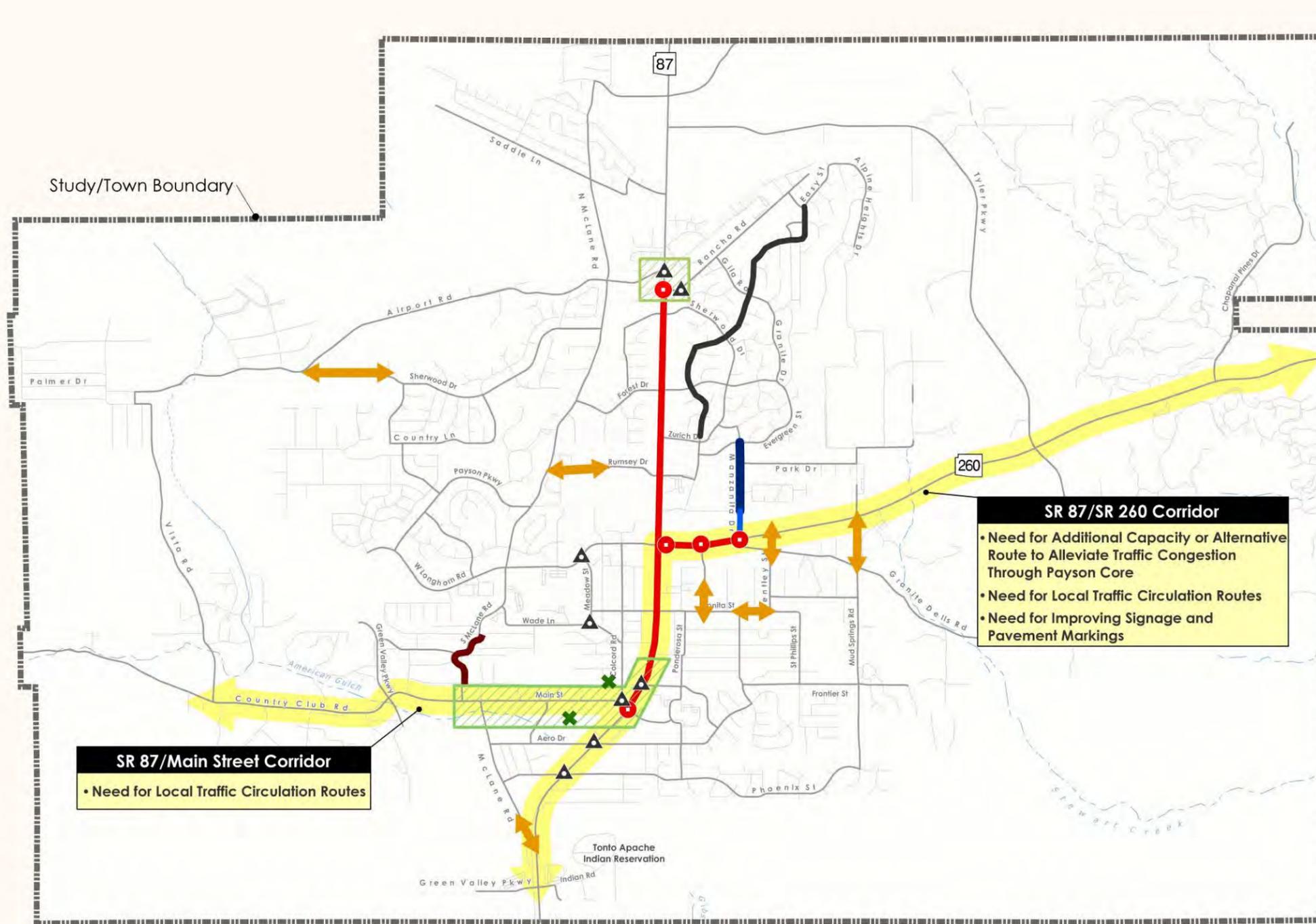
- TRAFFIC CIRCULATION ISSUES:**
- There are no alternate/emergency or circulation routes to the SR 87 North to SR 260 corridor.
  - There are no alternate/emergency or circulation routes to the SR 87 North to West Main Street corridor.

- PAVEMENT CONDITION ISSUES:**
- Manzanita Drive's pavement is in very poor condition.

- ENVIRONMENTAL ISSUES:**
- There are several areas in Payson that are of environmental concern and need to be considered when recommending future roadway improvements.

- REGIONAL ISSUES:**
- Need for roadway improvements to promote better traffic circulation.
  - Lack of local and regional transit service.
  - Need for safe school bus pull-outs.
  - Need for access management guidelines.

**Figure 4.1  
Transportation Issues**



**Safety:**

- High Crash Rate Intersections
- High Crash Rate Roadway Segments
- ▲ Intersection Sight Distance and Approach Angle Issues
- Steep Grades
- Narrow Right-of-Way

**Traffic Circulation:**

- ↔ Need for Additional Capacity and Local Traffic Circulation Routes
- ↔ Need for Connectivity

**Pavement Condition:**

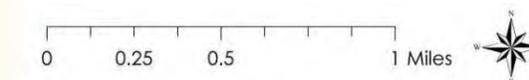
- Very Poor
- Poor

**Environmental Concerns:**

- ✕ Superfund Sites that require cleanup
- ▨ Flood Hazard Locations

**Regional Issues:**

- Need for roadway improvements to promote better circulation.
- Lack of local and regional transit service.
- Need for safe school bus pull-outs.
- Need for access management guidelines.
- Need for improving aesthetics along SR 87 and SR 260.
- Need for improved walking, biking, and pedestrian crossing facilities.
- Need for emergency evacuation plan and routes.



## EVALUATION CRITERIA AND PROCESS

Transportation system deficiency analysis and input from the public, stakeholders, and the TAC resulted in a comprehensive list of existing and future roadway issues and needs in the Town of Payson. Potential transportation projects and improvement options were developed and evaluated using both quantitative and qualitative criteria. Table 4.1 summarizes the criteria used in evaluating transportation improvement options.

**TABLE 4.1: TRANSPORTATION IMPROVEMENTS EVALUATION CRITERIA**

EVALUATION CRITERIA	OBJECTIVES
Safety and Security	<ul style="list-style-type: none"> <li>▪ Reduce vehicle, pedestrian, and bicycle collisions. Enhance alternate emergency routes. Reduce emergency response times.</li> </ul>
Congestion/Level of Service	<ul style="list-style-type: none"> <li>▪ Reduce congestion, bottlenecks, and travel times for all modes.</li> </ul>
Mobility and Access	<ul style="list-style-type: none"> <li>▪ Improve linkages between transportation modes. Facilitate efficient internal traffic circulation options within the study area. Maintain travel reliability.</li> </ul>
Economic Development Opportunity	<ul style="list-style-type: none"> <li>▪ Promote transportation choices that support economic growth.</li> </ul>
Environmental Impacts	<ul style="list-style-type: none"> <li>▪ Protect and enhance natural, historical, and cultural environment by minimizing potential adverse impacts associated with transportation system development.</li> </ul>
Infrastructure Preservation/Maintenance	<ul style="list-style-type: none"> <li>▪ Preserve and maintain existing transportation infrastructure.</li> </ul>
Cost Efficiency and Implementation Feasibility	<ul style="list-style-type: none"> <li>▪ Minimize capital cost of transportation facilities, including preservation of ROW.</li> </ul>
Regional Connectivity	<ul style="list-style-type: none"> <li>▪ Enhance connectivity between the study area and nearby communities.</li> </ul>
Transportation Choices	<ul style="list-style-type: none"> <li>▪ Promote transportation choices such as walking, bicycling, transit, and multi-use paths.</li> </ul>

A separate Road Safety Assessment (RSA) and Traffic Operational Analysis Study (TOAS) were conducted to identify short-term and low cost improvements on SR 87 and SR 260. Recommendations from these studies were incorporated into the transportation plan.

Capacity-related projects such as widening existing roadways and constructing new roadways were evaluated using the TransCAD travel demand model developed for the Town of Payson. Potential transportation improvement projects were then prioritized and grouped into three categories based on short-, mid-, and long-term implementation phases.

## **ROADWAY IMPROVEMENT OPTIONS**

Roadway improvement options were evaluated for the short-, mid-, and long-term phases utilizing the criteria presented in Table 4.1. Roadway improvement projects were identified by two different categories: capacity related improvement projects and non-capacity roadway improvement projects. Capacity related improvement projects include widening existing roadways and constructing new roadways. Non-capacity related improvements address safety concerns, intersection improvements, and conducting additional planning studies. Unless otherwise noted, the recommended projects are not yet funded.

### **Short-Term Roadway Improvements**

The Transportation Improvement Programs (TIPs) for the Town of Payson, ADOT, CAAG, and Gila County were reviewed to identify capacity improvement projects scheduled for implementation. In addition, potential new capacity improvement projects were identified to meet the traffic demand until 2015. Below is a list of potential capacity and non-capacity roadway improvements evaluated:

#### ***Capacity Related Roadway Improvements***

- Intersection improvements
  - SR 87/SR 260 intersection
  - SR 260/Manzanita Drive intersection
- Construct new roadway
  - Rumsey Drive – End of pavement to McLane Road
  - Mud Springs Road – Granite Dells Road to SR 260
- Reconstruct roadway
  - Bonita Street - SR 87 to St. Phillips Street
  - Colcord Road – Main Street to Longhorn Road
  - Easy Street – Evergreen Street to Forest Drive
  - Longhorn Road – Llama Ranch to Stone Creek subdivision

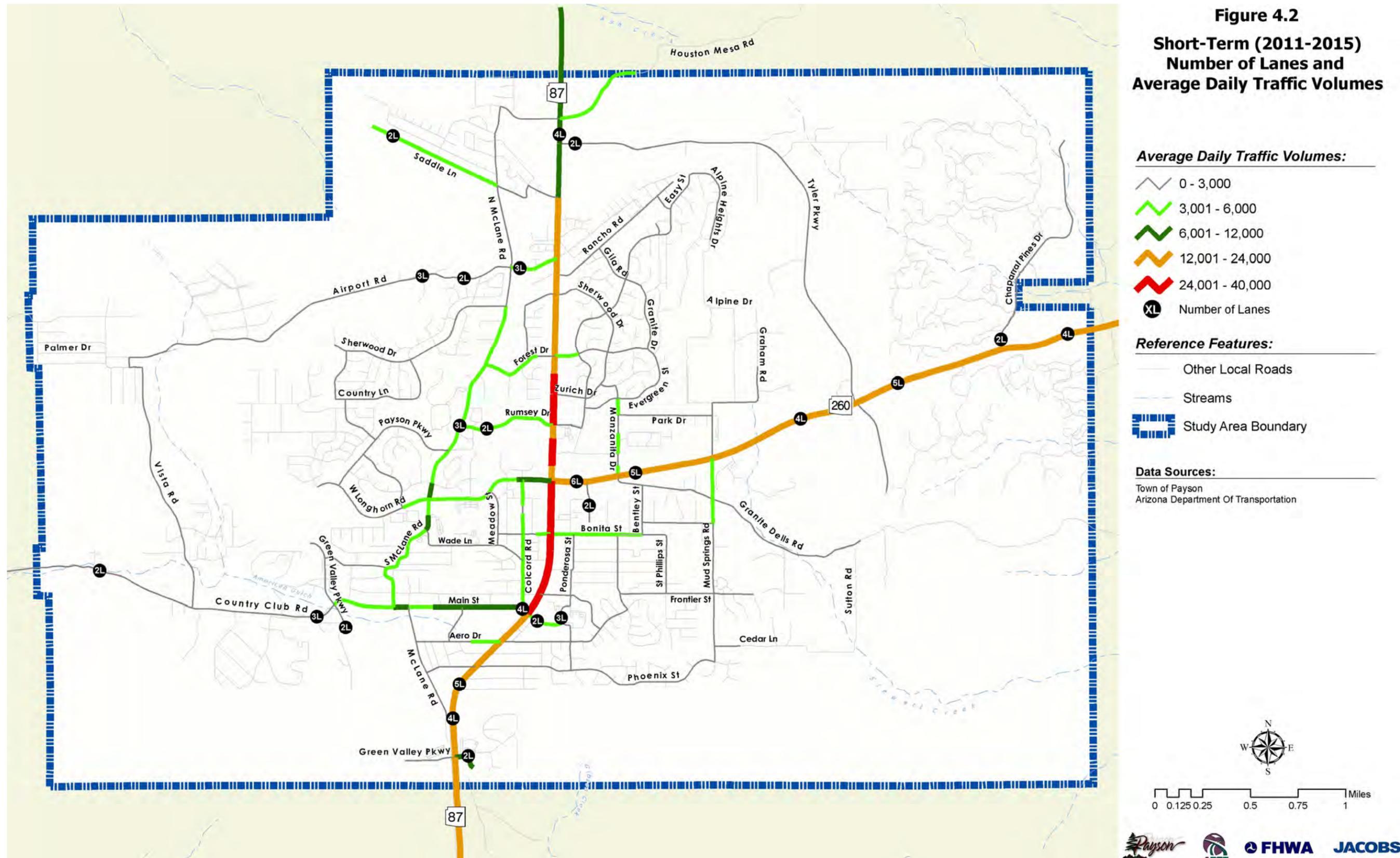
- Manzanita Drive - North side of shopping center to Timber Drive
- McLane Road – Main Street to Phoenix Street
- Phoenix Street – SR 87 to Sycamore Street
- Pave
  - Manzanita Drive - SR 260 to north side of shopping center

***Non-Capacity Related Roadway Improvements***

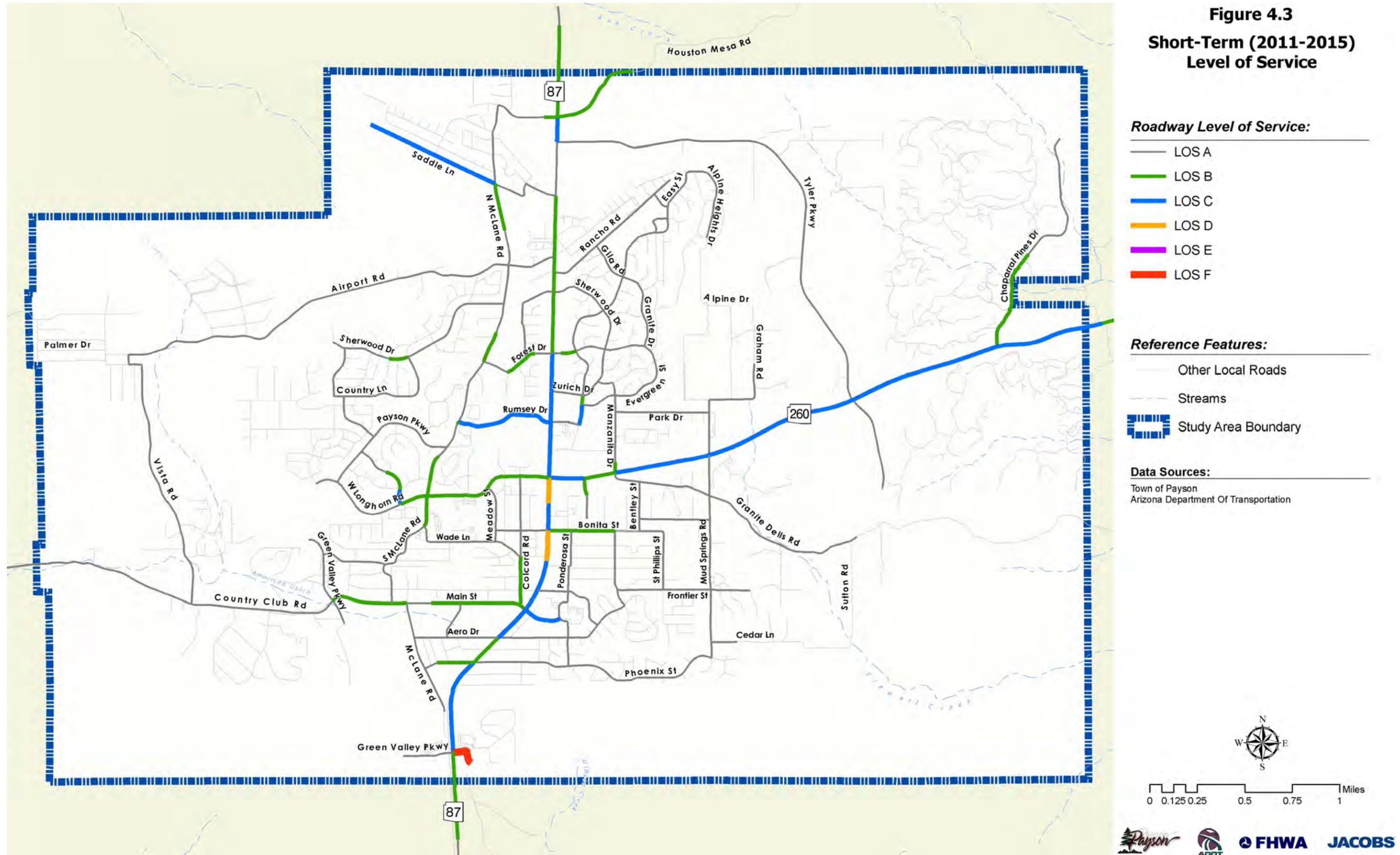
- Conduct additional planning study
  - SR 87/ Aero Drive intersection
  - SR 87/ Phoenix Street intersection
  - SR 87/Rancho Road intersection
  - SR 87/Main Street, Colcord Road/Main Street, Frontier Street/SR 87, and Frontier Street/Colcord Road intersections
- Safety improvements
  - SR 87- Main Street to SR 260
  - SR 260 - SR 87 to Manzanita Drive
  - SR 87- SR 260 to Rancho Road
  - Granite Dells Road / Mud Springs Road intersection
  - Longhorn Road/Meadow Street intersection
  - Wade Lane/Meadow Street intersection

Figure 4.2 displays the number of lanes and projected average daily traffic volumes for Year 2015. Traffic volume projections were determined using the Payson TransCAD travel demand model. Figure 4.3 displays the corresponding LOS. These figures include the capacity-related roadway improvements discussed above. As shown in Figure 4.3, all roadways operate at a LOS C or better with the exception of a few segments on SR 87. Recommendations from the RSA and TOAS will most likely mitigate this issue. Casino Road, owned by Tonto Apache Indian Reservation, operates at LOS F. However, the Town of Payson does not have any jurisdiction on that roadway.

**Figure 4.2**  
**Short-Term (2011-2015)**  
**Number of Lanes and**  
**Average Daily Traffic Volumes**



**Figure 4.3**  
**Short-Term (2011-2015)**  
**Level of Service**



## Mid-Term Roadway Improvements

TIPs for the Town of Payson, ADOT, CAAG, and Gila County were reviewed to identify capacity improvement projects scheduled for implementation. In addition, potential capacity improvement projects were identified to meet the traffic demand until 2020. Below is a list of potential capacity and non-capacity roadway improvements evaluated:

### *Capacity Related Roadway Improvements*

- Reconstruct roadway
  - Easy Street – Forest Drive to Gila Road
  - Easy Street – Gila Road to Bradley Drive
  - Frontier Street – SR 87 to McLane Road
  - McLane Road – Airport Road to Ranchos subdivision
  - McLane Road – Payson Ranchos subdivision to Payson Pines subdivision
  - Mud Springs Road – Cedar Lane to Frontier Street
- Construct new roadway
  - Goodnow Road – End of pavement to Bonita Street
  - Green Valley Parkway – End of pavement west of SR 87 to end of pavement south of Main Street
  - Malibu Road – Easy Street to Manzanita Drive
  - McLane Road – End of pavement to Green Valley Parkway
  - Sherwood Drive – Boulder Ridge Road to Airport Road
  - Sherwood Drive – McLane Road to Colcord Road

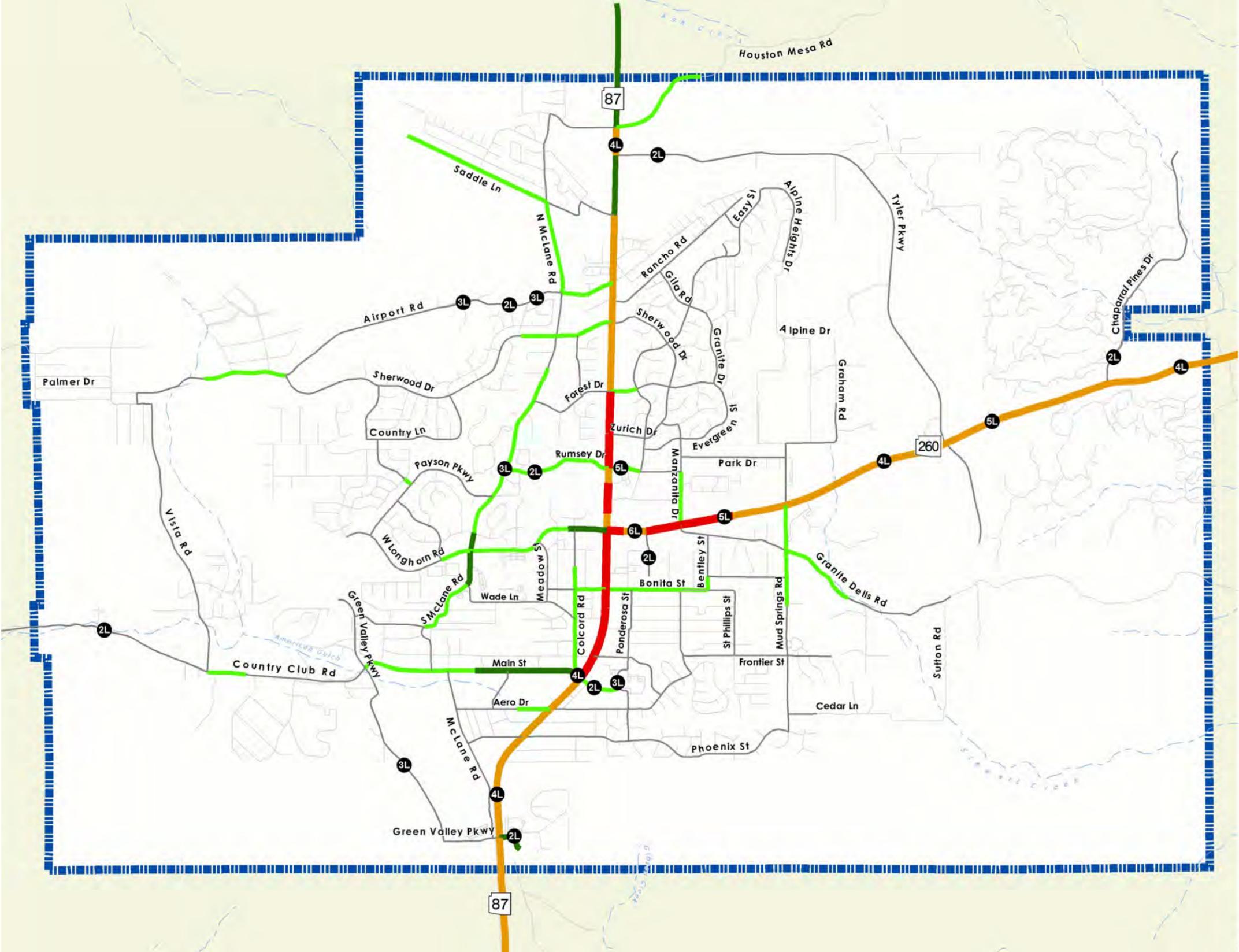
### *Non-Capacity Related Roadway Improvements*

- Flood mitigation
  - Main Street – SR 87 to McLane Road
  - SR 87 – Near Airport Road and Rancho Road
  - SR 87 – North of Aero Drive to north of Frontier Street
- Safety improvements
  - Granite Dells Road – Mud Springs Road to SR 260

Figure 4.4 displays the number of lanes and projected average daily traffic volumes for Year 2020. Figure 4.5 displays the corresponding LOS. These figures include the capacity related roadway improvements discussed above. As shown on Figure 4.5, all roadways operate at a LOS C or better with the exception of a few segments on SR 87,

Sherwood Drive, and Main Street. Recommendations from the RSA and TOAS will most likely improve LOS on SR 87. Casino Road, maintained by Tonto Apache Indian Reservation, operates at LOS F; however, the Town of Payson does not have any jurisdiction on that roadway.

**Figure 4.4**  
**Mid-Term (2016-2020)**  
**Number of Lanes and**  
**Average Daily Traffic Volumes**



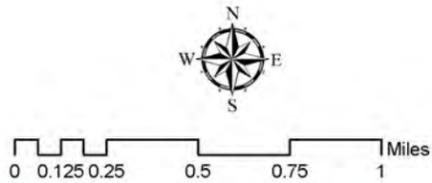
**Average Daily Traffic Volumes:**

- 0 - 3,000
- 3,001 - 6,000
- 6,001 - 12,000
- 12,001 - 24,000
- 24,001 - 40,000
- Number of Lanes

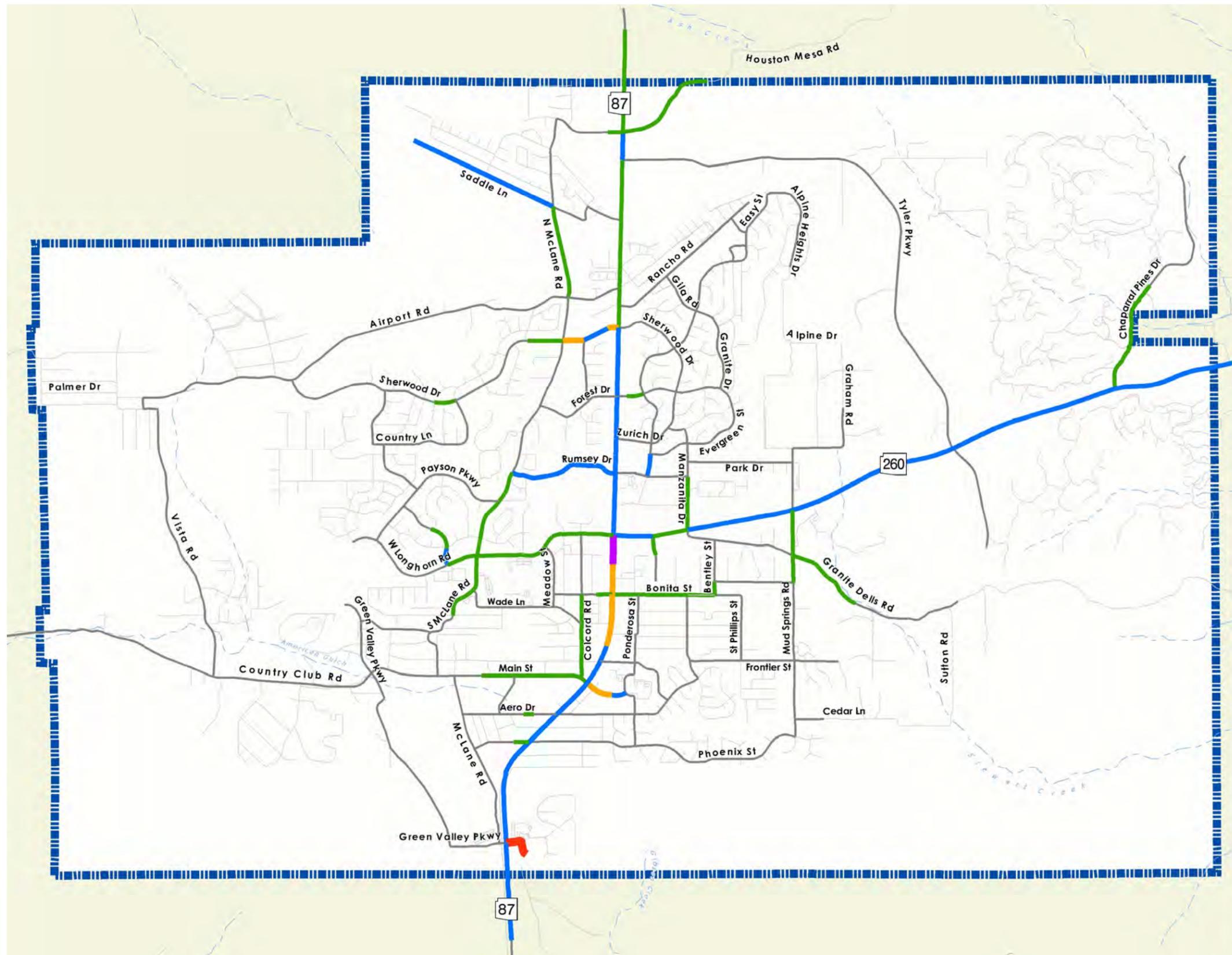
**Reference Features:**

- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**  
 Town of Payson  
 Arizona Department Of Transportation



**Figure 4.5**  
**Mid-Term (2016-2020)**  
**Level of Service**



**Roadway Level of Service:**

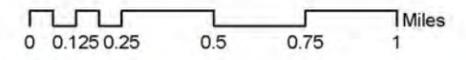
- LOS A
- LOS B
- LOS C
- LOS D
- LOS E
- LOS F

**Reference Features:**

- Other Local Roads
- Streams
- ▭ Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation



## Long-Term Roadway Improvements

To address long-term future travel demand in the study area, several capacity improvements were analyzed and tested for efficiency, feasibility, and performance. The following discusses roadway capacity improvements that were analyzed for the study area.

### *Capacity Related Roadway Improvements*

- Construct new roadway
  - Green Valley Parkway – End of pavement north of Summit Street to Airport Road.
  - Alternative route to relieve congestion on SR 87 – SR 260 corridor.

