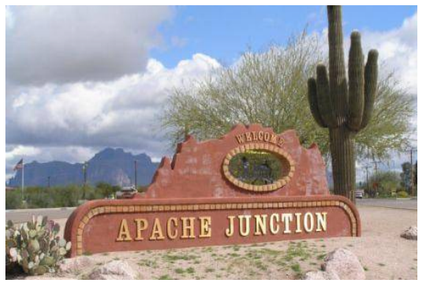
Apache Junction Trail Connectivity, Downtown Visioning & State Land Visioning

Connecting Past, Present & Future



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CITY OF APACHE JUNCTION
CONNECTING PAST, PRESENT & FUTURE

Trail Connectivity, Downtown Visioning & State Land Visioning

May 2016

Prepared by

SCHOOL OF Geographical Sciences & Urban Planning
ARIZONA STATE UNIVERSITY

MUEP Graduate Student Capstone
Spring 2016

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We would like to express our sincere gratitude to the residents of the City of Apache Junction for their participation in public meetings, surveys, and comments which helped to guide the development of these reports. We would also like to thank the Planning and Zoning Commission, the Parks and Recreation Board and the following people for their guidance:

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Rudy Esquivias, Senior Planner
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Executive Summary

In the spring of 2016, The City of Apache Junction partnered with the School of Geographical Sciences and Urban Planning at Arizona State University on three forward-thinking plans for development in Apache Junction. Graduate students in the Urban and Environmental Planning program worked alongside City staff, elected officials and the public to identify opportunities and visions for 1) multi-modal access and connectivity improvements for City streets and open space; 2) downtown development; and 3) a master-planned community on state land south of the U.S. 60.

The following sections of the report present Apache Junction's unique characteristics, current resident demographics, development needs and implementation strategies for each project:

1. Community Profile
2. Trail Connectivity Master Plan
3. Downtown Visioning
4. State Land Visioning

The Trail Connectivity Master Plan optimizes existing trails and wide road shoulders to improve multi-modal connections across the city. The proposed connections emphasize access to important recreation, education and other community facilities for pedestrians, equestrians and bicycles. Trail and lane designs recommend vegetated buffers, wherever possible, to improve traveler safety and comfort. The proposals also increase residents' interaction with open space along urban-rural trails and park linkages to preserve opportunities to engage with nature. The objectives of the report are accomplished through three goals: connectivity, safety improvements and open space preservation.

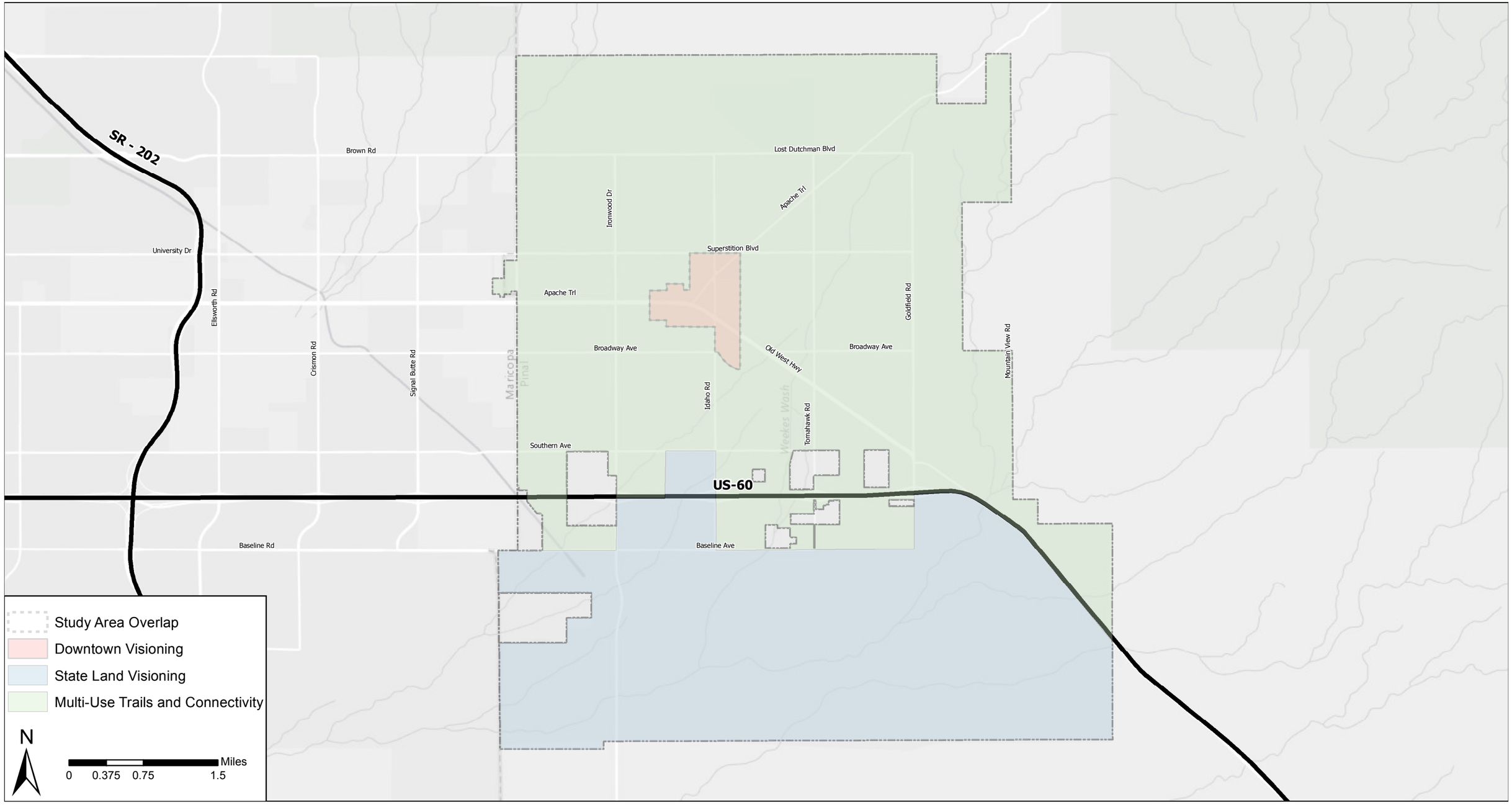
Downtown Visioning builds on a large body of conceptual design work for Apache Junction's downtown area along Idaho Road and Apache Trail. This report identifies three goals: to establish a town center, reestablish the grid systems while maintaining a view of the Superstition Mountains, and create an identity and sense of place for the downtown.

State Land Visioning addresses a tract of land, approximately 25 square miles in area, south of the U.S. 60. The main objective is to facilitate growth and proper development in accordance with existing goals in Apache Junction's General Plan. This is accomplished through three goals: 1) Develop a foundation for the creation of an economic corridor along US-60 through preliminary market research and land use planning. 2) Create multi-modal connections between existing development north of US-60 and future recreational space northeast of US-60. And 3) Maintain a large ratio of open space to developed area that encompasses existing washes and floodplains using a master planned community framework to provide an example for future land use planning.

The project's final public presentation is included at the end of the report.

All report photos were taken by Capstone students unless noted otherwise.

Map 1-1: Project Study Areas



1 COMMUNITY PROFILE

Introduction

1.1 Physical Location and Current Development

The City of Apache Junction, once a mining community extending back to the late 1800's , has only existed as an incorporated city since 1978. As of 2016, the city, at 38 years old, is younger than the median age of its citizenry at 49, as well as many of its public servants. Apache Junction stands on the eastern periphery of Greater Phoenix, bordered to the west by the City of Mesa, the southwest by the Town of Gilbert, and further south past an expanse of unincorporated state-owned land, the Town of Queen Creek. Apache Junction is typified by its major roadways which maintain its status as an intermediary between the urbanized communities of the Valley of the Sun to the west, the largely unincorporated hinterland extending east to the Cities of Superior and Globe along U.S. Highway 60 as well as Old West Highway and the recreational amenities afforded by the Roosevelt Dam, including Canyon, Apache and Roosevelt Lakes to the northeast along the historic Apache Trail.

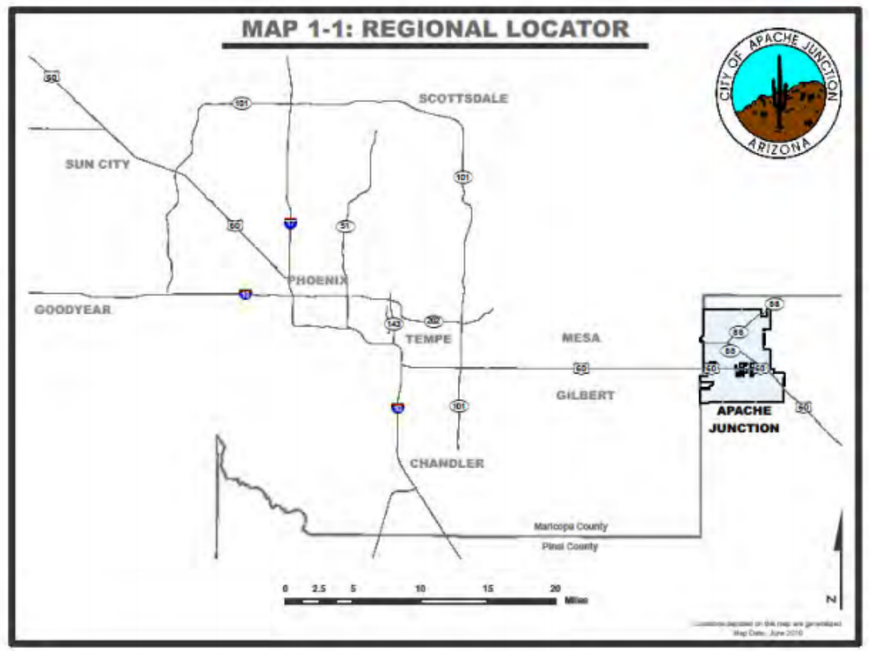


Figure 1-1: Apache Junction Regional Locator *(Apache Junction 2010 General Plan Update)*

Apache Junction has come to be known for its exceptional natural amenities, including views of the Superstition Mountains and a multitude of trails to traverse the desert landscape. These features attract a large seasonal population, often hailing from regions with harsh winters such as the Midwestern United States and Canada. This population has come to dictate the land use of the city, resulting in a large proportion of residences classified as mobile homes or recreational vehicles. As Table 1-1 shows, these two housing types comprise 63.1% of all housing units in the city.

Type	# units	% of total
Mobile Home	11,398	50%
Single-Family Detached	6,047	26.60%
Other (e.g. RV's)	2,987	13.10%
Multi-Family (5+ units/bldg)	1,203	5.30%
Plex (2-4 units/bldg)	1,146	5%
Totals	22,781	100%

Table 1-1: Apache Junction Housing by Type. *(U.S. Census Bureau, Decennial Census 2010)*

The city has, as Table 1-2 shows, come to be less and less occupied by homeowners as seasonal renters and RV plots have increased their share of the housing market in Apache Junction.

Year	Home Ownership Rate
1980	98.6%
1990	55.6%
2000	82.1%
2010	75.4%
2014 (est.)	72.7%

Table 1-2: Apache Junction Home Owner Occupancy *(US Census Bureau)*

The challenges facing Apache Junction are a confluence of a complex set of social, economic and environmental factors. These factors demonstrate both how the city came to be as it stands now, and, as much as possible, where the city is likely to find itself in the future. The city seen today is manifested, more often than not, as a waypoint between two places, not a destination. However, with careful strategic planning and a concerted effort, Apache Junction can craft itself into a regional attraction with the amenities to support a vibrant and robust economy. The city, in preserving its natural amenities can stand as the eastern barrier to the destructive sprawling patterns of development that have typified the Greater Phoenix region for seven decades.

1.2 Demographic Analysis

The City of Apache Junction has seen substantial growth since its incorporation in 1978. This growth was explosive from the years of 1980 to 2000 and has moderated itself in recent years. Apache Junction's population growth relative to both Pinal County and the State of Arizona is shown in Table 1-3 and its population growth is illustrated in Figure 1-2. In addition to the figures provided below, all tables and figures provided in the Apache Junction's 2010 General Plan Update have been revised with their most current figures in Appendix A.

Census Year	Apache Junction City	% Change	Pinal County	% Change	State of Arizona	% Change
1980	9,935	-	90,918	-	2,718,425	-
1990	18,100	82.1	116,379	28	3,665,228	24.6
2000	31,814	75.7	179,727	54.4	5,130,632	39.9
2010	35,838	16.1	385,751	114.6	6,392,017	24.6
2014 (est.)	38,131	6.4	389,350	0.9	6,731,484	5.3

Table 1-3: Population Time Series *(U.S. Census Bureau)*

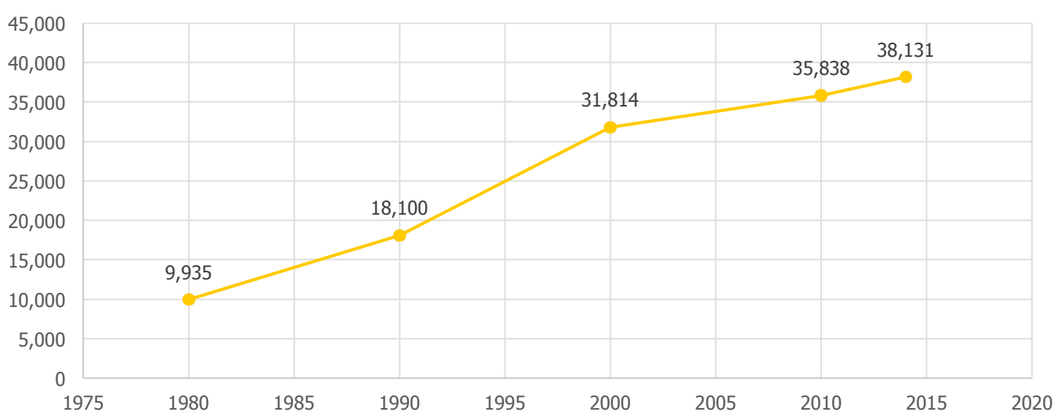


Figure 1-2: Apache Junction Population Time Series (*U.S. Census Bureau*)

Population projections provide policymakers and stakeholders with vital information on community growth which may assist them in making informed decisions on future growth patterns, infrastructure needs, and the demographic makeup of the community. The Arizona Department of Administration, Office of Employment and Population Statistics prepares population projections for all local jurisdictions and counties in the state. Figure 1-3 shows that the growth experienced to date by the city is expected to continue through 2040, growing by approximately 23,000 or greater than 50%.

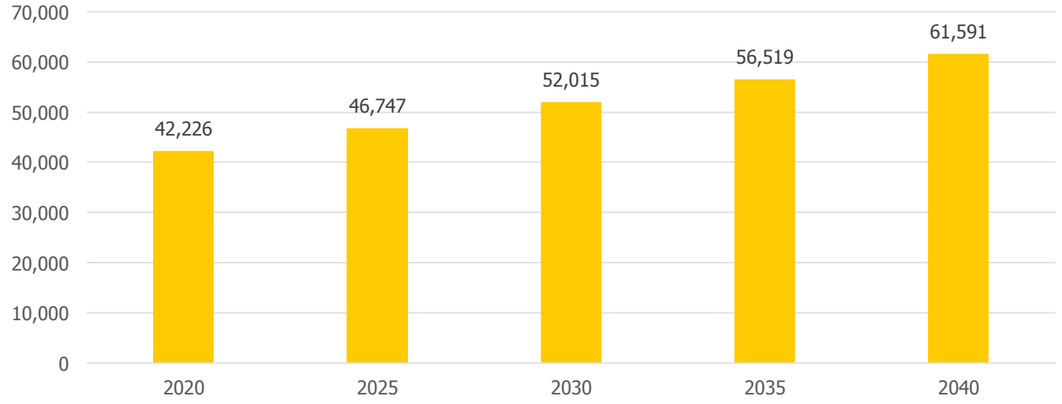


Figure 1-3: Apache Junction Population Projections *(Arizona Department of Administration Office of Employment and Population Statistics)*

This massive growth represents both challenges and opportunities for Apache Junction as the city must decide the best way to provide services to this new population as well as ensure that there is adequate housing stock and amenities that attract and retain a younger more talented labor force. The city has a significantly older population than either Pinal County or the State of Arizona with median ages of 49.0, 36.6, and 36.6, respectively. However, as Table 1-4 shows below, the youngest cohorts within the county and state comprise the largest percent of their total populations and Apache Junction can expect a degree of in migration from these populations as employment centers are developed within and near the city.

Cohort	Apache Junction City	% of Total	Pinal County	% of Total	State of Arizona	% of Total
<5	1,942	5.4	26,344	8	455,715	7.1
5-9	1,977	5.5	25,027	7.6	453,680	7.1
10-14	2,086	5.8	22,063	6.7	448,664	7
15-19	1,873	5.2	19,429	5.9	461,582	7.2
20-24	1,615	4.5	18,441	5.6	442,584	6.9
25-29	1,723	4.8	24,368	7.4	439,998	6.9
30-34	1,749	4.9	25,027	7.6	416,695	6.5
35-39	1,935	5.4	24,697	7.5	415,693	6.5
40-44	1,900	5.3	20,416	6.2	406,801	6.4
45-49	2,271	6.3	20,746	6.3	427,022	6.7
50-54	2,351	6.6	19,099	5.8	415,524	6.5
55-59	2,355	6.6	19,429	5.9	375,268	5.9
60-64	2,718	7.6	18,111	5.5	350,960	5.5
65-69	2,836	7.9	16,465	5	282,866	4.4
70-74	2,425	6.8	12,513	3.8	215,026	3.4
75-79	1,879	5.2	8,891	2.7	162,261	2.5
80-84	1,247	3.5	5,269	1.6	118,278	1.9
>85	958	2.7	2,305	0.7	103,400	1.6

Table 1-4: Population by Age Cohort *(U.S. Census Bureau, 2010 Census)*

The city has over time seen a steadily increasing household income, slightly outpacing inflation. Though while Pinal County has seen a substantial uptick in wealth recently, this influx of household spending capacity has not been replicated in Apache Junction. Improving education and the availability of high wage jobs in the city and nearby region would allow the city to keep pace in this regard. Figure 1-4 shows how household income has changed in Apache Junction, Pinal County and the state over time.

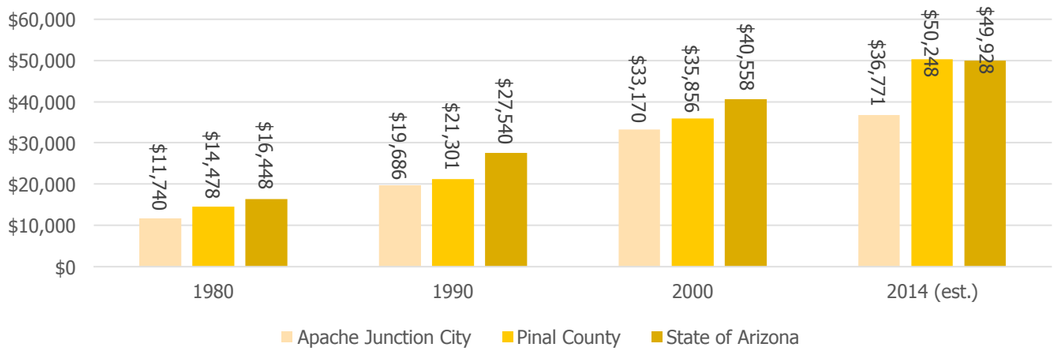


Figure 1-4: Median Household Income *(U.S. Census Bureau)*

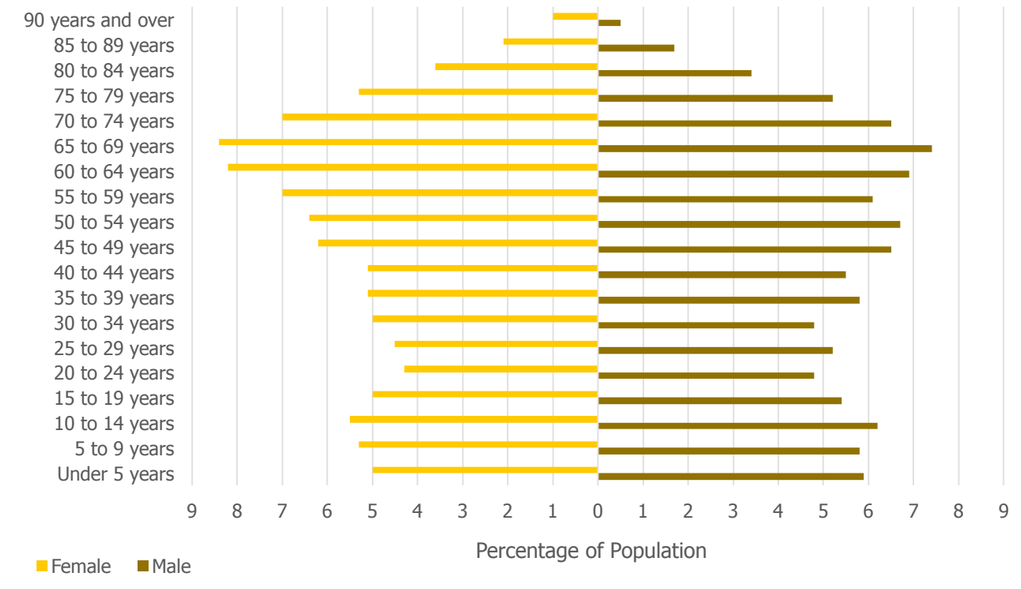


Figure 1-5: Apache Junction Population Pyramid *(U.S. Census Bureau, 2010 Census)*

1.3. Ethnic Composition

According to the 2010 Decennial Census, the vast majority of Apache Junction's population identifies as white. The Hispanic population comprises 14.4 percent of the population, while other ethnic groups are largely not represented in the city. While this is not necessarily a problem in and of itself, a lack of diversity in the city's population may be a barrier to growth in the future as a lack of diversity can be perceived negatively by prospective residents. Efforts should be made within the city to promote diversity where possible. Table 1-5 displays Apache Junction's ethnic composition relative to Pinal County and the State of Arizona.