Additional capacity is needed along SR 87 – SR 260 corridor to accommodate high traffic volumes. Currently, no reasonable alternate route to this corridor is available in the event of an emergency shutdown of either facility. Furthermore, widening of SR 87 – SR 260 corridor is not a preferred option because of right-of-way limitations.

### *Alternatives Analysis*

Four alternatives were analyzed at a general planning level to determine the potential need for and feasibility of a new route. The alternatives analyzed are:

- Alternative 1 with Phase 1 only (A1)
- Alternative 1 with Phase 1 and Phase 2 (A1P2)
- Alternative 2 (A2)
- Alternative 3 (A3)

**Alternative 1 – Phase 1 Only:** In Alternative 1 with Phase 1 only, the starting terminus of the new roadway is assumed south of the SR 87/Casino Road intersection and the ending terminus is assumed in the vicinity of the Tyler Parkway/SR 260 intersection. Figure 4.6 shows the approximate location of Alternative 1- Phase 1 only. Primary reasons for evaluating this option include:

- The corridor serves as an alternate route to SR 87 – SR 260 corridor as well as an emergency evacuation route for the Town.
- The corridor has the potential to relieve traffic from the SR 87 – SR 260 corridor.
- It provides easy access to the proposed ASU campus, located in the vicinity of Tyler Parkway/SR 260.

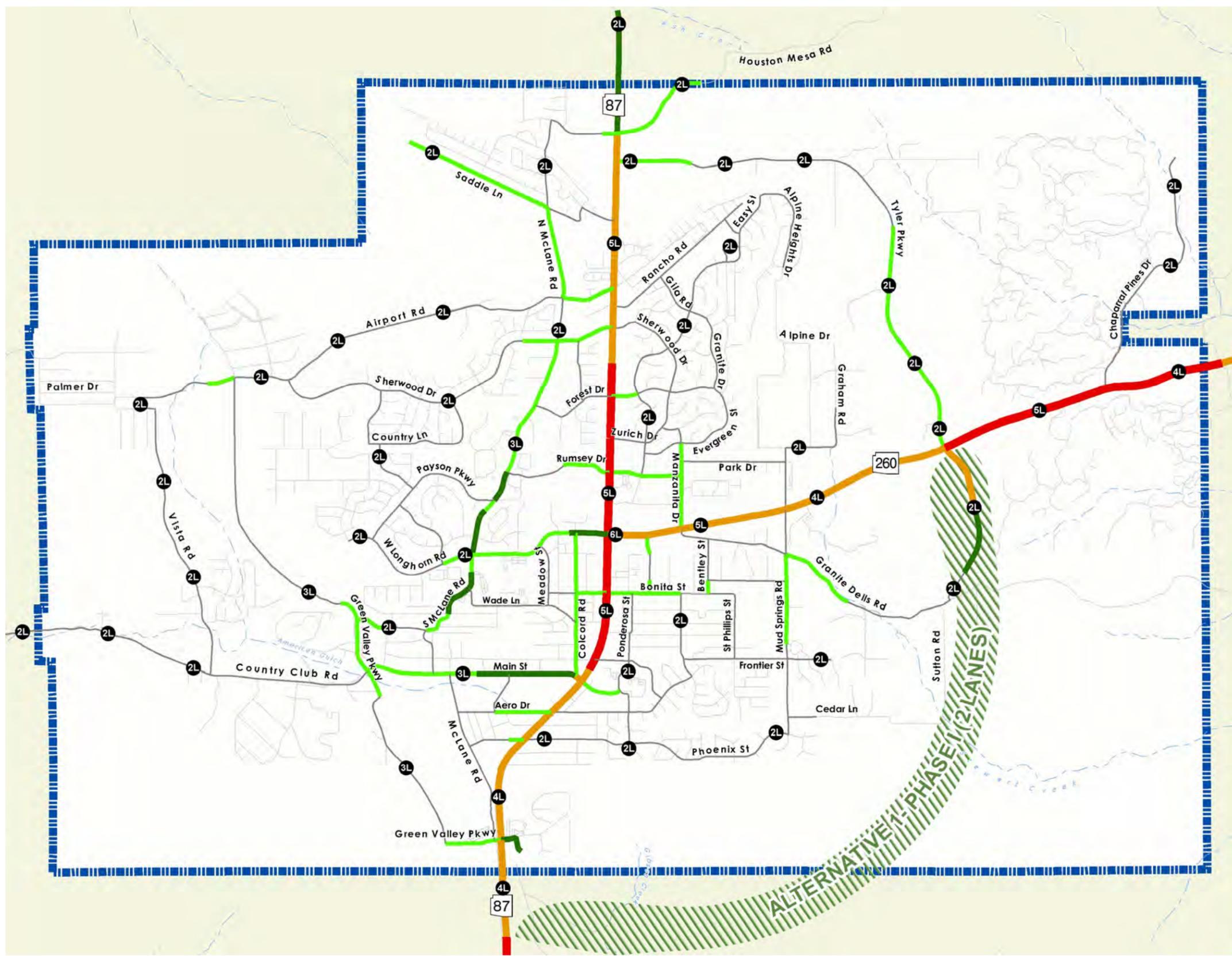
- Combined Tyler Parkway and Alternative 1 (with Phase 1 only), the corridor would serve as the Town's outer loop road on the east side.
- The corridor provides a detour for the local and regional traffic, if SR 87 or SR 260 through the Town is closed-off for any reason.
- The new corridor has sufficient compelling justification and has a reasonable chance of competing with other large scale statewide road projects to obtain funding.

Alternative 1 (Phase 1) was analyzed using the Payson 2030 TransCAD travel demand model. Annual average traffic volumes (AADT) for 2030 and 2030 peak season average traffic volumes were estimated on SR 87 – SR 260 and the new corridor. Figure 4.6 shows the number of lanes and annual average traffic volume projections for this scenario. Figure 4.7 shows the LOS for the study area roads. Figure 4.8 presents a comparison of projected annual average and peak season traffic volumes and the corresponding level of congestion for the SR 87 – SR 260 corridor and the Alternative 1 with Phase 1 only.

Traffic impacts of this alternative on SR 87 – SR 260 corridor include:

- A potential reduction of 21% - 38% in traffic volumes between SR 87/Casino Road and SR 260/Tyler Parkway.
- No reduction in traffic volumes between SR 260/Tyler Parkway and eastern town limits.
- A potential reduction of 17% in travel time along SR 87 – SR 260 corridor (southern town limits to eastern town limits).

**Figure 4.6**  
**2030 Alternative 1- Phase 1**  
**Number of Lanes and**  
**Average Daily Traffic Volumes**



**Average Daily Traffic Volumes:**

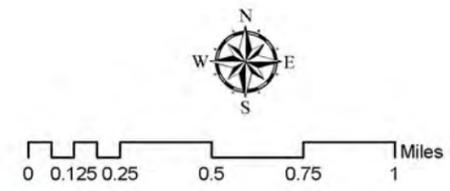
- 0 - 3,000
- 3,001 - 6,000
- 6,001 - 12,000
- 12,001 - 24,000
- 24,001 - 40,000
- Alternative 1- Phase I
- Number of Lanes

**Reference Features:**

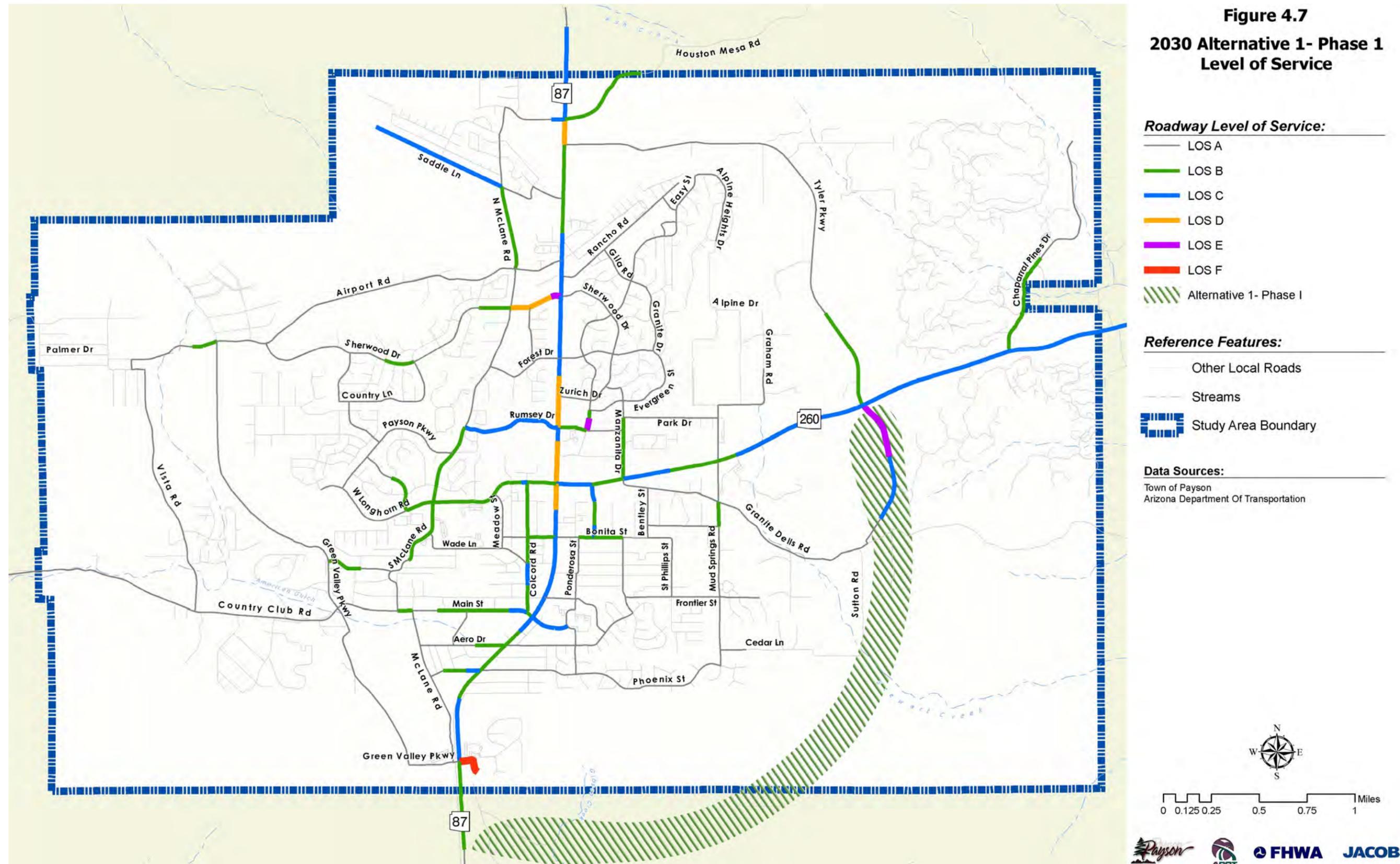
- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

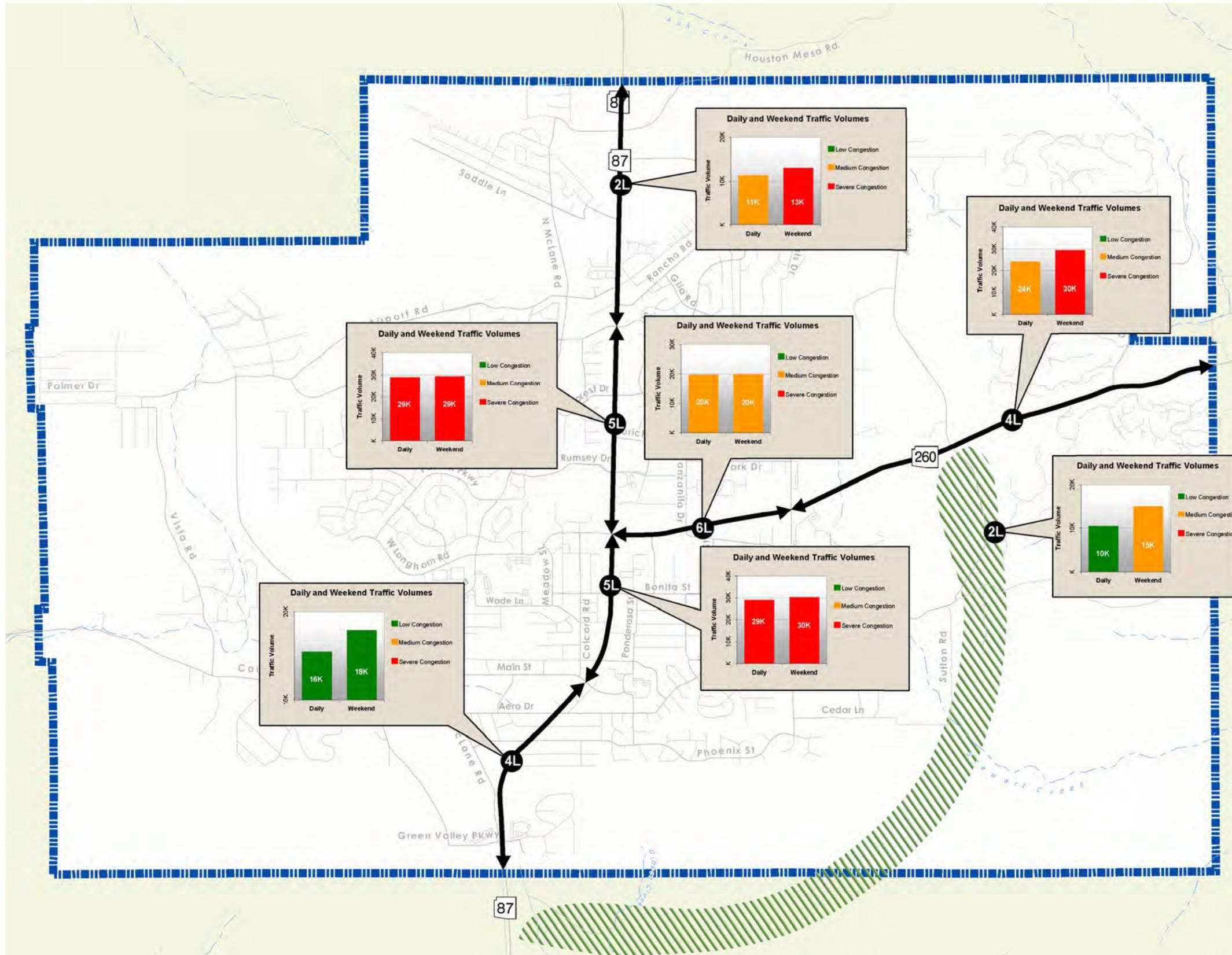
- Town of Payson
- Arizona Department Of Transportation



**Figure 4.7**  
**2030 Alternative 1- Phase 1**  
**Level of Service**



**Figure 4.8**  
**2030 Alternative 1- Phase 1**  
**Annual Average Daily**  
**Versus Peak Season**  
**Average Daily Traffic**  
**Volume and Congestion**



**Level of Congestion**

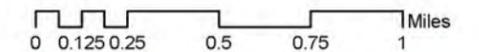


**Reference Features:**

- XL** Number of Lanes
- Roads
- Streams
- Alternative 1- Phase I
- Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation



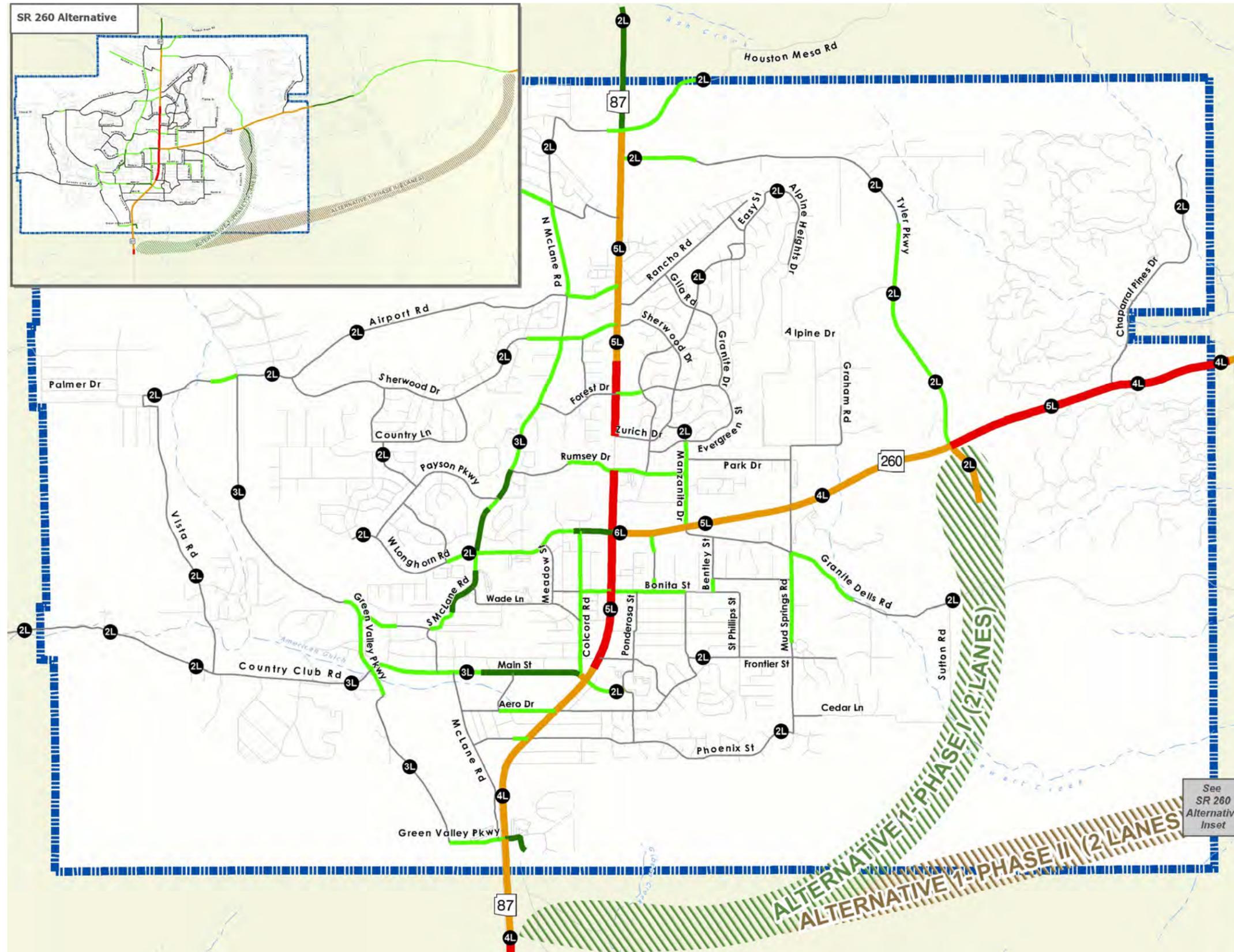
**Alternative 1 – Phase 1 and Phase 2:** Figure 4.9 shows the approximate location of Alternative I- Phase 1 and Phase 2. Primary reasons for evaluating this option are:

- Phase 1 relieves congestion on the SR 87/SR 260 corridor and would provide an emergency evacuation route for the Town and access to the proposed ASU campus.
- Phase 2 can be added when the alternative route traffic volumes warrant it, which may be beyond the year 2030 horizon.
- The two corridors potentially may relieve traffic on the SR 87 – SR 260 corridor.
- Combined Tyler Parkway and Alternative 1 (Phase 1) the corridor would serve as the Town’s outer loop road.
- If SR 87 or SR 260 through Town is closed off for any reason the Phase 1 corridor would serve as a local evacuation route and the Phase 2 portion would serve as regional evacuation route.

Alternative 1 (Phase 1 and Phase 2) was also analyzed using the Payson TransCAD travel demand model. Annual average traffic volumes (AADT) for 2030 and 2030 peak season average traffic volumes were estimated on SR 87 – SR 260 and the new corridor. Figure 4.9 illustrates the number of lanes and annual average traffic volume projections for this scenario. Figure 4.10 shows the LOS for the study area roads. Figure 4.11 displays a comparison of projected annual average and peak season traffic volumes and the corresponding level of congestion for the SR 87 – SR 260 corridor and the Alternative 1 with Phase 1 and Phase 2.

Traffic impacts of this alternative on SR 87 – SR 260 corridor include:

- A potential reduction of 20% - 34% in traffic volumes between SR 87/Casino Road and SR 260/Tyler Parkway.
- A potential reduction of 36% to 38% in traffic volumes between SR 260/Tyler Parkway and eastern town limits.
- A potential reduction of 21% in travel time along SR 87 – SR 260 corridor (southern town limits to eastern town limits).



**Figure 4.9**  
**2030 Alternative 1-**  
**Phase 1 and Phase 2**  
**Number of Lanes and**  
**Average Daily Traffic Volumes**

**Average Daily Traffic Volumes:**

- 0 - 3,000
- 3,001 - 6,000
- 6,001 - 12,000
- 12,001 - 24,000
- 24,001 - 40,000

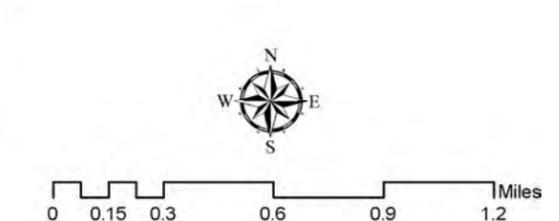
- Alternative 1- Phase I
- Alternative 1- Phase II
- Number of Lanes

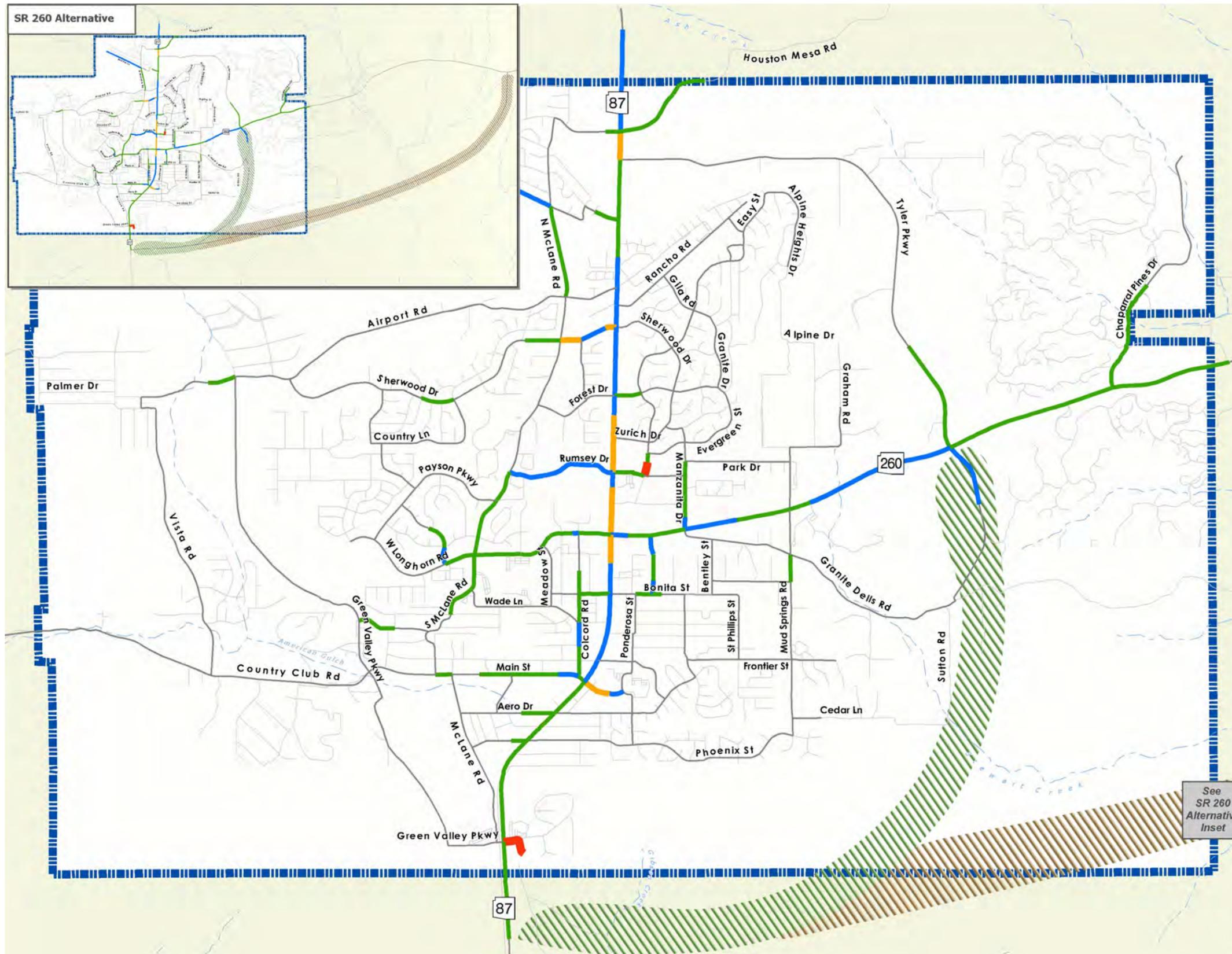
**Reference Features:**

- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

- Town of Payson
- Arizona Department Of Transportation





**Figure 4.10**  
**2030 Alternative 1-**  
**Phase 1 and Phase 2**  
**Level of Service**

**Roadway Level of Service:**

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

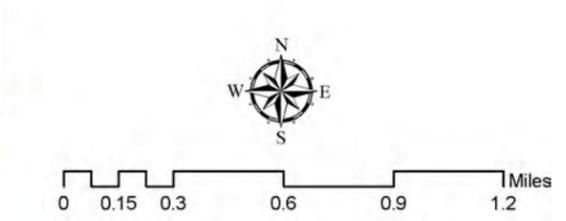
- Alternative 1- Phase I
- Alternative 1- Phase II

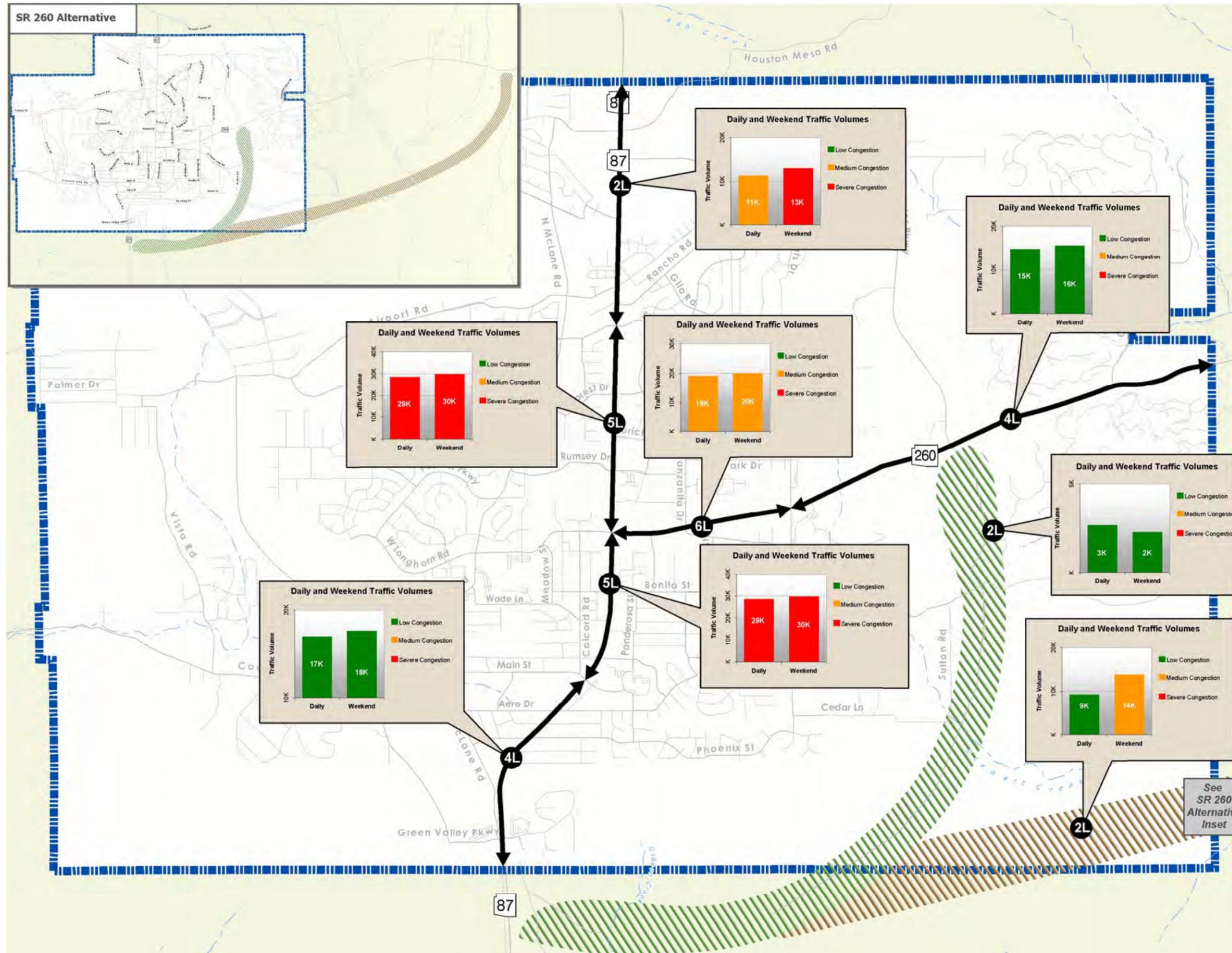
**Reference Features:**

- Other Local Roads
- Streams
- Study Area Boundary

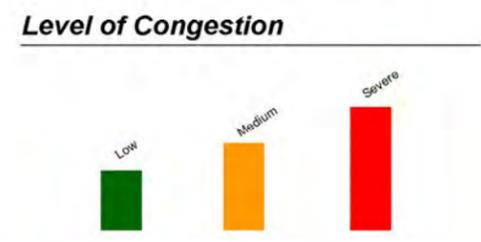
**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation

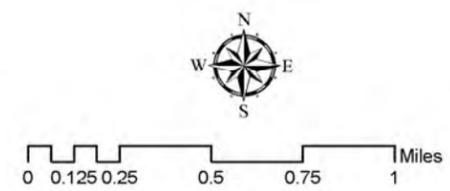




**Figure 4.11**  
**2030 Alternative 1-Phase 1 and Phase 2**  
**Annual Average Daily Versus Peak Season**  
**Average Daily Traffic Volume and Congestion**



**Data Sources:**  
 Town of Payson  
 Arizona Department Of Transportation



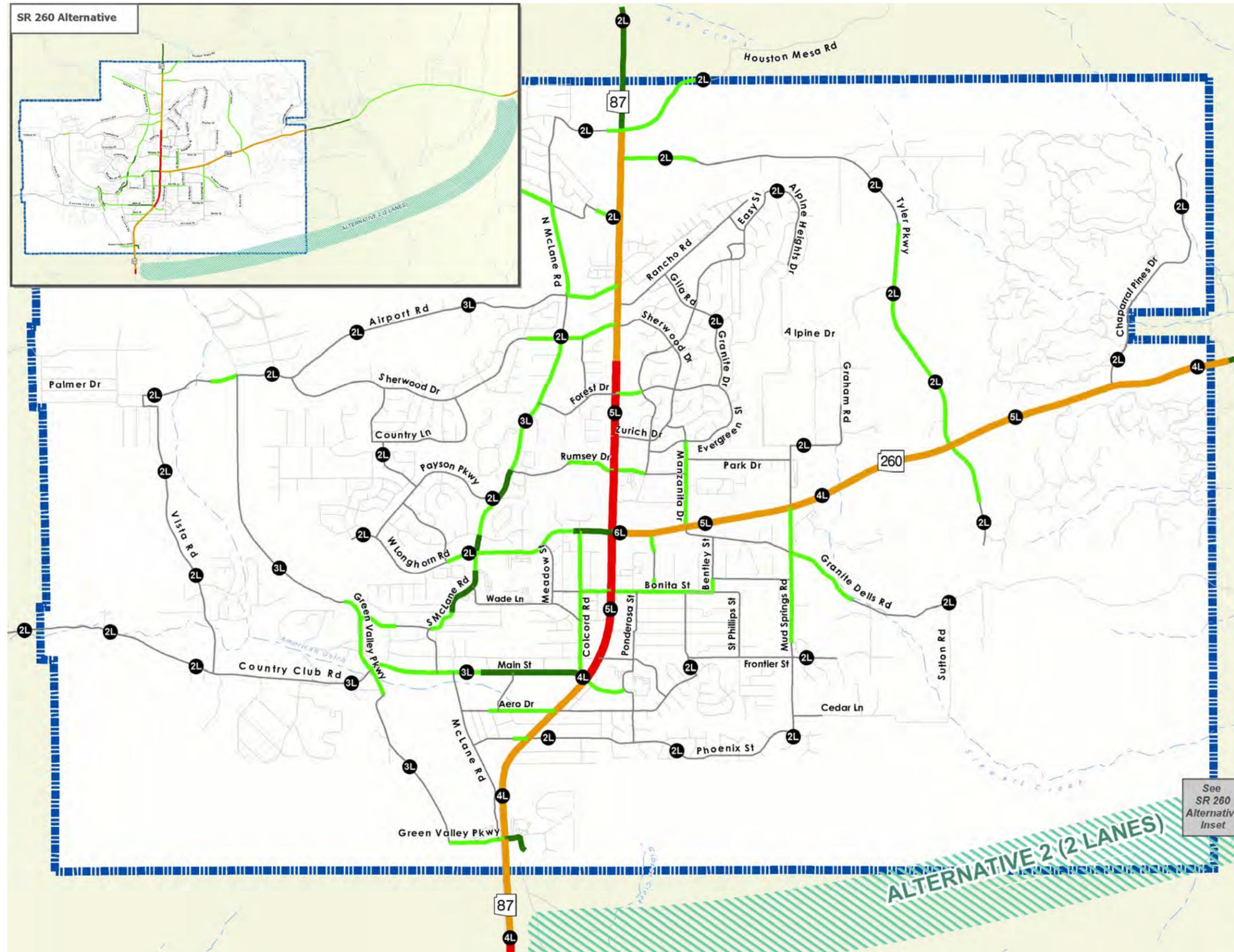
**Alternative 2:** Figure 4.12 shows the approximate alignment of Alternative 2. The primary reasons for evaluating this option are:

- The corridor strictly serves traffic that wishes to bypass Payson. It does not serve as an emergency evacuation route for the Town or as a regional emergency evacuation route.
- The corridor has the potential to relieve traffic on the SR 87 – SR 260 corridor.
- The corridor provides a detour for local and regional traffic if SR 87 or SR 260 through Town is closed off for any reason.

Alternative 2 was also analyzed using the Payson TransCAD travel demand model. AADT for 2030 and 2030 peak season average traffic volumes were estimated on SR 87 – SR 260 and the new corridor. Figure 4.12 illustrates the number of lanes and annual average traffic volume projections for this scenario. Figure 4.13 shows the LOS for the study area roads. Figure 4.14 displays a comparison of projected annual average and peak season traffic volumes and the corresponding level of congestion for the SR 87 – SR 260 corridor and Alternative 2.

Traffic impacts of this alternative on SR 87 – SR 260 corridor include:

- A potential reduction of 19% - 33% in traffic volumes between SR 87/Casino Road and SR 260/Tyler Parkway.
- A potential reduction of 36% - 38% in traffic volumes between SR 260/Tyler Parkway and eastern town limits.
- A potential reduction of 19% in travel time along SR 87 – SR 260 corridor (southern town limits to eastern town limits).



**Figure 4.12**  
**2030 Alternative 2**  
**Number of Lanes and**  
**Average Daily Traffic Volumes**

**Average Daily Traffic Volumes:**

- 0 - 3,000
- 3,001 - 6,000
- 6,001 - 12,000
- 12,001 - 24,000
- 24,001 - 29,941

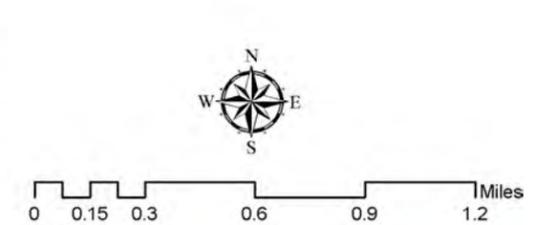
- Alternative 2
- Number of Lanes

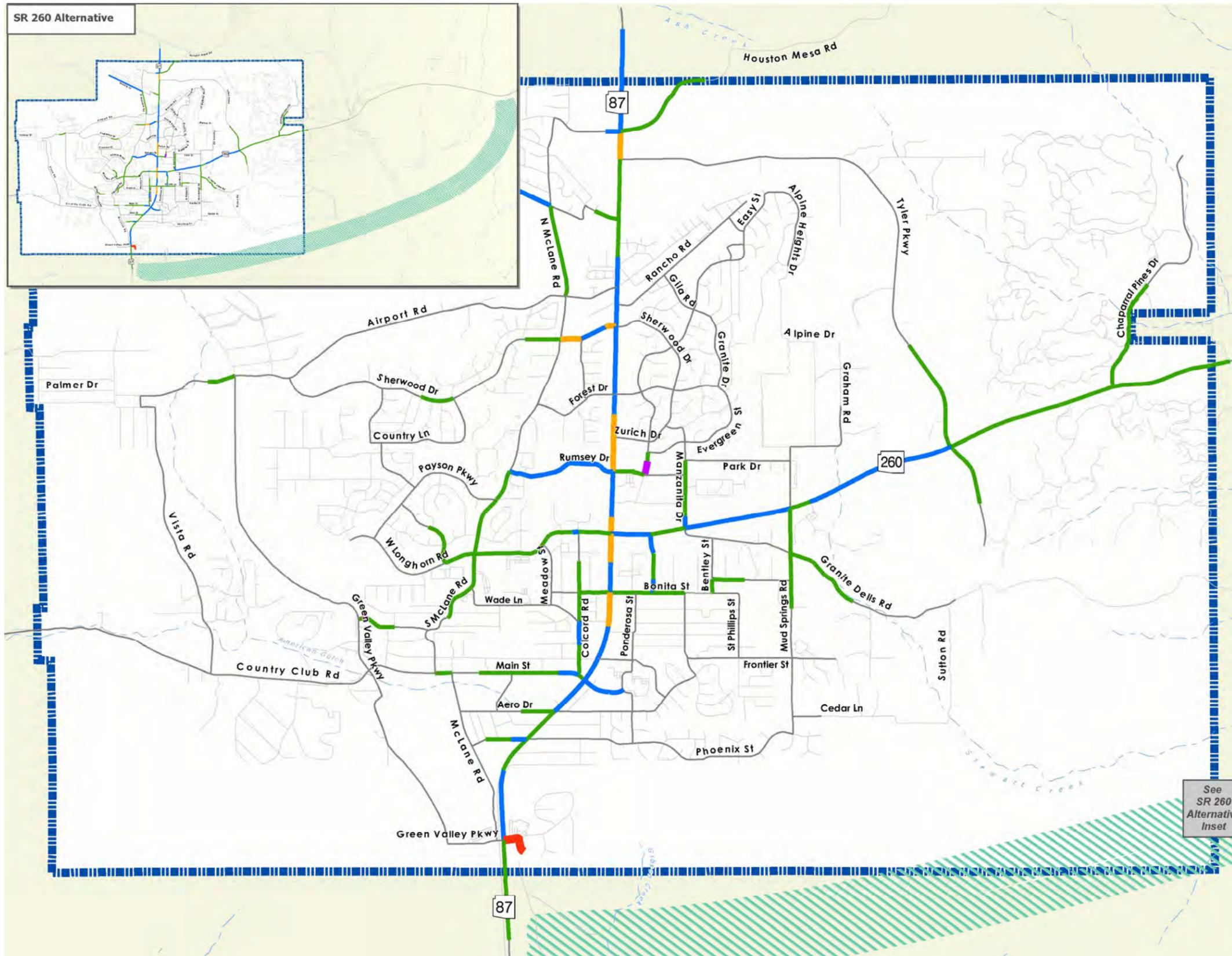
**Reference Features:**

- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

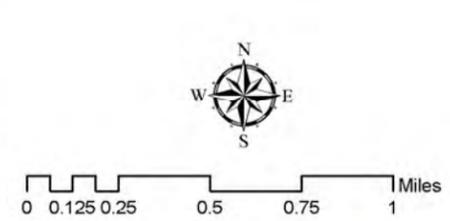
- Town of Payson
- Arizona Department Of Transportation

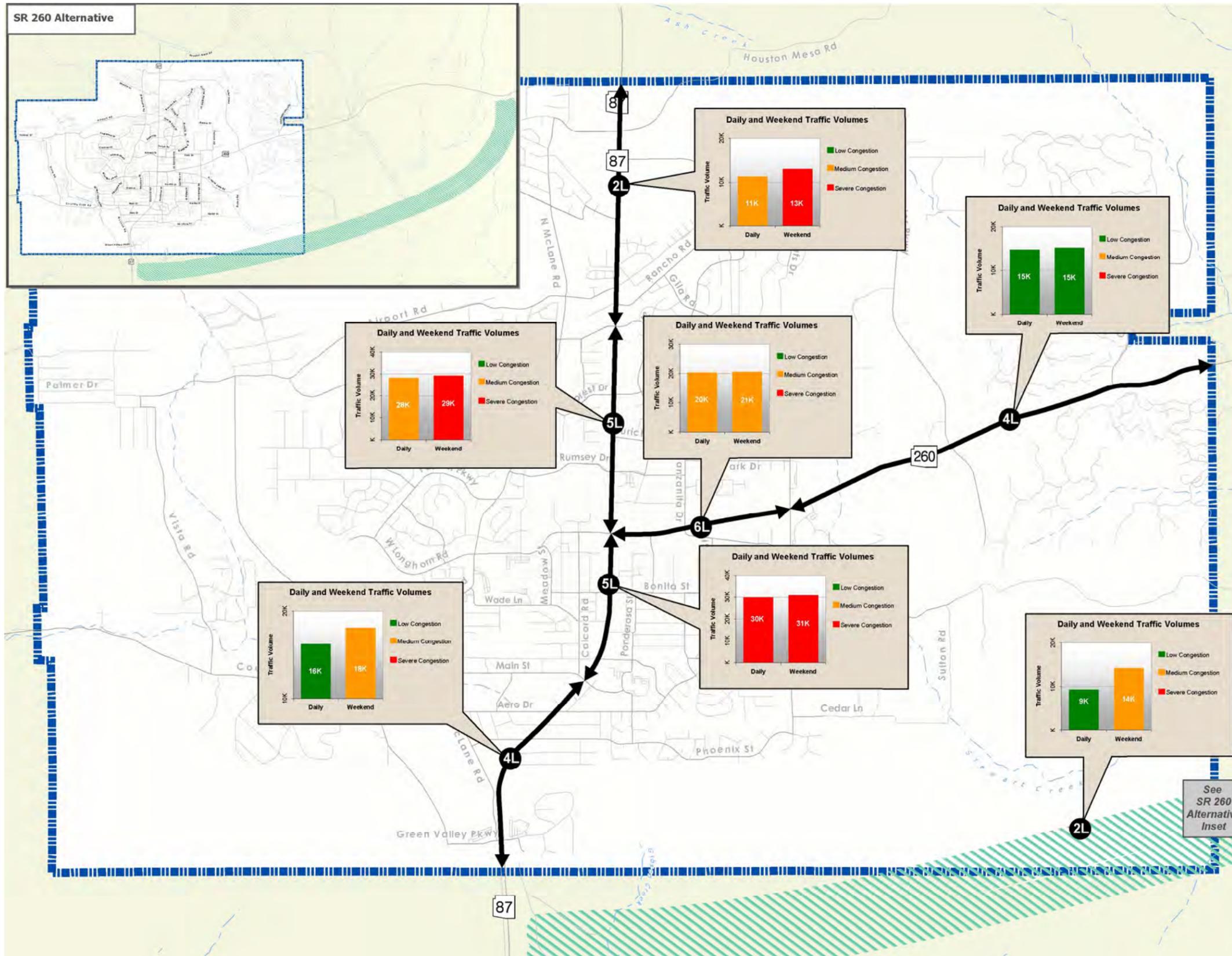




**Figure 4.13**  
**2030 Alternative 2**  
**Level of Service**

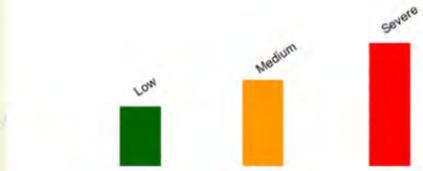
- Roadway Level of Service:**
- LOS A
  - LOS B
  - LOS C
  - LOS D
  - LOS E
  - LOS F
  - Alternative 2
- Reference Features:**
- Other Local Roads
  - Streams
  - Study Area Boundary
- Data Sources:**
- Town of Payson
  - Arizona Department Of Transportation





**Figure 4.14**  
**2030 Alternative 2**  
**Annual Average Daily**  
**Versus Peak Season**  
**Average Daily Traffic**  
**Volume and Congestion**

**Level of Congestion**



**Reference Features:**

XL Number of Lanes

Roads

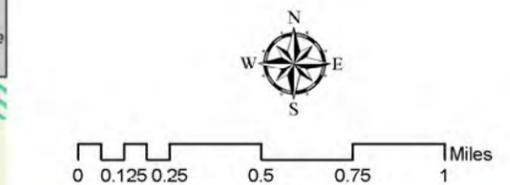
Streams

Alternative 2

Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation



**Alternative 3:** Figure 4.15 shows the approximate location of Alternative 3. Primary reasons for evaluating this option include:

- The corridor may serve as an alternative route, provide an emergency evacuation route for the Town, and provide a regional emergency evacuation route.
- The corridor provides access to the Payson airport and the Doll Baby Ranch community.
- It has the potential to relieve traffic on SR 87 north of SR 260, SR 87 south of SR 260, and on SR 260.
- The corridor provides a detour for traffic if SR 87 or SR 260 through Town is closed-off for any reason.

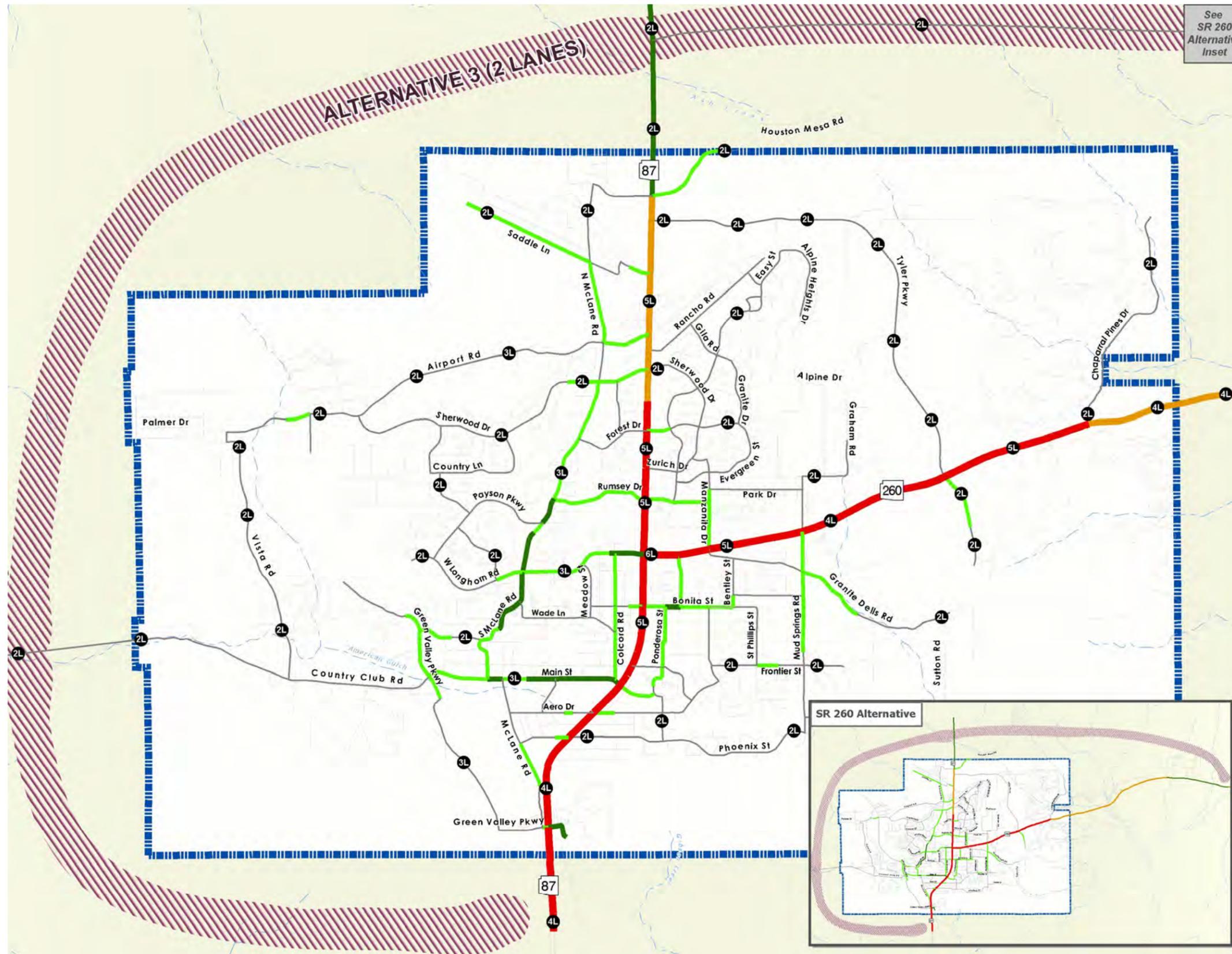
Alternative 3 was also analyzed using the Payson TransCAD travel demand model. AADT for 2030 and 2030 peak season average traffic volumes were estimated on SR 87 – SR 260 and the new corridor. Figure 4.15 illustrates the number of lanes and annual average traffic volume projections for this scenario. Figure 4.16 shows the LOS for the study area roads. Figure 4.17 displays a comparison of projected annual average and peak season traffic volumes and the corresponding level of congestion for the SR 87 – SR 260 corridor and Alternative 3.

Traffic impacts of this alternative on SR 87 – SR 260 corridor include:

- A potential reduction of 5% - 9% in traffic volumes between SR 87/Casino Road and SR 260/Tyler Parkway.
- A potential reduction of 4% - 7% in traffic volumes between SR 260/Tyler Parkway and eastern town limits.
- A potential reduction of 4% in travel time along the SR 87 – SR 260 corridor (southern town limits to eastern town limits).

### **Comparison of Alternative 1 - Phase 1, Alternative 1 - Phase 1 & 2, Alternative 2, and Alternative 3**

Alternatives were compared against each other using criteria such as traffic congestion, traffic reduction, accessibility, safety, constructability, environmental impacts, and cost factors. Figures 4.18 and 4.19 compare the potential impact of each alternative on SR 87 – SR 260 corridor traffic.



See  
SR 260  
Alternative  
Inset

**Figure 4.15**  
**2030 Alternative 3**  
**Number of Lanes and**  
**Average Daily Traffic Volumes**

**Average Daily Traffic Volumes:**

- 0 - 3,000
- 3,001 - 6,000
- 6,001 - 12,000
- 12,001 - 24,000
- 24,001 - 34,992
- Alternative 3
- Number of Lanes

**Reference Features:**

- Other Local Roads
- Study Area Boundary
- Streams

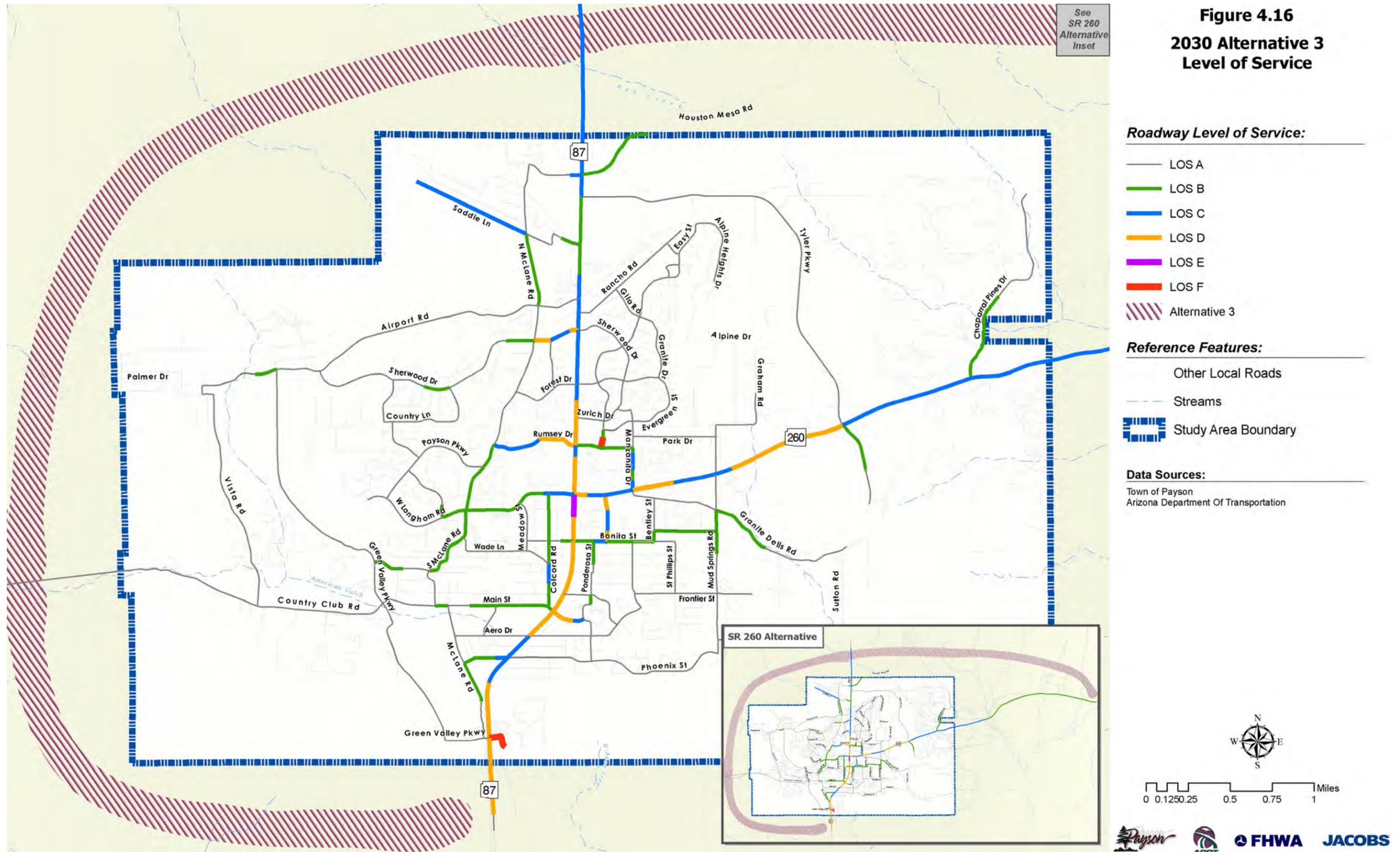
**Data Sources:**

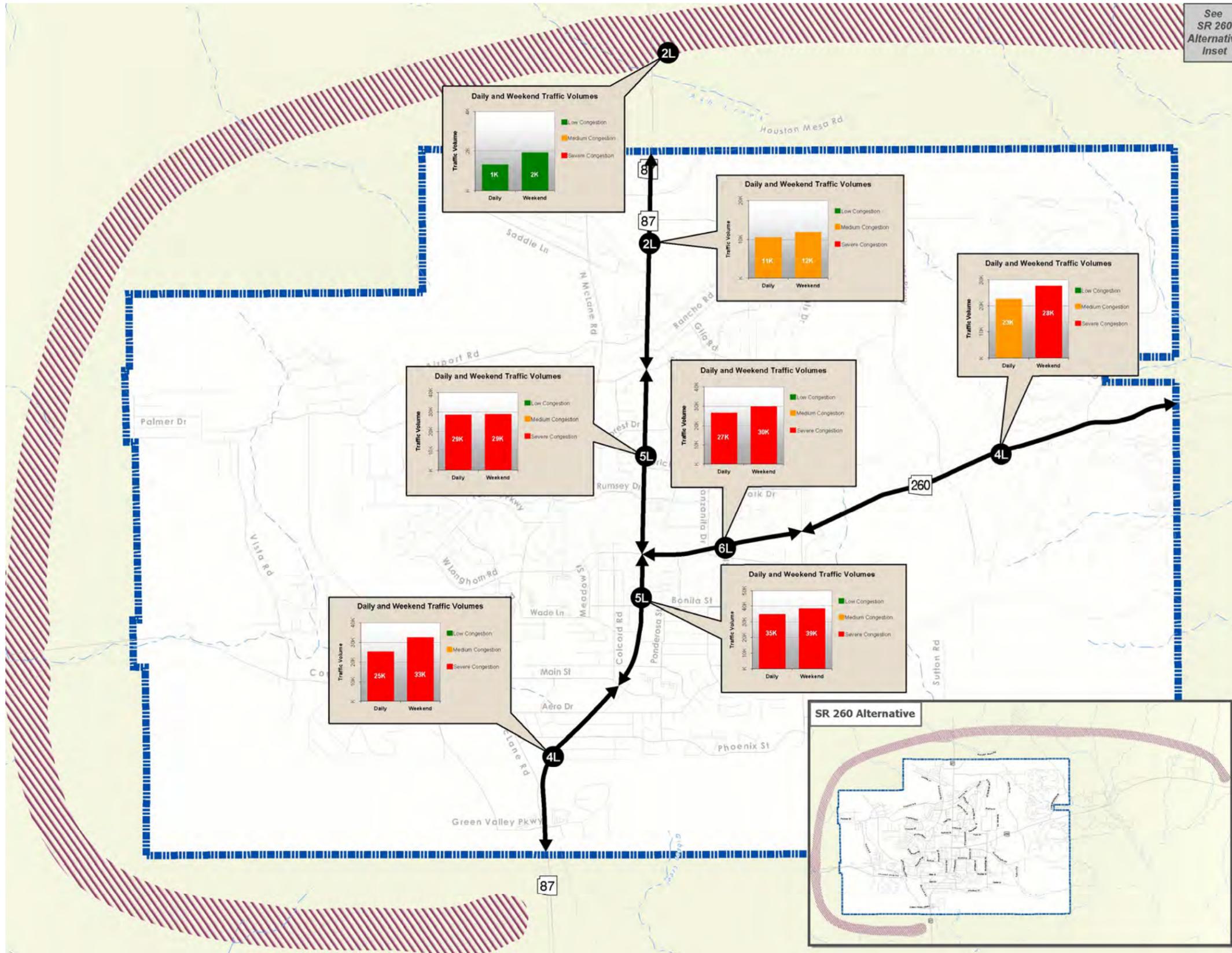
Town of Payson  
Arizona Department Of Transportation