Ethnic Group	Apache Junction City	% of Total	Pinal County	% of Total	State of Arizona	% of Total
White	32,092	89.5	242,692	73.7	4,667,121	73
Black	431	1.2	13,830	4.2	259,008	4.1
American Indian	398	1.1	18,111	5.5	296,529	4.6
Asian	279	0.8	5,598	1.7	176,695	2.8
Pacific Islander	26	0.1	1,317	0.4	12,648	0.2
Hispanic	5,153	14.4	95,167	28.9	1,895,149	29.6

Table 1-5: Population by Ethnic Composition *(Census Bureau, 2010 Census)*

1.4 Education

As shown in Table 1-6, the City of Apache Junction has a low educational attainment relative to Pinal County and the State of Arizona. 21.7% of the city's residents over the age of 25 have an Associate's degree or greater, compared to 27.3% and 35.5% for Pinal County and the state respectively. Table 1-6 displays the educational attainment for the population over the age of 25 in Apache Junction, Pinal County and Arizona.

1.5 Employment

Apache Junction's labor force represents a diverse set of industries as shown in Table 1-7. Employment within the city itself is dominated by the public sector, as a number of the largest employers include Apache Junction Unified School District, Municipal Enterprises and the city's Fire and Medical Districts. Table 1-8 shows the largest employers in Apache Junction.

Sector	Employment	% of total
Agricultural and Mining	164	1.42%
Construction	1,201	10.37%
Manufacturing	1,018	8.79%
Wholesale Trade	103	0.89%
Retail Trade	1,774	15.32%
Transportation, Warehousing & Utilities	458	3.96%
Information	127	1.10%
Finance, Insurance and Real Estate	883	7.63%
Professional, Scientific and Management	1,337	11.55%
Educational and Healthcare	2,134	18.43%
Arts, Entertainment, Recreation and Food Service	1,065	9.20%
Public Administration	866	7.48%
Other Services	446	3.85%
Total	**11,576**	

Table 1-7: Apache Junction Employment by Industry Sector *(Census Bureau, 2010 Census)*

Education Level	Apache Junction		Pinal County		State of Arizona	
	# of Persons	% of total	# of Persons	% of total	# of Persons	% of total
Less than High School	3,910	14.3%	38,794	15.0%	604,153	14.1%
High School Graduate	9,488	34.7%	77,330	29.9%	1,049,770	24.5%
Some College	8,011	29.3%	71,899	27.8%	1,109,757	25.9%
Associate Degree	2,406	8.8%	24,052	9.3%	359,921	8.4%
Bachelor's Degree or greater	3,527	12.9%	46,553	18.0%	1,161,174	27.1%
Total Population 25 yrs and over	**27,343**		**258,629**		**4,284,776**	

Table 1-6: Educational Attainment for Population 25 years and Older *(U.S. Census Bureau, American Community Survey 2010-2014 Estimates)*

Employer	Full Time Employees
Apache Junction Unified School District	476
Walmart	220
Municipal Services/Enterprises (Water District, SMCFD, etc.)	200
Horizon Health	187
Apache Junction Fire District / Superstition Fire and Medical District	155
Western Industrial Resources Corporation	132
Banner Goldfield Medical Center	116
Fry's Food Stores	110
Robert Horne Ford	100
United States Postal Service	100
Right Away Disposal Waste and Recycling Facility	82
Safeway	75
Horne Hyundai	72
Brookdale Senior Living	59
Desert Vista Elementary School	58
County of Pinal	56
Excalibur Charter School	55
Basha's	50
Central Arizona College	48

Table 1-8: Apache Junction Major Employers *(Maricopa Association of Governments, 2014 Employer Database with changes made per city staff recommendations)*

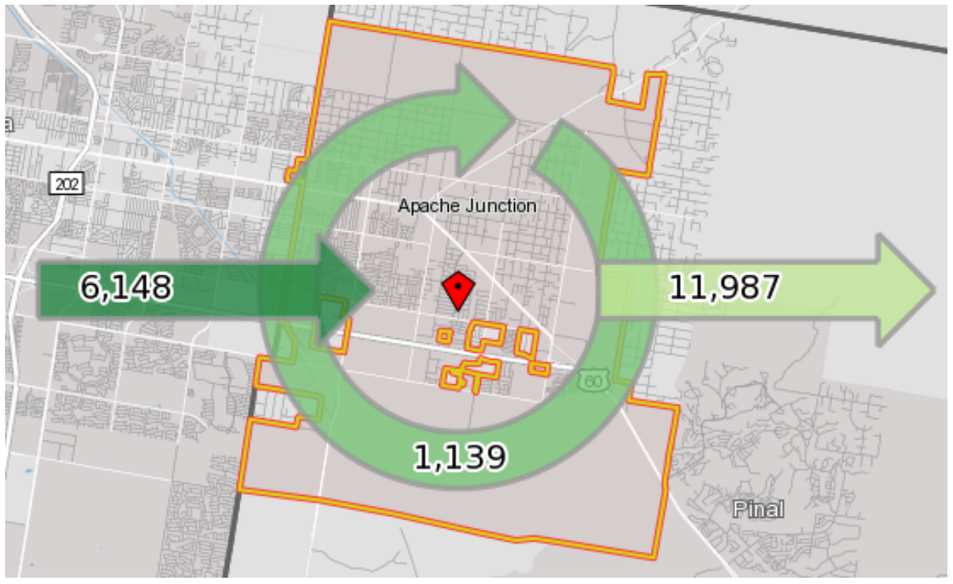


Figure 1-6: Apache Junction Employment Flows *(Census Bureau, Longitudinal Employer-Household Dynamics 2014)*

According to the 2014 US Census Longitudinal Employer-Household Dynamics Data, 6,148 people commute from outside the City of Apache Junction to work, while 11,987 live within Apache Junction but work outside the City an 1,139 people both live and work within the Town, as seen in Figure 1-7.

1.6 Assets and Amenities

Apache Junction's tagline "Surrounded By Legends," refers to the area's mystique that has endured, remaining a part of the city's character even as time passes and the area sees increased urbanization. There is no greater lure associated more with AJ than that of the Lost Dutchman's mine, a tale that has drawn curious people from all over to go in search of gold deposits, rumored to be hidden somewhere in the Superstitions. Serving as the prime route to explore and immerse one's self in the natural wonder of the Superstition Mountains, and the pristine Sonoran Desert which surrounds it, the Lost Dutchman State Park has trails meandering through miles of protected landscape for hiking, biking and multiple camp sites. The City and community's commitment to expanding trails, makes natural resources like Apache Junction's washes attractive in designing for natural open space recreation and conservation. This report will examine how to best proceed with increasing connectivity within the City, via non-motorized transportation trails. Apache Junction also benefits from close proximity to such places as Canyon Lake and the rustic, old west town of Tortilla Flats.

The Central Arizona College opened its Superstition Campus a short walk from Apache Junction's downtown corridor. CAC provides invaluable career training and courses to pursue a two-year degree in a wide array of disciplines. Through a partnership with the State's three public universities, CAC students can easily transfer credits to earn a four-year degree. CAC is identified by city officials and residents as an anchor institution, affording prospective college students, especially Apache Junction's youth population, the convenience of receiving an education without having to leave the City, while also attracting people from outside the City because of the quality and affordability of CAC. As the municipality looks forward, projecting population growth and economic development, it is committed to maintaining/enhancing the region's distinct assets by accommodating development without sacrificing AJ's small town feel or old west aesthetic, and promoting active living through an expansion of trails for exploration of the areas lush, natural environment

1.7 Challenges

Despite Apache Junction' wealth of amenities, in order to incur economic development and improve the general welfare, Apache Junction will have to overcome a few challenges. One such challenge is a lack of connectivity between different urban areas of the city. Many of the residential areas that sprawl outward from the designated downtown are disconnected. In addition, an expectation of growth south of the U.S. 60 may worsen the issue of a lack of connectivity throughout Apache Junction.

The City's planning department often encounters concerns about land ownership. Apache Junction has both state and federally owned land within its borders, which affects decision making and future planning. Apache Junction is also in need of infrastructure investments, a lack of service in the area of public transportation means the city's elderly and disabled population do not have many options for mobility. Meanwhile the fact that water/utilities in the southern-most part of the city are not established, makes businesses less likely to relocate to land in this area. In Apache Junction there is a shortage of commercial development, residents have noted their discontent over the minimal cultural and entertainment venues, shopping, and dining options. These are the current issues that the city has much work to do in order to make Apache Junction a regional point of attraction.

2 TRAIL CONNECTIVITY

Introduction

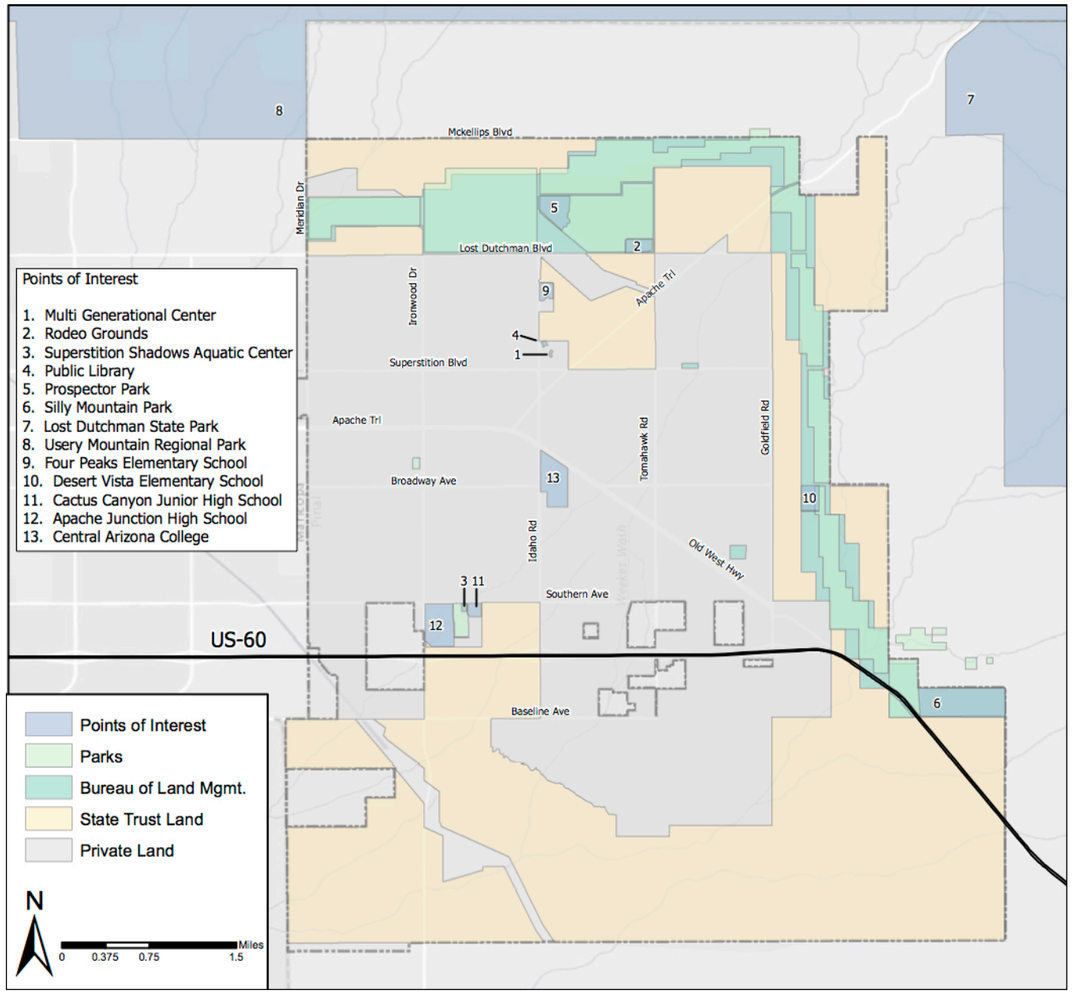
The City of Apache Junction has great potential to increase recreation space by improving access to its natural surroundings. This report program assessed these opportunities by identifying existing paths along roads and washes in the community as well as county trails in the greater region. The project relied on community input gathered at several planning meetings with decision makers and residents. Through the creation of a comprehensive multi-modal trails plan, residents will have the choice to walk or bike safely on short trips around the city rather than use their personal automobile. In addition, a trail network outside the city will provide direct and convenient access to natural amenities like the Superstition Mountains and Usery Mountain Regional Park.

City staff identified network connectivity, road safety, trail signage and project funding as the major concerns for project development in the study area, as show in Map 2-1. In the following chapters, The Trail Connectivity Master Plan presents community conditions, current needs and barriers, specific steps forward and available resources for implementation:

1. Creating a Multi-Modal Network
2. Existing Conditions
3. Connectivity Master Plan
4. Continuing the Vision

The introductory chapter, "Creating a Multi-Modal Network," provides details about the community, potential network usage, and project goals, including: Connectivity, Safety Improvements, Open Space Preservation and Amenities. The "Existing Conditions" chapter examines current bike, pedestrian and equestrian infrastructure and amenities through an inventory analysis. It also describes the efforts of previous plans and summarizes the major barriers to project goals, including any physical, cultural or policy barriers. This chapter also discusses the results of several site surveys, then presents public feedback about desires, experiences and project expectations gathered from community meetings and public surveys. The "Connectivity Master Plan" chapter outlines the recommendations of the plan for right-of-way paths and off-road trail enhancements. This section include maps, illustrations and explanations of each proposed path improvement or project component. The final chapter, "Continuing the Vision," outlines available project resources for funding and implementation, including grants and partnerships. The public participation process and public survey results are included at the end of the Plan in Appendix B-1.

The Trail Connectivity Master Plan is a comprehensive transportation vision that looks beyond the automobile as the single mode of travel in Apache Junction. The creation of safe, comfortable and convenient multi-modal paths is vital to the City's reputation as a premier vacation destination and to maintaining quality of life for residents and visitors alike.



Map 2-1: Land use, parks and connection points in the project study area

2.1 Creating a Multi-Modal Network

Background

Apache Junction is an historic gateway to world-class recreation and some of the last pristine desert in the Phoenix Valley. Visitors from around the U.S. not only travel to this city to experience extraordinary mountain ranges, desert lakes and wide open spaces, but also to stay and enjoy the whole winter season. As a growing destination for tourists and homeowners alike, Apache Junction's biking, hiking and equestrian infrastructure needs to reflect the highest quality recreation standards possible. Improvements to trails, bike paths and sidewalks will not only connect the community to its natural environment but also help preserve the Wild-West heritage and scenic character of the city for generations to come.

Project Goals

- Connectivity
- Safety Improvements
- Open Space Preservation

Major Barriers

Many residents use trails around the city every day, but few paths are designated as official trails or maintained by the Parks and Recreation Department. The ongoing creation of informal paths presents a danger to natural habitats as well as a legal dilemma when paths cross on to private lands. Although this plan recommends the transformation of some popular informal open space trails into designated multi-use trails, Table 2-1 shows the level of difficulty for buying or leasing state and federally-owned land for trails. An additional concern for city recreation is that the existing multi-use trail is poorly marked and lacks a trailhead. Hikers and equestrians who wish to use the trail are largely responsible for finding and staying on it. This plan proposes new multi-use trail designations with better connections throughout the city, clearer wayfinding signage, established trailheads and information exhibits that warn against leaving the path.

In order to improve connections to city amenities and the park system around Apache Junction's border, the city should endorse a comprehensive sidewalk and bike lane network. Safety is the highest priority for bikers and pedestrians. Protected paths provide an opportunity for residents to choose their mode of travel for any trip. Residents should be empowered to walk or bike comfortably on separated paths to inner-city destinations without sharing the road with high-speed motorists. Apache Junction's right-of-ways are large enough to support separated horse paths along some major corridors as well. Residents currently use unimproved road shoulders or even private washes for travel around the city, as show in Figure 2-1. This plan designates connector routes on specific roads for city equestrians to safely enter the trail system.

By implementing project recommendations to connect parts of the city, Apache Junction will create healthy transportation options in existing and planned development areas. It will also improve recreation opportunities for the large population of seasonal visitors and year-round residents on a daily basis.

Ownership	Mode and Use	Agreement	Priority
Private	Neighboring trails (equestrian and bicycle)	Tax credit and city acquisition	Low: Potential route should be on city streets and right of way/easements
Arizona State Trust Land	Washes (pedestrian and equestrian use)	Lease agreement	High: Dependent on use of land and maintenance standards
Bureau of Land Management	Equestrian trails	Lease agreement	High: Leverage for connectivity

Table 2-1: Understanding land rights and agreement processes

Figure 2-1: Neighborhood rules where a wash crosses private property

2.2 Existing & Proposed Amenities

Hitching posts and mountain bikes are equal elements of the Apache Junction landscape. Residents and visitors enjoy the city's proximity to nearby wildernesses as well as its more urban comforts. However, Apache Junction does not have enough hiking, biking or horse riding infrastructure to accommodate most trips. Bike lanes and multi-use trails should be supported by amenities which increase the visibility of the route, increase the comfort and ensure the safety of the traveler.

The following list of amenities shows some current Apache Junction features and makes design recommendations for further development based on community input.

Bike Signage

Bike lane signs alert drivers of cyclists on the road and help cyclists identify designated lanes. The Federal Highway Administration recommends that cities determine sign placement intervals along roads according to the speed of adjacent traffic, block length, distance from intersections, and other engineering considerations.

Bike Racks

Bike racks are most basic and least expensive type of bike facility. Racks allow cyclists to enjoy other activities on foot by providing a secure public station for bicycles. Bike racks should be available at all public recreation areas and facilities accessible by the bike lanes, as well as at all trailheads. City businesses should be encouraged to add bike racks for customers as well.

(Image: Reliance Foundry Co. Ltd.)

Sidewalks

Pedestrian safety begins with sidewalks. Incomplete sidewalk networks force pedestrians onto the road shoulder, reducing security and comfort. Comprehensive sidewalk coverage improves city access and promotes walking trips for everyone, but is essential for residents without personal transportation. Sidewalks should be separated from the road with a vegetated buffer, be shaded by street trees and be ADA compliant.

Designated Road Crossings

Road crossing signs help identify trails for users as well as alerting street traffic to the possibility of pedestrians and equestrians near the road. Street crossing signs should be placed at all points where a trail crosses a street. These signs should be oriented two ways: to cars approaching the crossing and to trail users approaching the road. Crossing areas should be striped as an additional precaution.

Park & Regional Trail Links

Urban trails and bike lanes create alternate travel networks in a city, but should also connect to regional networks in order to increase destinations for users. Local and regional park and trail signs should be strategically placed along the street and trail network to indicate travel direction and distance to nearby facilities.

Trail Signage

Wayfinding signage helps mark designated city trails and prevent the creation of informal trails by users who are unfamiliar with the trail network. Signage should be located at trailheads, street crossings and all points where trails cross each other to designate between the trails. Wayfinding signs should include trail names, a directional marker and distance in miles. The rustic design of Silly Mountain trail signs is preferred.

Trailheads

Trailheads provide parking, refreshment and rest facilities for trail users. Signage should include information such as trail rules and conditions, trail hours, a map of the trail network, and contact information for the trail maintenance agency. Trailheads must be designed for ADA compliancy in order to provide access to all users regardless of disability.

Information Exhibits

Trail users often enjoy learning about the history and natural environment of the areas they visit. Informational exhibits improve trips for visitors who wish to learn more about the plants and animals around them. These exhibits also provide a way for the city demonstrate the value of preserving its natural areas. Trailheads are the most suitable location for exhibits because they are designed to be accessible for everyone.

(Photo taken: El Rio Research Site)

Trail Restriction Signs

In order to prevent the creation of informal trails, signs should be posted at regular intervals reminding users of the trail's boundaries. These signs can also be used to inform visitors of land ownership in order to prevent trespassing, and educate visitors about how informal trails damage natural habitat and vegetation.

(Photo taken: Camelback Mountain)

Horse Gates

Horse gates mark and provide trail entry for equestrians, but also block entry by motorized vehicles. Gates should be set back at a sufficient distance from roads and cleared on either side in order to allow riders to gather their horses after stepping over the gate. Horse gates also provide a location to hang informational signs with trail maps and rules.

Benches or Tables

Places of rest improve outdoor recreation for all users. Tables should be located at trailheads and in sizeable open spaces. They should be placed at least 20-25 feet from trash cans to avoid odor and bugs attracted to the garbage. Benches should be placed at regular intervals along the trails. Benches should face views when possible. Benches should not be located in areas that are less visible from the trail in order to reduce vandalism and loitering. Tables and benches should be shaded.

Water Fountains

Hydration is essential for safety and comfort at outdoor recreation facilities. A water fountain should be located at every trailheads. The fountain should accommodate both people and dogs, where dogs are permitted.

Trash Cans & Dog Waste Posts

Covered trash cans and dog waste posts should be placed at all trail entrance and exit points, or one at each road crossing. Both should be in muted colors to blend in with the colors of the trail, and use an animal-proof design. Dog waste posts should include bags, an attached and covered trash can, and a sign with dog rules.

Restrooms

A handicap accessible restroom should be available to trail users at all trailheads.

(Image: Romtec Inc.)

Hitching Posts

Hitching posts provide a comfortable space for equestrians to secure their horses, enabling riders to take destination trips by horseback. Trailheads should have larger hitching posts to accommodate more frequent equestrian visitors, and recreation facilities accessible from the equestrian trails should provide smaller posts, as pictured.

2.3 Connectivity Master Plan

The new Apache Junction connectivity network will provide safe, comfortable and convenient routes for bicyclists, equestrians and pedestrians, as shown in Figure 2-2. The following proposals recommend route locations as well as amenities, designs, dimensions and materials. Map 2-2 shows the comprehensive Connectivity Master Plan including multi-use trails, equestrian trails, and bike lanes. The map also shows land ownership, proposed road crossings, proposed trailheads and connections to nearby trails outside city limits.

1. Multi-use / Equestrian Trails
This section identifies trail network enhancement and extensions for hikers and equestrians in Apache Junction based on designated, proposed and informal trails. The existing designated equestrian trails and the proposed or concept multi-use trails outlined in the 2012 *City of Apache Junction Comprehensive Transportation Study* informed recommendations made in this report. These trails lie in the street shoulder or cross public and private open spaces.

2. Bike Lanes
This section recommends bicycle network improvements in Apache Junction considering road infrastructure, multi-modal movement and pedestrian safety. In order to achieve comprehensive connectivity throughout the city, major arterials and neighborhood thoroughfares should be used as corridors for cyclists to travel safely to work, school and recreation.

3. Sidewalks
Although this report does not make specific recommendations for sidewalks in Apache Junction, the following section discusses the importance of total sidewalk coverage throughout the city.

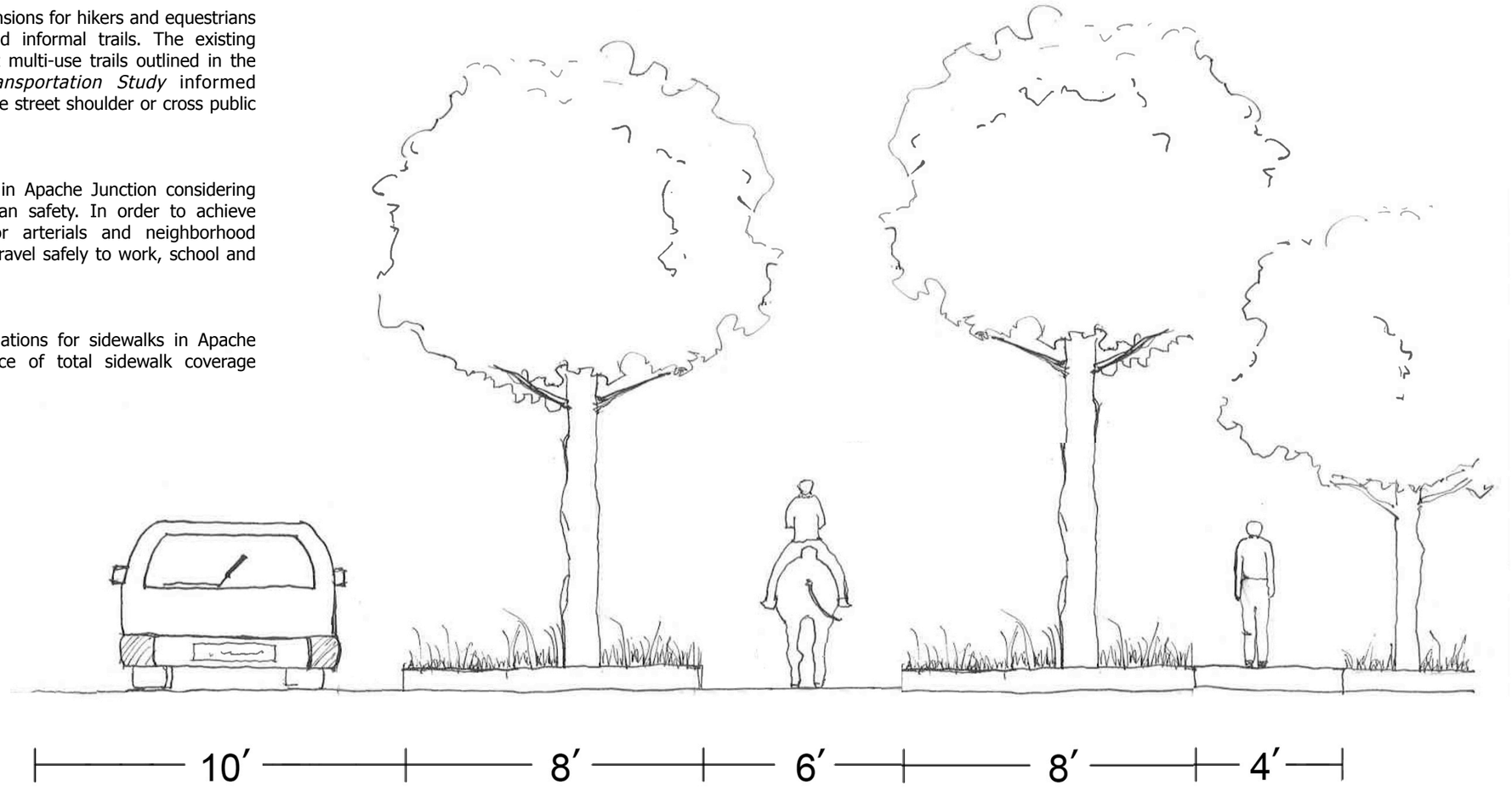
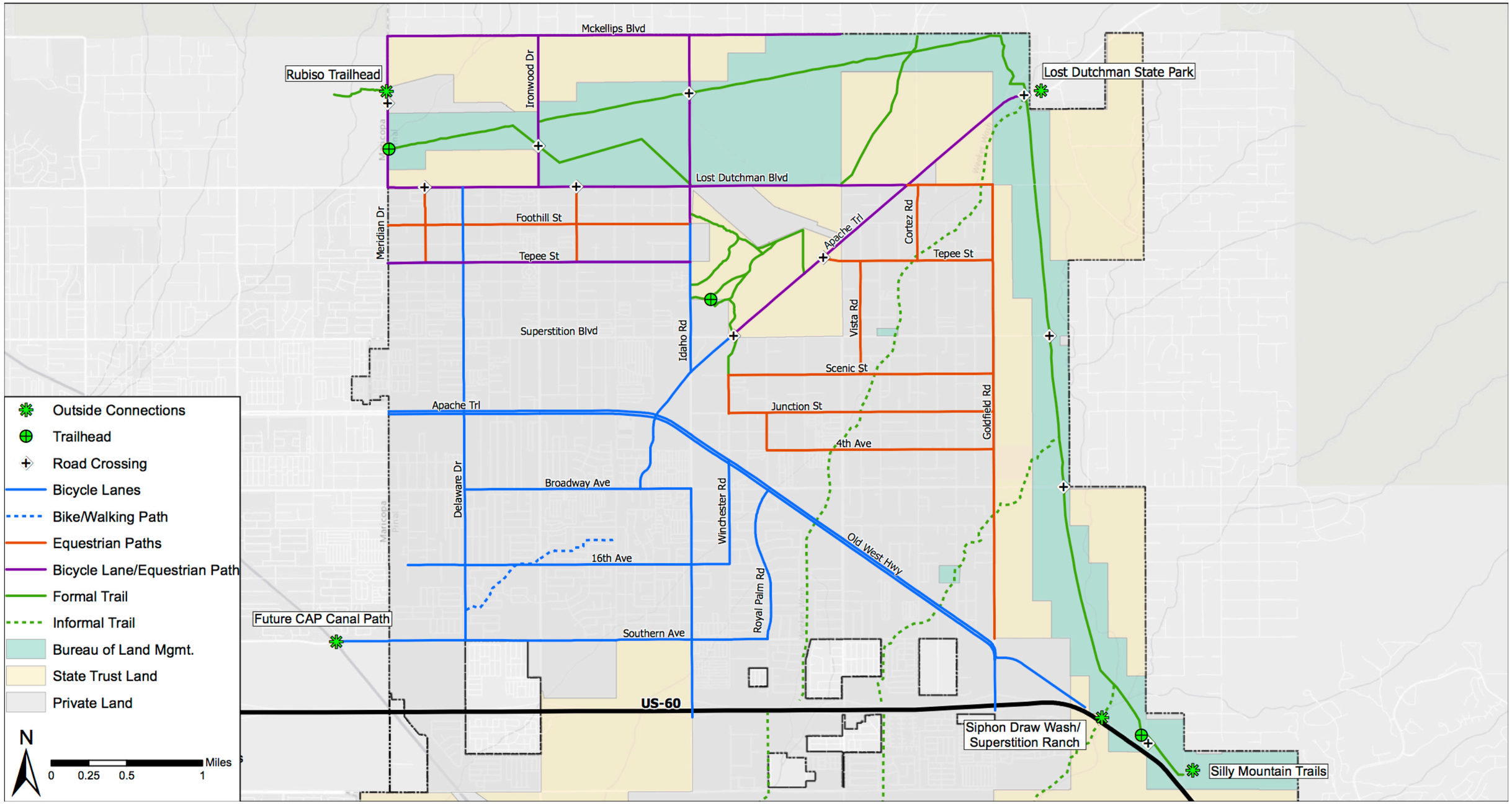
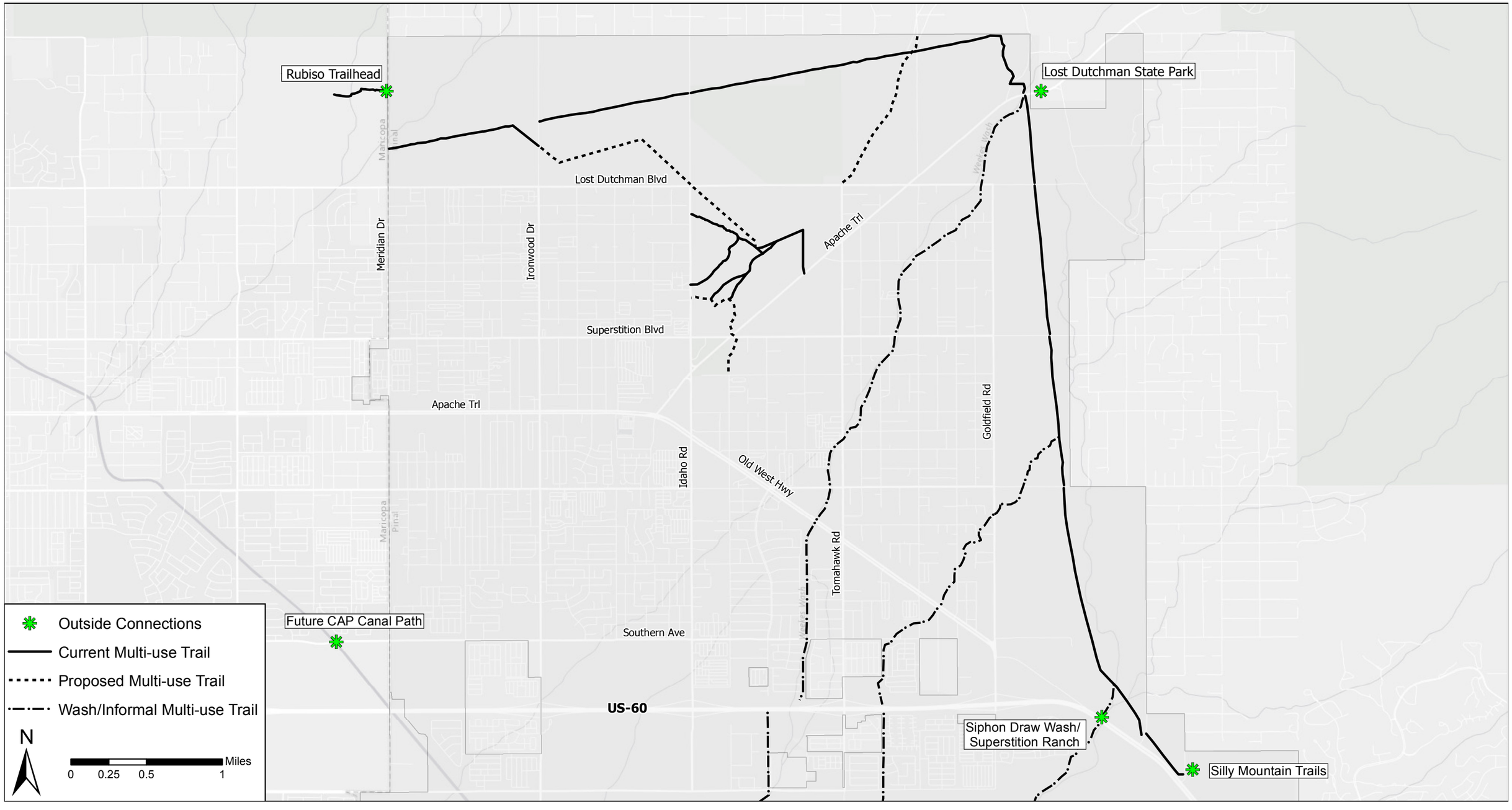


Figure 2-2: Multi-use Trail design along a street


Mckellips Blvd
Rubiso Trailhead
Ironwood Dr
Lost Dutchman State Park
Lost Dutchman Blvd
Foothill St
Meridian Dr
Tepee St
Apache Trl
Cortez Rd
Tepee St
Vista Rd
Superstition Blvd
Idaho Rd
Scenic St
Junction St
Goldfield Rd
4th Ave
Apache Trl
Delaware Dr
Broadway Ave
Winchester Rd
16th Ave
Old West Hwy
Royal Palm Rd
Future CAP Canal Path
Southern Ave
US-60
Siphon Draw Wash/
Superstition Ranch
Silly Mountain Trails
Outside Connections
Trailhead
Road Crossing
Bicycle Lanes
Bike/Walking Path
Equestrian Paths
Bicycle Lane/Equestrian Path
Formal Trail
Informal Trail
Bureau of Land Mgmt.
State Trust Land
Private Land
N
0 0.25 0.5 1
Miles

Map 2-3: Existing and Proposed Multi-use Trails



Proposed Trailhead Locations

1. N Meridian Road & N Cyper Road

Currently, users entering the multi-use trail in northwest Apache Junction must park illegally on the dirt shoulder on the east side of N Meridian Road. The shoulder is not graded at this entrance, and headcutting occurs in front of the existing horse gate. Apache Junction should request a shared parking agreement with Arizona Youth Rough Riders and designate parking for the trail.

Trailhead improvements should include:
- Adding parking signs
- Adding trail map
- Grading in front of the horse gate
- Striping pedestrian crossing on N Meridian Road

2. Multi-Generational Center

The Multi-Generational Center is the hub of recreation in Apache Junction. With a spacious public parking lot and a network of informal trails extending north and east of the facility into State Trust land, it is an ideal location for a designated trailhead.

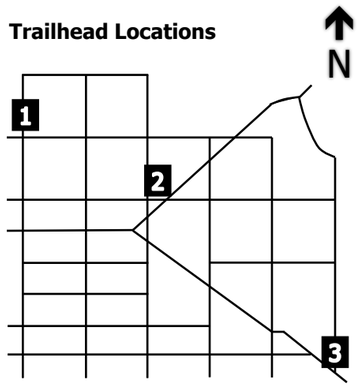
Trailhead improvements should include:
- Adding parking signs
- Adding trail map
- Adding informational exhibits

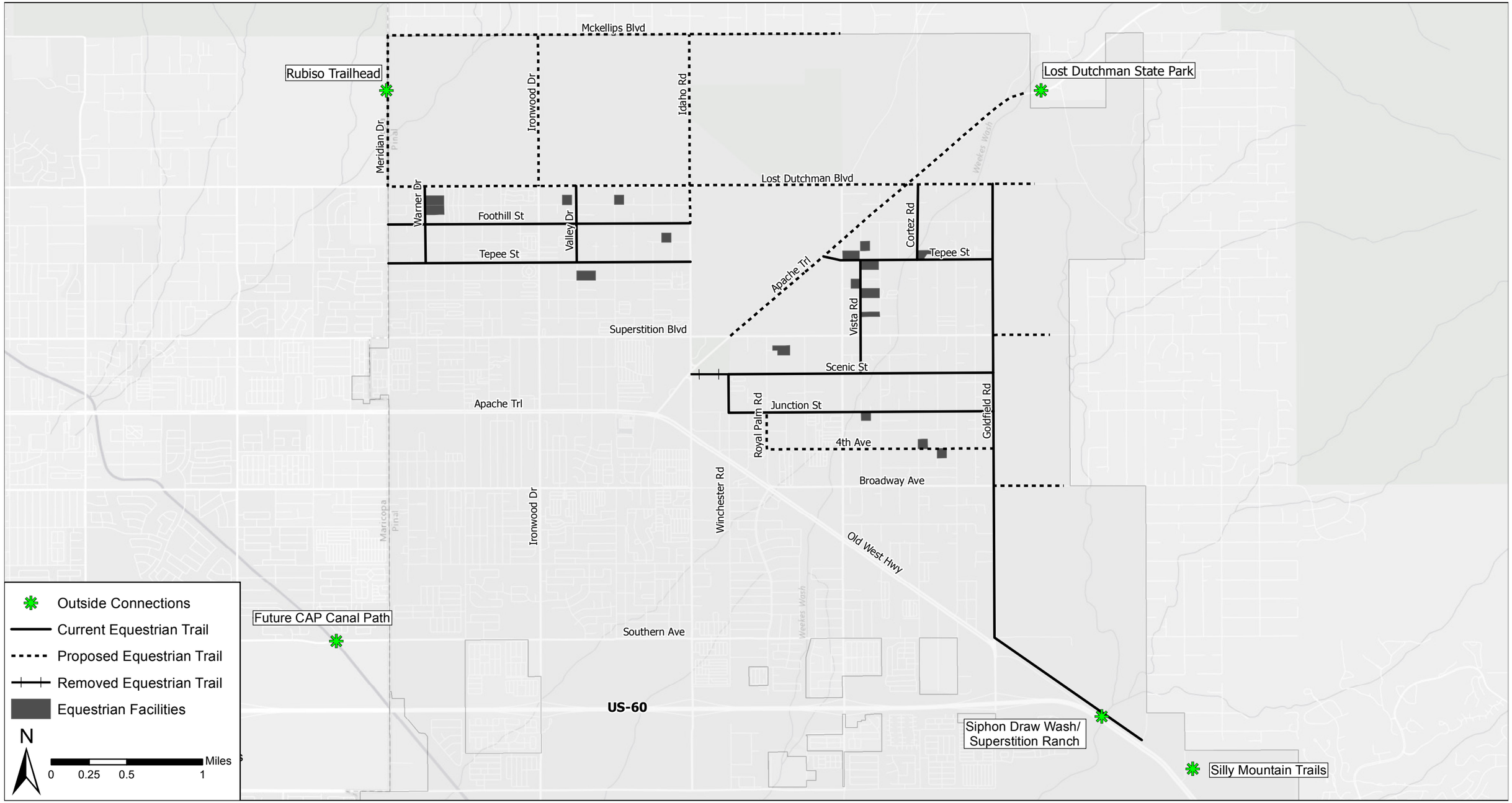
3. S Mountain View Road & Superstition Freeway

Trail users currently park in the cleared area on the west side of S Mountain View Road in order to access the multi-use trail at its southwestern origin. The Silly Mountain Trailhead is less than half a mile south of this point and is connected by informal trails.