N  
W — E  
S

0 0.125 0.25 0.5 0.75 1 Miles

**Figure 4.16**  
**2030 Alternative 3**  
**Level of Service**





See SR 260 Alternative Inset

**Figure 4.17**  
**2030 Alternative 3**  
**Annual Average Daily**  
**Versus Peak Season**  
**Average Daily Traffic**  
**Volume and Congestion**

**Level of Congestion**



**Reference Features:**

- XL** Number of Lanes
- Roads
- Streams
- Alternative 3
- Study Area Boundary

**Data Sources:**

Town of Payson  
 Arizona Department Of Transportation

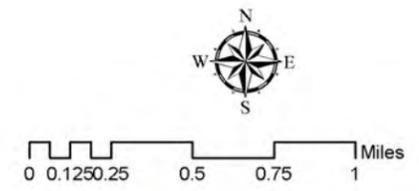


FIGURE 4.18: TRAFFIC IMPACT OF ALTERNATIVE ROUTES ON SR 87 AND SR 260 CORRIDORS

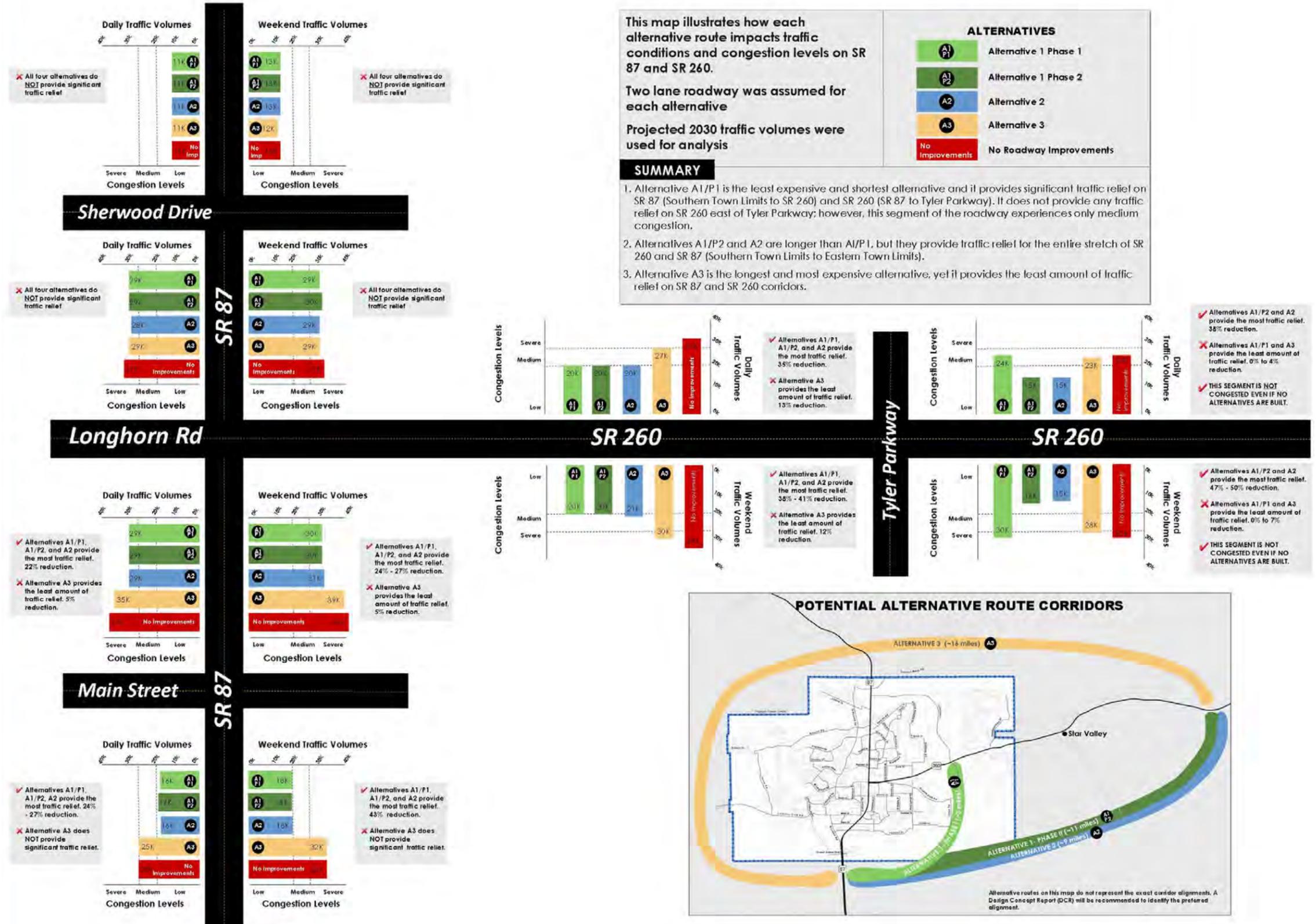
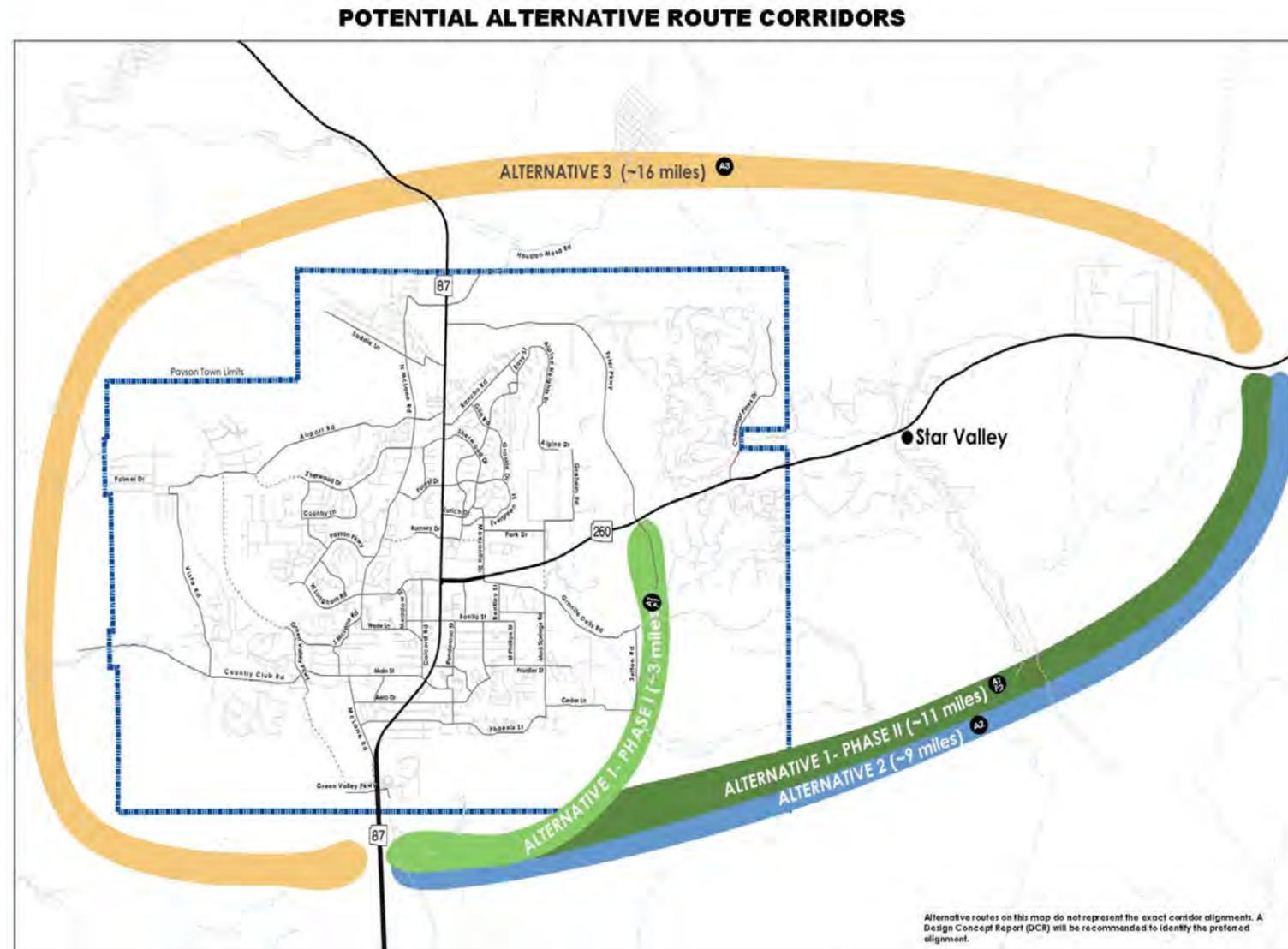
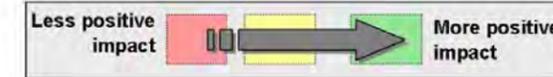


FIGURE 4.19: EVALUATION OF ALTERNATIVE ROUTES TO SR 87 – SR 260 CORRIDOR



### EVALUATION CRITERIA



Comparison of Traffic Improvements on SR 87 - SR 260	A1/P1 Alternative 1- Phase I Only	A1/P1 Alternative 1- Phase I + II	A2 Alternative 2	A3 Alternative 3
Traffic volume reduction on SR 87: Casino to SR 260	✓ < 18% - 38%	✓ < 22% - 42%	✓ < 18% - 37%	✓ < 4% - 11%
Traffic volume reduction on SR 260: SR 87 to Tyler Parkway	✓ < 28% - 29%	✓ < 30% - 31%	✓ < 26% - 33%	✓ < 2%
Traffic volume reduction on SR 260: East of Tyler Parkway	✗ 0%	✓ < 3.4% - 4.7%	✓ < 3.4% - 4.8%	✓ < 3% - 7%
Travel time reduction along SR 87 - SR 260 between Casino to eastern Study Boundary	✓ < 17%	✓ < 21%	✓ < 18%	✓ < 4%

Environmental	A1/P1 Alternative 1- Phase I Only	A1/P1 Alternative 1- Phase I + II	A2 Alternative 2	A3 Alternative 3
Traverses through potential hazardous areas	✗	✗	✗	✓ Near 4 Miles
Impacts impaired rivers, lakes, or streams	✗	✗	✗	✗
Impacts riparian areas	✗	✓	✓	✗
Located within wildlife linkage areas	✓	✓	✓	✓
Located within flood hazard zones	✓	✓	✓	✓

Safety & Accessibility	A1/P1 Alternative 1- Phase I Only	A1/P1 Alternative 1- Phase I + II	A2 Alternative 2	A3 Alternative 3
Facilitates local evacuation	✓	✓	✗	✗
Facilitates regional evacuation	✓	✓	✓	✓
Improves connectivity within Payson	✓	✓	✗	✗
Access to proposed Arizona State University campus	✓	✓	✗	✗
Access to airport	✗	✗	✗	✓

Cost Factors	A1/P1 Alternative 1- Phase I Only	A1/P1 Alternative 1- Phase I + II	A2 Alternative 2	A3 Alternative 3
Length of corridor - miles	3 miles	11 miles	9 miles	16 miles
Corridor miles located in private land	✓	✓	✓	✓
Corridor miles located in Tonto National Forest	1 miles	2 miles	1 mile	1 mile
Corridor miles located in area with a slope between 0-7.5%	2 miles	9 miles	8 miles	15 miles
Corridor miles located in area with a slope between 7.5-15%	✓	✓	✓	✓
Corridor miles located in area with a slope between 15-30%	2 miles	6 miles	4 miles	9 miles
Corridor miles located in area with a slope greater than 30%	✓	✓	✓	✓
Corridor miles located in area with a slope greater than 50%	1 mile	2 miles	2 miles	4 miles
Impacts housing or subdivisions	✓	✓	✓	✓
Impacts existing homes	✗	✗	✗	✗
Crosses rivers and/or streams	✓	✓	✓	✓
Crosses 2 Streams	2 Streams	10 Streams	10 Streams	17 Streams
Intersects major powerline	✗	✗	✗	✓

### SUMMARY

A1/P1 Alternative A1/P1	A1/P2 Alternative A1/P2	A2 Alternative A2	A3 Alternative A3
<ul style="list-style-type: none"> <li>✓ Shortest corridor (3 mi) and least expensive</li> <li>✓ Relieves congestion on SR 87 – SR 260 corridor until Tyler Parkway</li> <li>✓ Provides access to the proposed ASU campus and fire station</li> <li>✓ Serves as emergency route for local and regional traffic</li> <li>✓ Potential to compete with other major statewide projects for funding</li> <li>✗ May impact existing homes</li> </ul>	<ul style="list-style-type: none"> <li>✗ Corridor is 11 miles long and more expensive than alternative A1/P1</li> <li>✓ Relieves congestion for entire stretch of SR 87 – SR 260 corridor (southern to eastern Town limits)</li> <li>✓ Serves as evacuation route for both local and regional traffic</li> <li>✓ Provides access to proposed ASU campus and fire station</li> <li>✗ May impact existing homes</li> <li>✓ Can be implemented after alternative A1/P1 is constructed</li> </ul>	<ul style="list-style-type: none"> <li>✗ Corridor 9 miles long and more expensive than alternative A1/P1</li> <li>✓ Primarily serves through traffic</li> <li>✓ Relieves congestion from SR 87 – SR 260 (southern to eastern Town limits)</li> <li>✓ Serves as evacuation route for only regional traffic</li> <li>✗ Does not serve Payson local traffic needs – ASU campus, etc.</li> </ul>	<ul style="list-style-type: none"> <li>✗ Longest (16 mi) and most expensive corridor</li> <li>✗ Does not relieve congestion along SR 87 – SR 260 corridor</li> <li>✓ May serve as evacuation route for regional traffic</li> <li>✗ Does not serve Payson local traffic needs – ASU campus, etc.</li> <li>✗ Adds additional out of direction travel for through traffic</li> </ul>

## EVALUATION OF TRANSIT NEEDS

Currently, the Town is served by several private carriers, none of which provide formal intercity public transit operations. In addition, two shuttle services operate between Phoenix Sky Harbor Airport and Payson, and between Payson and Show Low, Pinetop-Lakeside, and Springerville.

### Potential Transit Dependent Population

An area's potential transit-dependent population generally includes persons 65 years of age and older, persons with a mobility limitation, and persons considered below the poverty level. Table 4.2 compares Payson's demographic statistics with state and national statistics as reported by the 2000 U.S. Census. The comparison shows that Payson has a disproportionately larger share of elderly population than most areas in the nation. Relative to the entire state, Payson has a higher proportion of elderly (65 years of age and older) and disabled individuals (under 65 years of age).

**TABLE 4.2: TRANSIT DEPENDENT POPULATION SUMMARY IN PAYSON**

Population Type	2000 Census	Percent of Total		
		Payson	Arizona	US
Entire Population	13,620			
Elderly (Over 65)	3,970	29.15%	23.00%	12.40%
Below Poverty (Under 65)	1,371	10.07%	15.00%	12.40%
Disabled (Under 65)	2,135	15.68%	10.00%	19.30%

Source: US Census 2000

As an area's population grows, so does the population of potential transit-dependent persons. Table 4.3 shows the forecasted growth in population and employment in Payson.

**TABLE 4.3: POPULATION AND EMPLOYMENT GROWTH IN PAYSON**

Year	Population	Employment
2000	13,620	—
2010	16,965	6,714
2015	18,603	7,395
2020	20,132	8,112
2030	22,632	9,452

Source: US Census 2000

## Transit Demand Analysis

The Arkansas Public Transportation Needs Assessment (APTNA) method, which was utilized by the State of Arizona for its Rural Transit Needs Study (RTNS), was used in estimating transit demand. The APTNA method estimates demand for transit by applying trip rates to three population groups: elderly, mobility limited, and disabled. Demand is expressed in terms of one-way passenger trips per year. Table 4.4 summarizes the transit demand projections for the Town of Payson.

**TABLE 4.4: TRANSIT DEMAND ESTIMATION FOR PAYSON**

Year	Demand
2000	64, 648
2010	80, 525
2015	90, 080
2020	100, 304
2030	119, 290

## EVALUATION OF PEDESTRIAN AND BYCYLCE FACILITES

In the Payson area, non-motorized recreational travel is highly desired by citizens. As previously displayed in Figure 2.13, the Town’s trail system is comprised of a series of sidewalks, bike lanes, and trails (located both in the Town and in U.S. Forest Service land). The Town of Payson currently maintains approximately 19 miles of sidewalks and three miles of bike lanes. New trails are also planned to complete the entire trail network.

### Needs Analysis

Payson’s existing sidewalks, bike lanes, and trails were reviewed in relation to:

- The location of activity centers such as schools, large retail establishments, libraries, hospitals, recreation activity locations; and
- Existing and future roadway alignments.

Analyzing Payson’s existing pedestrian and bicycle facilities helped to identify new bicycle and pedestrian facilities that would be closely integrated with the Town’s roadway system.

## 5. MULTIMODAL TRANSPORTATION PLAN

This section presents the draft Multimodal Transportation Plan for the Town of Payson for the short-, mid-, and long- term. This transportation plan is the result of the deficiency and needs analysis from Working Paper 1, Working Paper 2, Working Paper 3, and Public Open House input. It is a multimodal plan that includes roadway, transit, pedestrian, and bicycle improvements. Each project is assigned a unique project number that the Town can use to track project progress. Unless otherwise noted, the recommended projects are not yet funded.

### SHORT-TERM TRANSPORTATION RECOMMENDATIONS

Short-term phase projects are recommended to be completed within the timeframe of 2011 to 2015. Table 5.1 lists the transportation recommendations for this phase. The project number, location, description, and estimated costs for each project are identified in Table 5.1. Figure 5.1 is a graphical representation of the short-term transportation recommendations for the Town of Payson.

*Estimated costs for each project are expressed in 2011 dollars and are general estimates. Actual costs for projects could vary at the time of implementation; therefore, a detailed analysis should be performed on a case-by-case basis to determine actual costs.*

**TABLE 5.1: SHORT-TERM (2011 - 2015) IMPROVEMENTS**

Project Id	Project Location Description	Cost	Agency
<b>Roadway Improvements</b>			
<b>ST - 1</b>	<b>SR 87/Aero Drive intersection</b> <i>Conduct a traffic warrant study. Intersection needs to be reconstructed to fix sight distance issues, if traffic signal not warranted. Costs do not include improvement costs, which will be determined from the traffic warrant study.</i>	\$40,000	ADOT
<b>ST - 2</b>	<b>SR 87- Main Street to SR 260</b> <i>Incorporate recommendations from RSA and TOAS.</i>	RSA & TOAS	ADOT
<b>ST - 3</b>	<b>SR 87/ Phoenix Street intersection</b> <i>Conduct Intersection Safety Study and implement recommendations. Costs do not include improvement costs, which will be determined from safety study.</i>	\$40,000	ADOT
<b>ST - 4</b>	<b>SR 87/Rancho Road intersection</b> <i>Conduct a traffic warrant study.</i>	\$40,000	ADOT
<b>ST - 5</b>	<b>SR 87/SR 260 intersection</b> <i>Incorporate recommendations from RSA and TOAS.</i>	RSA & TOAS	ADOT
<b>ST - 6</b>	<b>SR 87 - SR 260 to Rancho Road</b> <i>Incorporate recommendations from RSA and TOAS.</i>	\$25,000	ADOT

**TABLE 5.1: SHORT-TERM (2011 – 2015) IMPROVEMENTS (CONTINUED)**

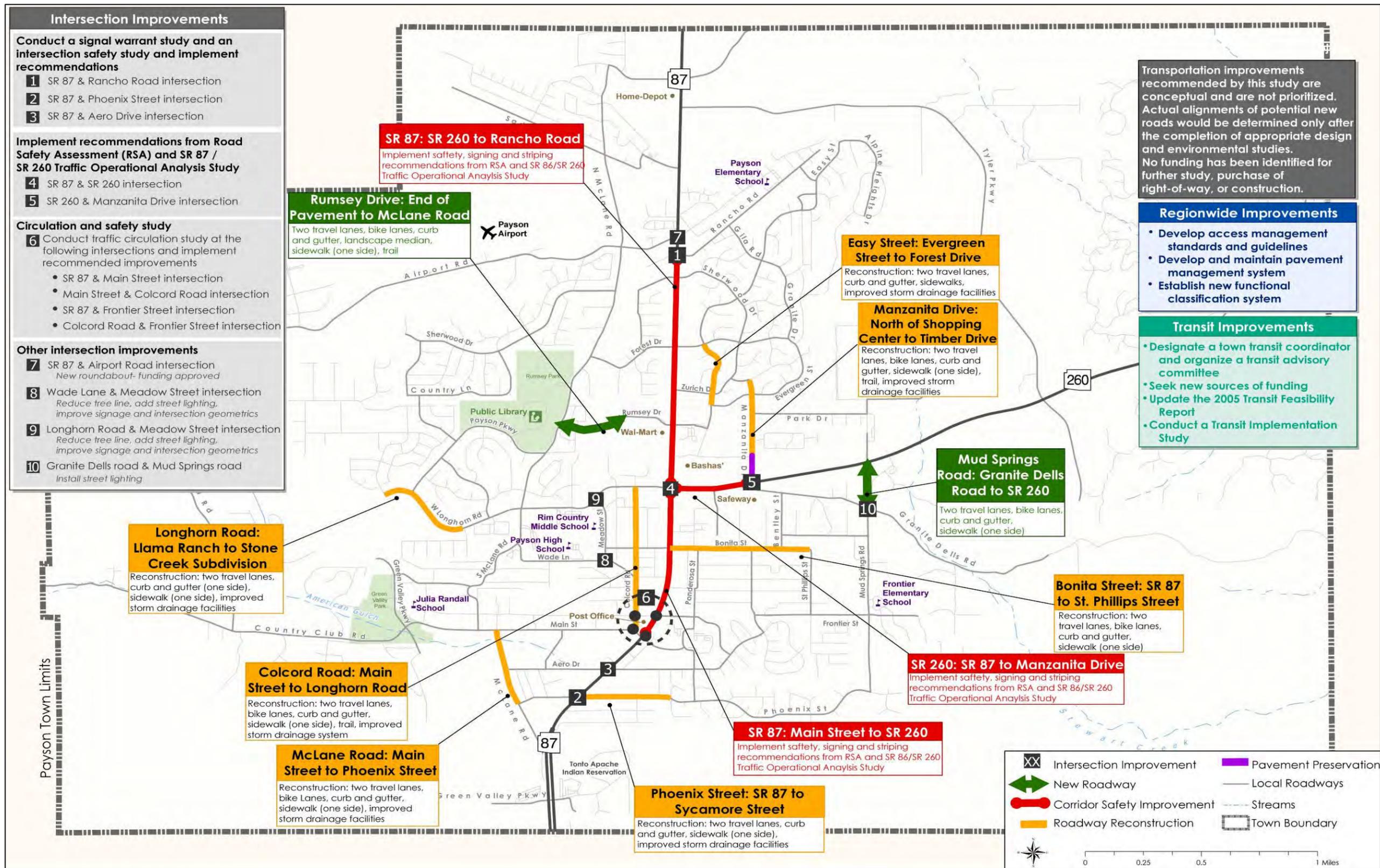
<b>Project Id</b>	<b>Project Location Description</b>	<b>Cost</b>	<b>Agency</b>
<b>ST - 7</b>	<b>SR 260/Manzanita Drive intersection</b> <i>Incorporate recommendations from RSA and TOAS.</i>	RSA & TOAS	ADOT
<b>ST - 8</b>	<b>SR 260 - SR 87 to Manzanita Drive</b> <i>Incorporate recommendations RSA and TOAS.</i>	RSA & TOAS	ADOT
<b>ST - 9</b>	<b>SR 87/Airport Road intersection</b> <i>Town of Payson CIP: construct new roundabout.</i>	Project completed	ADOT
<b>ST - 10</b>	<b>SR 87/Main Street, Colcord Road/Main Street, Frontier Street/SR 87, and Frontier Street/Colcord Road intersections</b> <i>Conduct one traffic safety study that covers all four intersections.</i>	RSA & TOAS	ADOT/ Town of Payson
<b>ST - 11</b>	<b>Bonita Street - SR 87 to St. Phillips Street</b> <i>Town of Payson CIP: one travel lane in each direction, bike lane in each direction, curb and gutter on each side, and sidewalk on one side.</i>	\$1,280,000	Town of Payson
<b>ST - 12</b>	<b>Colcord Road – Main Street to Longhorn Road</b> <i>Town of Payson CIP: one travel lane in each direction, bike lane in each direction, curb and gutter on each side, sidewalk on east side, compacted granite pathway on west side of road as part of PATS system, and improved storm drain facilities.</i>	\$1,750,000	Town of Payson
<b>ST - 13</b>	<b>Easy Street – Evergreen Street to Forest Drive</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on each side, sidewalk on each side, and improved storm drain facilities.</i>	\$730,000	Town of Payson
<b>ST - 14</b>	<b>Granite Dells Road / Mud Springs Road intersection</b> <i>Town of Payson CIP: Install street lighting</i>	\$34,000	Town of Payson
<b>ST - 15</b>	<b>Longhorn Road – Llama Ranch to Stone Creek subdivision</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on south side, sidewalk on south side, and improved storm drain facilities.</i>	\$190,000	Town of Payson
<b>ST - 16</b>	<b>Longhorn Road/Meadow Street intersection</b> <i>Trim tree line and remove shrubs. Add street lighting. Improve signage. Improve intersection geometrics.</i>	\$5,000	Town of Payson
<b>ST - 17</b>	<b>Manzanita Drive - North side of shopping center to Timber Drive</b> <i>Town of Payson CIP: one travel lane in each direction, bike lane in each direction, curb and gutter on each side, sidewalk on east side, compacted granite pathway on west side of road as part of the Payson Area Trails System (PATS), and improved storm drain facilities.</i>	\$1,000,000	Town of Payson
<b>ST - 18</b>	<b>Manzanita Drive - SR 260 to north side of shopping center</b> <i>Re-pave roadway and perform periodic pavement preservation tasks.</i>	\$350,000	Town of Payson
<b>ST - 19</b>	<b>McLane Road – Main Street to Phoenix Street</b> <i>Town of Payson CIP: one travel lane in each direction, bike lane in each direction, curb and gutter on each side, sidewalk on one side, and improved storm drain facilities.</i>	\$955,000	Town of Payson
<b>ST - 20</b>	<b>Mud Springs Road – Granite Dells Road to SR 260</b> <i>Town of Payson CIP: one travel lane in each direction, bike lane in each direction, curb and gutter on each side, and sidewalk on one side.</i>	\$1,300,000	Town of Payson
<b>ST - 21</b>	<b>Phoenix Street – SR 87 to Sycamore Street</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on both sides, sidewalk on east side, and improved storm drain facilities.</i>	\$630,000	Town of Payson

**TABLE 5.1: SHORT-TERM (2011 – 2015) IMPROVEMENTS (CONTINUED)**

<b>Project Id</b>	<b>Project Location Description</b>	<b>Cost</b>	<b>Agency</b>
<b>ST - 22</b>	<b>Rumsey Drive – End of pavement to McLane Road</b> <i>Town of Payson CIP: one travel lane in each direction, bike lane in each direction, curb and gutter on each side, landscape median on portion of road, sidewalk on south side, and compacted granite pathway on north side of road as part of PATS system.</i>	\$560,000	Town of Payson
<b>ST - 23</b>	<b>Wade Lane/Meadow Street intersection</b> <i>Trim tree line to improve sight distance. Add street lighting. Improve signage. Improve intersection geometrics.</i>	\$5,000	Town of Payson
<b>Pedestrian and Bicycle Improvements</b>			
	<b>Town of Payson</b> <i>Bike lanes, sidewalk, and trail improvement locations, refer to Figure 5.2. Construction costs are already included in roadway reconstruction project cost.</i>		Town of Payson
<b>Transit Improvements</b>			
	<b>Town of Payson</b> <i>Conduct a Transit Implementation Study.</i>	\$80,000	Town of Payson
<b>Access Management</b>			
	<b>Town of Payson</b> <i>Develop Access Management Standards and Guidelines.</i>	\$75,000	Town of Payson
<b>Pavement Preservation</b>			
	<b>Town of Payson</b> <i>Develop and maintain Pavement Management System.</i>	\$150,000/ mile	Town of Payson
<b>Roadway Functional Classification</b>			
	<b>Town of Payson</b> <i>Establish New Functional Classification System. Obtain FHWA approval for reclassification of roads (shown as dotted line in Figure 5.5) to complete new functional classification system.</i>		Town of Payson

\* TOAS: Traffic Operational Analysis Study; RSA: Road Safety Assessment

FIGURE 5.1: SHORT-TERM (2011 - 2015) IMPROVEMENTS



## Project Description for Short-Term Improvements

The following projects were identified for the short-term implementation phase. *The Project Identification Number (eg: ST -1) does NOT represent the priority of the project; rather it is an identification number to track project progress in the future. The Town of Payson will prioritize the projects once the study is complete.*

### Project No: ST - 1

**Location:** SR 87/ Aero Drive intersection

**Issues:**

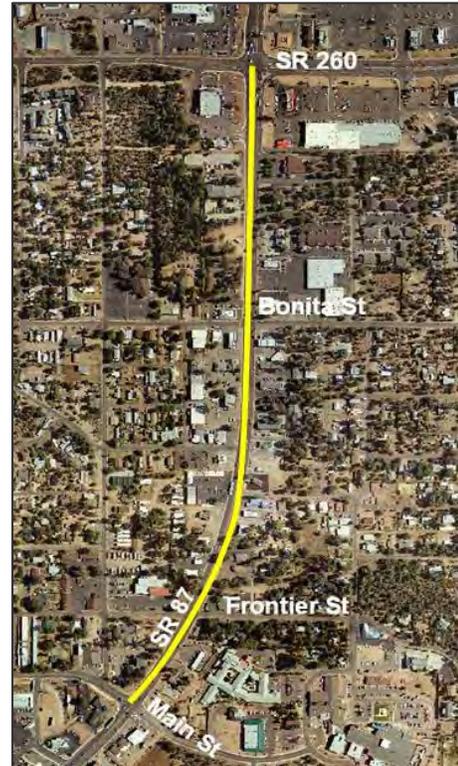
- Aero Drive and SR 87 intersect at a skewed angle resulting in sight distance issues.