Trailhead improvements should include:
- Adding parking signs
- Adding trail map
- Marking and grading parking area

Trailhead Locations




Mckellips Blvd
Rubiso Trailhead
Lost Dutchman State Park
Meridian Dr
Ironwood Dr
Idaho Rd
Lost Dutchman Blvd
Warner Dr
Foothill St
Valley Dr
Tepee St
Cortez Rd
Tepee St
Apache Trl
Vista Rd
Superstition Blvd
Scenic St
Apache Trl
Royal Palm Rd
Junction St
Goldfield Rd
4th Ave
Broadway Ave
Winchester Rd
Ironwood Dr
Old West Hwy
Future CAP Canal Path
Southern Ave
US-60
Siphon Draw Wash/
Superstition Ranch
Silly Mountain Trails
Outside Connections
Current Equestrian Trail
Proposed Equestrian Trail
Removed Equestrian Trail
Equestrian Facilities
N
0 0.25 0.5 1
Miles

2.3.1 Multi-use / Equestrian Trails

Trail Types

In this report, "multi-use trails" refer to trails used for hiking and horse riding. "Equestrian trails" refer exclusively to trails used for horse riding. The recommendations for equestrian trails and multi-use trails in this report are based on: current designated trails, informal trails identified through site surveys, and the *City of Apache Junction Comprehensive Transportation Study*'s concept multi-use trails.

Informal Trails

Popular informal trails along street shoulders and in open space were identified through field visits as well as Google Earth analysis to determine the feasibility of adding informal paths, as shown in Table 2-3, to the formal trail network, Table 2-2. Feasibility factors included: size of path or street shoulder, access to facilities, and presence of equestrian gates.

Location	Number of Equestrian Gates	Adjacent to Equestrian Facilities
Goldfield Road	16	No
E Tepee Street	1	Yes
N Cortez Road	0	Yes
N Vista Road	0	Yes
E Scenic Street	0	Yes
E Junction Street	0	Yes
S Winchester Road	0	No
W Tepee Street	0	Yes
W Foothill Street	0	Yes
N Valley Drive	0	Yes
N Warner Drive	0	Yes
Library/Multi-Generational Center	0	No

Table 2-2: Existing Trail Network

Location	Number of Equestrian Gates	Adjacent To Equestrian Facilities
E 4th Avenue	0	Yes
N Apache Trail	5	Yes
Royal Palm Road	0	No
McKellips Boulevard	19	No
N Meridian Road	3	No
Library/Multi-Generational Center	0	No
Between Usery and Prospector Parks	1	No
From Rodeo Grounds	0	No
Idaho Road	2	No
Lost Dutchman Boulevard	17	Yes
Ironwood Drive	4	No

Table 2-3: Proposed Trail Network Extensions

Suggested Equestrian Trail Design Standards

It is useful to classify the trails into categories based on the surrounding development and activity levels to determine the type of design appropriate for an area. The equestrian trails in Apache Junction were classified into three groups, defined in Table 2-4; Primary Trails, Secondary Trails, and Neighborhood Trails using classifications inspired by both the City of Scottsdale, Arizona and the Town of Cave Creek, Arizona, found in Appendix B-2.

Trail Classification	***Locations***
Primary Trails	Powerline Corridors, Parks and Open Space, Canal Banks, Scenic Corridors, Conservation Easements
Secondary Trails	Roadside, R.O.W.'s, Washes, Drainage Corridors
Neighborhood Trails	Roadside, R.O.W.'s, Alleyways

Table 2-4: Trail Classification

The Primary Trails in Apache Junction consist of those extending from the Library/Multi-Generational Center and through the bordering park system. The Secondary trails are those that run along main, non-residential roadways. The Local and Neighborhood Trails are those that extend along roadways in residential areas.

Apache Junction primarily consists of urban trails, classified as the Secondary and Local and Neighborhood trails, that may share routes with other modes of transportation and often take advantage of roads, utility corridors, developed drainage corridors, and similar rights-of-ways; therefore, safety is a significant consideration. Inspired by equestrian trail guidelines from both the Federal Highway Administration and the Town of Cave Creek, Arizona, the following guidelines, shown in Table 2-5 and Figures 2-3, 2-4, and 2-5, specify standards that all equestrian and multi-use trails should comply with.

Element	Requirement
Trod Area - Minimum Width	18"
Tread Area - Minimum Width	6'
Minimum Distance from Roadways and Pedestrian Paths	8'
Buffer (Vegetation) - Minimum Width*	2'
Buffer (Vegetation) - Minimum Height	54"
Minimum Distance from Buffer (Load Clearance)	2'
Vertical Clearance	10'
*Buffer width can be contained within the distance from roadways and pedestrian paths.	

Table 2-5: Trail Design Standards

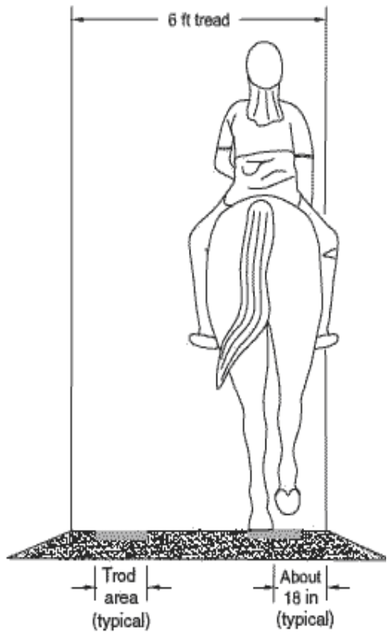


Figure 2-3: Tread and Trod Areas (*Federal Highway Administration)*

Trails must have enough room so their mount feels at ease. Horses tend to stay a comfortable distance, 2-3 feet, away from other trail users and from walls or fences they cannot see through or over. It is essential to accommodate this behavior by widening the trail, routing it away from or increasing the horizontal distance from disturbing objects or activity, locating the horse tread on the far side of the trail corridor, providing a physical separation or visual screen, or installing barriers. In addition to this distance from barriers or activity, the width of the trail, known as the tread area, must account for the required comfortable trod area. As stated above, the trod area frequently lies 2-3 feet or more away from obstacles, providing adequate clearance on both sides of the tread. Horses generally travel within an 18 inch trod area, and horses within a 4 to 8 foot tread width depending on the trail classification.

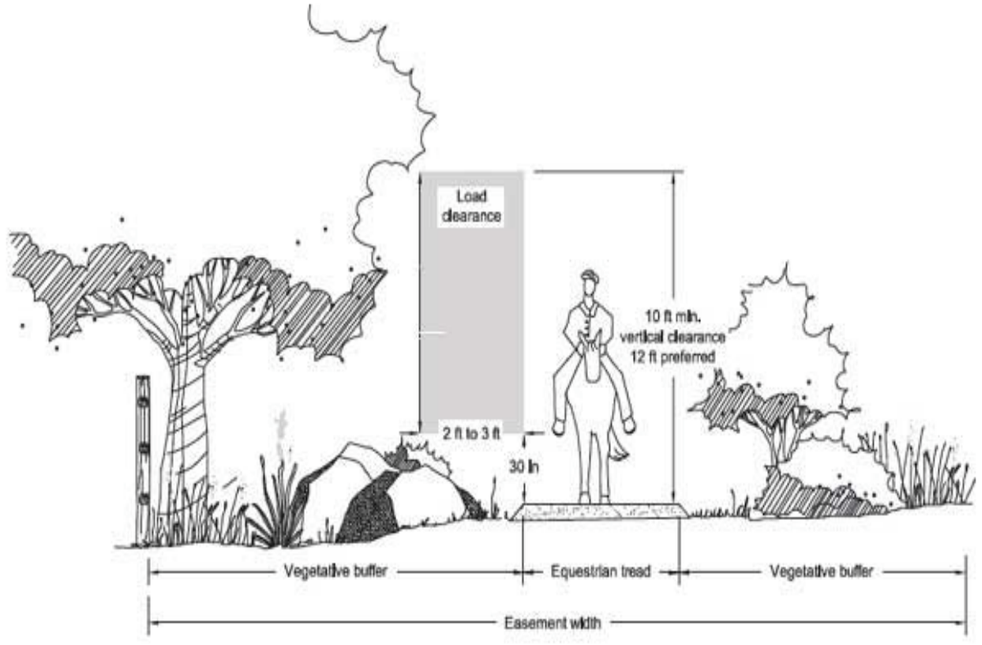


Figure 2-4: Equestrian Trail Design (*Federal Highway Administration)*

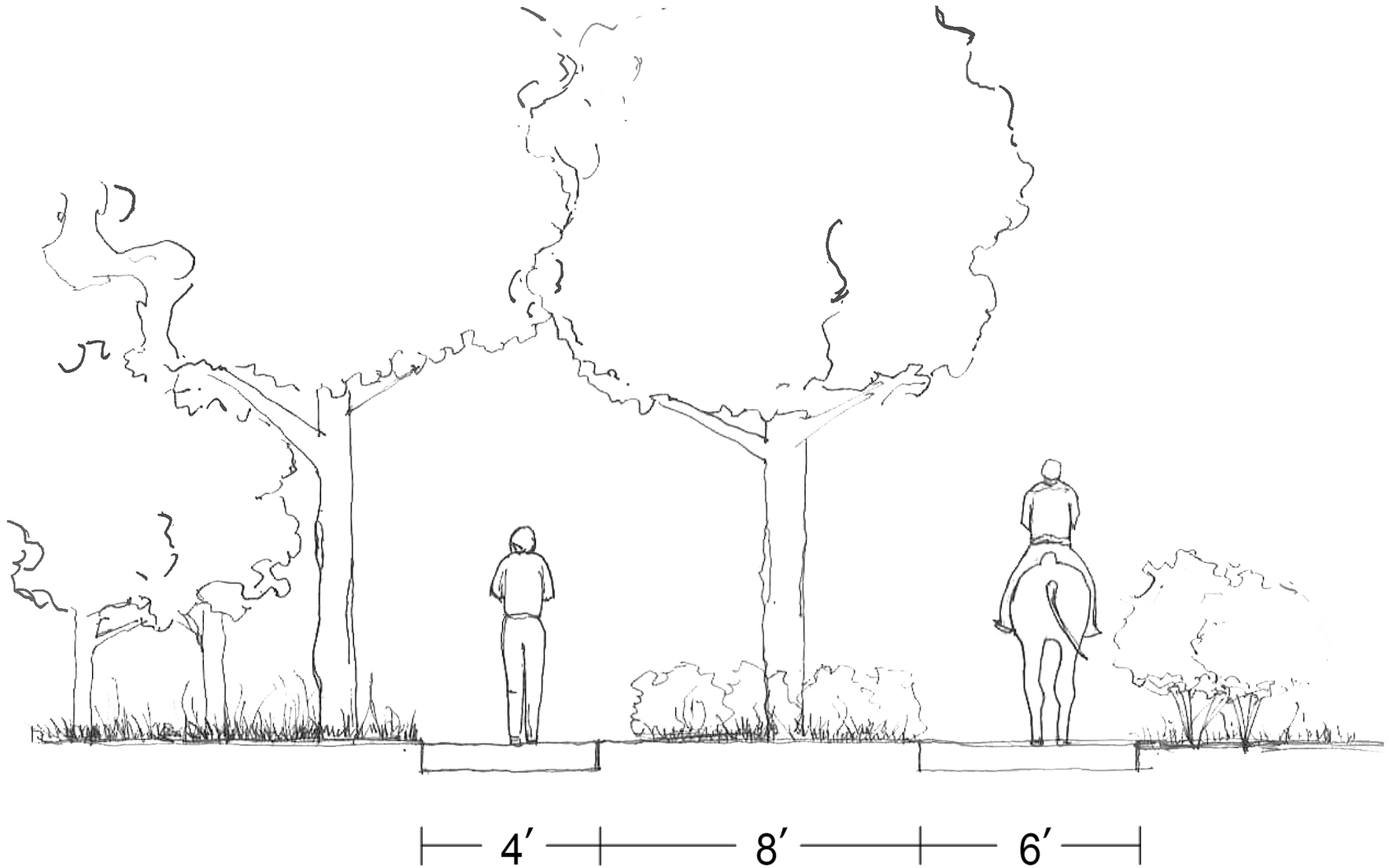


Figure 2-5: Multi-use Trail design

In consideration of these safe trail design guidelines, it is recommended that natural barriers, such as trees or other forms of vegetation, be implemented to separate equestrian trails from other forms of transportation. Natural barriers will help preserve the character of Apache Junction and will be more cost effective than man-made barriers. However, height of barriers must be considered and may limit the type of natural barrier that can be used. The accepted height of most equestrian barriers is 54 inches, but to reduce the risk that a horse might jump the barrier, it should be at least 60 inches tall. It is necessary to choose a barrier that can withstand the force of a horse attempting to run through it. It may also be necessary to include vegetation at the bottom of the barrier, if a tree is chosen, to screen traffic from the horse's view.

As all equestrian trails in Apache Junction lie adjacent to other forms of pathways, they require different types of trail users as well as different modes of transportation to pass. Therefore, it is essential to adequately separate the different types of paths. These can be separated by distance, in low traffic and activity areas, or by visual screens, such as a vegetation buffer or barrier in high traffic and activity areas, but must be a minimum of 8 feet wide in either case. Barriers following these guidelines are to be implemented on all equestrian trails adjacent to both roadways and bike lanes to ensure comfort and safety for the horse, rider, vehicle, and cyclist.

It is recommended that buffers along all equestrian trails utilize the use of vegetation in the form of groundcovers, shrubs, and trees. The groundcovers, shrubs, and trees chosen should coincide with the list of recommended vegetation types, shown in Table 2-6, which is inspired by the Low Water Use Drought Tolerant Plant List created by the Arizona Department of Water Resources and the Town of Cave Creek trail guidelines. The vegetation chosen should also match exiting vegetation in Apache Junction to maintain its natural character.

Plant Type	Plant Name
Groundcovers/Wildflowers	Glandularia bipinnatifida (Verbena bipinnatifida) **Prairie Verbena**
	Eschscholzia mexicana **Mexican Gold Poppy**
	Salvia farinacea **Mealy Cup Sage**
	Baccharis pilularis **Coyote Brush**
	Argemone platyceras **Prickly Poppy**
	Baileya multiradiata **Desert Marigold**
Shrubs	Encelia spp **Brittlebush**
	Larrea tridentata **Creosote Bush**
	Calliandra peninsularis **Fairy Duster**
	Ericameria linearifolia **Turpentine Bush**
	Ziziphus obtusifolia **Greythorn**
	Simmondsia chinensis **Jojoba**
	Abutilon palmeri **Superstition Mallow**
	Celtis pallida **Desert Hackberry**
Trees	Prosopis spp. **Mesquite**
	Holacantha emoryi **Crucifixion Thorn**
	Olneya tesota **Ironwood**

Table 2-6: Buffer Area Plant List

When designing an equestrian trail it is also important to consider trail surface material. In choosing a surface material, factors such as compaction, displacement, and erosion must be taken into consideration as they each impact the life of the surface material as well as how comfortable and safe the surface is for the users. The Federal Highway Association created a guide to recommended equestrian trail surfaces in their Equestrian Design Guidebook for Trails, Trailheads and Campgrounds, Table 2-7. Based on this guide, the recommended surface material for Apache Junction is Crushed Rock with Fines (Figures 2-6 and 2-7). Of the listed materials, crushed rock with fines is the most cost effective, with low maintenance and high durability.

	Surface material	Traction or slip-resistance*	Durability	Natural appearance**	Dust free	Horse comfort	Cost of material	Maintenance	Susceptibility to displacement
Natural materials	Native soil***	Variable	Variable	Excellent	Variable	Good to excellent	Low	Variable	Variable
	Wood chips	Fair to good	Poor	Good	Good	Excellent	Low	Moderate	High
Aggregate	Crushed rock with fines	Excellent	Excellent	Good	Good to excellent	Good	Moderate	Low	Low
	Crushed rock without fines	Good	Excellent	Good	Good	Fair	Moderate	Low to moderate	High
	Rounded gravel without fines	Poor	Excellent	Fair to good	Good	Poor to good (varies with particle size)	Moderate	Moderate	High
	Sand	Good	Good	Excellent	Poor	Good		Moderate	High
	Cinders	Good			Good	Poor		Moderate	High
Additives	Soil additives****	Good	Good	Good	Good to excellent	Good	High	Moderate	Moderate
Pavement*****	Asphalt	Poor	Good	Poor	Excellent	Poor	High	Moderate	Low
	Asphalt with chip seal	Fair	Good	Fair	Excellent	Poor	High	Moderate	Low
	Rough textured concrete	Good	Excellent	Poor	Excellent	Poor	High	Low	Low
	Concrete with washed surface	Poor to fair	Excellent	Fair	Excellent	Poor	High	Low	Low
	Hard, traction friendly pavers	Good	Good	Poor to fair	Excellent	Poor	High	Moderate	Low

* Wet surfaces may have reduced traction.

** How natural a product appears varies by location

*** Native soils are quite variable. Consult local geotechnical engineers or soil scientists for more information.

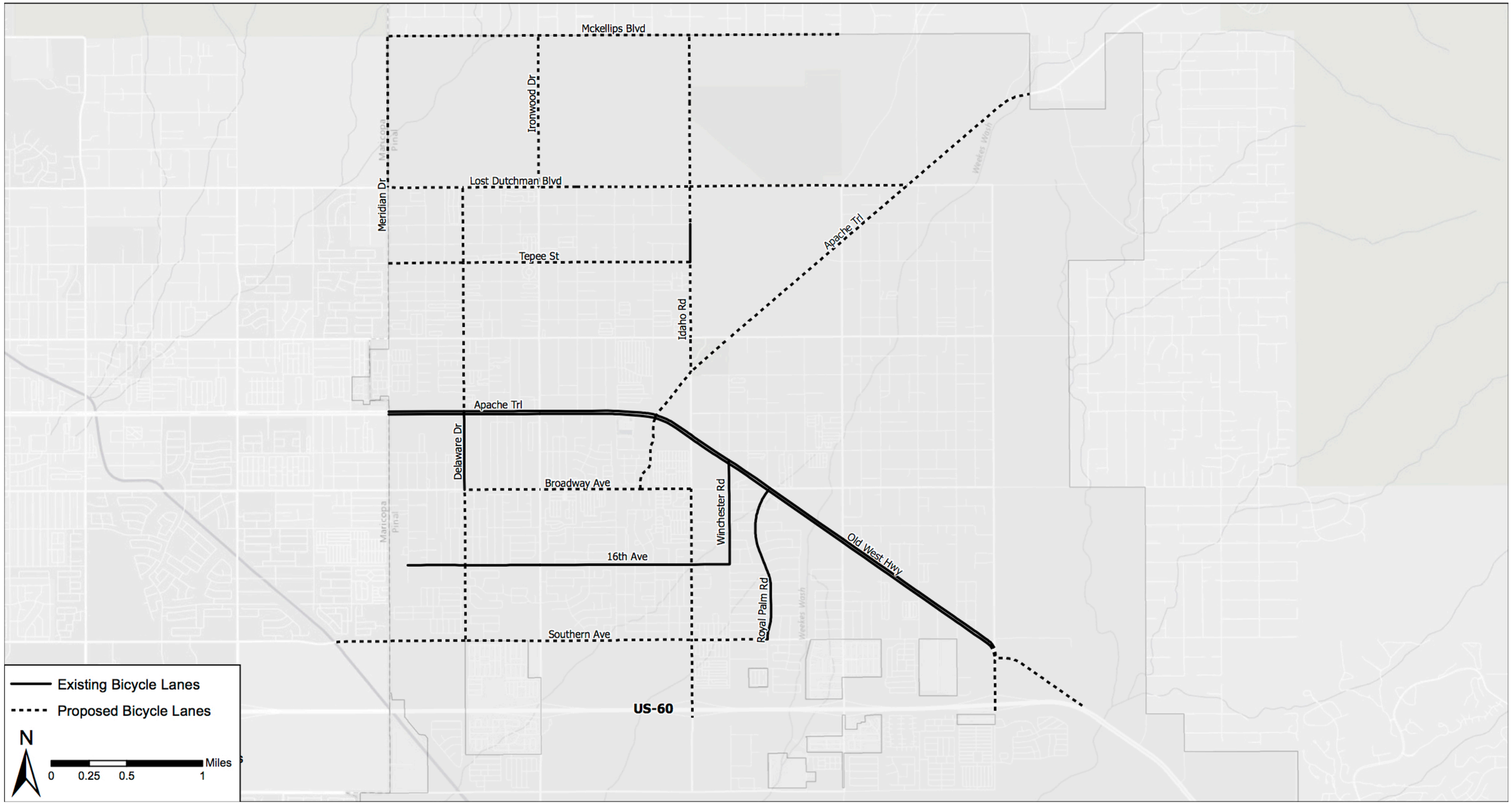
**** Characteristics of soil additives vary according to the manufacturer and the method of installation.

***** Coatings and surface washes may change the characteristics of paved surfaces, including traction and appearance.

Table 2-7: Trail Surface Materials (*Federal Highway Association*)

Figure 2-6: Example Multi-use Trail with recommended surface material *(AmericanTrails.org*)

Figure 2-7: Crushed Rock with Fines *(ParsonsRocks.com*)


Mckellips Blvd
Ironwood Dr
Meridian Dr
Lost Dutchman Blvd
Tepee St
Idaho Rd
Apache Trl
Apache Trl
Delaware Dr
Broadway Ave
Winchester Rd
16th Ave
Royal Palm Rd
Old West Hwy
Southern Ave
US-60
Maricopa
Pinal
Weekes Wash
Existing Bicycle Lanes
Proposed Bicycle Lanes
N
Miles
0
0.25
0.5
1

2.3.2 Bike Lanes

Existing and Recommended Bike Improvements

Increasing bike network connectivity in Apache Junction involved examining the existing conditions of major roads and neighborhood streets. Analysis for the presence of bike infrastructure, width of right-of-way, contextual land use, and volume of traffic was the foundation for recommended multi-use trail and bike lane improvements.

Examined Corridors:

- Lost Dutchman Road
- Delaware Drive
- Southern Avenue
- Royal Palm Drive
- Phelps Drive
- Foothill Street
- Idaho Road
- Broadway Road
- Winchester Drive
- 16th Avenue
- Tepee Street

Suggested Bike Infrastructure Design Standard and Safety Improvements

Bike infrastructure designs vary according to the conditions of the roads. Many elements, including number of traffic lanes, width of right-of-way, existing vegetation, and speed limit affect the design. In addition, it is necessary to find a balance between the needs and desires of the different types of road users, including pedestrians, cyclists, and drivers. The National Association of City Transportation Officials' (NACTO) 2012 *Urban Bikeway Design Guide* provides comprehensive recommendations that improve cyclist safety and address all roadway situations to protect everyone on the road.

Conventional Bike Lanes

Bikes lanes are designated spaces for bicyclists on the road, usually located adjacent to motor vehicles on the outer right edge of the street or road. These bike lanes can range from 4 to 6 feet in width and can flow in either the same or opposite direction of traffic. (*National Association of City Transportation Officials*)

Benefits of Conventional Bike Lanes

According to NACTO, conventional bike lanes:

- Increase cyclists' comfort on road, as lanes create separation between cyclists and automobiles;
- Cyclist and Motorist positioning and interaction are predictable due to lane designation;
- Increase street capacity, as they can accommodate multiple modes of transportation; and
- Visually remind motorists of bicyclists' right to the street.

Colored Bike Lanes

Colored bike lanes increase visibility of cyclists to motorists, as the pavement of the designated lane is painted neon green, blue, or red. Colored bike lanes are considered an enhancement to conventional bike lanes, and should be located on busy and high volume streets or roads.

Benefits of Colored Bike Lanes

According to NACTO, colored bike lanes:

- Increase bicyclist visibility to motorists;
- Encourage multi-modal movement on the street or road; and
- Discourage illegal parking in bike lanes.

Buffered Bike Lanes

Buffered bike lanes are a safety enhancement to conventional and colored bike lanes, which add extra distance between automobiles and cyclists. Buffered bike lanes should be place on streets or roads with high traffic volume and right-turn lanes. Additional safety enhancements can be added to the buffer area such as oblong bumps, planter medians or, delineator poles. (*NACTO*)

Oblong Bumps

Oblong Bumps are similar in function to rumble-strips along highways, in that they serve as a warning system to motorists that bike lanes are present, as well as clearly identify bike lanes for cyclists. Oblong bumps should be considered for placement on winding or curving streets or roads to provide motorists with a warning when merging into bike lanes. (*NACTO*)

Planter Medians

Planter medians are visually and aesthetically appealing, as vegetation or art that contributes to the culture or character of the area, can be placed here. Planter medians provide significant protection to cyclists from automobiles, as well as provide motorists with context to the street or road. (*NACTO*)

Delineated Poles

Delineated Poles are considered a high safety enhancement as motorists have a point of reference on high speed roads, streets and, in some cases highways. This safety enhancement is most valuable at night, as poles have reflective stripes allowing motorists to see the separation between traffic lanes and bike lanes. (*NACTO*)

Raised Bike Lanes

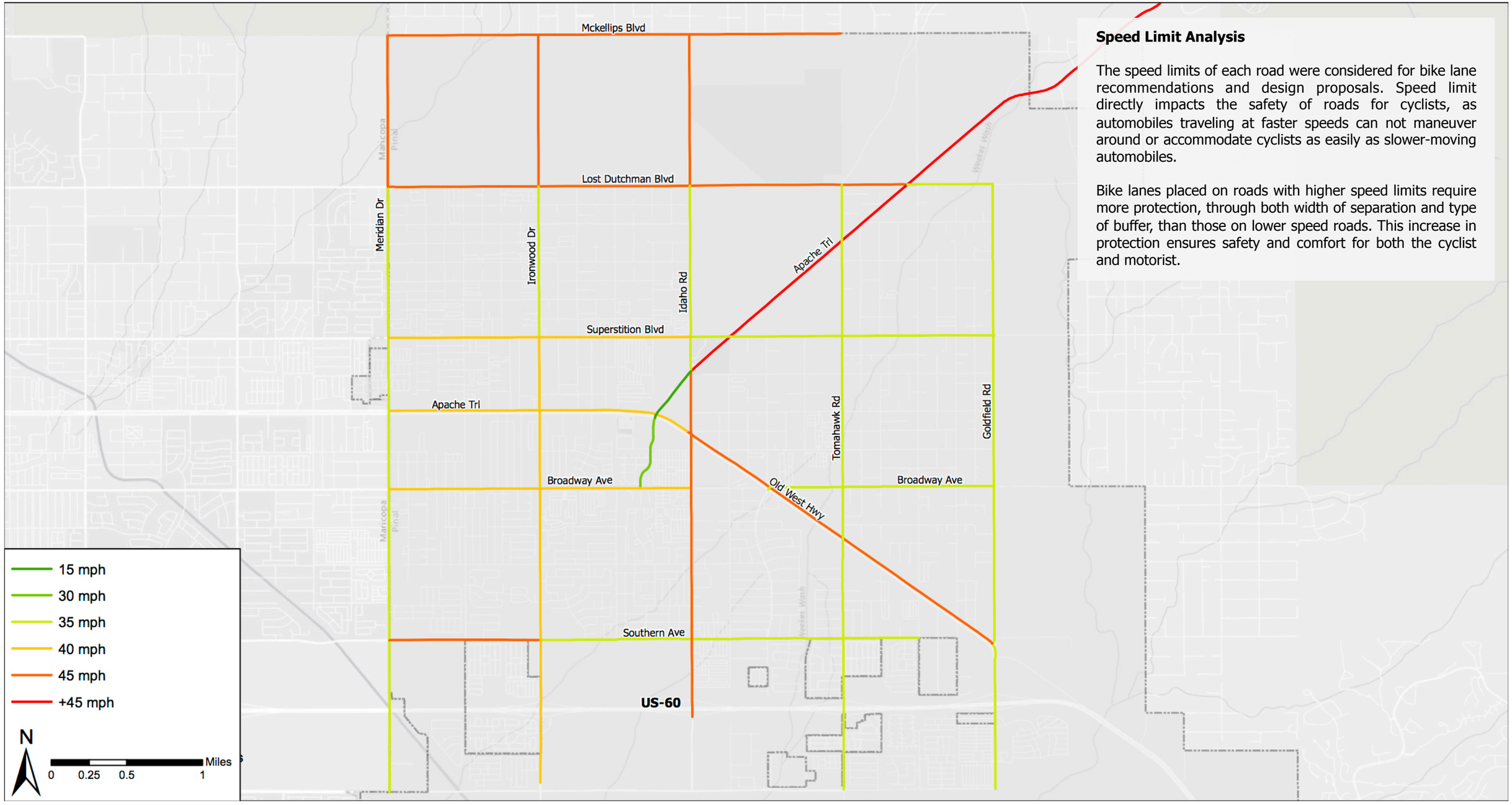
Raised bike lanes are vertically separated from traffic, level with the sidewalk adjacent to the road and gradually slope down to the level of the street. Raised bike lanes (5 to 6 feet wide) are placed on the sidewalk, closest to the street, and then paired with a vegetative median (3 to 4 feet wide) with an adjoining pedestrian walkway (6 to 8 feet wide), closest to commercial building. Raised bike lanes are the highest level of protection from automobiles and the most visually and aesthetically appealing in urban environments. (*NACTO*)

Benefits of Raised Bike Lanes

According to NACTO, raised bike lanes:

- Protect cyclists by dedicating a lane on the same level of the sidewalk, which increases the comfort and safety of both cyclists and automobiles;
- Are more attractive to a wider age range of cyclists, as well as more visually or aesthetically appealing in urban environments than other forms of bike lanes;
- Encourage cyclists to ride in the bike lane instead of the pedestrian walkway; and
- Minimize maintenance costs of bike lane facilities from automobile caused damage.

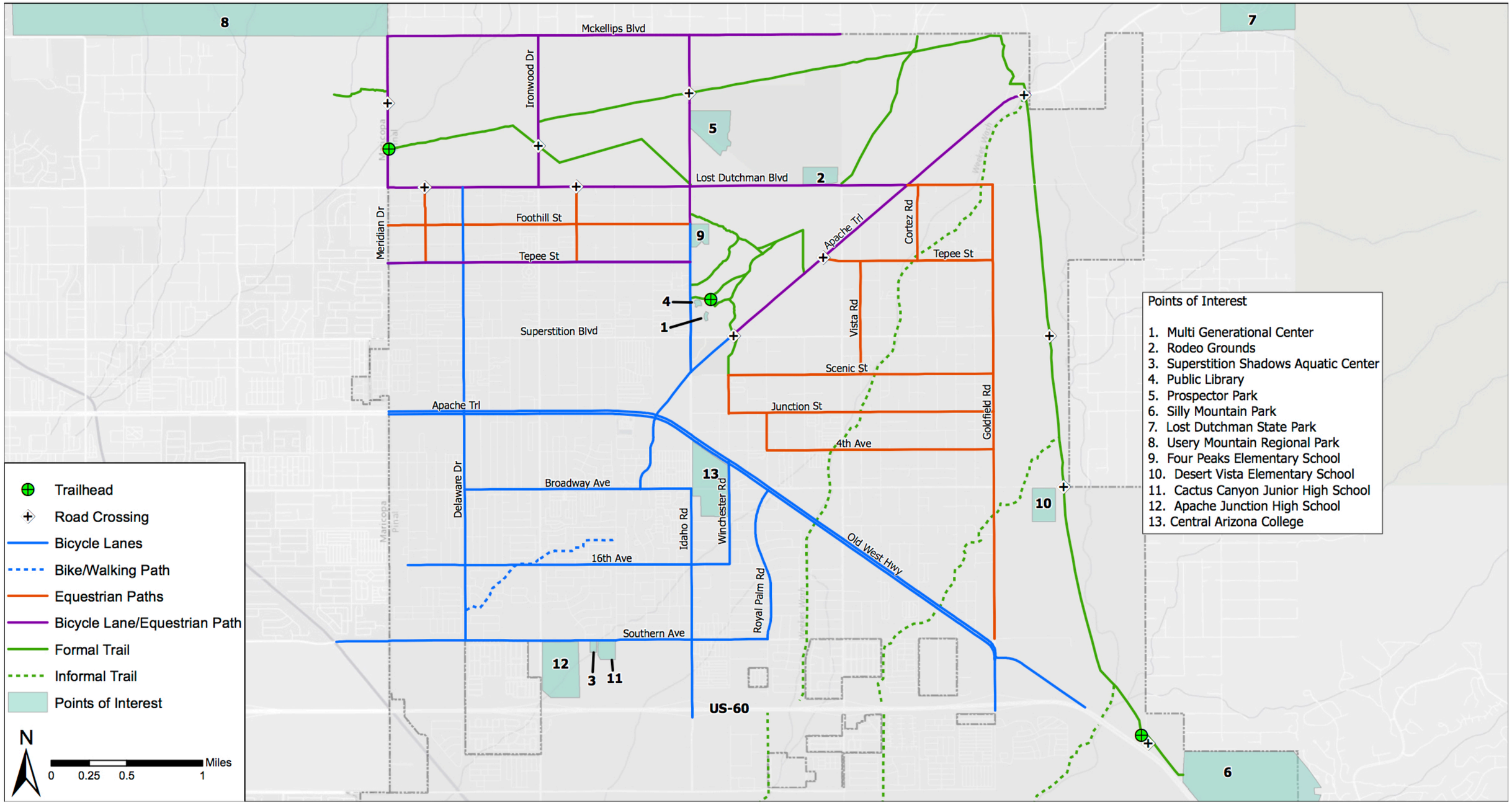
(*Urban Bikeway Design Guide. New York: National Association of City Transportation Officials, 2014*)



Speed Limit Analysis

The speed limits of each road were considered for bike lane recommendations and design proposals. Speed limit directly impacts the safety of roads for cyclists, as automobiles traveling at faster speeds can not maneuver around or accommodate cyclists as easily as slower-moving automobiles.

Bike lanes placed on roads with higher speed limits require more protection, through both width of separation and type of buffer, than those on lower speed roads. This increase in protection ensures safety and comfort for both the cyclist and motorist.


8
7
Mckellips Blvd
Ironwood Dr
5
Lost Dutchman Blvd
2
Foothill St
Meridian Dr
Tepee St
9
Apache Trl
Cortez Rd
Tepee St
4
1
Superstition Blvd
Vista Rd
Scenic St
Junction St
Goldfield Rd
4th Ave
Apache Trl
Delaware Dr
13
Broadway Ave
Idaho Rd
Winchester Rd
16th Ave
Old West Hwy
10
Royal Palm Rd
Southern Ave
12
3
11
US-60
6
Points of Interest
1. Multi Generational Center
2. Rodeo Grounds
3. Superstition Shadows Aquatic Center
4. Public Library
5. Prospector Park
6. Silly Mountain Park
7. Lost Dutchman State Park
8. Usery Mountain Regional Park
9. Four Peaks Elementary School
10. Desert Vista Elementary School
11. Cactus Canyon Junior High School
12. Apache Junction High School
13. Central Arizona College
Trailhead
Road Crossing
Bicycle Lanes
Bike/Walking Path
Equestrian Paths
Bicycle Lane/Equestrian Path
Formal Trail
Informal Trail
Points of Interest
N
0 0.25 0.5 1 Miles

Major Road Design Recommendations

Proposal 1: Lost Dutchman Boulevard

The entire length of Lost Dutchman Boulevard should become a multi-modal corridor accommodating bikes, pedestrians, and equestrians alongside automobiles, as shown in Figure 2-8. To enhance Lost Dutchman Boulevard, separation of all modes is necessary to improve safety, accessibility and capacity on the existing roadway. Lost Dutchman Boulevard was chosen as a multi-modal corridor due to lower vehicle activity, fewer driveway entrances and large right-of-way on the north side of the road. These features make multi-modal improvements more feasible for Lost Dutchman Boulevard than other locations. The proposed separation of equestrian trails and bike lanes will improve comfort and safety for both modes of travel.

New equestrian trails will be located on the north side of Lost Dutchman Boulevard to provide safe connectivity to the existing equestrian trail network. This will prevent equestrians from needing to cross driveways, intersections or roadways. An 8' vegetated buffer will separate equestrians from traffic lanes, so that horses do not get spooked.

New double-bike lanes will be located on the south side of Lost Dutchman Boulevard. Bike lanes will travel in opposite directions but be located on the same side of the road, in order to provide separation from the equestrian trails on the north side. The lanes will be separated by a 4' safety buffer with delineated poles or oblong bumps (refer to page 2-10). Cyclists traveling east will ride in the bike lane closest to the curb. The double-bike lanes will allow cyclists traveling east to make smooth right turns at intersections and improve traffic visibility for cyclists traveling west.

Lost Dutchman Boulevard will require:

- New vegetated buffers on both sides of the road.
- Added pavement on the southern right-of-way.
- New trail surfacing on the northern right-of-way.
- Crosswalks and signals for equestrians.

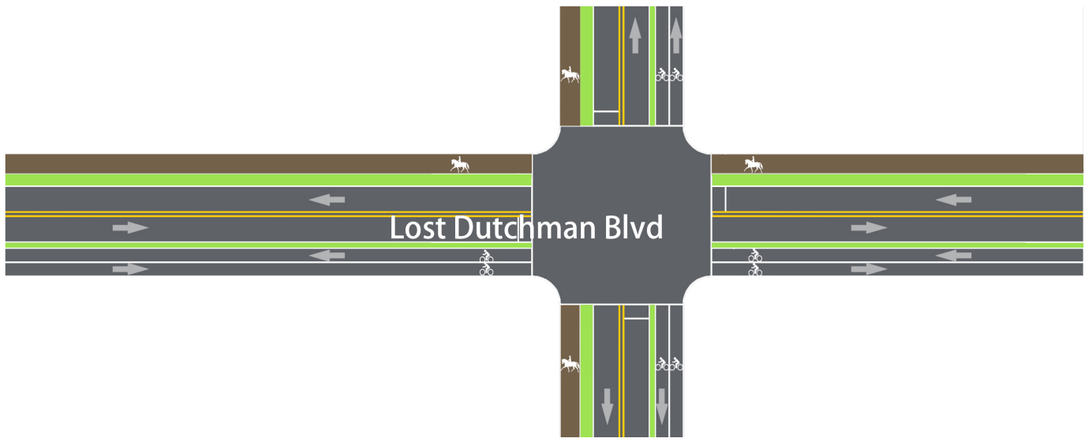


Figure 2-8: Proposed street design for Lost Dutchman Boulevard

Figure 2-9: Sidewalks used by cyclists in Apache Junction

Major Road Design Recommendations

Proposal 2: Idaho Road
(Lost Dutchman Boulevard to Tepee Street)

North Idaho Road will become a passive multi-modal corridor accommodating a double-bike lane on the east side and an equestrian trail on the west side of the road, as shown in Figure 2-10. The equestrian trail will follow the west side of Idaho Road in order to create connections to equestrian trails on Lost Dutchman Boulevard and W Foothill St. The north sides of Foothill Street and Tepee Street are currently designated as equestrian paths on the unimproved road shoulder.

An opposite-direction double-bike lane will follow the east side of Idaho Road. Cyclists traveling south can continue east on the bike lanes on Lost Dutchman Boulevard.

- W Foothill Street will remain an equestrian corridor but a new equestrian trail with an 8' vegetated buffer will be added on the northern right-of-way.
- Tepee Street will become a multi-modal corridor in the same style as Lost Dutchman Boulevard. Tepee Street is ideal for all types of travel as it crosses an area with slow speeds, low traffic, and large right-of-way on both sides of the street.

Cyclists traveling south on Idaho Road can travel from the Multi-Generational Center and access the Crossroads Alliance Church and Four Peaks Elementary School. The proposed lanes connect to Lost Dutchman Boulevard bike lanes and to Prospector Park.

Idaho Road will require:
- Added pavement on the eastern right-of-way north of W Foothill Street.
- Elimination of the center turning lane between W Foothill Street and W Tepee Street.
- New trail surfacing on the western right-of-way.
- New vegetated buffers on both sides of the road north of W Foothill Street, and on the east side of the street between W Foothill Street and W Tepee Street.
- Crosswalks for Idaho Road and Tepee Street. This T-intersection should include a bike lane on the inner portion of the crosswalks to allow for safe crossing.