**Project Description:** Conduct a traffic warrant study to determine the need for a traffic signal. If the intersection does not warrant a signal, the intersection should either be reconstructed to correct sight distance issues or evaluated to determine the feasibility of a roundabout.

**Cost:** \$40,000

**Benefits:** Enhances safety.

**Responsible Agency:** ADOT



### Project No: ST - 2

**Location:** SR 87, between Main Street and SR 260

**Issues:**

- Insufficient capacity at times with low actual travel speeds.
- Considerable number of pedestrian/bicyclist crashes.
- Insufficient signage along highway.
- Excessive number of driveways – potential access management issues.



- Experiences significant amount of tourist traffic and congestion, especially during summer weekends.

**Project Description:** SR 87 – SR 260 corridor is often congested, especially during summer weekends. Implement signing, striping, lighting, signal timing coordination, access management, and other recommendations from the RSA and TOAS. A long-term solution to the capacity limitations along the SR 87 – SR 260 corridor is to develop alternate routes. Alternative route options are discussed in greater detail in the *Potential Long-Term Roadway Improvements* section.

**Cost:** This project was evaluated as part of the SR 87 – SR 260 Traffic Operational Analysis Study. Cost estimates are discussed in *Chapter 4: Draft Multimodal Transportation Plan*.

**Benefits:** Enhances safety and improves mobility.

**Responsible Agency:** ADOT

### **Project No: ST - 3**

**Location:** SR 87/Phoenix Street intersection

#### **Issues:**

- Phoenix Street intersects SR 87 at a skewed angle, resulting in poor sight distance along some approaches.

**Project Description:** Conduct a signal warrant study and an intersection safety study, and implement recommendations. If the intersection does not warrant a



signal, the intersection should either be reconstructed to correct sight distance issues or evaluated to determine the feasibility of a roundabout.

**Cost:** \$40,000

**Benefits:** Enhances safety.

**Responsible Agency:** ADOT

### **Project No: ST - 4**

**Location:** SR 87/Rancho Road intersection

**Issues:**

- Cross-street (SR 87) has high traffic volumes that travel at a high speed of 40MPH. This results in very limited safe left turn opportunities for traffic coming from Rancho Road.

**Project Description:** Conduct a traffic warrant study to determine if a change in the type of intersection control is needed, such as the addition of a traffic signal or roundabout.

**Cost:** \$40,000

**Benefits:** Enhances safety and increases intersection capacity.

**Responsible Agency:** ADOT



**Project No: ST - 5**

**Location:** SR 87/SR 260 intersection

**Issues:**

- Considerable number of crashes.
- Extremely high traffic volumes, especially during peak season.
- South leg of the intersection lacks a pedestrian crossing.
- Several key businesses are in the vicinity.
- Several driveways are close to the intersection.
- Other signalized intersections are in close proximity.
- Signing and striping issues in the vicinity of the intersection.
- Intersection is not pedestrian friendly.



**Project Description:** Implement improvements identified in the RSA and TOAS.

**Cost:** This project was evaluated as part of the SR 87 – SR 260 Traffic Operational Analysis Study. Cost estimates are discussed in *Chapter 4: Draft Multimodal Transportation Plan*.

**Benefits:** Enhances safety, improves mobility, and increases intersection capacity.

**Responsible Agency:** ADOT

**Project No: ST - 6**

**Location:** SR 87, between SR 260 and Rancho Road

**Issues:**

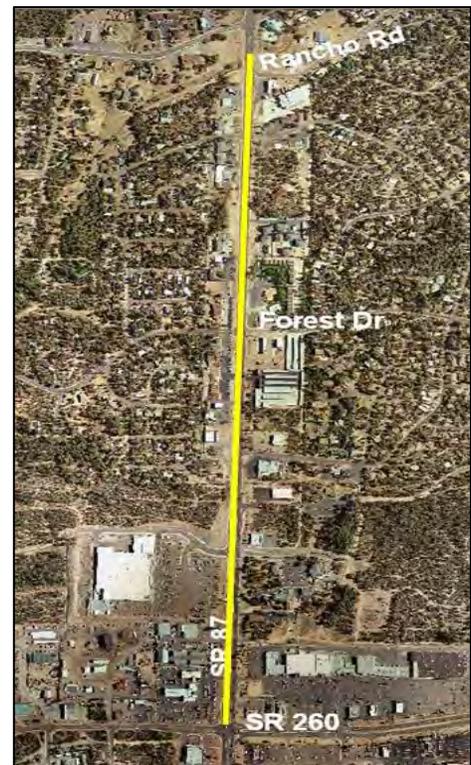
- Experiences significant traffic volumes.
- Adjacent to several major retail attractions.
- Experiences severe traffic congestion.

**Project Description:** Implement improvements identified in the RSA and TOAS.

**Cost:** This project was evaluated as part of the SR 87 – SR 260 Traffic Operational Analysis Study. Cost estimates are discussed in *Chapter 4: Draft Multimodal Transportation Plan*.

**Benefits:** Enhances safety and improves mobility.

**Responsible Agency:** ADOT



**Project No: ST - 7**

**Location:** SR 87/Manzanita Drive intersection

**Issues:**

- Considerable number of crashes at intersection.
- High traffic volumes at intersection.
- Traveling westbound, the speed limit is 45MPH before the intersection and reduces to 35MPH after the intersection.
- Traveling westbound, no signs are present to warn drivers about approaching the signal and reducing speed.
- Driveway on westbound approach is close to intersection.
- North leg of intersection has sight distance issues (right-turn movement).
- South leg (Granite Dells Road) of the intersection approaches the intersection at a skewed angle.

- Driveway to Safeway is too close to intersection on the south leg of intersection.
- Several key businesses are in the vicinity of the intersection.

**Project Description:** Implement improvements identified in the RSA and TOAS.

**Cost:** This project was evaluated as part of the SR 87 – SR 260 Traffic Operational Analysis Study. Cost estimates are discussed in *Chapter 4: Draft Multimodal Transportation Plan*.

**Benefits:** Enhances safety, improves mobility, and increases intersection capacity.

**Responsible Agency:** ADOT



**Project No: ST – 8**

**Location:** SR 260, between SR 87 and Manzanita Drive

**Issues:**

- Insufficient capacity during peak season with low actual travel speeds.
- Signage issues.
- Excessive number of driveways – potential access management issues.
- Traffic congestion during summer weekends due to significantly high tourist traffic.

**Project Description:** Improve signing, striping, and lighting, coordinate signal

timing, establish access management, and implement other recommendations from the RSA and TOAS. A long-term solution to the capacity limitations along the SR 87 – SR 260 corridor is to develop alternate routes. These options are discussed in greater detail in the *Potential Long-Term Roadway Improvements* section.



**Cost:** This project was evaluated as part of the SR 87 – SR 260 Traffic Operational Analysis Study. Cost estimates are discussed in *Chapter 4: Draft Multimodal Transportation Plan*.

**Benefits:** Enhances safety and improves mobility.

**Responsible Agency:** ADOT

**Project No: ST - 9**

**Location:** SR 87/ Airport Road intersection

**Issues:**

- Airport Road intersects SR 87 at a skewed angle, which may result in insufficient sight distance.
- Traffic on Airport Road is expected to increase 40% by the year 2030.

**Project Description:** Per the Town of Payson Capital Improvement Plan (CIP), a new roundabout is planned for this intersection.

**Cost:** Project recently completed.

**Benefits:** Enhances safety, improves mobility, and increases intersection capacity.

**Responsible Agency:** ADOT and Town of Payson



**Project No: ST - 10**

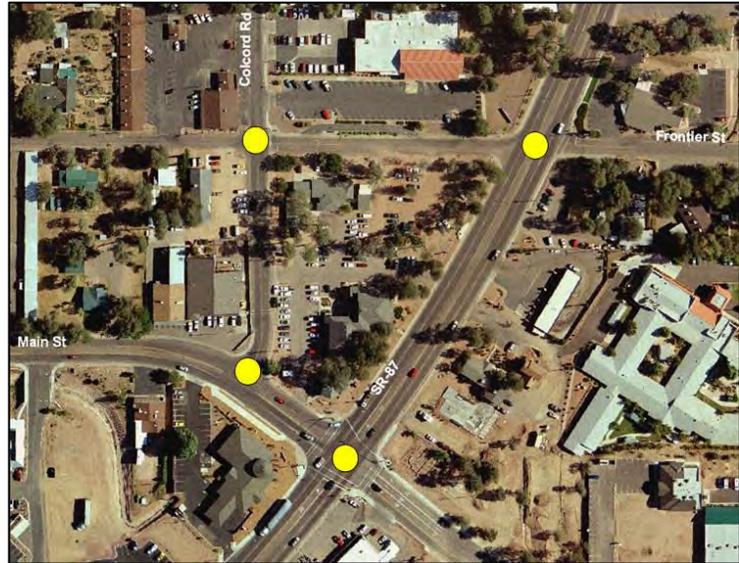
**Location:** SR 87/Main Street, Colcord Road/Main Street, Frontier Street/SR 87, and Frontier Street/Colcord Road intersections.

**Issues:**

*SR 87/Main Street:*

- Significant number of crashes.
- Colcord Road/Main Street intersection is less than 250 feet away and significantly influences the performance and safety of this intersection.

- Considerable number of *rear-end* and *failed to yield ROW* type crashes confirm the influence of Concord/Main intersection.
- Traffic on Main Street is expected to increase at least 20% by the year 2030, which could worsen the safety conditions at the intersection.



*Colcord Road/Main Street:*

- Significant number of crashes.
- Inadequate sight distance.
- Driveways to access adjacent businesses are close to the intersection.

*Frontier Street/SR 87:*

- Frontier Street intersects SR 87 at a skewed angle which results in poor sight distance.
- Utility poles are located very close to the westbound approach which may cause sight distance issues.

**Project Description:** Conduct one traffic safety study that covers all four intersections.

The study should address the effects of:

- Converting Frontier Street from a one-way street to a two-way street.
- Restricting Colcord Road/Main Street to right-in and right-out only traffic movements.
- Force Southbound left turn traffic on Colcord Road at Main Street to use Frontier Street/Colcord Road. The reconstruction of Frontier Road between Colcord Road and SR 87 (See Project No: MT 5) is currently included in the Town of Payson CIP.

The traffic study should also address specific signage, striping, and lighting issues at all four intersections.

**Cost:** This project was evaluated as part of the SR 87 – SR 260 Traffic Operational Analysis Study. Cost estimates are discussed in *Chapter 4: Draft Multimodal Transportation Plan*.

**Benefits:** Enhances safety, improves mobility, and increases intersection capacity.

**Responsible Agency:** ADOT and Town of Payson

**Project No: ST - 11**

**Location:** Bonita Street - SR 87 to St. Phillips Street

**Issues:** Poor pavement condition.

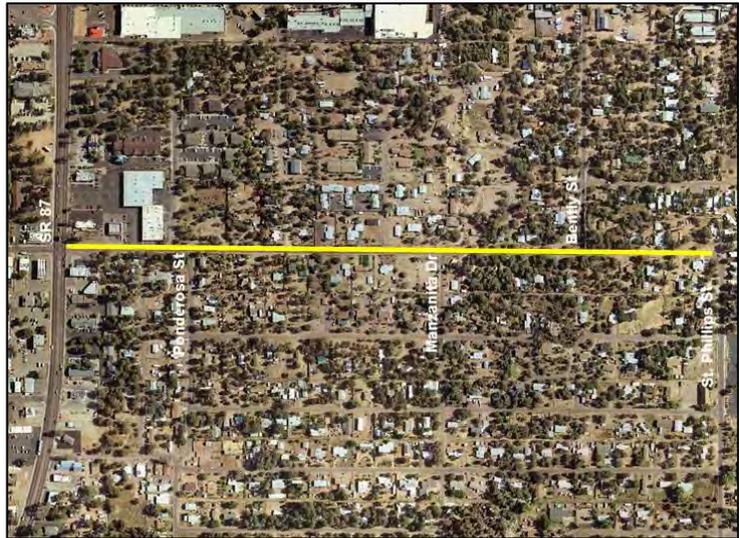
**Project Description:** Per the Town of Payson CIP, this section of Bonita Street is scheduled for reconstruction. The street section will include:

- One travel lane in each direction.
- Bike lane in each direction.
- Curb and gutter on each side.
- Sidewalk on one side.

**Cost:** \$1,280,000

**Benefits:** Enhances safety and increases capacity.

**Responsible Agency:** Town of Payson



**Project No: ST - 12**

**Location:** Colcord Road – Main Street to Longhorn Road

**Issues:** Narrow road.

**Project Description:** Colcord Road from Main Street to Longhorn Road is already included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Bike lane in each direction.
- Curb and gutter on each side.
- Sidewalk on east side.
- Compacted granite pathway on west side of road as part of PATS system.
- Improved storm drain facilities.

**Cost:** \$1,750,000

**Benefits:** Improves local traffic circulation west of SR 87.

**Responsible Agency:** Town of Payson



**Project No: ST - 13**

**Location:** Easy Street – Evergreen Street to Forest Drive

**Issues:**

- Narrow road that provides access to several residential neighborhoods.
- Poor pavement condition.

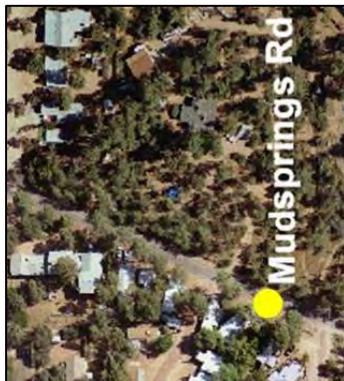
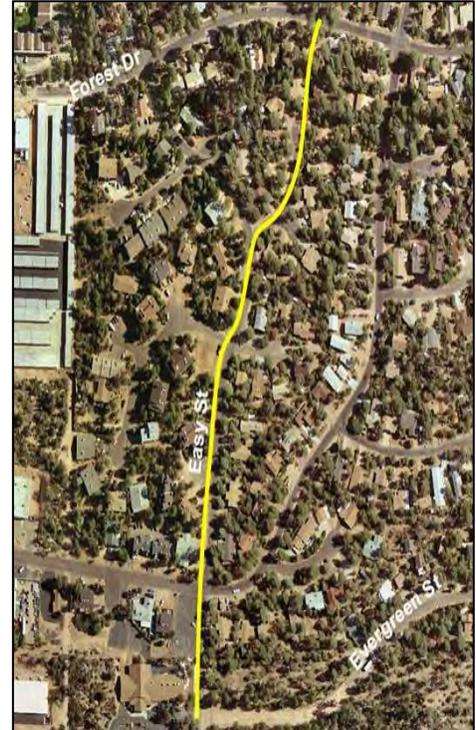
**Project Description:** Easy Street from Evergreen Street to Forest Drive is already included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on each side.
- Sidewalk on each side.
- Improved storm drain facilities.

**Cost:** \$730,000

**Benefits:** Improves local traffic circulation and enhances safe pedestrian movement.

**Responsible Agency:** Town of Payson



**Project No: ST - 14**

**Location:** Granite Dells Road/Mud Springs Road intersection

**Issues:** Insufficient lighting.

**Project Description:** Install street lighting

**Cost:** \$34,000

**Benefits:** Enhances safety.

**Responsible Agency:** Town of Payson

**Project No: ST - 15**

**Location:** Longhorn Road – Llama Ranch to Stone Creek subdivision

**Issues:** Lack of pedestrian facilities.

**Project Description:** Longhorn Road from Llama Ranch to Stone Creek subdivision is already part of the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on south side.
- Sidewalk on south side.
- Improved storm drain facilities.

**Cost:** \$190,000

**Benefits:** Enhances pedestrian movement.

**Agency:** Town of Payson



***Project No: ST - 16***

**Location:** Longhorn Road/Meadow Street intersection

**Issues:**

- Intersection is adjacent to school zone.
- Trees obstruct intersection which may cause sight distance issues.
- Very little or no street lighting.

**Project Description:** Trim tree line, remove shrubs at intersection to improve sight distance, add street lighting, and improve signage and intersection geometrics.

**Cost:** \$5,000

**Benefits:** Enhances safety.

**Responsible Agency:** Town of Payson



**Project No: ST - 17**

**Location:** Manzanita Drive - SR 260 to north side of shopping center

**Issues:** Poor pavement conditions.

**Project Description:** Repave roadway and perform periodic pavement preservation tasks.

**Cost:** \$350,000

**Benefits:** Enhances safety and increases capacity.

**Responsible** Town of Payson



**Project No: ST - 18**

**Location:** Manzanita Drive - North side of shopping center to Timber Drive

**Issues:** Poor pavement conditions.

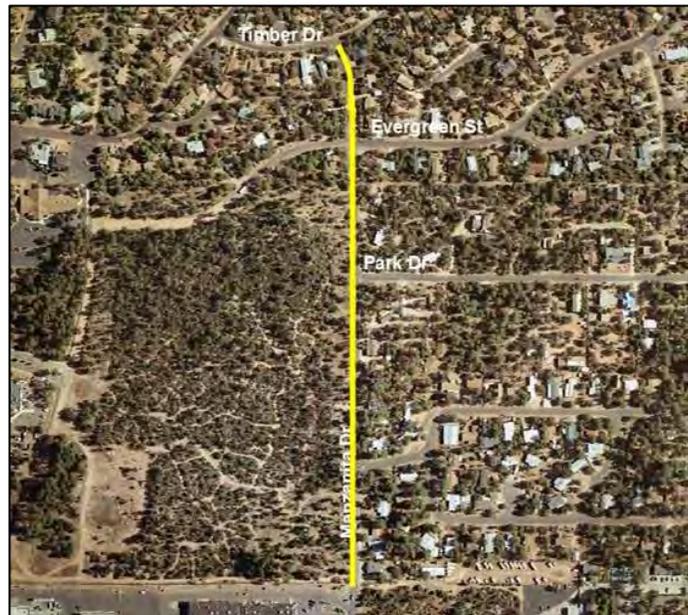
**Project Description:** Per the Town of Payson CIP, this section of Manzanita Drive is scheduled for reconstruction. The street section will include:

- One travel lane in each direction.
- Bike lane in each direction.
- Curb and gutter on each side.
- Sidewalk on east side.
- Compacted granite pathway on west side of road as part of the Payson Area Trails System (PATS).
- Improved storm drain facilities.

**Cost:** \$1,000,000

**Benefits:** Enhances safety and increases capacity.

**Responsible Agency:** Town of Payson





**Project No: ST - 19**

**Location:** McLane Road – Main Street to Phoenix Street

**Issues:** Narrow road and poor pavement conditions.

**Project Description:** McLane Road from Main Street to Phoenix Street is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Bike lane in each direction.
- Curb and gutter on each side.
- Sidewalk on one side.
- Improved storm drain facilities.

**Cost:** \$955,000

**Benefits:** Improves local traffic circulation west of SR 87. Street would also serve as part of an alternate route on the west side of SR 87.

**Responsible Agency:** Town of Payson

**Project No: ST -20**

**Location:** Mud Springs Road – Granite Dells Road to SR 260

**Issues:**

- Insufficient local traffic circulation options in the vicinity of the project.
- Use of Granite Dells Road by school buses, which is not preferable due to safety concerns.

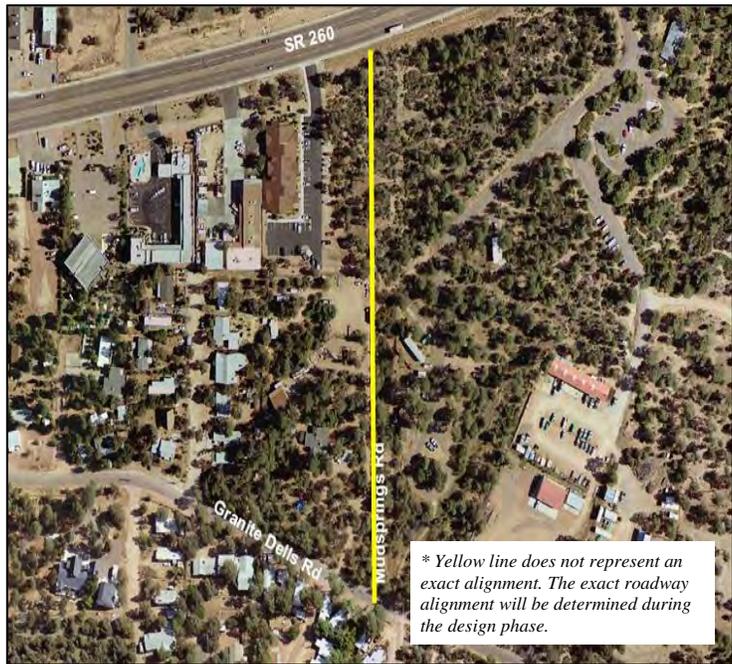
**Project Description:** Mud Springs Road connection from Granite Dells Road to SR 260 is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Bike lane in each direction.
- Curb and gutter on each side.
- Sidewalk on one side.

**Cost:** \$1,300,000

**Benefits:** Improves roadway connectivity, adds additional local traffic circulation choices, and provides easy access to SR 260. If the proposed Arizona State University (ASU) campus is built, this connection would improve traffic circulation in the area.

**Responsible Agency:** Town of Payson



**Project No: ST - 21**

**Location:** Phoenix Street – SR 87 to Sycamore

**Issues:**

- Narrow road used to access several residential neighborhoods.
- Poor pavement conditions.

**Project Description:**

Phoenix Street from SR 87 to Sycamore is included in the Town of Payson CIP. The street section will include:



- One travel lane in each direction.
- Curb and gutter on both sides.
- Sidewalk on east side.
- Improved storm drain facilities.

**Cost:** \$630,000

**Benefits:** Enhances pedestrian movement.

**Responsible Agency:** Town of Payson

**Project No: ST - 22**

**Location:** Rumsey Drive – End of pavement to McLane Road

**Issues:** Insufficient local traffic circulation options in the vicinity of the project.

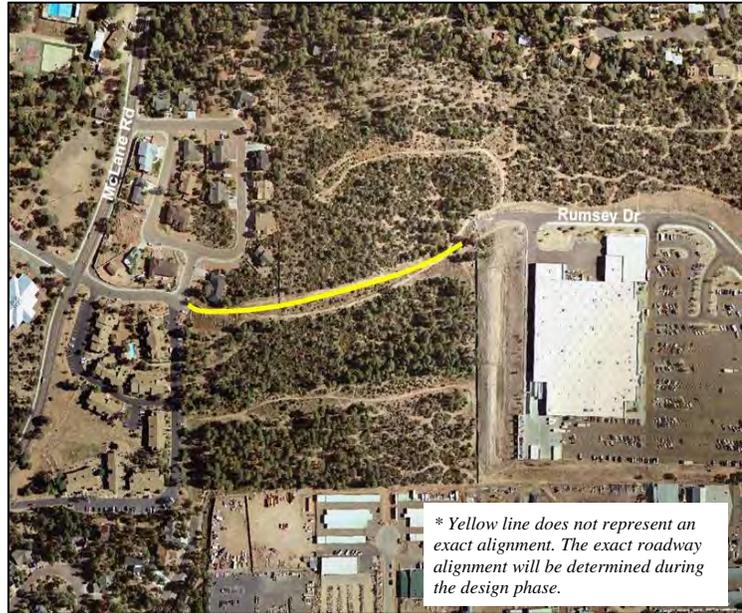
**Project Description:** Rumsey Drive connection to McLane Road is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Bike lane in each direction.
- Curb and gutter on each side.
- Landscape median on portion of road.
- Sidewalk on south side.
- Compacted granite pathway on north side of road as part of PATS system.

**Cost:** \$560,000

**Benefits:** Improves roadway connectivity, adds additional local traffic circulation choices, and provides easy access to the Wal-Mart shopping complex for local traffic.

**Responsible Agency:** Town of Payson



**Project No: ST - 23**

**Location:** Wade Lane/Meadow Street intersection

**Issues:**

- Intersection is adjacent to school zone.
- Trees obstruct intersection which may cause sight distance issues.
- Little or no street lighting.

**Project Description:** Trim tree line to improve sight distance, add street lighting, and improve signage and intersection geometrics.

**Cost:** \$5,000

**Responsible Agency:** Town of Payson



## MID-TERM TRANSPORTATION RECOMMENDATIONS

Mid-term phase projects are recommended to be completed within the timeframe of 2016 to 2020. Table 5.2 lists the transportation recommendations for this phase. The project number, location, description, and estimated costs for each project are identified in Table 5.2. Figure 5.2 is a graphical representation of the mid-term transportation recommendations for the Town.