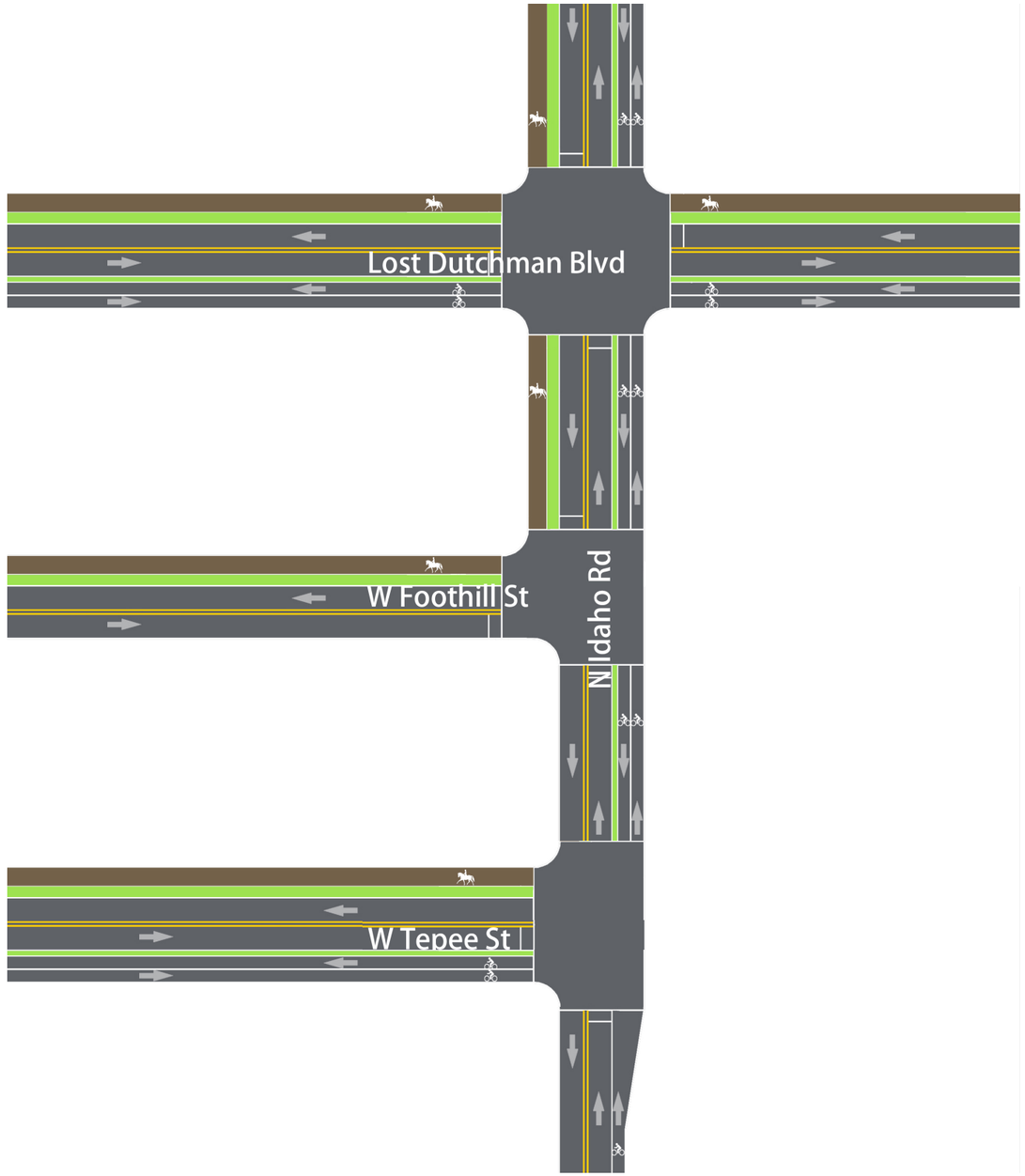


Figure 2-10: Full proposal for Idaho Road street design

Major Road Design Recommendations

Proposal 3: N Apache Trail
(Idaho Road to Apache Trail)

N Apache Trail is the main corridor for bike connectivity in the downtown area of Apache Junction. N Apache Trail to Idaho Road can increase roadway capacity to accommodate bike lanes and traffic lanes, as shown in Figure 2-11. However, N Apache Trail will not receive cyclists traveling north from N Idaho Road as the existing roadway is at capacity.

Northeast of Idaho Road, N Apache Trail will have bike lanes on both sides of the street. Cyclists traveling north and south can continue down N Apache Trail and into Apache Junction's downtown. Cyclists traveling southwest on N Apache Trail can continue north on N Idaho Road. Continuing south on N Idaho Road is not safe for cyclists as there is no additional roadway to add bike lanes. In addition, traffic speeds are high.

To provide continuous bike connectivity and safety, cyclists traveling southwest on N Apache Trail will converge into the future downtown park and continue south to Apache Trail. To achieve this, bike lanes will be located on the north side of the existing sidewalk and continue south to Apache Trail. Refer to Figure 2-6.

Sidewalks on both sides of the proposed bike lanes provides safety and accessibility for pedestrians, cyclists and automobiles. A bike lane on the north side of the existing sidewalk will protect cyclists from automobiles backing out of existing diagonal parking spaces. An additional sidewalk on the north side of the proposed bike lanes will provide pedestrians with safe route to the future downtown park.

Cyclists will travel northwest on North Apache alongside motor-vehicle lanes, with no buffer separation. Additional safety signage will be necessary for drivers parking in the area to be cautious of bike traffic when backing out.

North Apache will require:

- New pavement and striping for bike lanes on both sides of the street.
- Lanes close to the intersection of N Apache and N Idaho Road will have to decrease from 12' to 10' to accommodate a bike lane.
- Crosswalks at the entrance to the park. Pedestrians should cross bike lane safely to and from sidewalks.

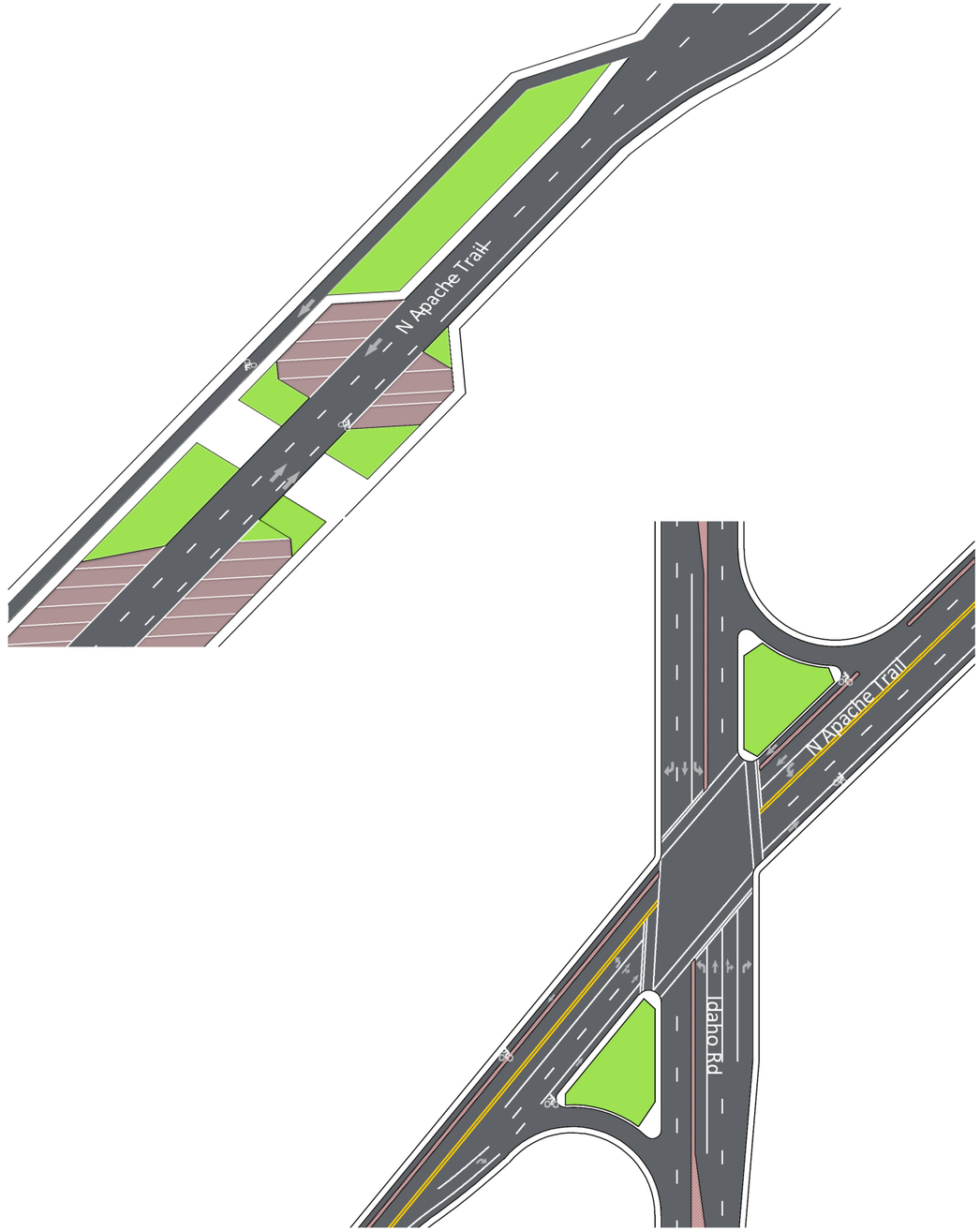


Figure 2-11: Proposed street design for N Apache Trail

Major Road Design Recommendations

Proposal 4: Apache Trail & Delaware Drive Intersection

Apache Trail is a major connectivity corridor that has great potential for bicycle improvements. The existing configuration of Apache Trail is unsafe for bike lanes and automobiles as existing bike lanes are unprotected and adjacent to three to four 12’ traffic lanes.

To improve the bicycling conditions on Apache Trail as shown in Figure 2-12, existing traffic lanes of 12' need to decrease to 10' to accommodate sidewalks and safety enhancements for bikes. Decreasing lanes to 10' will allow for new right and left-turn bike lanes to increase bike safety. There are two recommendations for improving bike infrastructure on Apache Trail:

- Buffers, as shown in Figure 2-3, can range in width from 3’-4’ and provide separation between cyclists and automobiles. These areas can be designed for different safety features such as oblong bumps, individual planters or fully vegetated strips in order to provide extra protection for bike lanes on the street-side.

- Raised Bike Lanes, as shown in Figure 2-14, provide vertical separation of cyclists from vehicle traffic. Raised bike lanes are at level with the sidewalk where they meet the sidewalk, but slope to the level of the street a few inches from the street (see page 2-10). The surface of raised bike lanes can match the sidewalk or street. Vegetated buffers should be used to separate pedestrians and cyclists on sidewalk. A basic configuration would be a 5’ raised bike lane, 3’-4’ buffer and 5’- 6’ sidewalk.

Both sides of Delaware Drive can accommodate bike lanes if existing lanes are reconfigured. On S Delaware Drive, existing 12' traffic lanes should be decreased to 10’ to accommodate 4' bike lanes on both sides of the road. N Delaware Drive’s northbound lane is 18’ wide, easily accommodating new bike lanes. By decreasing the northbound lane to 10' an additional 8’ allows the addition of 4’ bike lanes on both sides of N Delaware Drive.

Apache Trail will require:
- Pedestrian or traffic buffers on either side of the bike lanes.
- Decreased lane widths and new striping.

Delaware Drive will require:
- Decreased lane widths and new striping.

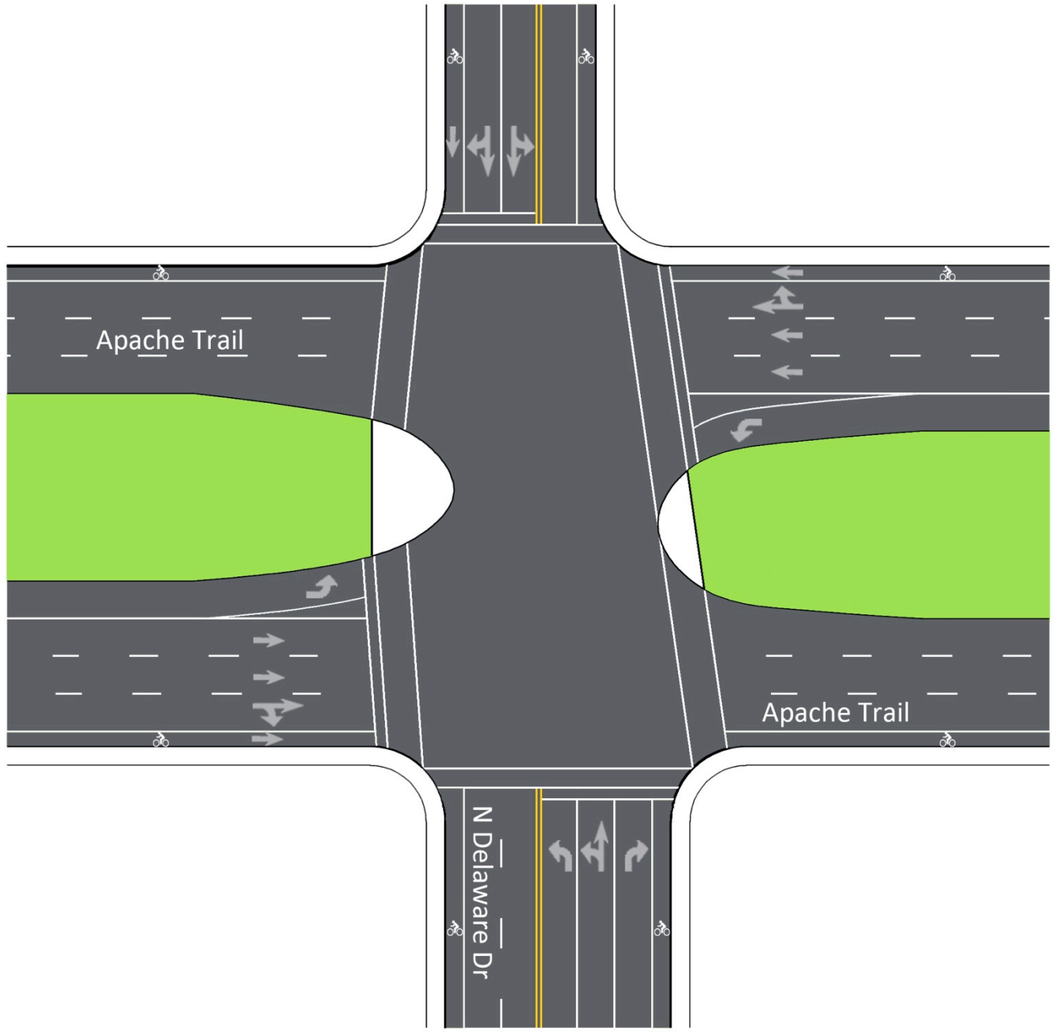
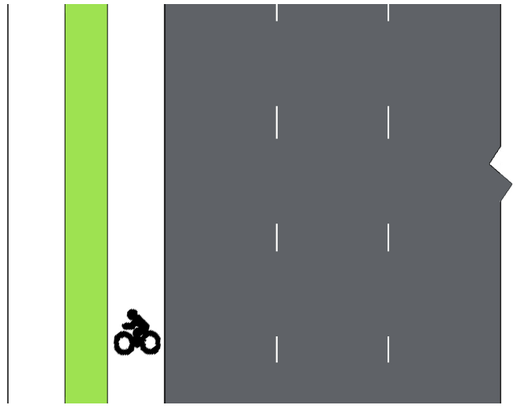


Figure 2-12: Proposed street design for the intersection of Apache Trail and Delaware Drive



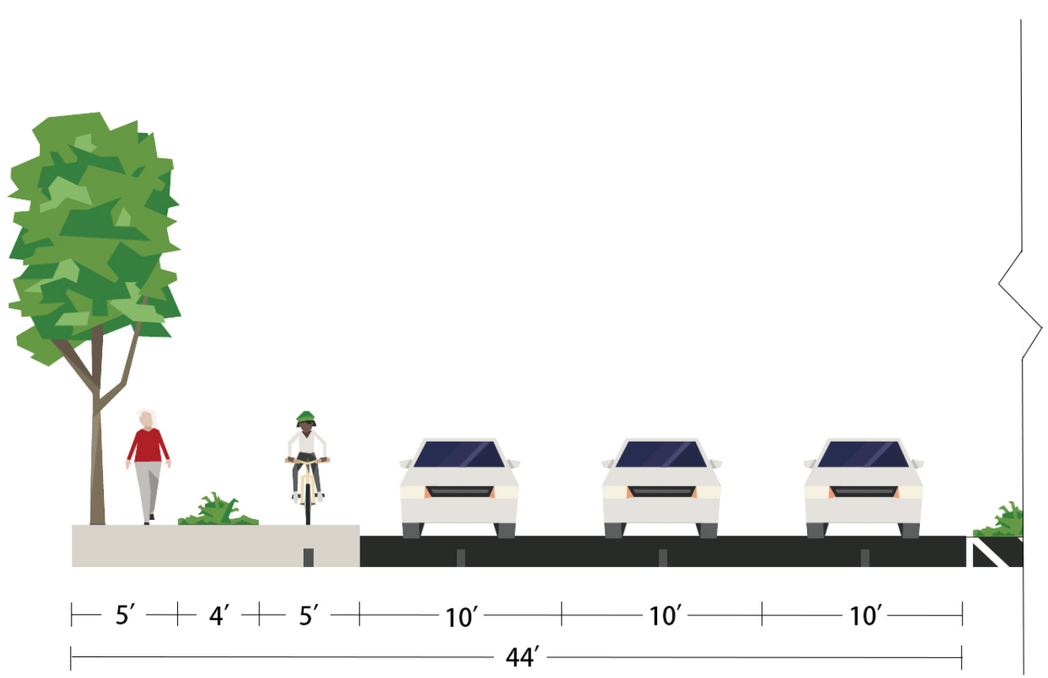


Figure 2-13: Apache Trail Design Option 1

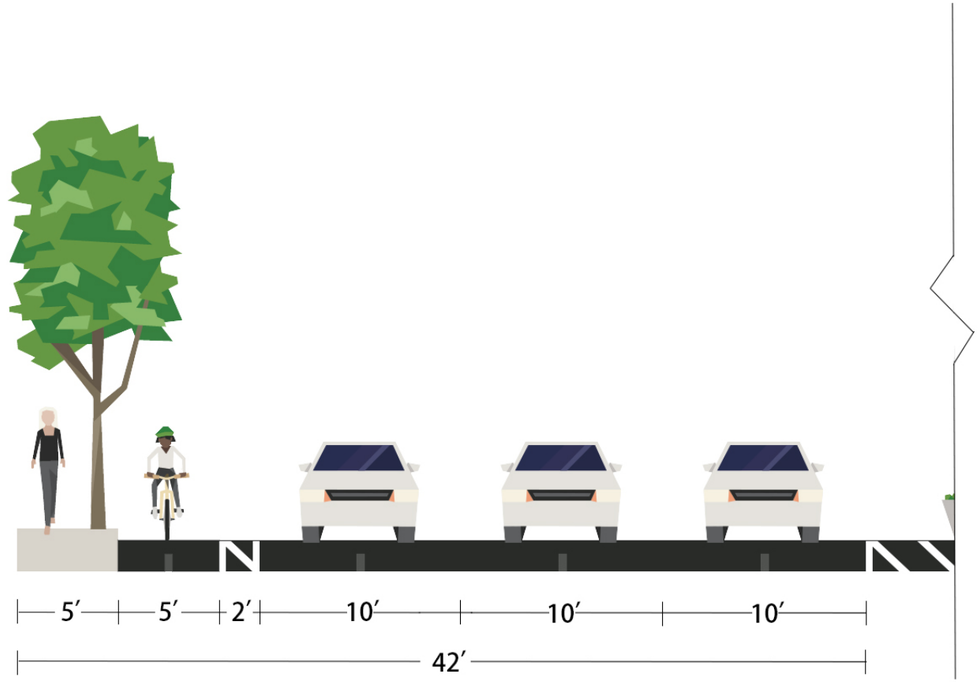
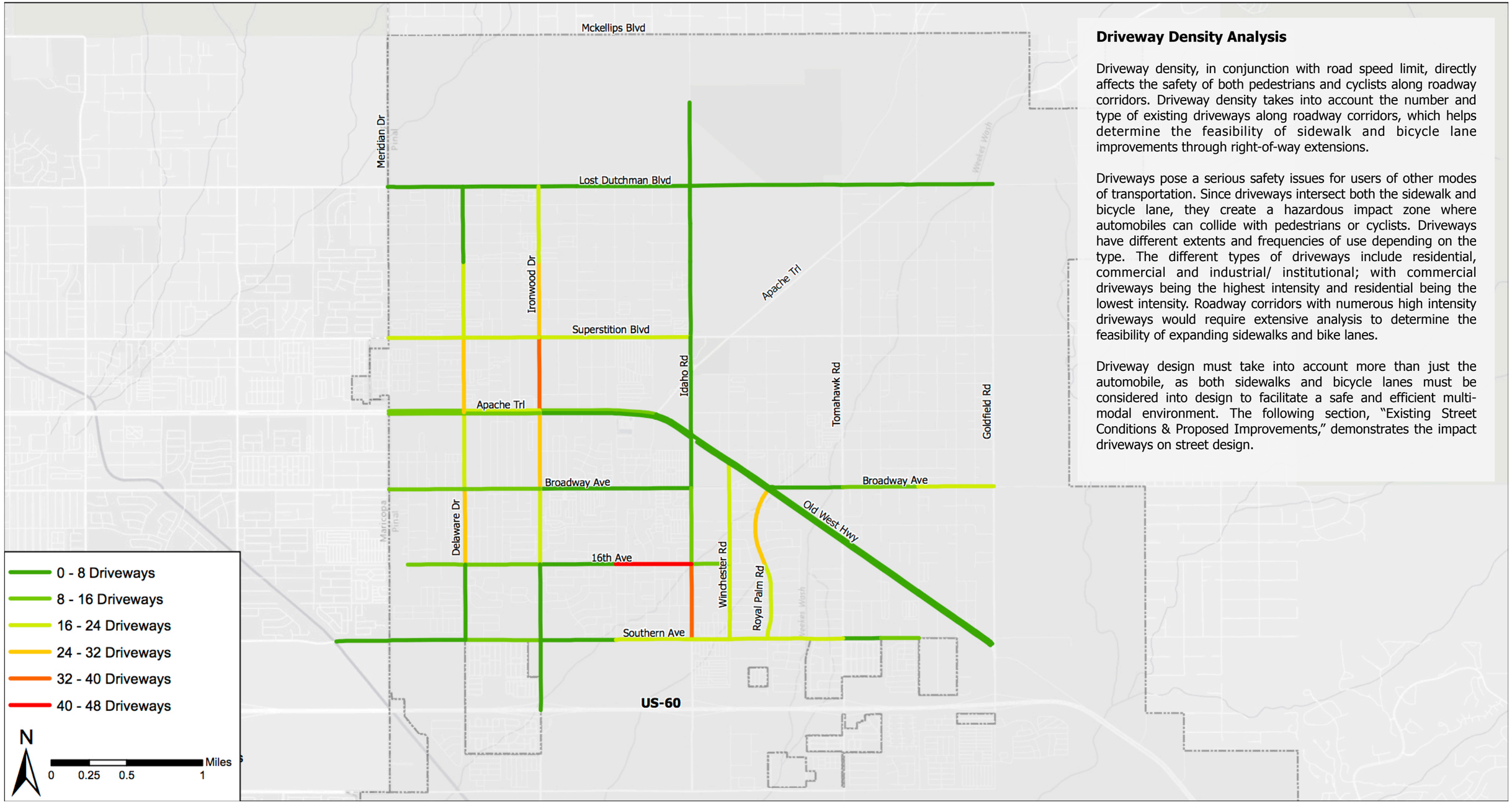


Figure 2-14: Apache Trail Design Option 2



Driveway Density Analysis

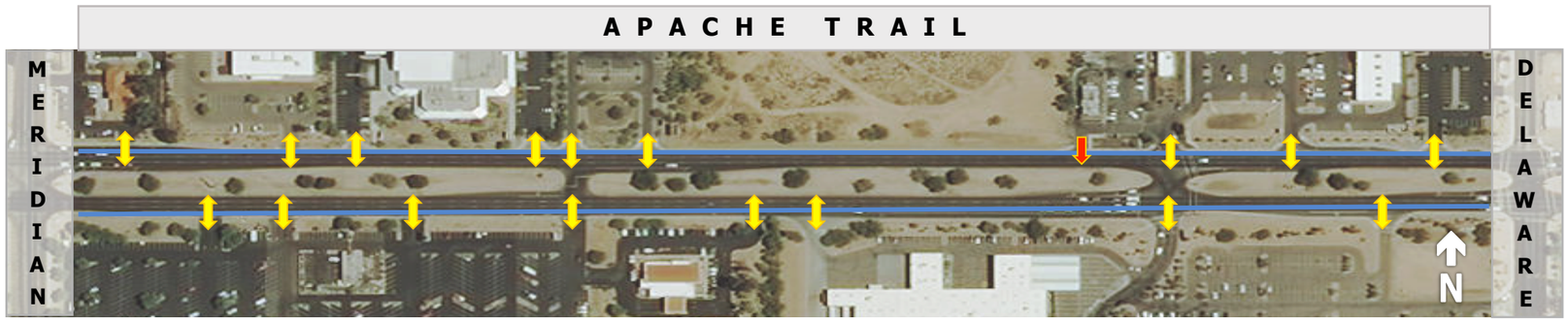
Driveway density, in conjunction with road speed limit, directly affects the safety of both pedestrians and cyclists along roadway corridors. Driveway density takes into account the number and type of existing driveways along roadway corridors, which helps determine the feasibility of sidewalk and bicycle lane improvements through right-of-way extensions.