*Estimated costs for each project are expressed in 2011 dollars and are general estimates. Actual costs for projects could vary at the time of implementation; therefore, a detailed analysis should be performed on a case-by-case basis to determine actual costs.*

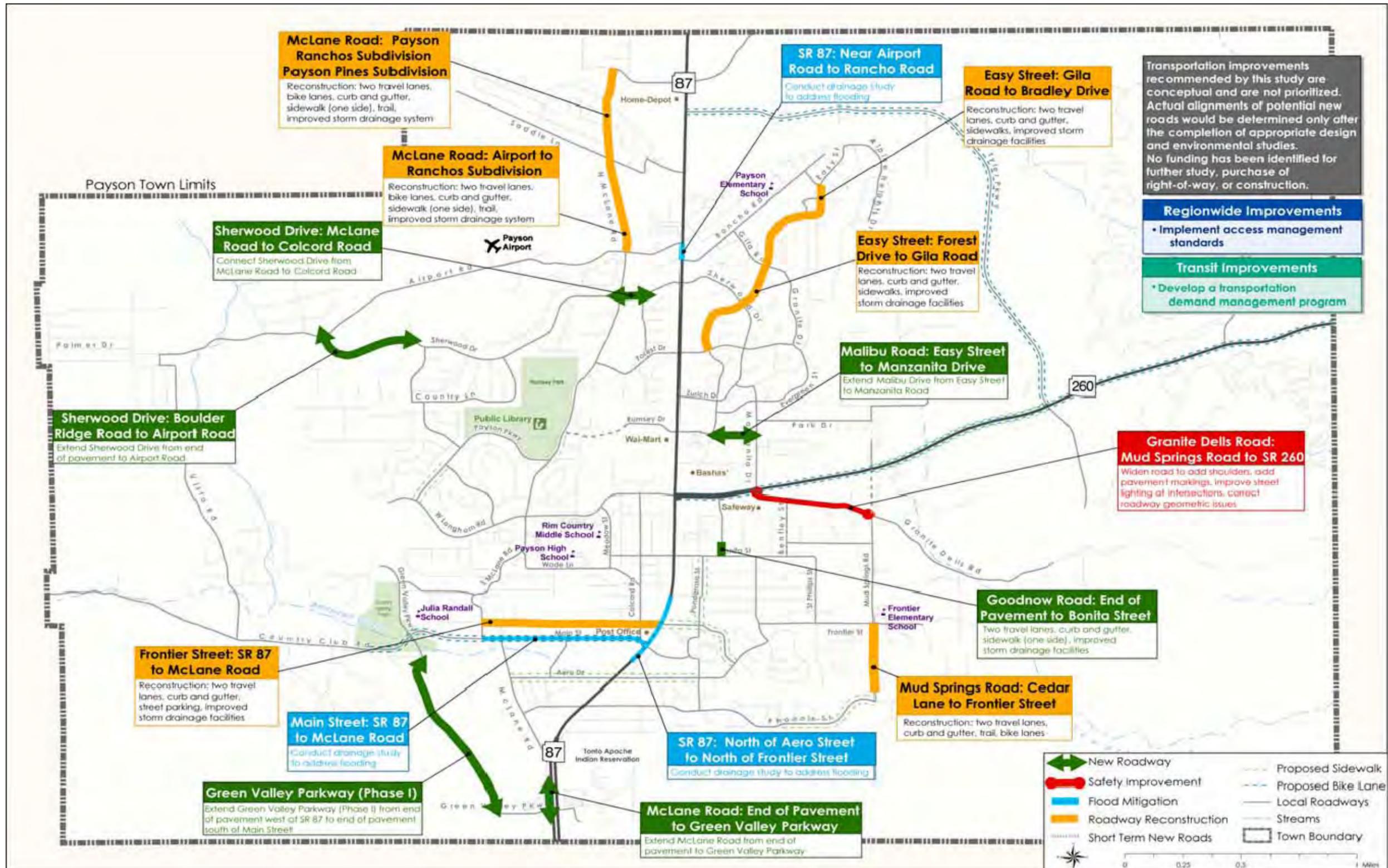
**TABLE 5.2: MID-TERM (2016 – 2020) IMPROVEMENTS**

Project Id	Project Location Description	Cost	Agency
<b>Roadway Improvements</b>			
<b>MT - 1</b>	<b>SR 87 – Near Airport Road and Rancho Road</b> <i>Conduct a drainage study.</i>	\$45,000	ADOT
<b>MT - 2</b>	<b>SR 87 – North of Aero Drive to north of Frontier Street</b> <i>Conduct a drainage study.</i>	\$45,000	ADOT
<b>MT - 3</b>	<b>Easy Street – Forest Drive to Gila Road</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on each side, sidewalk on each side, and improved storm drain facilities.</i>	\$1,290,000	Town of Payson
<b>MT - 4</b>	<b>Easy Street – Gila Road to Bradley Drive</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on each side, sidewalk on each side, and improved storm drain facilities.</i>	\$1,270,000	Town of Payson
<b>MT - 5</b>	<b>Frontier Street – SR 87 to McLane Road</b> <i>Town of Payson CIP: one travel lane in each direction, parking in various locations along the roadway, curb and gutter on each side, and improved storm drain facilities.</i>	\$2,100,000	Town of Payson
<b>MT - 6</b>	<b>Goodnow Road – End of pavement to Bonita Street.</b> <i>Construct roadway for one travel lane each direction, sidewalk on one side, curb and gutter, and improved drainage facilities.</i>	\$690,000	Town of Payson
<b>MT - 7</b>	<b>Granite Dells Road – Mud Springs Road to SR 260</b> <i>Widen roadway to add sufficient shoulders on each side, add pavement markings, improve street lighting at intersections along the road, and correct geometric issues.</i>	\$300,000	Town of Payson
<b>MT - 8</b>	<b>Green Valley Parkway – End of pavement west of SR 87 to end of pavement south of Main Street</b> <i>Phase 1 of the proposed Green Valley Parkway: one travel lane each direction, center left turn lane, bike lane, sidewalks, curb and gutter.</i>	\$9,000,000	Town of Payson
<b>MT - 9</b>	<b>Malibu Road – Easy Street to Manzanita Drive</b> <i>Construct roadway for one travel lane each direction, bike lane, sidewalks, curb and gutter.</i>	\$500,000	Town of Payson
<b>MT - 10</b>	<b>Main Street – SR 87 to McLane Road</b> <i>Conduct a drainage study.</i>	\$45,000	Town of Payson

**TABLE 5.2: MID-TERM (2016 - 2020) IMPROVEMENTS (CONTINUED)**

<b>Project Id</b>	<b>Project Location Description</b>	<b>Cost</b>	<b>Agency</b>
<b>MT - 11</b>	<b>McLane Road - Airport Road to Ranchos subdivision</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on each side, bike lane on each side, sidewalk on east side, upgrade compacted granite pathway on west side of road as part of PATS system, and improved drainage facilities.</i>	\$1,250,000	Town of Payson
<b>MT - 12</b>	<b>McLane Road - Payson Ranchos subdivision to Payson Pines subdivision</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on each side, bike lane on each side, sidewalk on east side, upgrade compacted granite pathway on west side of road as part of PATS system, and improved drainage facilities.</i>	\$880,000	Town of Payson
<b>MT - 13</b>	<b>Mud Springs Road - Cedar Lane to Frontier Street</b> <i>Town of Payson CIP: one travel lane in each direction, curb and gutter on each side, bike lane on each side, compacted granite pathway on east side of road as part of PATS system.</i>	\$835,000	Town of Payson
<b>MT - 14</b>	<b>McLane Road - End of pavement to Green Valley Parkway</b> <i>Construct roadway for one travel lane each direction, bike lane, sidewalks, curb and gutter.</i>	\$1,750,000	Town of Payson
<b>MT - 15</b>	<b>Sherwood Drive - Boulder Ridge Road to Airport Road</b> <i>Construct roadway for one travel lane each direction, bike lane, sidewalks, curb and gutter.</i>	\$1,000,000	Town of Payson
<b>MT - 16</b>	<b>Sherwood Drive - McLane Road to Colcord Road</b> <i>Construct roadway for one travel lane each direction, bike lane, sidewalks, curb and gutter.</i>	\$800,000	Town of Payson
<b>MT - 17</b>	<b>Alternative Route to SR 87 - SR 260 Corridor; Design Concept Study and NEPA</b> <i>Conduct a Design Concept Study and NEPA to determine the corridor alignment</i>	\$2,500,000	ADOT/ Town of Payson
<b>Pedestrian and Bicycle Improvements</b>			
	<b>Town of Payson</b> <i>Construct new bike lanes and sidewalks: 9 miles of bikeways, 8.5 miles of sidewalks. See Figure 5.2</i>	\$2,200,000	Town of Payson
<b>Transit Improvements</b>			
	<b>Town of Payson</b> <i>Develop a Transportation Demand Management Program.</i>		Town of Payson
<b>Access Management</b>			
	<b>Town of Payson</b> <i>Implement Access Management Standards.</i>		Town of Payson

FIGURE 5.2: MID-TERM (2016 - 2020) IMPROVEMENTS



## Project Descriptions for Mid-Term Improvements

The following projects were identified for the mid-term implementation phase. *The Project Identification Number (eg: MT-1) does NOT represent the priority of the project; rather it is an identification number to track project progress in the future. The Town of Payson will prioritize the projects once the study is complete.*

### Project No: MT - 1

**Location:** SR 87 – Near Airport Road and Rancho Road

**Issues:** Flooding.

**Project Description:** Conduct a drainage study to address flooding and implement recommendations from the study.

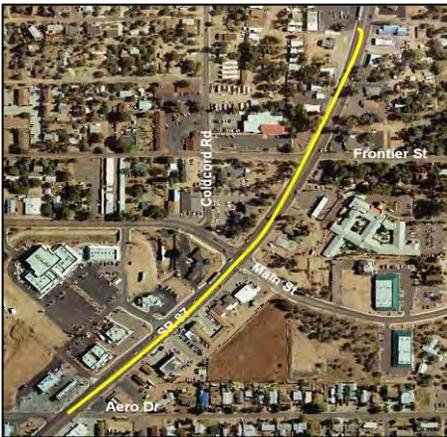
**Cost:** \$45,000 (Drainage study cost only)

**Benefits:** Enhances safety and mobility.

**Responsible Agency:** ADOT



### Project No: MT - 2



**Location:** SR 87 – North of Aero Drive to north of Frontier Road

**Issues:** Flooding.

**Project Description:** Conduct a drainage study to address flooding and implement recommendations from the study.

**Cost:** \$45,000 (Drainage study cost only)

**Benefits:** Enhances safety and mobility.

**Responsible Agency:** ADOT

### Project No: MT - 3

**Location:** Easy Street – Forest Drive to Gila Road

**Issues:**

- Narrow road used to access several residential neighborhoods.
- Poor pavement condition.

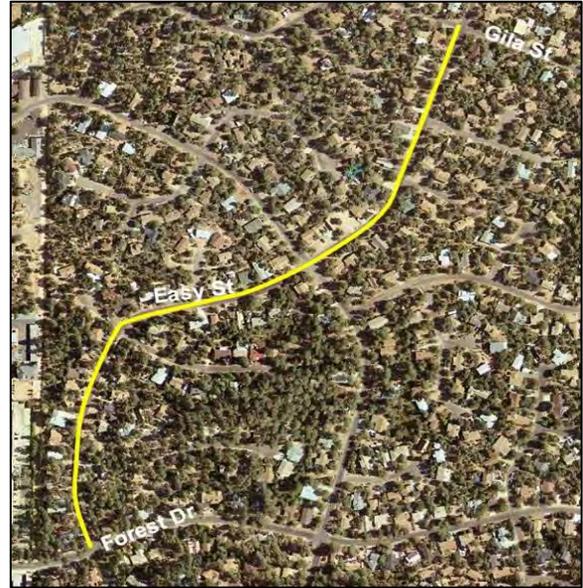
**Project Description:** Reconstruction of Easy Street from Forest Drive to Gila Road is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on each side.
- Sidewalk on each side.
- Improved storm drain facilities.

**Cost:** \$1,290,000

**Benefits:** Improves local traffic circulation and enhances safe pedestrian movement.

**Responsible Agency:** Town of Payson



**Project No: MT - 4**

**Location:** Easy Street - Gila Road to Bradley Drive

**Issues:**

- Narrow road used to access several residential neighborhoods.
- Poor pavement condition.

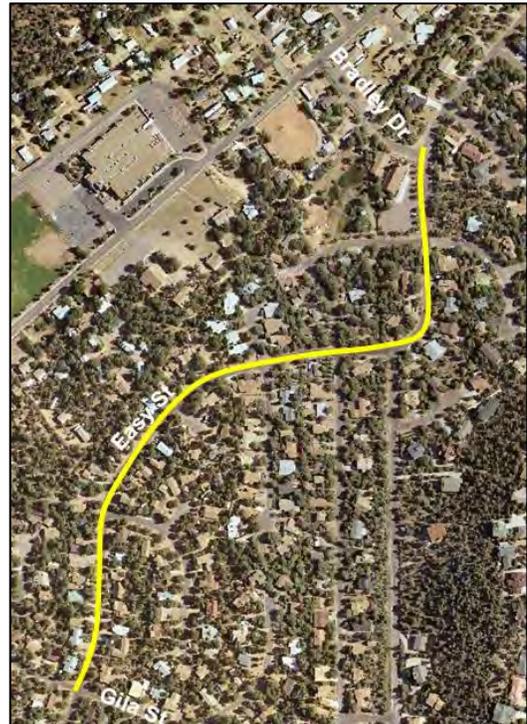
**Project Description:** Reconstruction of Easy Street from Gila Road to Bradley Drive is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on each side.
- Sidewalk on each side.
- Improved storm drain facilities.

**Cost:** \$1,270,000

**Benefits:** Improves local traffic circulation and enhances safe pedestrian movement.

**Responsible Agency:** Town of Payson



**Project No: MT - 5**

**Location:** Frontier Street – SR 87 to McLane Road

**Issues:** Narrow road with poor pavement condition.

**Project Description:** Reconstruction of Frontier Street from SR 87 to McLane Road is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Parking in various locations along the roadway.
- Curb and gutter on each side.
- Improved storm drain facilities.



**Cost:** \$2,100,000

**Benefits:** Improves local traffic circulation and relieves traffic on Main Street.

**Responsible Agency:** Town of Payson

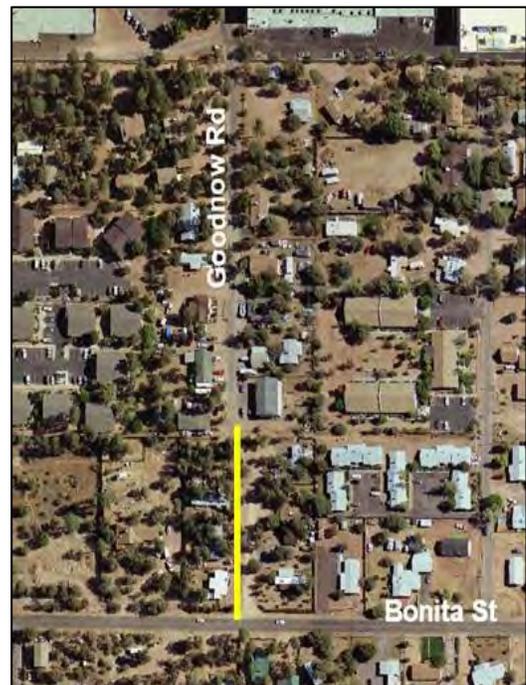
**Project No: MT - 6**

**Location:** Goodnow Road – End of pavement to Bonita Street.

**Issues:**

- SR 87/SR 260 intersection experiences high traffic volumes and is severely congested.
- There are very few direct routes to bypass the SR 87/SR 260 intersection.
- Traffic and lack of connectivity may be inconvenient for local traffic.

**Project Description:** New roadway extends Goodnow Road to Bonita Street. The new roadway would have one travel lane in each direction, sidewalk on one side, curb and gutter, and improved drainage facilities.



**Cost:** \$690,000

**Benefits:** Provides an easy alternative to bypass SR 87/SR 260, which is particularly beneficial for local traffic because they can access key businesses on SR 260 from side roads instead of using SR 260 or SR 87, and enhances traffic circulation in the area.

**Responsible Agency:** Town of Payson

**Project No: MT - 7**

**Location:** Granite Dells Road - Mud Springs Road to SR 260

**Issues:**

- Narrow road that is frequently used by school buses.
- Narrow shoulders.
- Steep grades and curves.

**Project Description:** Widen roadway to add sufficient shoulders on each side, add pavement markings, improve street lighting, and intersection geometrics.



**Cost:** \$300,000

**Benefits:** Enhances safety and mobility.

**Responsible Agency:** Town of Payson

**Project No: MT - 8**

**Location:** Green Valley Parkway - End of pavement west of SR 87 to end of pavement south of Main Street

**Issues:**

- Future growth area.
- Lack of an alternate route to SR 87 - Main Street corridor.



**Project Description:** This is Phase 1 of the proposed Green Valley Parkway corridor. The new roadway would connect SR 87 to Main Street and would have one travel lane in each direction, a center left turn lane, a bike lane, sidewalks, and curb and gutter.

**Cost:** \$9,000,000

**Benefits:** Relieves congestion on existing SR 87- Main Street traffic, provides easy access to Green Valley Park and Payson Airport, and improves traffic circulation for locals on the west side of SR 87.

**Responsible Agency:** Town of Payson

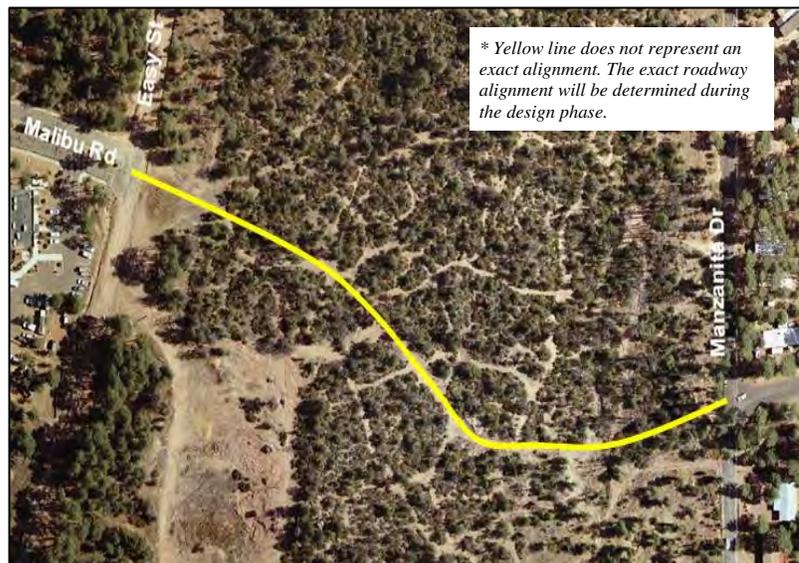
**Project No: MT - 9**

**Location:** Malibu Road – Easy Street to Manzanita Drive

**Issues:**

- Traffic circulation options on the northeast side of the SR 87 are very limited.
- This area is home to several residential neighborhoods.

**Project Description:** The new roadway extends Malibu Road from Easy Street to Manzanita Drive and would



have one travel lane in each direction, a bike lane, sidewalks, and curb and gutter.

**Cost:** \$500,000

**Benefits:** Enhances mobility on the northeast side of SR 87, improves roadway connectivity, allows back access to businesses along SR 87 and 260, and allows local traffic options to using SR 87 or SR 260.

**Responsible Agency:** Town of Payson

**Project No: MT - 10**

**Location:** Main Street – SR 87 to McLane Road

**Issues:** Flooding.

**Project Description:** Conduct a drainage study to address flooding and implement recommendations from the study.

**Cost:** \$45,000 (Drainage study cost only)

**Benefits:** Enhances safety and mobility.

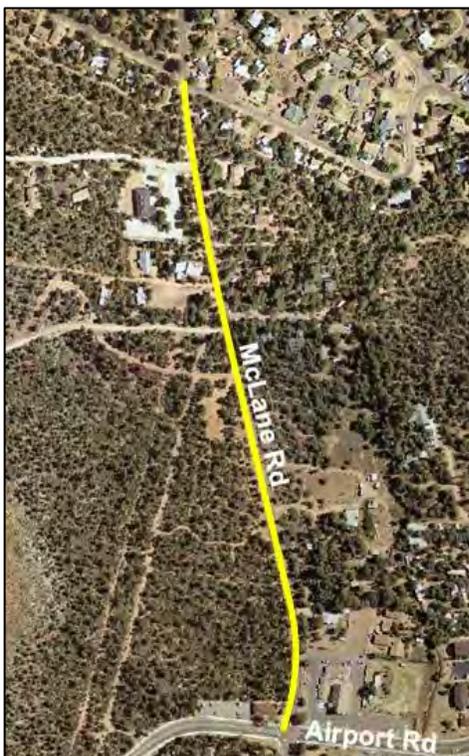
**Responsible Agency:** Town of Payson



**Project No: MT - 11**

**Location:** McLane Road – Payson Ranchos subdivision to the Payson Pines subdivision

**Issues:** Narrow road with limited pedestrian facilities and poor/fair pavement condition.



**Project Description:** Reconstruction of McLane Road from Payson Ranchos subdivision to the Payson Pines subdivision is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on each side.
- Bike lane in each direction.
- Sidewalk on east side.
- Upgrade compacted granite pathway on west side of road as part of PATS system.
- Improved drainage facilities.

**Cost:** \$1,250,000

**Benefits:** Improves local traffic mobility, enhances safe pedestrian movement, and serves as alternate parallel route to SR 87.

**Responsible Agency:** Town of Payson

**Project No: MT - 12**

**Location:** McLane Road – Ranchos subdivision to Pines subdivision

**Issues:** Narrow road with limited pedestrian facilities and average pavement condition.

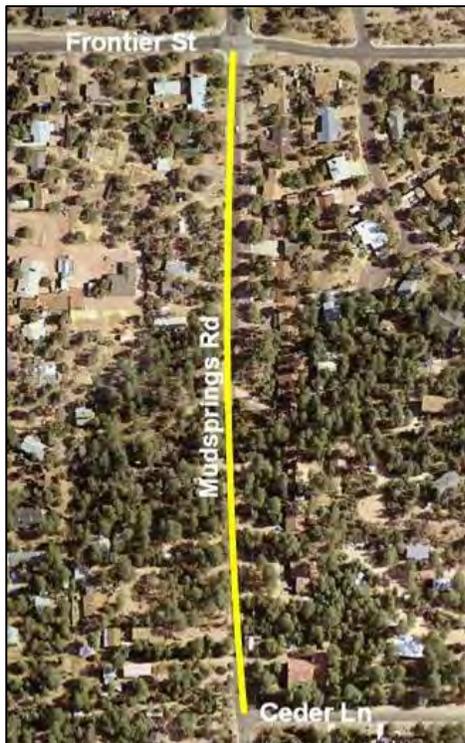
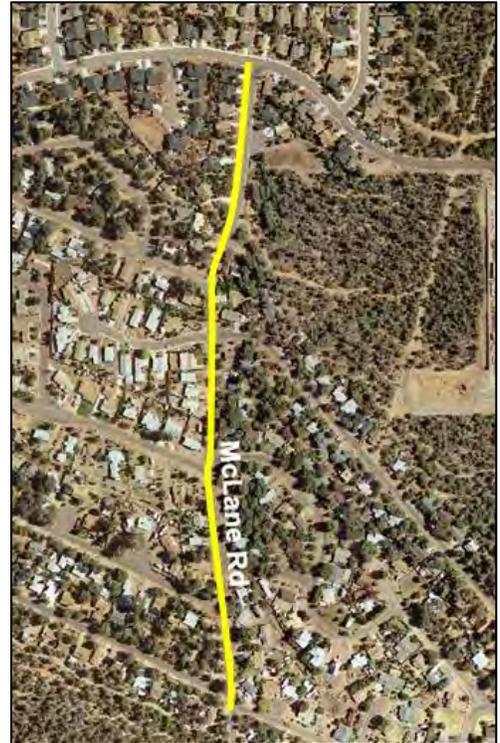
**Project Description:** McLane Road from Ranchos subdivision to Pines subdivision is part of the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on each side.
- Bike lane in each direction.
- Sidewalk on east side.
- Upgrade compacted granite pathway on west side of road as part of PATS system.
- Improved drainage facilities.

**Cost:** \$880,000

**Benefits:** Improves local traffic mobility, enhances safe pedestrian movement, and serves as alternate parallel route to SR 87.

**Responsible Agency:** Town of Payson



**Project No: MT - 13**

**Location:** Mud Springs Road – Cedar Lane to Frontier Street

**Issues:** Narrow road with no pedestrian facilities.

**Project Description:** Reconstruction of Mud Springs Road from Cedar Lane to Frontier Street is included in the Town of Payson CIP. The street section will include:

- One travel lane in each direction.
- Curb and gutter on each side.
- Bike lane in each direction.
- Compacted granite pathway on east side of road as part of PATS system.

**Cost:** \$835,000

**Benefits:** Improves local traffic circulation, enhances safe pedestrian movement, and serves as an alternate parallel route to SR 87.

**Responsible Agency:** Town of Payson

**Project No: MT - 14**

**Location:** McLane Road – End of pavement to Green Valley Parkway

**Issues:**

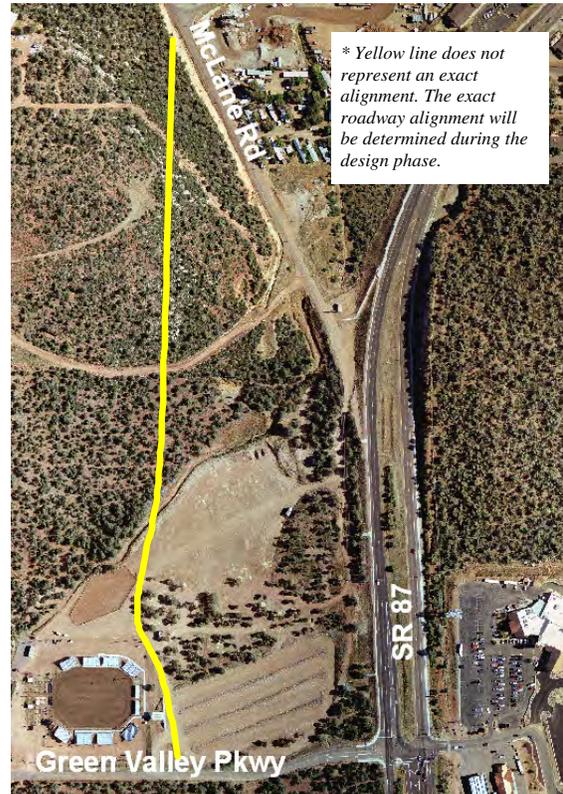
- Future growth area.
- Lack of an alternate route to SR 87 – Main Street corridor.

**Project Description:** New roadway connects SR 87 to Main Street, completing the McLane Road corridor that runs parallel to SR 87 on the west side. The new roadway would have one travel lane each direction, a bike lane, sidewalks, and curb and gutter.

**Cost:** \$1,750,000

**Benefits:** Serves as an alternate reliever to existing SR 87 traffic, provides easy access to Green Valley park and businesses on Main Street, and improves traffic circulation for locals on the west side of SR 87.

**Responsible Agency:** Town of Payson



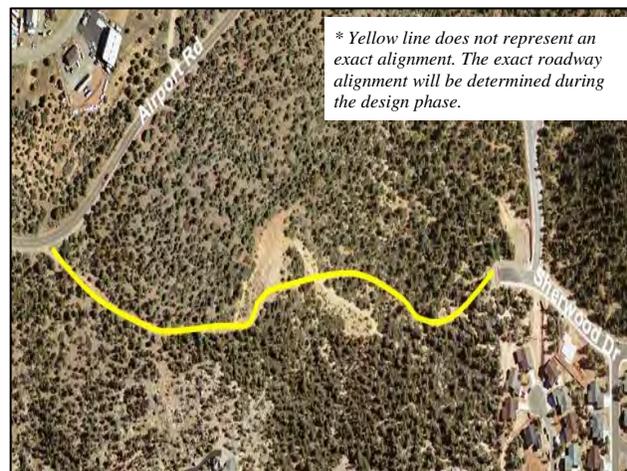
**Project No: MT - 15**

**Location:** Sherwood Drive – Sherwood Drive to Airport Road

**Issues:** Future growth area.

**Project Description:** New roadway connects Sherwood Drive to Airport Road. The new roadway would have one travel lane each direction, a bike lane, sidewalks, and curb and gutter.

**Cost:** \$1,000,000



**Benefits:** Enhances mobility in the airport area and serves as a parallel route to Airport Road.

**Responsible Agency:** Town of Payson

**Project No: MT - 16**

**Location:** Sherwood Drive – McLane Road to Colcord Road

**Issues:** Future growth area.

**Project Description:** New roadway connection between McLane Road and Colcord Road. The new roadway would have one travel lane in each direction, a bike lane, sidewalks, and curb and gutter.

**Cost:** \$800,000

**Benefits:** Enhances mobility in the airport area, serves as parallel route to Airport Road, and improves traffic circulation on the west side of SR 87.

**Responsible Agency:** Town of Payson



**Project No: MT - 17**

**Location:** Alternative Route to SR 87 – SR 260 Corridor; Design Concept Study and NEPA

**Issues:** Congestion along SR 87 – SR 260 Corridor and lack of an alternate route to this corridor

**Project Description:** Conduct a Design Concept Study and NEPA to determine the corridor alignment

**Cost:** \$2,500,000

**Benefits:** Improves local traffic mobility and serves as alternate route to SR 87 – SR 260 corridor.

**Responsible Agency:** ADOT/Town of Payson

## LONG-TERM TRANSPORTATION RECOMMENDATIONS

Long-term phase projects are recommended to be completed within the timeframe of 2021 to 2030. Table 5.3 lists the transportation recommendations for this phase. The project number, location, description, agency responsibility, and estimated costs (in 2011 dollars) for each project are identified in Table 5.3. Figure 5.3 is a graphical representation of the long-term transportation recommendations for the Town. Figure 5.4 shows the proposed bike lanes, sidewalks, and trails.

*Estimated costs for each project are expressed in 2011 dollars and are general estimates. Actual costs for projects could vary at the time of implementation; therefore, a detailed analysis should be performed on a case-by-case basis to determine actual costs.*

### 5.3: LONG-TERM (2021 – 2030) IMPROVEMENTS

Project Id	Project Location Description	Cost	Agency
<b>Roadway Improvements</b>			
<b>LT - 2</b>	<b>Green Valley Parkway – End of pavement north of Summit Street to Airport Road</b> <i>Phase 2 of the proposed Green Valley Parkway: one travel lane each direction, center left turn lane, bike lane, sidewalks, curb and gutter.</i>	\$15,000,000	Town of Payson
<b>LT - 1</b>	<b>Construct Alternative Route to SR 87 – SR 260 Corridor</b>	<i>See Below</i>	ADOT/ Town of Payson
	<b>Alternative 1 – Phase 1</b> <i>SR 87 (south of Casino Road) to SR 260 (in the vicinity of Tyler Parkway)</i>	\$27,000,000	
	<b>Alternative 1 – Phase 1 and Phase 2</b> <i>SR 87 (south of Casino Road) to SR 260 (in the vicinity of Tyler Parkway) and from Alternative 1-Phase 1 to SR 260</i>	Alt 1-Phase 1 \$27,000,000  Alt 1-Phase 2 \$60,000,000	
	<b>Alternative 2</b> <i>SR 87 (south of Casino Road) to SR 260</i>	\$72,000,000	
	<b>Alternative 3</b> <i>SR 87 (south of Casino Road) west to SR 87(north of Payson) and continuing east to SR 260</i>	\$128,000,000	
<b>Pavement Preservation</b>			
<b>LT - 3</b>	<b>Town of Payson</b> <i>Pavement Preservation Maintenance and Management.</i>		Town of Payson
<b>Transit Improvements</b>			
	<b>Town of Payson</b> <i>Establish a Town Transit department.</i>		Town of Payson
	<b>Town of Payson</b> <i>Implement recommendations from the Transit Implementation Study.</i>		Town of Payson

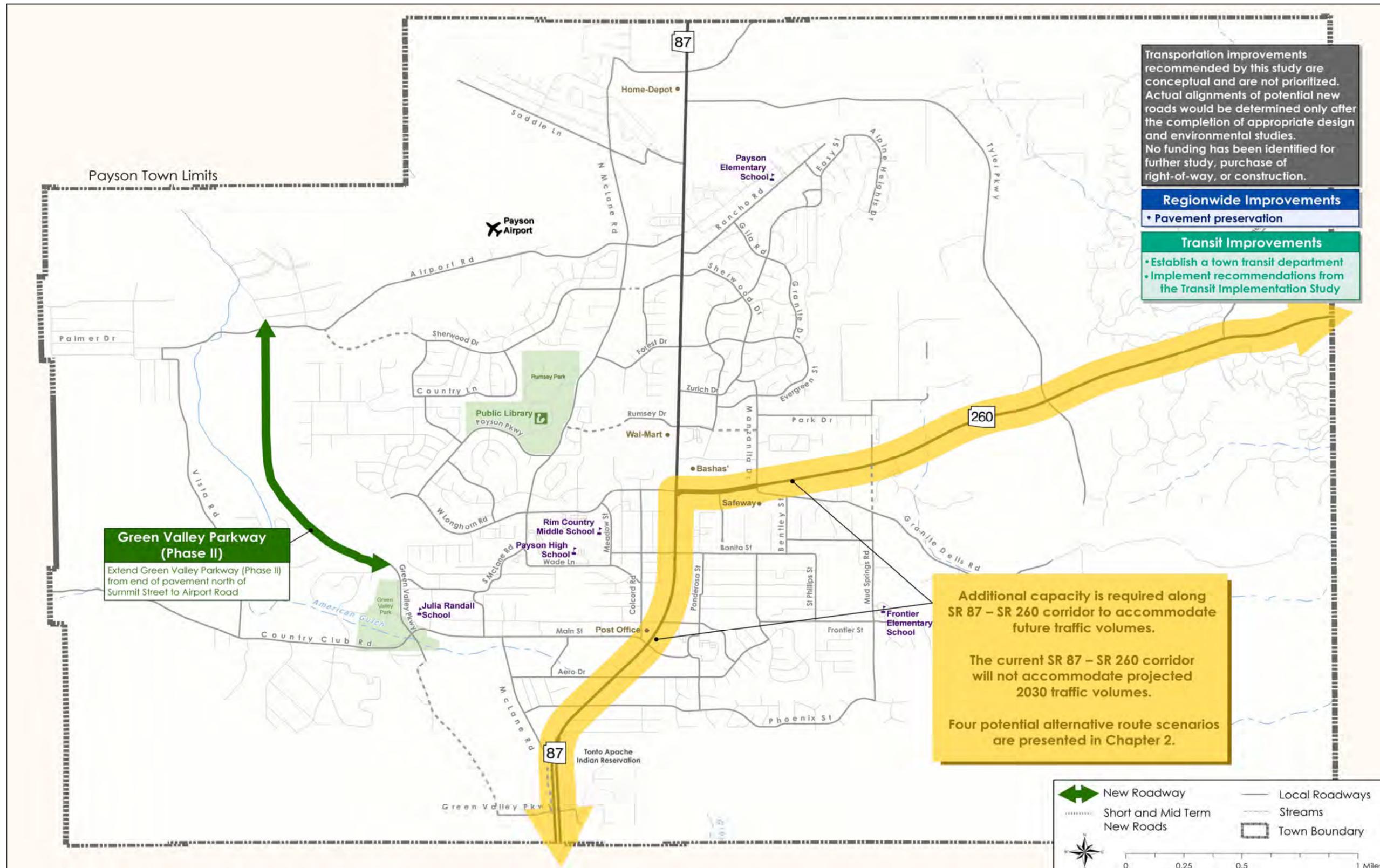
### *Functional Classification*

Payson's current adopted roadway functional classification is outdated. Several roadways recommended for improvements in this study function as collectors or above, yet they are classified as local roads. Figure 5.5 displays the proposed roadway functional classification developed as part of this study. Lines shown in a dotted pattern on the map need to be reclassified as collectors before applying for federal funds. ADOT has guidelines in place to request reclassification of roadways. They can be accessed from the web link shown below.

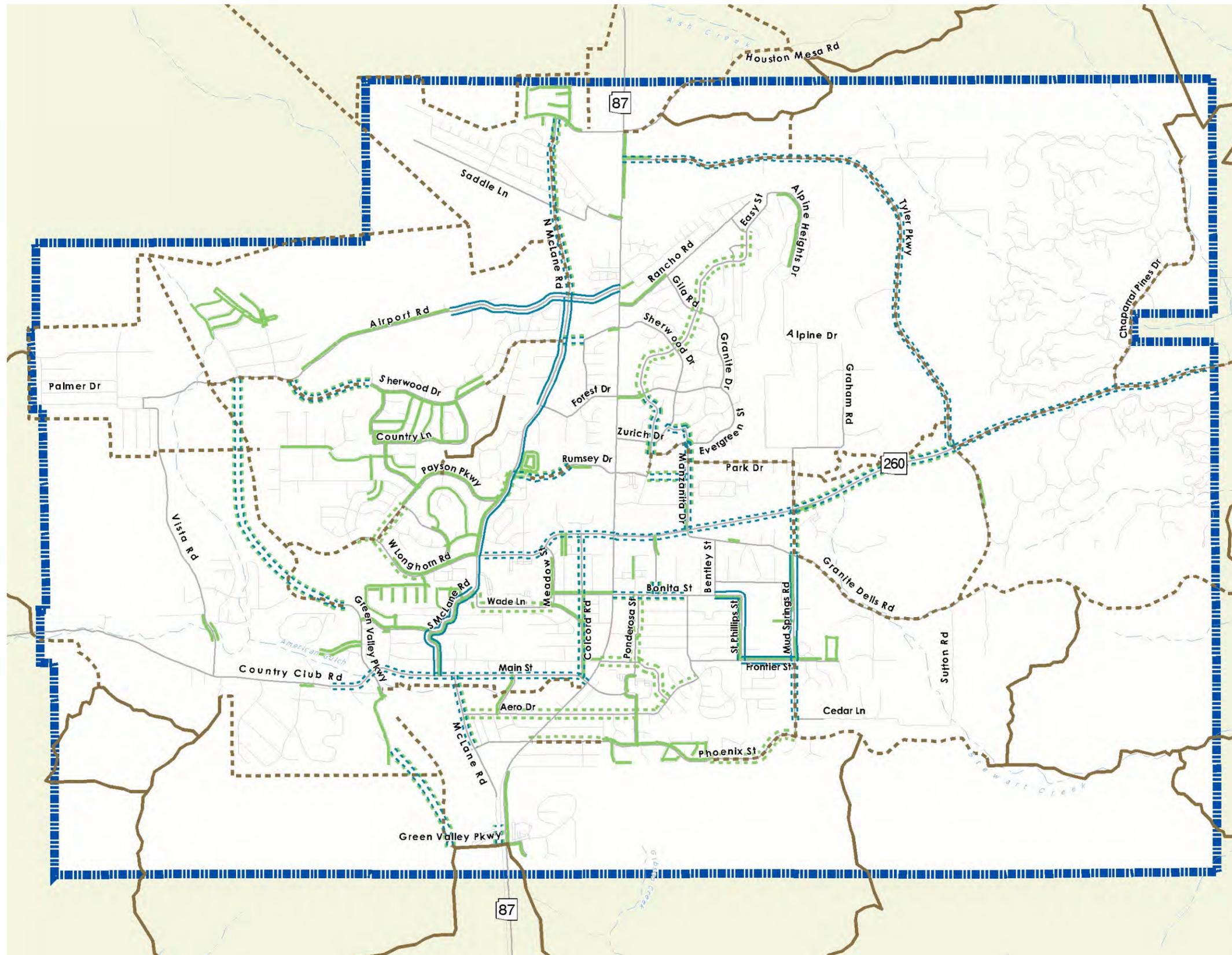
<http://tpd.azdot.gov/mpd/gis/fclass/index.asp>

Once the roads to be reclassified have been identified, the Town of Payson should first coordinate with the CAAG to prepare the appropriate applications to reclassify the roadways. Applications must be submitted to ADOT through CAAG. Final roadway classification will be forwarded to the FHWA for final approval.

FIGURE 5.3: LONG-TERM (2021 - 2030) IMPROVEMENTS



**Figure 5.4  
Payson Trails with  
Existing and Future  
Bicycle and Pedestrian  
Facilities**



**Bicycle and Pedestrian Facilities and Trails:**

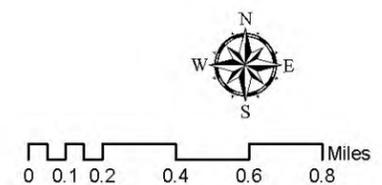
- Existing Trails
- - - Proposed Trails
- Existing Bike Lane
- - - Proposed Bike Lane
- Existing Sidewalk
- - - Proposed Sidewalk

**Reference Features:**

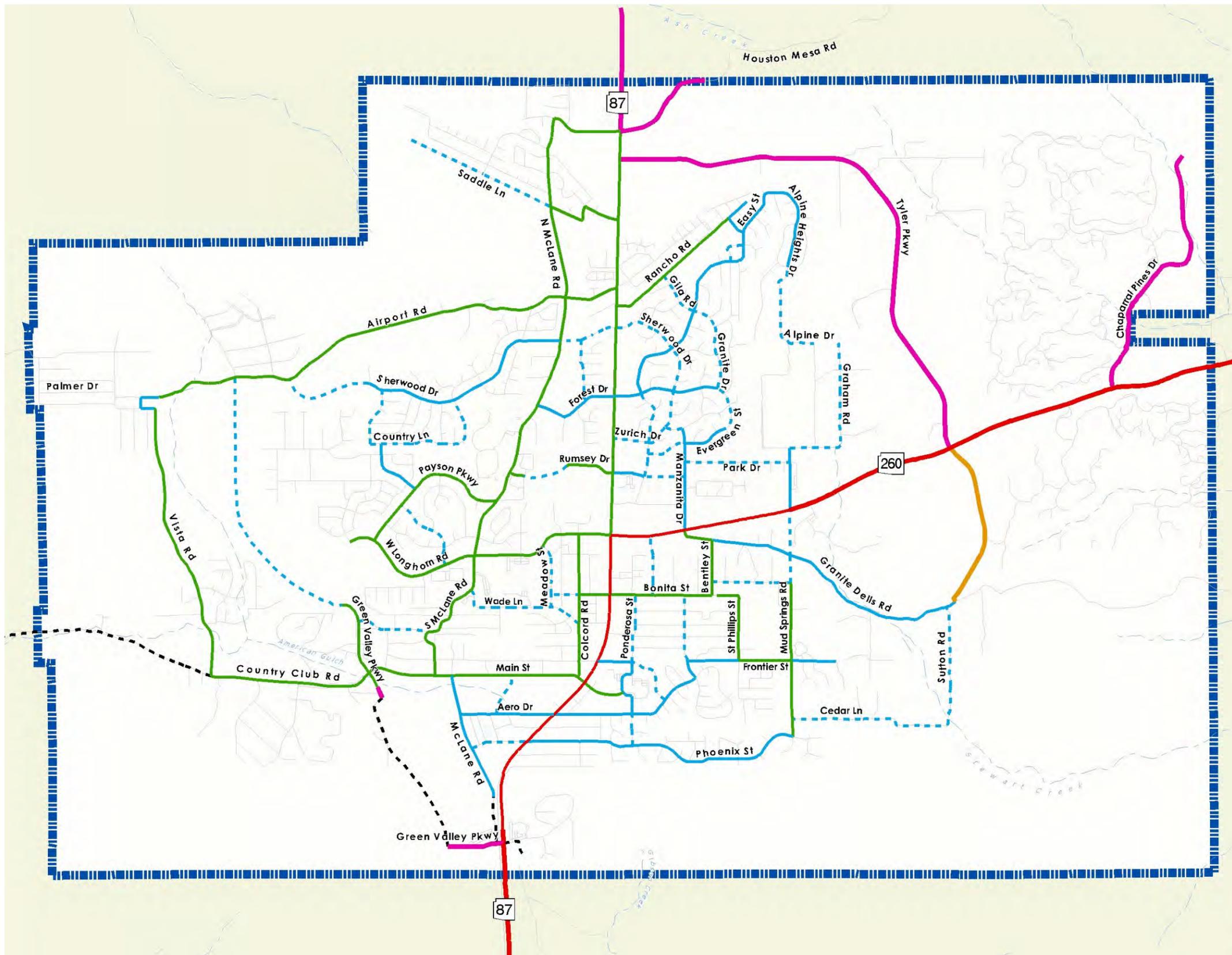
- Major Roads
- - - Other Local Roads
- Streams
- ▬ Study Area Boundary

**Data Sources:**

Town of Payson  
Arizona Department Of Transportation



**Figure 5.5  
Payson Urban Area  
Future Functionally  
Classified Roads**



**Future Functional Classification:**

*Federally Approved*

- Rural Major Collector
- Rural Minor Collector
- Rural Principal Arterial
- Urban Collector
- Urban Minor Arterial
- Urban Principal Arterial

*Not Federally Approved*

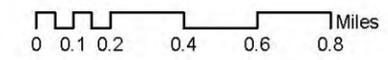
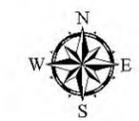
- - - Rural Collector
- - - Urban Collector

**Reference Features:**

- Other Local Roads
- Streams
- Study Area Boundary

**Data Sources:**

Town of Payson  
Arizona Department Of Transportation



## **SR 87 – SR 260 TRAFFIC OPERATIONAL ANALYSIS STUDY RECOMMENDATIONS**

As the three phases (short-, mid-, and long-) were being developed, the study team concluded that:

- SR 87 and SR 260 corridors experience severe congestion on the weekends during the summer months; and
- Simple traffic operational and geometric improvements at the SR 87 / SR 260 intersection and along SR 87 and SR 260 corridors will significantly improve the traffic flow through Town.

The study team recommended that a TOAS and RSA be conducted for SR 87: Bonita Street to Rumsey Drive and SR 260: SR 87 to Manzanita Drive. Based on traffic operational analysis, field review, and the RSA, the study packaged the geometric and operational improvements into three distinct groups.

### **Group 1 Recommendations**

Group 1 recommendations are defined as improvements that are low-cost and can be implemented within a year. Based on the field review, peak hour observations and the RSA, the following are the recommended Group 1 improvements and are displayed in Figure 5.6.

#### **SR 87 / SR 260 Intersection**

1. Delineate the raised island, located on the southeast corner, by painting the curb would improve the intersection.
2. Install 100ft of solid white gore striping on SR 260, eastbound from the raised island.
3. Obliterate the existing crosswalk striping from the southeast corner of the intersection to the raised island and striping a new crosswalk south of the existing crosswalk would improve intersection.
4. Construct an additional crosswalk and ramp at the south leg of SR 87.
5. Update the signal timing to add a pedestrian phase for the eastbound through traffic.
6. Reconfigure the traffic signing on eastbound Longhorn Drive to improve visibility; moving the route signs to mount them on the traffic signal poles, and

combining and relocating the lane-use signs to avoid blocking the guide sign would improve intersection safety.

7. Install consistent signing for all the driveways in the area of the intersection is recommended.
8. Delineate the westbound outside lane to be a trap right-turn lane only is recommended.
9. Trim trees obscuring signage visibility.
10. Adjust all pedestrian push buttons to be ADA compliant is recommended.
11. Move existing speed limit sign (35MPH) closer to SR 260 is recommended.

***Cost Estimate:***

The construction costs for Group 1 improvements listed above is approximately \$20,000, which includes materials, labor and a 15% contingency. However, this estimate does not include the engineering design cost, which is typically 10-12% of the construction cost.

**Group 2 Recommendations**

Group 2 recommendations are defined as minor geometric improvements that need to be designed and can be implemented in a 1 – 2 year time frame, or as part of a minor roadway improvement project. Based on the field review, peak hour observations, and the RSA, the following are the recommended Group 2 improvements. Group 2 improvements are graphically displayed in Figure 5.7.

**SR 87/SR 260 and SR 260/Payson Village Center Intersections**

1. Install in-lane route pavement markings for SR 87 and SR 260 is recommended.
2. Revise the legend (sign panel) on the existing sign structure would improve intersection.
3. Add overhead sign structures.
4. Add an additional 90ft southbound dual left-turn storage lane and extending the median on the north leg of SR 87.
5. Extend the median on the south leg of SR 87 to make the McDonald's driveway a right-in/right-out and the Walgreen's/Del Taco driveway a left-in/right-in/right-out would improve safety.
6. Upgrade all signage to current signing standards is recommended.

7. Install a post mounted signal on the far right side of SR 260 (at Payson Village Center signal) westbound approach due to glare.
8. Upgrade all street name signs with the current recommended sheeting type is recommended.
9. Upgrade all pedestrian ramps to be ADA compliant is recommended.
10. Reconfigure the striping on the eastbound approach to extend dual left-turn lane storage.
11. Delineate the westbound outside lane to be a trap right-turn lane only is recommended.
12. Coordinate the signal timing for summer/holiday weekends to provide priority to heavy traffic movements.
13. Reconfigure the westbound SR 260 striping to extend dual left-turn lane to Manzanita Drive. At the intersection of SR 87, the lane configuration would be modified to two left turns, a through lane and a right only lane.

#### **SR 87/Malibu Drive Intersection**

1. Address the offset for the northbound left-turn lane and sight distance by adding a 'protect only' phase for the SR 87 left-turns would improve intersection.
2. Upgrade and install street name signs for all directions.
3. Install object markers at all locations deemed necessary is recommended.

#### **SR87/Bonita Street Intersection**

1. Check the alignment of the overhead signal for the westbound approach is recommended.
2. Check the eastbound loop detectors is recommended.
3. Connecting the sidewalk on the northwest corner of the intersection is recommended.

#### **SR 260/Manzanita Drive Intersection**

1. Install signing for the SR 260 eastbound right-turn trap lane.
2. Further evaluate the driveways near the Safeway grocery store to address safety issues.
3. Remove the "Keep Right" sign on Manzanita Drive.

4. Trim/remove trees growing along the curb return between SR 260 and the Safeway driveway (located on the southwest corner of the intersection).

***Cost Estimate:***

The construction costs for Group 2 improvements listed above is approximately \$250,000, which includes materials, labor and a 15% contingency. However, this estimate does not include the engineering design cost, which is typically 10-12% of the construction cost. In addition, these improvements do not impact existing right-of-way.

**Group 3 Recommendations**

Group 3 recommendations are defined as improvements that would require major roadway construction and will need funding to be secured. These improvements can be implemented in a 5+ year time frame. Based on the field review, peak hour observations, operational analysis and the RSA, the following are the recommended Group 3 improvements. Group 3 improvements are displayed in Figure 5.8. Before implementing improvements, an additional roundabout feasibility study should be conducted to determine if the corridor would benefit from the construction of a roundabout in lieu of these improvements.

**SR 87/SR 260**

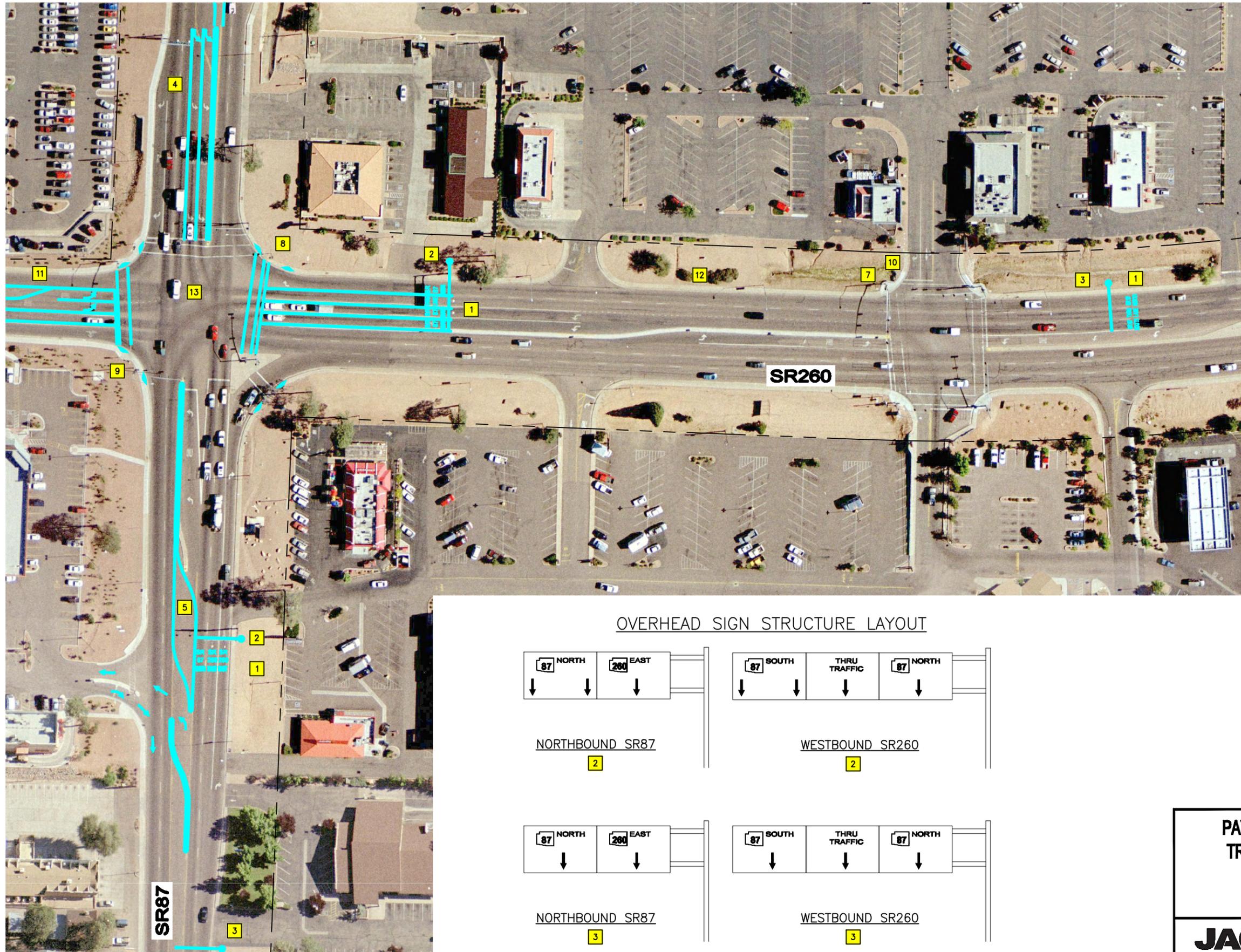
1. Provide dual right-turn lanes for the northbound traffic on SR 87 onto SR 260.
2. Provide an additional through-lane on the east leg of SR 260 (eastbound) in order to accommodate the dual right-turn lanes from SR 87 is recommended.
3. Construct an exclusive right-turn lane into the McDonald's on the south leg of SR 87.
4. Extend the median on the south leg of SR 87, which would better control driveway access and extend storage for the northbound left-turn traffic.
5. Construct an exclusive right-turn lane, in the westbound direction, on SR 260 for the traffic making a right-turn onto SR 87.
6. Restripe the east leg of SR 260 to accommodate triple left-turns onto SR 87 southbound would improve the intersection.

7. In order to accommodate the triple left-turn lanes from SR 260, construct an additional through-lane on the south leg of SR 87 (southbound).
8. Upgrade of traffic signals.

***Cost Estimate:***

The construction cost for Phase 3 intersection and corridor improvements is approximately \$870,000, which includes materials, labor and a 20% contingency. However, this estimate does not include the engineering design cost, which is typically 10-12% of the construction cost. In addition, this estimate does not include right-of-way costs, utility relocation costs, or drainage improvements.

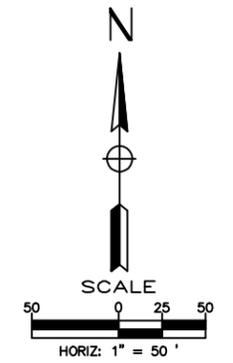
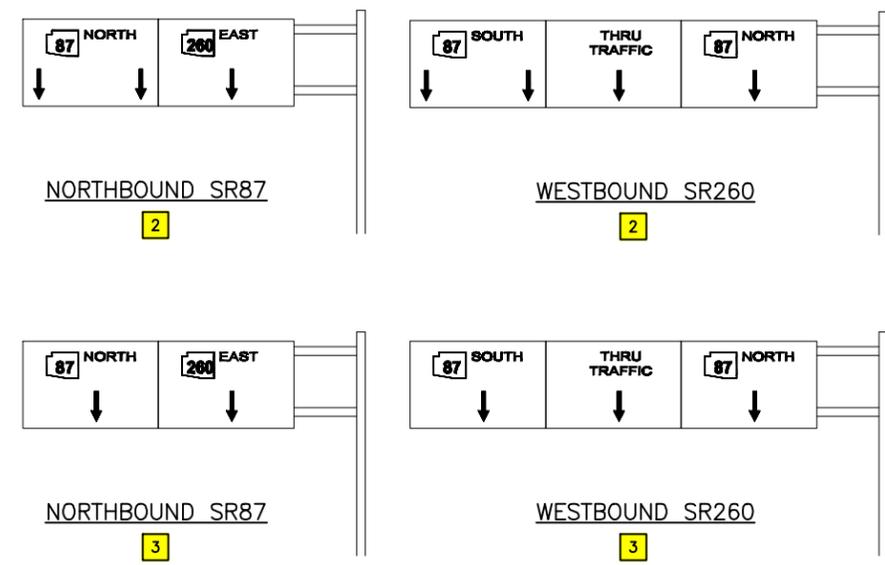




MID-TERM RECOMMENDATIONS:

- 1 INSTALL IN-LANE ROUTE NUMBER PAVEMENT MARKING
- 2 REVISE SIGN PANEL ON EXISTING OVERHEAD SIGN STRUCTURES
- 3 ADD OVERHEAD SIGN STRUCTURE
- 4 ADD ADDITIONAL 90' SB DUAL LEFT STORAGE AND EXTEND MEDIAN
- 5 EXTEND MEDIAN ON SOUTH LEG TO MAKE MCDONALD'S DRIVEWAY RI/RO AND WALGREENS/DEL TACO DRIVEWAY TO BE A LI/RI/RO
- 6 UPGRADE ALL TRAFFIC SIGNING TO CURRENT SIGNING STANDARDS
- 7 RECOMMEND POST MOUNTED SIGNAL ON FAR RIGHT SIDE FOR SR260 APPROACH DUE TO GLARE
- 8 UPGRADE ALL STREET NAME SIGNS
- 9 UPGRADE ALL RAMPS TO BE ADA COMPLIANT
- 10 EXTEND THE VISORS ON THE OVERHEAD SIGNALS
- 11 RECONFIGURE STRIPING ON EB APPROACH TO EXTEND DUAL LT TURN LANE STORAGE
- 12 DELINEATE WB OUTSIDE LANE TO BE TRAP RIGHT TURN ONLY LANE
- 13 COORDINATE SIGNAL TIMING FOR SUMMER/HOLIDAY WEEKENDS TO PROVIDE PRIORITY TO HEAVY DIRECTION

OVERHEAD SIGN STRUCTURE LAYOUT



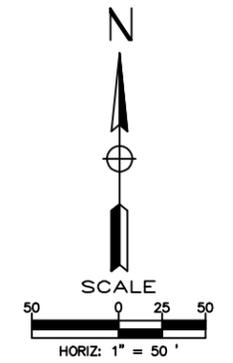
**PAYSON TRANSPORTATION STUDY**  
**TRAFFIC OPERATIONAL ANALYSIS**  
 SR87/SR260 INTERSECTION  
 EXHIBIT #2A  
 MID-TERM RECOMMENDATIONS

**JACOBS** 101 North First Avenue Suite 3100  
 Phoenix, Arizona 85003  
 TEL (602) 253-1200 · FAX (602) 253-1202



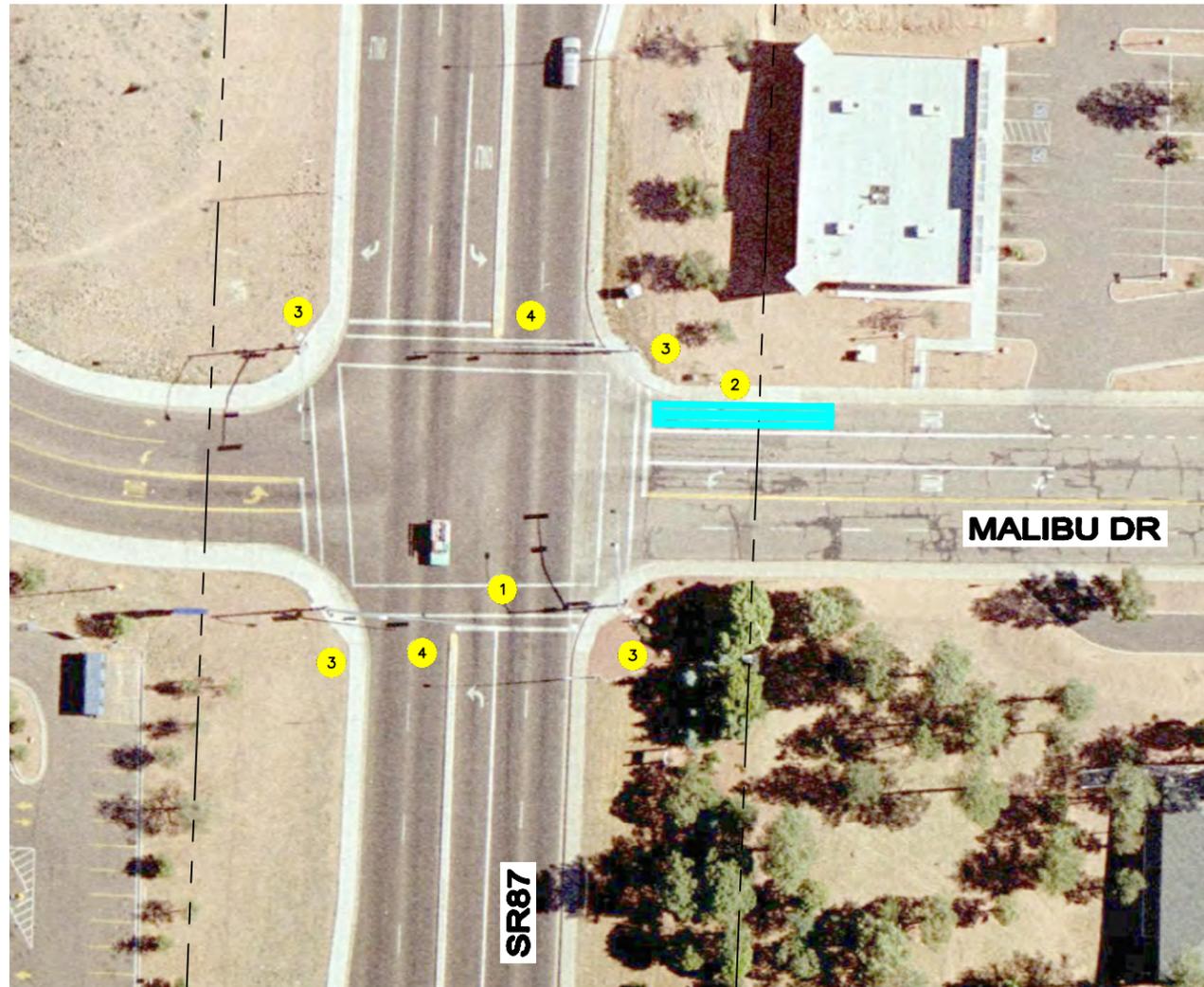
MID-TERM RECOMMENDATIONS:

- 1 EXTEND DUAL LEFT TURN LANES FOR SR 260 WESTBOUND APPROACH



**PAYSON TRANSPORTATION STUDY**  
**TRAFFIC OPERATIONAL ANALYSIS**  
SR87/SR260 INTERSECTION  
EXHIBIT #2B  
MID-TERM RECOMMENDATIONS

**JACOBS** 1405 North First Avenue Suite 3100  
Phoenix, Arizona 85003  
TEL (602) 238-1200 • FAX (602) 238-1202



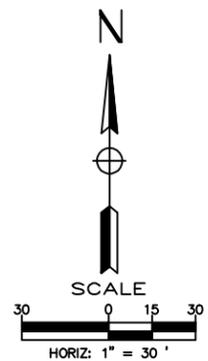
MID-TERM RECOMMENDATIONS FOR SR87 AND MALIBU DR:

- 1 ADDRESS OFFSET FOR NB LT TURN LANE AND SIGHT VISIBILITY BY 'PROTECT ONLY' PHASING FOR SR 87 LT TURN
- 2 ADD LOOP DETECTORS TO WB RIGHT TURN
- 3 UPGRADE AND INSTALL STREET NAME SIGNS ALL DIRECTIONS
- 4 INSTALL OBJECT MARKERS AT ALL LOCATIONS DEEMED NECESSARY



MID-TERM RECOMMENDATIONS FOR SR87 AND BONITA ST:

- 1 CHECK ALIGNMENT OF OVERHEAD SIGNAL FOR WB APPROACH AT SR87 AND BONITA ST.
- 2 CHECK EB LOOP DETECTORS
- 3 CONNECT SIDEWALK ON NW CORNER OF SR87 AND BONITA ST.