Driveways pose a serious safety issues for users of other modes of transportation. Since driveways intersect both the sidewalk and bicycle lane, they create a hazardous impact zone where automobiles can collide with pedestrians or cyclists. Driveways have different extents and frequencies of use depending on the type. The different types of driveways include residential, commercial and industrial/ institutional; with commercial driveways being the highest intensity and residential being the lowest intensity. Roadway corridors with numerous high intensity driveways would require extensive analysis to determine the feasibility of expanding sidewalks and bike lanes.

Driveway design must take into account more than just the automobile, as both sidewalks and bicycle lanes must be considered into design to facilitate a safe and efficient multi-modal environment. The following section, "Existing Street Conditions & Proposed Improvements," demonstrates the impact driveways on street design.

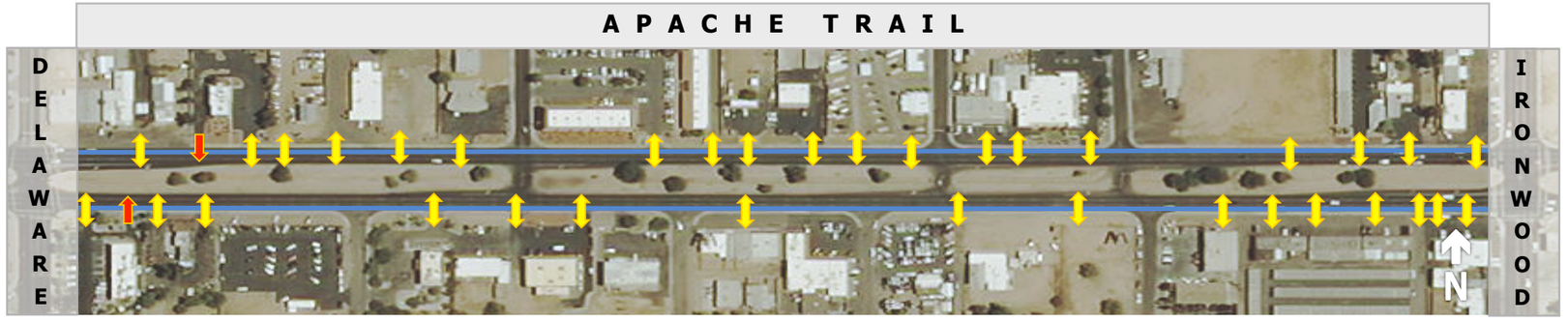
Existing Street Conditions & Proposed Improvements

IN AND OUT DRIVEWAY | ONE WAY DRIVEWAY | BIKE LANE



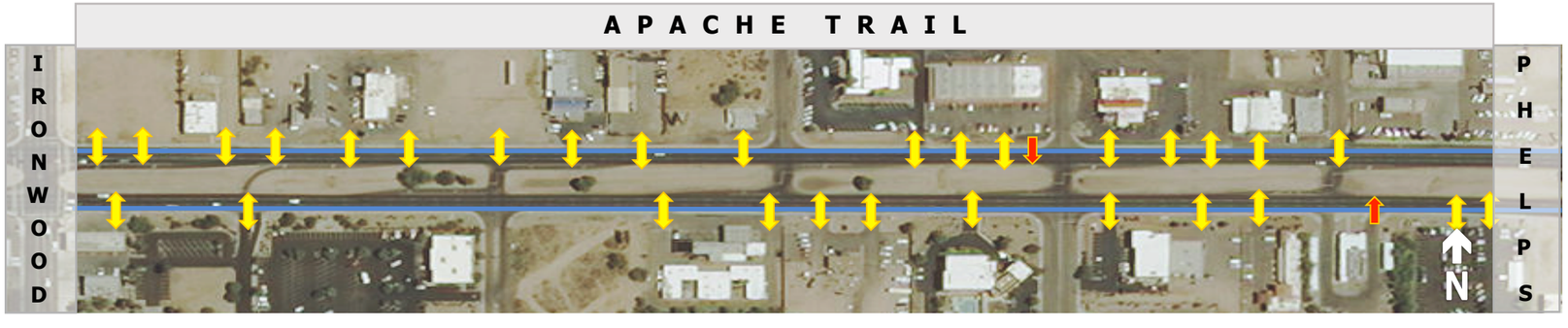
Existing Conditions: A bike lane exists on the north side of the road, but not on the south. Sidewalks are present on both sides of the road with minimal landscaping/shade, but obstructions in the right-of-way. There is also a single right-turn lane on the south side of the road.

Proposed Improvements: Bike lane addition to the south side of the road, as well as beautification of the streetscape through landscaping; adding shade trees along the sidewalks and bike lanes.



Existing Conditions: A bike lanes exists on the north side of the road and a partial bike lane exists on the south. There are sidewalks on both sides of the road, as well as multiple side streets. Retention basins, parking lots and concrete pillars are present in the right-of-way on the southern portion of the road.

Proposed Improvements: Complete bike lane on the south side of the road, as well as shade trees along the sidewalks and bike lanes.



Existing Conditions: Bike lanes exist on both sides of road. Sidewalks also exist on both sides of the road, but portions of the sidewalk are missing on the north. Retention basins, parking lots, electrical boxes and concrete pillars are present in the right-of-way on the south side of the road, while few obstructions exist in the right-of-way on the north. Multiple side streets are on both sides of the road.

Proposed Improvements: Complete sidewalk where missing and add shade trees along the sidewalks and bike lanes.

↕ **IN AND OUT DRIVEWAY** ↓ **ONE WAY DRIVEWAY** — **BIKE LANE**

Existing Conditions: There are no bike lanes present and a large right-of way on both sides on the road. There is limited landscaping on either side and a fragmented sidewalk on the south.

Proposed Improvements: Lane expansion in both directions, addition of sidewalks, a single bike lane on both sides of the road, and landscaping improvements along the sidewalks and bike lanes.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides on the road. There are sidewalks on the south side of the road, but not the north. Automobile speed and activity is moderate in this area.

Proposed Improvements: Sidewalks and single bike lanes on both sides of the road, as well as landscaping improvements along the sidewalks and bike lanes.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the street. There are no consistent sidewalks. Automobile speed and activity is moderate in this area.

Proposed Improvements: Sidewalks and single bike lanes on both sides of the road, as well as landscaping improvements along the sidewalks and bike lanes.

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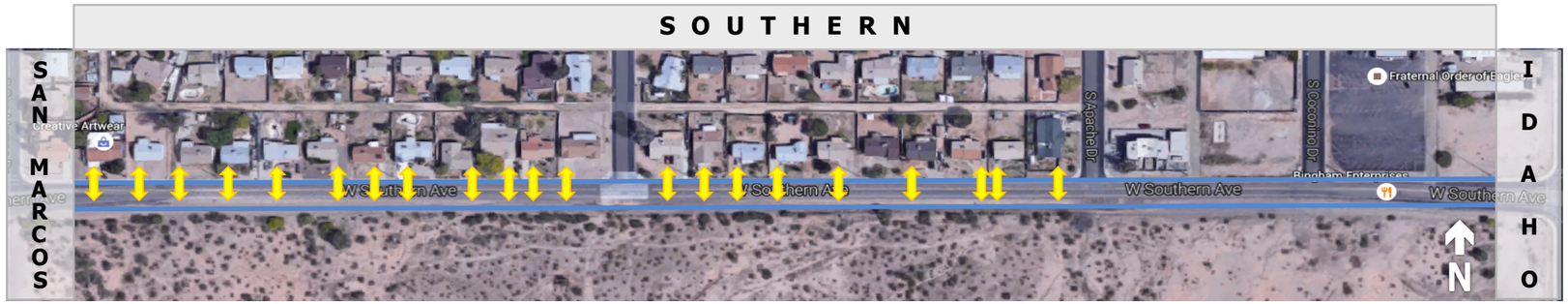
IN AND OUT DRIVEWAY **ONE WAY DRIVEWAY** **BIKE LANE**



Existing Conditions: There are no bike lanes present and a large right-of way on both sides on the road. A sidewalk is present on the north side of the road, but not the south. Automobile speed and activity is moderate in this area.

Proposed Improvements: Road expansion to two lanes, addition of sidewalks and a single bike lane on both sides of the road, and landscaping improvements along the sidewalks and bike lanes.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. Well-paved sidewalks on both sides. School district; several crosswalks present. Moderate automobile speed and activity.

Proposed Improvements: Remove center turning lane to allow a single bike lane on both sides of the road, as well as landscaping improvements along the sidewalks and bike lanes.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides on the road. There are no sidewalks present. Automobile speed and low activity is moderate in this area.

Proposed Improvements: Expansion to double lanes, addition of sidewalks, single bike lanes on both sides of the road, and landscaping improvements along the sidewalks and bike lanes.

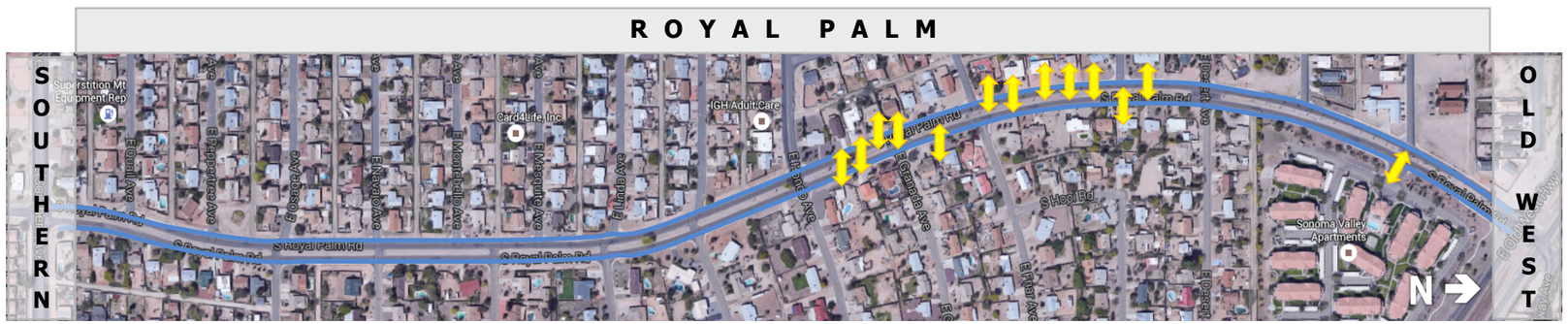
IN AND OUT DRIVEWAY **ONE WAY DRIVEWAY** **BIKE LANE**

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. Sidewalks are present on both sides of the road. Automobile speed and activity is moderate in this area.

Proposed Improvements: Remove center turning lane to allow a single bike lane on both sides of the road, as well as landscaping improvements along the sidewalks and bike lanes.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. Sidewalks are present on both sides of the road. Automobile speed and activity is moderate in this area.

Proposed Improvements: Remove center turning lane to allow a single bike lane on both sides of the road, as well as landscaping improvements along the sidewalks and bike lanes.



Existing Conditions: Sidewalks are present on both sides of the road. Automobile speed and activity is moderate in this area.

Proposed Improvements: Landscaping improvements along the sidewalks and bike lanes.

IN AND OUT DRIVEWAY **ONE WAY DRIVEWAY** **BIKE LANE**

Existing Conditions: Sidewalks are present on the east side of the road, while bike lanes are on both sides. Automobile speed and activity is moderate in this area.

Proposed Improvements: Landscaping improvements along the sidewalks and bike lanes.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. Automobile speed and activity is moderate in this area.

Proposed Improvements: Road expansion with sidewalks and single bike lanes on both sides of the road, as well as landscaping improvements along the sidewalks and bike lanes.

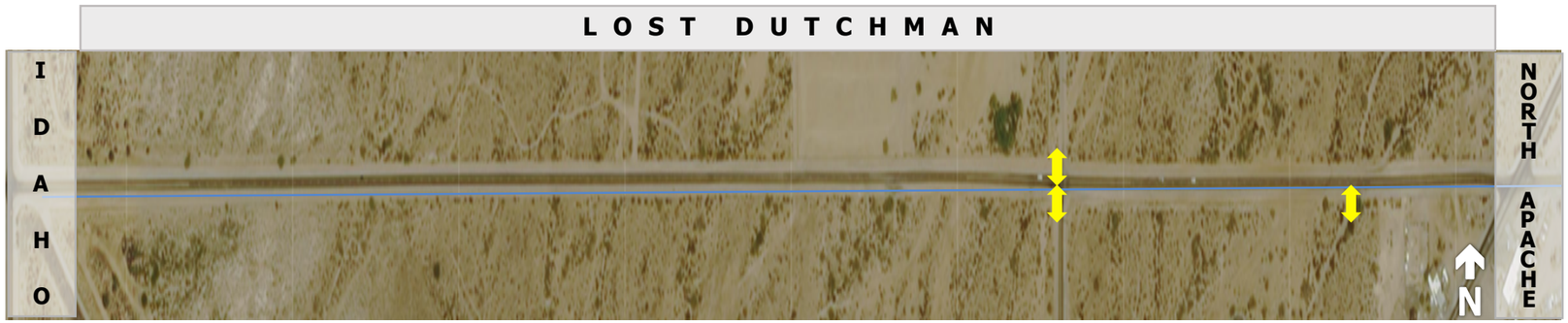
Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. There is high automobile speed and moderate automobile activity in this area.

Proposed Improvements: Multi-use trail with a double bike lane (with flow oriented to the east and west) on the south side of the road, and an equestrian trail on the north.

IN AND OUT DRIVEWAY ONE WAY DRIVEWAY BIKE LANE

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. There is high automobile speed and moderate automobile activity in this area.

Proposed Improvements: Multi-use trail with a double bike lane (with flow oriented to the east and west) on the south side of the road, and an equestrian trail on the north.



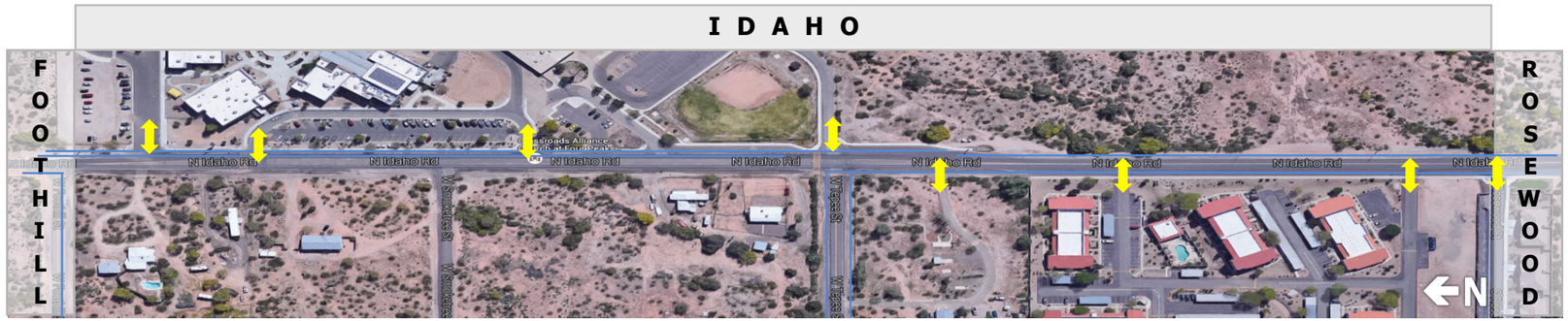
Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. There is high automobile speed and moderate automobile activity in this area.

Proposed Improvements: Multi-use trail with a double bike lane (with flow oriented to the east and west) on the south side of the road, and an equestrian trail on the north.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road, as well as low automobile and pedestrian activity.

Proposed Improvements: Multi-use trail with a double bike lane (with flow oriented to the north and south) on the east side of the road, and an equestrian trail on the north. The equestrian trail on the west side of the road will continue to Foothill Street to connect to the equestrian trail on the north side of Foothill Street.

IN AND OUT DRIVEWAY ONE WAY DRIVEWAY BIKE LANE



Existing Conditions: Bike lanes are only present near the elementary school on the east side of the road and a large right-of-way on both sides. Automobile activity is moderate in this area.

Proposed Improvements: A double bike lane (with flow oriented to the north and south) on the east side of the road until Tepee Street. Cyclists traveling south will converge on the west side of Idaho Road; Tepee Street will have a double bike lane (with flow oriented to the east and west) on the south side of a road and an equestrian trail on the north.

Existing Conditions: There are no bike lanes present and a large right-of way on both sides of the road. There is also fragmented connection to the Multi-Generational Center and Apache Junction Municipal Buildings. Automobile activity is high in this area.

Proposed Improvements: Bike lanes on both sides of Idaho Road. Cyclists traveling south will turn onto N Apache Trail, while cyclists traveling north will converge with those traveling both southwest and northeast on N Apache Trail.

Existing Conditions: There are no bike lanes present on Idaho Road. The presence of a middle-turn lane will make bike lane improvements difficult. Automobile activity is high in this area.

Proposed Improvements: Bike lanes on both sides of Idaho Road, extending from Broadway Road to 16th Avenue. The elimination of the middle-turn lane to be replaced by a 3 to 4 foot median with a left-turn lane to make room for 4 foot bike lanes.

IN AND OUT DRIVEWAY | ONE WAY DRIVEWAY | BIKE LANE

IDAHO

Existing Conditions: There are no bike lanes present on Idaho Road. The presence of a middle-turn lane will make bike lane improvements difficult. Automobile activity is high in this area, as it serves as a major connector road to Superstition Highway and South of the U.S. 60.