**PAYSON TRANSPORTATION STUDY**  
**TRAFFIC OPERATIONAL ANALYSIS**  
 SR87/MALIBU DR. & SR87/ BONITA ST.  
 EXHIBIT #2C  
 MID-TERM RECOMMENDATIONS

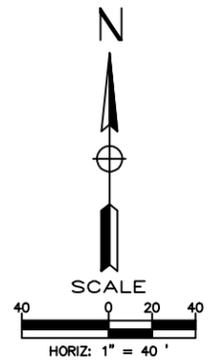
**JACOBS**

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 Phoenix, Arizona 85003  
 TEL (602) 253-1200 • FAX (602) 253-1202



MID-TERM RECOMMENDATIONS FOR  
MANZANITA DR AT SR 260:

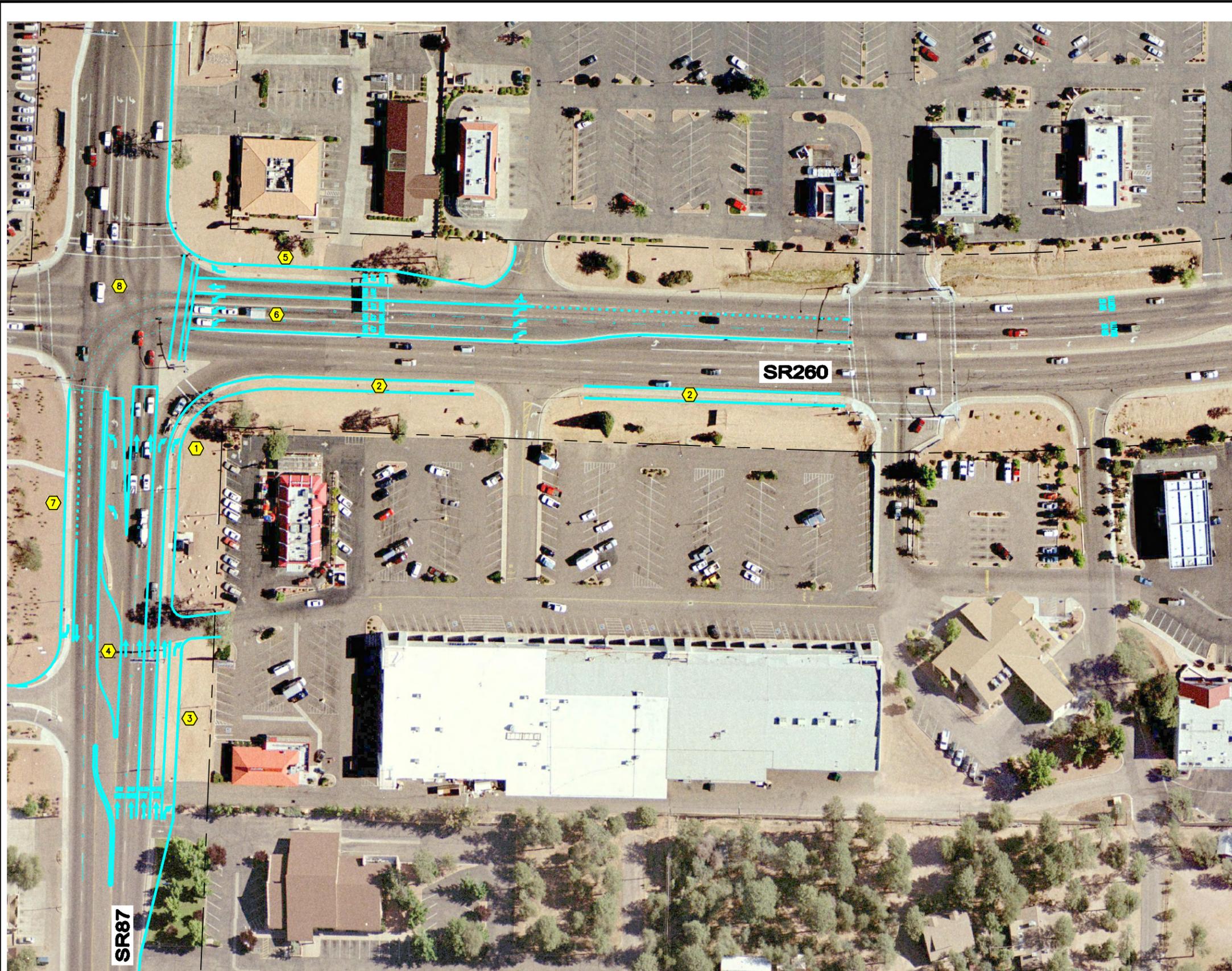
- 1 SIGNING FOR EB RIGHT TRAP-LANE SHOULD BE CONSISTANT WITH SIGNING FOR WB 260 TRAP-LANE AT SR87 "THRU TRAFFIC MERGE LEFT"
- 2 CLOSE SPACING BETWEEN INTERSECTION AND SAFEWAY DRIVEWAY CREATES ISSUES FOR BOTH INTERSECTIONS. ADDRESS SAFETY ISSUES.
- 3 "KEEP RIGHT" SIGN ON MANZANITA NOT NEEDED
- 4 TRIM/REMOVE TREES



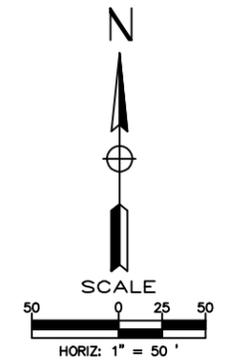
**PAYSON TRANSPORTATION STUDY  
TRAFFIC OPERATIONAL ANALYSIS**

SR260/MANZANITA DR. INTERSECTION  
EXHIBIT #2D  
MID-TERM RECOMMENDATIONS

**JACOBS** 101 North First Avenue Suite 3100  
Phoenix, Arizona 85003  
TEL (602) 253-1200 · FAX (602) 253-1202



- LONG-TERM RECOMMENDATIONS:
- 1 DUAL RIGHT-TURN LANE CONFIGURATION WITH IN-LANE PAVEMENT MARKING FOR EB SR260
  - 2 PROVIDE ADDITIONAL THRU LANE ON THE EAST LEG OF SR260
  - 3 PROVIDE AN EXCLUSIVE RIGHT TURN LANE INTO THE MCDONALD'S
  - 4 EXTEND MEDIAN ON THE SOUTH LEG OF SR87
  - 5 PROVIDE AN EXCLUSIVE RIGHT TURN LANE IN THE WB DIRECTION ON SR260
  - 6 TRIPLE LEFT-TURN LANE CONFIGURATION WITH IN-LANE PAVEMENT MARKING FOR SB SR87
  - 7 PROVIDE ADDITIONAL THRU LANE ON SOUTH LEG OF SR87
  - 8 UPGRADE TRAFFIC SIGNAL



**PAYSON TRANSPORTATION STUDY**  
**TRAFFIC OPERATIONAL ANALYSIS**

SR87/SR260 INTERSECTION  
 EXHIBIT #3  
 LONG-TERM RECOMMENDATIONS

**JACOBS** 101 North First Avenue Suite 3100  
 Phoenix, Arizona 85003  
 TEL (602) 253-1200 • FAX (602) 253-1202

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## TRANSIT, NON-MOTORIZED MODES, AND ACCESS MANAGEMENT RECOMMENDATIONS

### Transit Recommendations

#### *Short-Term (2011 – 2015) Transit Recommendations*

- Designate a Town Transit Coordinator and Organize a Transit Advisory Committee.
  - The Town should consider appointing a volunteer or part-time Town Transit Coordinator and Transit Advisory Committee to assist the town in identifying and responding to Payson’s transit-related issues and concerns. The coordinator and committee could act as a liaison for transit issues between the town council, town staff, and the business community, and could provide input for future transit actions.
- Seek New Sources of Funding.
  - The Transit Coordinator and the Transit Advisory Committee should work with local agencies, local Council of Governments (COG), and State agencies to seek funding for future transit needs.
- Update the 2005 Transit Feasibility Report.
- Conduct a Transit Implementation Study.

#### *Mid-Term (2016 – 2020) Transit Recommendations*

- Develop a Transportation Demand Management Program.

Developing a Transportation Demand Management Program is probably the most efficient and least expensive way to address the Town of Payson’s demand for transit service to employment centers, and to promote further economic growth. A Transportation Demand Management Program coordinates and provides public information on a wide range of programs and services that enable people to travel other than driving alone. The Program could include alternative transportation modes such as carpooling, vanpooling, transit, bicycling, and walking, as well as programs that alleviate traffic and parking problems such as telecommuting, variable work hours, and parking management.

One way the town might jumpstart this program is to partner with Central Arizona Association of Governments (CAAG) to establish a community

ridesharing program that could establish and coordinate services such as vanpools and carpools to serve the region. Organized ridesharing can address the needs of those traveling long distances on a regular basis or for work with minimal startup and operational costs. Enlisting the support of major employers by offering economic incentives to employers and employees could further create a mutual benefit for the community and the businesses.

#### *Long-Term (2021 - 2030) Transit Recommendations*

- Establish a Town Transit department.
- Implement recommendations from the Transit Implementation Study.

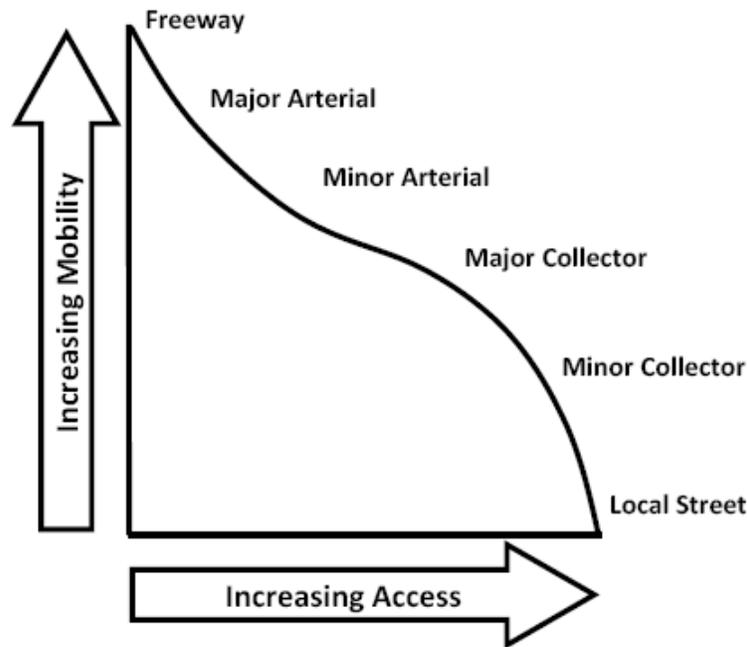
#### **Pedestrian and Bicycle Facility Recommendations**

Figure 5.4 shows the proposed bike lanes, sidewalks, and trails. Town of Payson's CIP includes plans to reconstruct several roadways to add bike lanes, sidewalks, and trails. Remaining standalone bike and pedestrian facilities can be planned for construction in the mid-term phase (2016 - 2020).

#### **ACCESS MANAGEMENT**

Access management enhances the flow of traffic on a corridor or roadway system by improving safety, capacity, and speed. Effective access management programs control the number of driveways and vehicular curb cuts, remove slower turning vehicles, and reduce the number of vehicular conflict points. It is important to implement these controls without overly restricting reasonable access to property. Controlling access improves mobility and is linked to the function of a particular roadway. Low volume, low speed facilities (such as local roads) serve to provide direct and frequent access to properties. Roadways with higher speeds and higher traffic volumes serve to provide mobility and restrict direct access to adjacent land uses, such as freeways, which are completely access controlled. The amount of appropriate access is related to the level of mobility and specific function of a road as illustrated in Figure 5.9.

**FIGURE 5.9: ACCESS VERSUS MOBILITY**



The challenge of managing access is establishing a program of legal, administrative, and technical strategies with the appropriate balance between private property access rights and the need to control access to serve public need. Ideally, these strategies will be implemented through planning practices, rules, engineering standards, and procedures resulting in access decisions that successfully, fairly and consistently determine access management for each unique situation.

### *Benefits of Access Management*

Improved traffic flow is one of the many benefits of applying access management techniques. Roadways utilizing access management techniques are likely to be safer and provide for better circulation while improving travel times. These techniques include increasing driveway spacing, utilizing turning lanes, grade-separating intersections, and installing medians. The frequency of intersections greatly influences the capacity and function of roadways. Roadways with more access points and intersections have more opportunities for conflicts, and significant friction to through-traffic, which contributes to congestion and crashes. Applying access management techniques can enhance the livability of a community. Access management has been shown to reduce crashes while also improving pedestrian/bicycle safety. The mobility benefits to a community include increases in roadway capacity and reductions in travel time. The

potential economic benefits of access management include reserving the market area for businesses, improving customer safety and convenience, providing more efficient freight movement, and raising property values. Communities that have implemented access management have more area for landscaping, while preserving community/scenic character and promoting more efficient land and site design. Additionally, access management can reduce emissions and fuel consumption due to improved traffic progression, and can help avoid substandard access to lot splits caused by excessive driveways.

ADOT is working to develop Memorandums of Understanding (MOUs) with local governments as part of the statewide implementation of the Access Management Program on the state highway system. Once the MOUs are enacted it is recommended that access management strategies be implemented, such as closing access points, development of joint access, and the construction of frontage road systems.

Other policy recommendations are:

- Develop access management standards and guidelines. This guidebook should comprehensively categorize the roadway system by access management categories, provide specific guidelines for each category, and define the design criteria for each category.
- Implement an access management ordinance that provides the specific guidance for access to land uses.

## **TITLE VI AND ENVIRONMENTAL JUSTICE IMPLICATIONS**

In accordance to federal requirements, this study identified Title VI and Environmental Justice populations within the study area. Chapter 2 discussed in great detail the location of minority and below poverty populations throughout the study area. Proposed transportation improvement projects recommended by this study may impact these populations differently than other residents. A preliminary review of the study's recommended projects indicates no potentially negative impacts to the Title VI population groups. Title VI review should be revisited during the design phase of each project when actual roadway alignments are established.

## **FUNDING SOURCES**

The successful implementation of the Payson Transportation Study is dependent upon the availability of funding for design and construction of the improvement projects. Primary funding sources for the Town include federal programs, ADOT, and other regional government agencies such as CAAG. Table 5.4 is a comprehensive funding matrix that the Town of Payson could apply to fund transportation projects identified in this study.

**TABLE 5.4: FUNDING SOURCES**

#	Program	Source	Eligible Uses	Requirements	Comments
1	Surface Transportation Program (STP)	Federal funds, managed by FHWA and ADOT	Eligible for general transportation, environmental, and transit projects.	Requirements include: - Must be located on Federal-aid highway. - Bridge project on any public road. - Transit capital projects. - Intracity/intercity bus terminals and facilities.	Projects are programmed by ADOT, local MPO or COG.
2	High Risk Rural Road Program (HRR)	Federal funds, managed by FHWA and ADOT	Eligible for a variety of capital projects including highways, bridges, and enhancement projects.	Requirements include: - Project must be on roadways classified as rural major collectors, rural minor collectors, and rural local roads. - Located where fatal accidents and incapacitated injuries exceeds statewide average. - Located where increase in traffic volume will likely create an unsafe area.	Projects are programmed by ADOT, local MPO or COG.
3	Highway Safety Improvement Program (HSIP)	Federal funds, managed by FHWA and ADOT	Eligible for safety improvement projects.	Requirements include that the projects must be used for safety improvements to reduce number and/or severity of highway related crashes.	
4	Transportation Enhancement	Federal funds, managed by ADOT	Eligible for bicycle, pedestrian, and historic and beautification projects.	Requirements include that the projects must be surface transportation related project.	Applications considered yearly through MPO and COG.
5	Transportation, Community, and System Preservation Pilot Program (TCSP)	Federal funds	Eligible for projects that involve: - Improving the efficiency of the transportation system. - Reducing environmental impacts from transportation. - Reducing the need for costly future public infrastructure investments. - Ensuring efficient access to jobs, services and centers of trade. - Examining development patterns and identifying strategies to encourage compatible private sector development patterns.	Requirements include: - Projects should address the link between land use, community quality of life, and transportation. - Projects that partner with private sector interests are considered favorably.	Jurisdictions are eligible recipients of these grant funds, and there is no maximum on the dollar amount of the award.
6	Transit Funds – Section 5310, 5311, 5313	Federal funds, managed by ADOT	Eligible for projects that involve: - Transit programs for elderly and disabled (5310 program funds). - Local transit systems in non-urbanized areas (5311 program funds). - State planning and research programs (5313 program funds).	Requirement include that a feasibility study must first be conducted and a pilot program implemented before applying for 5311 assistance.	Application cycle is from January through March of each year.
7	Statewide Local Governments Economic Stimulus Program	Federal the American Recovery and Reinvestment Act (ARRA) funds, managed by ADOT	Eligible for wide variety of general transportation, highway, bridge, public transportation, and rail projects.	Requirements include that projects must be shovel-ready.	
8	Job Access and Reverse Commute (Section 5316) Grants (JARC)	Federal funds	Eligible for projects that transport low income individuals to and from jobs, activities related to employment, and for reverse commute projects.		Applications for funds are generally made available through MPO and ADOT, depending upon the size of the urban population.
9	New Freedom Program (Section 5317) Grants	Federal funds	Eligible for projects that include transportation services designed to assist individuals with disabilities.	Requirements include that the project should include a new public transportation service or new public transportation alternative beyond that which is required by the American with Disabilities Act of 1990 (ADA).	Applications for funds are generally made available through MPO and ADOT, depending upon the size of the urban population.

**TABLE 5.4: FUNDING SOURCES (CONTINUED)**

#	Program	Source	Eligible Uses	Requirements	Comments
10	Economic Strength Project (ESP) Grants	Federal funds	Eligible for projects that involve: - New road construction. - Upgrading of existing roads. - Access management techniques. - Reconstruction and paving.	Requirement include that a 10% match is required by the jurisdiction or through business assistance.	Notification of available funds occurs in January and July.
11	Safe Routes to School	Federal funds, managed by ADOT	Eligible for projects that involve: - Sidewalk construction. - Traffic calming and speed reduction. - Pedestrian and bicycle improvements. - Crossing improvements or traffic diversion improvements near schools.	Requirements include: - State must use between 10-30 percent of the funds for non-infrastructure related activities. - Project should focus on enabling and encouraging children to safely walk and bicycle to school.	
12	Highway Bridge Replacement and Rehabilitation	Federal funds	Eligible for projects that improve the condition of highway bridges through replacement, rehabilitation, and systematic preventive maintenance.	Requirement include that projects must include preventative maintenance on Federal-aid and non-Federal-aid highway systems.	Applications available year-round.
13	Rural Community Development Initiative (RCDI)	Federal funds	Eligible for projects that involve technical assistance and training.	Requirement include that the project must be related to housing, community facilities, or community and economic development in rural areas.	Applications available in January annually.
14	Community Development Block Grants (CDBG)	Federal funds, managed by Federal Office of Housing and Urban Development	Eligible for projects that benefits low- and moderate-income persons, prevents or eliminate slums/blight, or addresses community development needs because existing conditions pose a serious threat the health or welfare of the community.	Requirements include that the project must be located in a census tract or block group with at least 51% of population in low to the moderate income group.	Projects are programmed by ADOT, local MPO or COG.
15	State and Community Highway Safety Grants	Federal funds	Eligible for variety of safety projects. Including: - Alcohol countermeasures. - Occupant protection. - Police traffic services (e.g. enforcement). - Emergency medical services. - Traffic records. - Motorcycle safety. - Pedestrian and bicycle safety (jointly administered by FHWA and NHTSA). - Non-construction aspects of roadway safety (administered by FHWA). - Speed control (jointly administered by NHTSA and FHWA).	Requirement include that the project should assist jurisdictions in the development and implementation of highway safety programs designed to reduce traffic crashes, deaths, injuries and property damage.	Formula based funds are distributed to States
16	National Highway System	Federal Funds	Eligible for a wide variety of transportation improvement projects, including: construction, reconstruction, resurfacing, restoration, rehabilitation, and safety improvements.	Requirements include that the project must be located on the National Highway System.	
17	Congestion Mitigation and Air Quality Improvement Program (CMAQ)	Federal funds	Eligible for a wide range of transportation and transit programs.	Requirements include: - Must be located in nonattainment or maintenance areas. - Funds should be used toward transportation projects that reduce emissions.	

**TABLE 5.4: FUNDING SOURCES (CONTINUED)**

#	Program	Description	Eligible Uses	Requirements	Comments
18	State Planning & Research Program	Federal funds	Eligible for a wide range of transportation projects.	Requirements include that the funds should be used toward a future highway program and/or local public transportation systems, research, development and technology.	Applications available in June annually.
19	Recreational Trails Program (RTP)	Federal funds	Eligible for a wide range of recreational improvement projects.	Requirements include that the funds should be used towards development and maintenance of recreation trails.	Available annually through Arizona State Parks.
20	Federal Lands Highway Program (FLHP)	Provides funding for a consolidated program of transportation improvements	Eligible for a variety of projects, including: transportation planning, research, engineering, and construction of highways, roads, parkways and transit facilities.	Requirements include that the funds should be used for roads within public lands, national parks, and Indian reservations.	
21	Development Impact Fees	Local	Eligible for projects that involve local transportation improvement projects.	Requirements include that the amount of the assessment needs to be in direct proportion to the magnitude of the need created by the project.	
22	Development Stipulations	Local	Eligible for projects that involve local transportation improvement projects.		Developers dedicate appropriate ROW and build adjacent streets.
23	Hotel Bed Tax	Local	Eligible for projects that involve local transportation improvement projects.		Tax added to hotel room charge that is paid to the state during tax returns and refunded to the local jurisdiction by the state of Arizona.
24	Sales Tax	Local	Eligible for projects that involve motorized and non-motorized improvements.		Funds from a portion of a municipality's sales tax.
25	Developer Exactions	Local	Eligible for projects that involve local transportation improvement projects.		Require developers to construct off-site facilities necessary to serve their development.
26	Improvement or Road Districts	Local	Eligible for projects that involve local transportation improvement projects.		Improvement costs shared among residents and property owners within district.
27	Highway User Revenue Fund (HURF)	State funds	Eligible for projects that involve highway construction, highway improvements, and other related expenses.	Requirements include that the project must be on a highway.	Funds derived from fuel taxes, vehicle license tax, registration fees and other fees. Distributed directly to jurisdictions based on population.
28	Local Transportation Assistance Funds (LTAF and LTAF II)	State funds	Eligible for a variety of general transportation and transit improvement projects.	Requirements include that local entities applying for the grant should come up with matching funds through their appropriate MPO, COG or RPTA.	State Funds derived from lottery sales Distributed directly to jurisdictions based on population.
29	Vehicle License Tax (VLT)	State funds	Eligible for a variety of transportation and transit projects.		Arizona tax paid by vehicle owners.
30	Arizona State Parks Law Enforcement and Boating Safety Fund (LEBSF)	State funds	Eligible for projects that involve enforcing boating laws, boating personnel, and boating equipment.	Requirements include that the project include enforcing boating laws to ensure safety.	State funds granted to County Boards of Supervisors.
31	Economic Strength Project (ESP) Grants	State funds, administered by Arizona Department of Commerce and funded through HURF	Eligible for projects that involve: - New road construction. - Upgrading existing roads. - Routine maintenance.	Requirements include that the project must support economic development objectives.	Available twice a year through Arizona Department of Commerce

**TABLE 5.4: FUNDING SOURCES (CONTINUED)**

#	Program	Source	Eligible Uses	Requirements	Comments
32	Governor’s Office of Highway Safety	State funds	Eligible for a wide range of projects, including: inventories, need studies, engineering studies, systems development, program implementation, or for purchasing equipment.	Requirements include that the monies received cannot be used for the construction, design, or maintenance of highways or for highway construction research projects.	Finances State and local government highway safety projects.
33	Off-Highway Vehicle Recreation Fund	State funds distributed by State Parks Department and Game and Fish Department	Eligible for projects that involve: - Designation, construction, and maintenance of OHV recreational facilities and trails - Enforcement of off-highway vehicle laws - Mitigations of damages to land	Requirements include that the project must support off-highway recreational facilities.	Portion of State Funds from total license tax and motor fuel tax.
34	State Aviation Fund	State funds	Eligible for projects that involve the construction or maintenance of airport facilities.	Requirements include that the funds must be used for airport facilities.	Funds are generated from aviation gasoline taxes, sales of aircrafts, flight property taxes, and the operation of certain airports.
35	Arizona Game and Fish Department Heritage Funds	State funds	Eligible for projects that involve: Public Access Environmental Education Schoolyard Habitat Urban Wildlife and Urban Wildlife Habitat IIAPM	Requirements include that the funds should be used towards projects related to the preservation of natural and cultural resources.	Available annually in November through Arizona State Parks.
36	Equity Bonus	State funds	Eligible for a variety of transportation improvement projects, including: Interstate maintenance, bridges, highway safety improvement, air quality improvement, metropolitan planning, recreational trail, safe routes to school, rail-highway grade crossings, and high priority projects.		- Funding to States based on equity considerations - Applications available year-round
37	AAA Foundation for Traffic Safety	Multiple sources	Eligible for projects that involve conducting traffic safety studies to investigate reasons for traffic crashes.	Requirements include that the project needs to evaluate new or existing traffic safety initiatives.	Applications available in summer annually.
38	Community Facilities District (CFD)	Local	Eligible for projects that involve: - Water and sewer projects. - Police and fire facilities (and sites). - Public buildings (and sites). - Flood control and drainage projects. - Roadways. - Public parking structures. - Landscaping and lakes. - Lighting and traffic control. - Parks and recreational facilities. - Schools and school sites. - Pedestrian malls. - Enhanced public services.		Special District created for the purpose of financing the acquisition, construction, operation and maintenance of public infrastructure improvements.
39	Growing Smarter Planning Grant Program	State funds, administered by Arizona Department of Commerce	Eligible for a variety of projects that address components of the Growing Smarter and Growing Smarter Plus Acts.	Requirements include that local jurisdictions should match the grant funds.	Priority consideration will first be given to city, towns, or counties that are mandated to meet Growing Smarter statutory requirements.
40	Highway Expansion and Extension Loan Program (HELP)	Federal funds, managed by ADOT	Eligible for projects that involve: - General transportation and construction projects. - Provides loans and financial assistance for highway programs in Arizona and is often used to help accelerate projects.	Requirements include - Project must be on the Federal Aid System, National Highway System, State Highway System, or be designated as a state route. - Project must be included in the State Highway Construction Program, State Transportation Improvement Plan or the City’s Transportation Improvement Plan. - Proposed sources of repayment must be identified.	

## IMPLEMENTATION GUIDELINES

The Town of Payson can utilize the following implementation strategies as guidelines to accomplish the multimodal transportation plan developed:

- Present the transportation plan to Town Council for approval.
- Coordinate with CAAG and ADOT to request change in functional classification of roadways identified in Figure 5.5.
- Apply for funding sources for each project in the transportation plan.
- Increase communication, cooperation, and collaboration with ADOT, CAAG, the Town Council, and other local jurisdictions. Work in partnership with each agency to address transportation needs and implement the plan.
- Offer opportunities for public involvement throughout the plan implementation process.
- Promote Town-Private partnerships between the Town and the private sector.
- Establish a transit department.
- Monitor progress on the transportation plan on a quarterly basis.
- Update the transportation plan on a five year cycle.