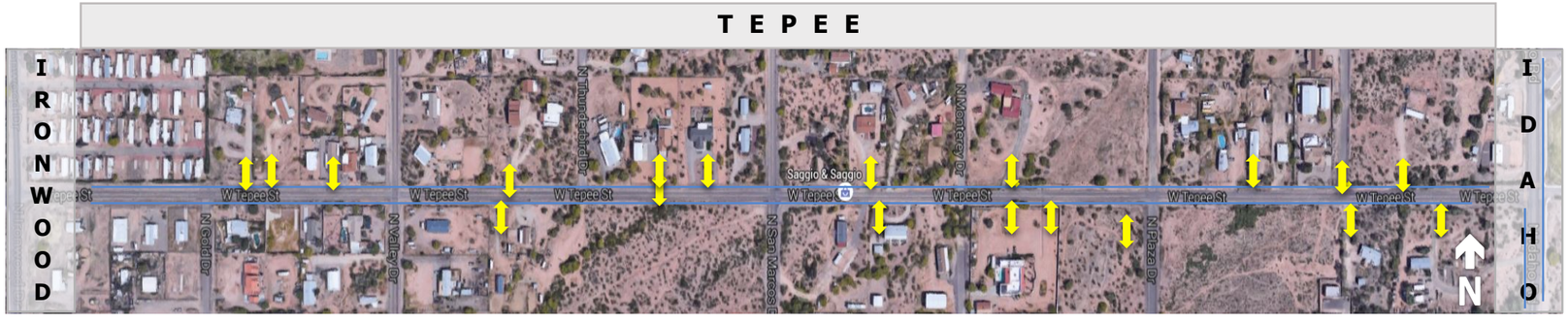
Proposed Improvements: Bike lanes on both sides of Idaho Road extending from 16th Avenue to US 60. The elimination of the middle-turn lane to be replaced by a 3 to 4 foot median with a left-turn lane to make room for 4 foot bike lanes and safety buffers of oblong bumps.

PHELPS

Existing Conditions: There are no bike lanes present on Phelps Drive. The presence of a middle-turn lane will make bike lane improvements difficult. Automobile activity is low in this area.

Proposed Improvements: Bike lanes on both sides of Phelps Drive extending from North Apache Trail to Broadway Road. The elimination of the middle-turn lane to be replaced by a 3 to 4 foot median with a left-turn lane to make room for 4 foot bike lanes.

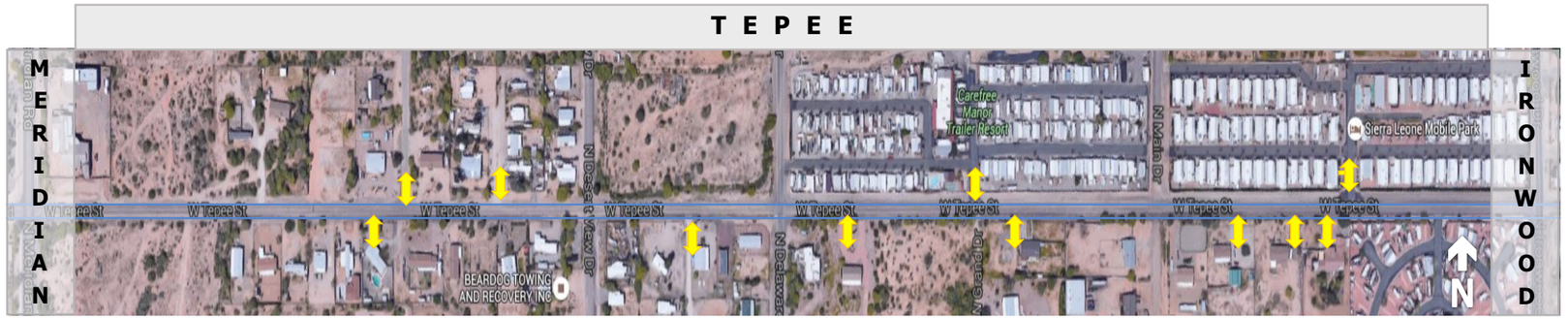
TEPEE



Existing Conditions: There are no bike lanes present on Tepee Street. A large right-of-way on the north side of the street allows for different variations of improvements. Automobile activity is low in this area.

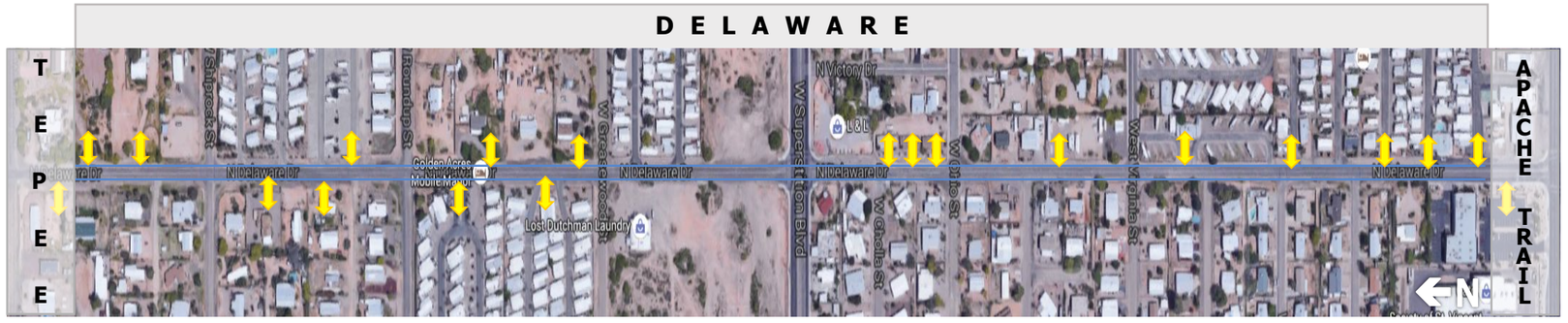
Proposed Improvements: Multi-use trail with a double bike lane (with flow oriented to the east and west) on the south side of the road, and an equestrian trail on the north.

IN AND OUT DRIVEWAY **ONE WAY DRIVEWAY** **BIKE LANE**



Existing Conditions: There are no bike lanes present on Tepee Street. A large right-of-way on the north side of the street allows for different variations of improvements. Automobile activity is low in this area.

Proposed Improvements: Multi-use trail with a double bike lane (with flow oriented to the east and west) on the south side of the road, and an equestrian trail on the north.



Existing Conditions: There are no bike lanes present present on Delaware Road. A large right-of-way on both sides of the road allows for different variations of bike improvements. Automobile activity is moderate in this area.

Proposed Improvements: Bike lanes on both sides of Delaware Road extending from Tepee Street to Apache Trail.

Existing Conditions: Bike lanes are present on Delaware Road. A large right-of-way on both sides of the road allows for different variations of bike improvements. Automobile activity is moderate in this area.

Proposed Improvements: Continuous bike lane through intersection for safe and fluid connectivity across the intersection.

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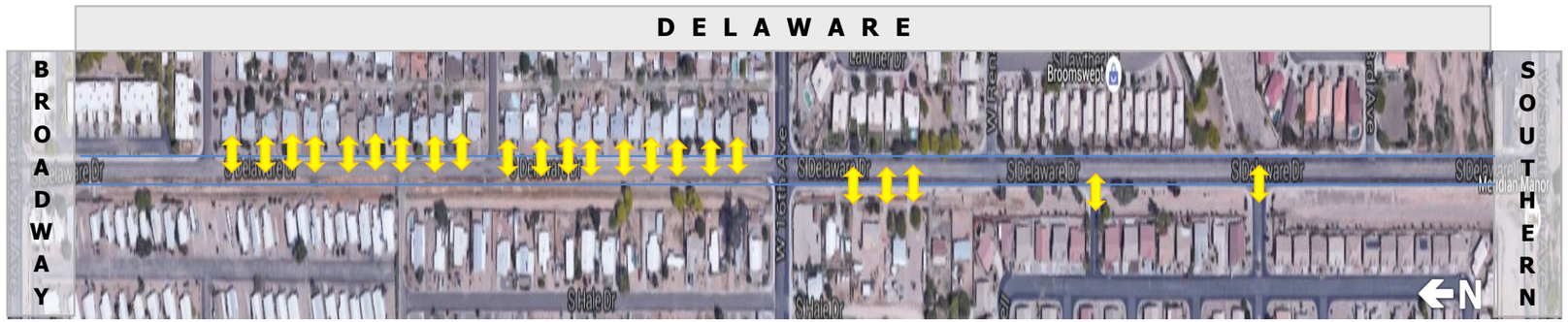
IN AND OUT DRIVEWAY

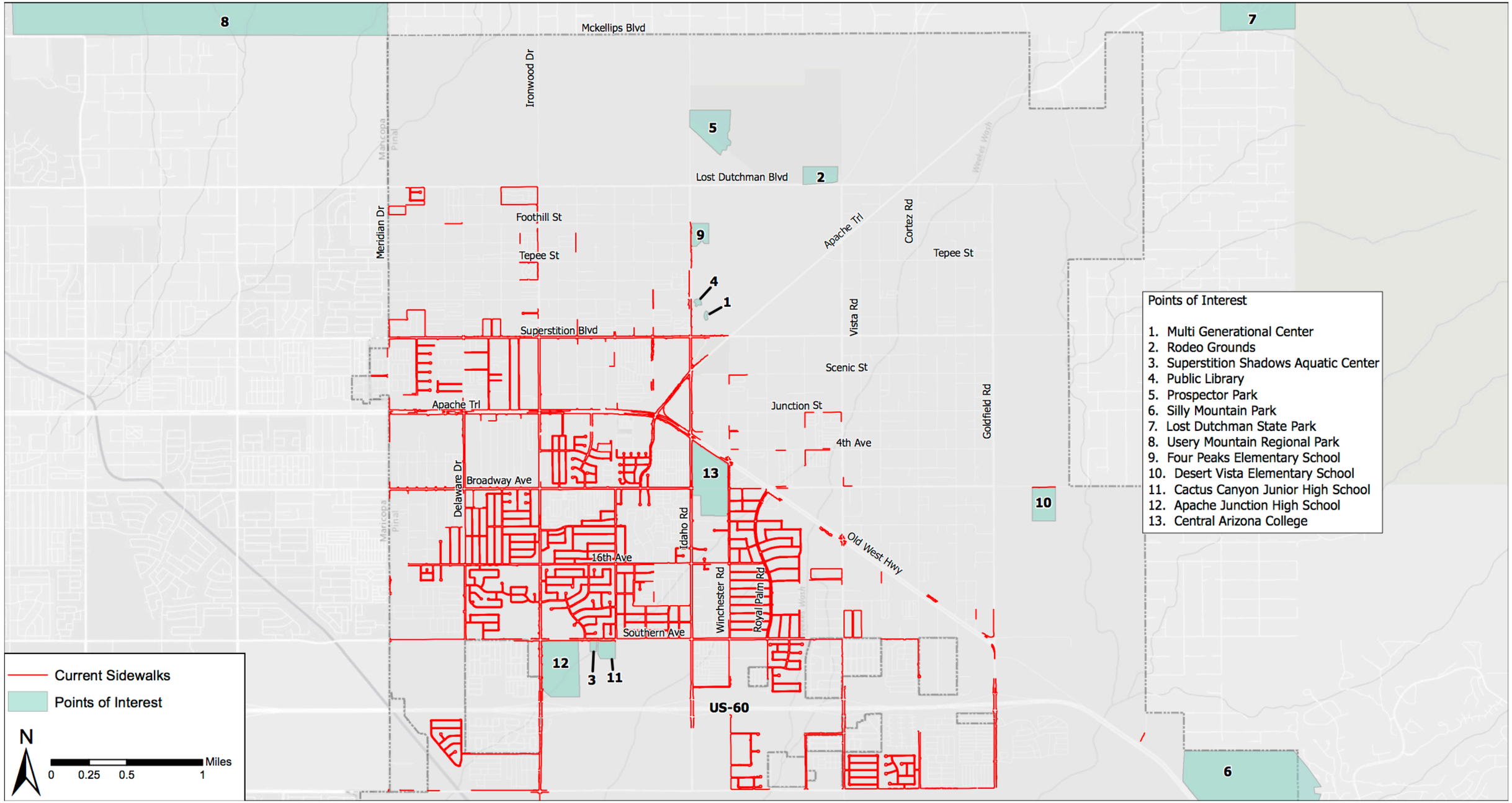
ONE WAY DRIVEWAY

BIKE LANE



Existing Conditions: There are no bike lanes present on Delaware Road. A large right-of-way on both sides of the road allows for different variations of bike improvements. Automobile activity is moderate in this area.

Proposed Improvements: Bike lanes on both sides of Delaware Road extending from Broadway Road to Southern Avenue.


Mckellips Blvd
Ironwood Dr
Lost Dutchman Blvd
Foothill St
Tepee St
Meridian Dr
Apache Trl
Cortez Rd
Vista Rd
Scenic St
Junction St
4th Ave
Goldfield Rd
Superstition Blvd
Broadway Ave
Delaware Dr
Idaho Rd
16th Ave
Southern Ave
Winchester Rd
Royal Palm Rd
Old West Hwy
US-60
Maricopa
Pinal
Points of Interest
1. Multi Generational Center
2. Rodeo Grounds
3. Superstition Shadows Aquatic Center
4. Public Library
5. Prospector Park
6. Silly Mountain Park
7. Lost Dutchman State Park
8. Usery Mountain Regional Park
9. Four Peaks Elementary School
10. Desert Vista Elementary School
11. Cactus Canyon Junior High School
12. Apache Junction High School
13. Central Arizona College
Current Sidewalks
Points of Interest
N
0 0.25 0.5 1 Miles

2.3.3 Sidewalks

Sidewalks form the backbone of the pedestrian transportation network and as such are an integral part of Apache Junction's connectivity. Sidewalks reduce the incidences of collision, injury and death for pedestrians and improve accessibility for people with disabilities. When considering sidewalk construction Apache Junction should refer to design guidelines and standards set out by the Federal Highway Administration and Americans with Disabilities Act.

The majority of Apache Junction's sidewalk network is to the south of Superstition Boulevard and west of Old West Highway. This area corresponds with the denser portion of the city. This area is likely to become denser as populations in the Phoenix metro area rise, and as such new sidewalk construction should be prioritized to this region. North of Superstition Boulevard and east of Old West Highway sidewalks are fairly infrequent since a majority of the land is light density residential or open space. If sidewalks are unfeasible in these areas due to character, widening the shoulder and paving it would make a noticeable change.

Many of the main arterial and collector roads in Apache Junction have sidewalks on both sides of the right of way, although gaps in the network can be found. It is recommended that the city prioritize sidewalk construction to fill gaps along corridors between points of interest in the city and especially around schools. Idaho Road and Southern Avenue have sections near Four Peaks Elementary and Apache Junction High School that would improve student mobility. The remoteness of Desert Vista Elementary School could be connected by widening and paving the shoulder of Broadway Avenue east of Old West Highway. The next priority should then be arterials and collector streets, especially along corridors between commercial areas and dense residential neighborhoods. Finally, as Apache Junction continues to grow and develop, sidewalks in the downtown corridor should be extended south along Old West Highway, extending its role as the 'main' street for the city.

Priority 1	Gaps in sidewalk access near schools
Priority 2	Arterials and collector streets
Priority 3	Old West Highway

Table 2-8: Sidewalk Improvement Prioritization

Figure 2-15: Landscaped sidewalk in Apache Junction

2.4 Continuing the Vision

Funding Resources

Many national agencies provide annual grants for bike, pedestrian and multi-use improvements. Refer to Table 2-9 for grant ideas, and build competitive applications using this resource:

Article. "Winning Federal Dollars for Bicycle and Pedestrian Projects," AmericanTrails.org, accessed April 17, 2016 at: http://www.americantrails.org/resources/funding/state-pedestrian-bicycle-funding.html

Community Resources

Organize a Friends group for Trail development, maintenance and grant applications. Many funding organizations will only provide grants for trails if the applicant is a 501(c)(3) organization.

Site Connections

Vibrant communities invest in recreation venues to improve residents' access to leisure and social gathering places. Apache Junction has several popular gathering places, but these points of interest lack multi-modal connections—particularly parks outside the city's limits. The proposed bike lanes, multi-use trails and equestrian trails should connect to these facilities in order to improve city access to popular public places. This will not only build voter support for these projects but also create a natural partnership with those facilities.

Funding Agency	Type	Nonprofit	Website	Contact
Federal: • Recreational Trails Program • Congestion Mitigation and Air Quality Program • Federal Lands and Tribal Transportation Program • Land and Water Conservation Fund Stateside Program • Urban and Community Forestry	Trails Bike Lanes Sidewalks	No	http://www.grants.gov/	Applicant Support 1-800-518-4726 support@grants.gov
Arizona State Parks	Trails	No	http://azstateparks.com/grants/index.html	State Trails Coordinator Arizona State Parks Resources Management Section 602-542-6942
Federal Highway Administration	Trails	No	http://www.fhwa.dot.gov/environment/recreational_trails/index.cfm	
The Conservation Fund: Land Conservation Loans	Land Purchase		http://www.conservationfund.org/what-we-do/land-conservation-loans	703-525-6300 webmaster@conservationfund.org
People For Bikes	Bike Lanes	Yes	http://www.peopleforbikes.org/pages/community-grants	303-449-4893
American Hiking Society: National Trails Fund	Trails	Yes	http://www.americanhiking.org/gear-resources/grant-opportunities/	301-565-6704 info@americanhiking.org
Kodak American Greenways Grants	Trails	Preferred	http://rlch.org/funding/kodak-american-greenways-grants	American Greenways Program Coordinator greenways@conservationfund.org
Alta Planning + Design: client funding assistance	Trails Bike Lanes Sidewalks	No	http://altaplanning.com/services/education-and-encouragement-programs/funding-assistance/	1-877-347-5417
Advocacy Advance: Rapid Response Grants	Bike Lanes Sidewalks	Yes	http://www.advocacyadvance.org/grants	info@advocacyadvance.org

Table 2-9: Funding Sources

3 DOWNTOWN VISIONING

3.1 Introduction

Overview of Goals and Objectives

Building upon the guiding principles of the City's Downtown Redevelopment Implementation Strategy (DRIS), this plan aims to establish a town center, reestablish the grid system while maintaining a view of the Superstition Mountains, and create an identity and sense of place for the downtown area. These goals are realized through the development of a Vision Plan containing design standards, a roadway circulation plan, and development designs for vacant tracts in the Downtown Core District.

This Vision Plan focuses on establishing a Downtown Core District. In order to create streetscape designs that embody residents' values, the proposed designs, which will promote and adhere to the suggested design standards, will focus on bringing a community gathering place back to the downtown without disrupting Apache Junction's small town feel. Detailed designs for future developments in areas identified by community members as being the center of downtown are included as examples of the proposed design standards. The main focus of the designs for future developments will be on commercial and open space. Design standards were chosen over design guidelines because standards will more effectively create a cohesive downtown from which a unique identity can develop.

An updated road map with street connections that promotes a walkable town center and reestablish a grid network accompanies the proposed development designs and District standards. This circulation plan also proposes creating a pedestrian-only zone with temporary event space. Including commercial space with entrances facing both the street and downtown trail system will further attract and accommodate a variety of people.

Overview of Processes and Methods

The process for assembling this plan was broken up into four phases: research, survey, design, and feedback. During the research phase, existing downtown plans from the City that were reviewed. These plans included the Downtown Redevelopment Implementation Strategy (DRIS), Downtown Overlay District Design Guidelines, another downtown study done by students in ASU's School of Geographical Sciences in 2012, downtown park plans, and a roadway connectivity plan. Assessments of these plans can be found in the appendix. Design overlay district plans from various cities were then used to inspire more specific ideas for Apache Junction. Reference cases are primarily limited to design standards and development plans. A list of these plans can be found in the appendix.

During the survey and design phases, two community meetings were held in order to elicit input from the City's residents. The goals of the first meeting were to understand where residents identify the center of downtown to be, how residents and visitors currently use the downtown, what they would like to see develop in the downtown, and which qualities and establishments should be considered essential to Apache Junction's sense of identity. The objectives of the second meeting were to obtain residents' feedback on the design standards developed from the feedback of the first meeting by reviewing the proposed designs for future developments in the District the roadway connectivity plan, and the suggestions for specialized commercial development. The details and results of the public meetings can be found in the appendix. After analyzing the community input, streetscape designs, maps, and standards and future development were finalized.

3.2 Downtown Core District Vision

Roadway Circulation Plan

The Downtown Core District will extend along Apache Trail from Thunderbird to Winchester and includes both the governmental center and the community college (see Map 3-1). The area also has a significant amount of vacant land with over half of the total area as undeveloped and a number of buildings in blighted condition. The District is intended to be the center of the community and the heart of the downtown. It should consist of higher density, mixed-use buildings that accommodate retail, offices, restaurants, and housing. It should have a tight network of streets and smaller blocks, with wide sidewalks, regularly spaced street planting, and buildings set close to the sidewalks.

In order to reestablish a grid pattern around the diagonal main streets (N Apache Trail and Old West Highway) while avoiding, where possible, the demolition of existing structures, a curvilinear roadway design was applied to most of the District. The proposed roads, depicted in dark blue, provide the surrounding neighborhoods with more direct, efficient access to the center of downtown. In order to penetrate the almost entirely vacant core triangle, shorter, more acutely curved roads were proposed. With road access through the core triangle, it is more likely that the vacant land will see more dense development in the future. Furthermore, due to community input at the two public meetings, a pedestrian-only zone has been proposed at the western end of E Scenic Street. This pedestrian-only zone will play host to various temporary events both private and public. By leaving that zone relatively undeveloped, view of the Superstition Mountains will be completely preserved.

Establishing a Brand

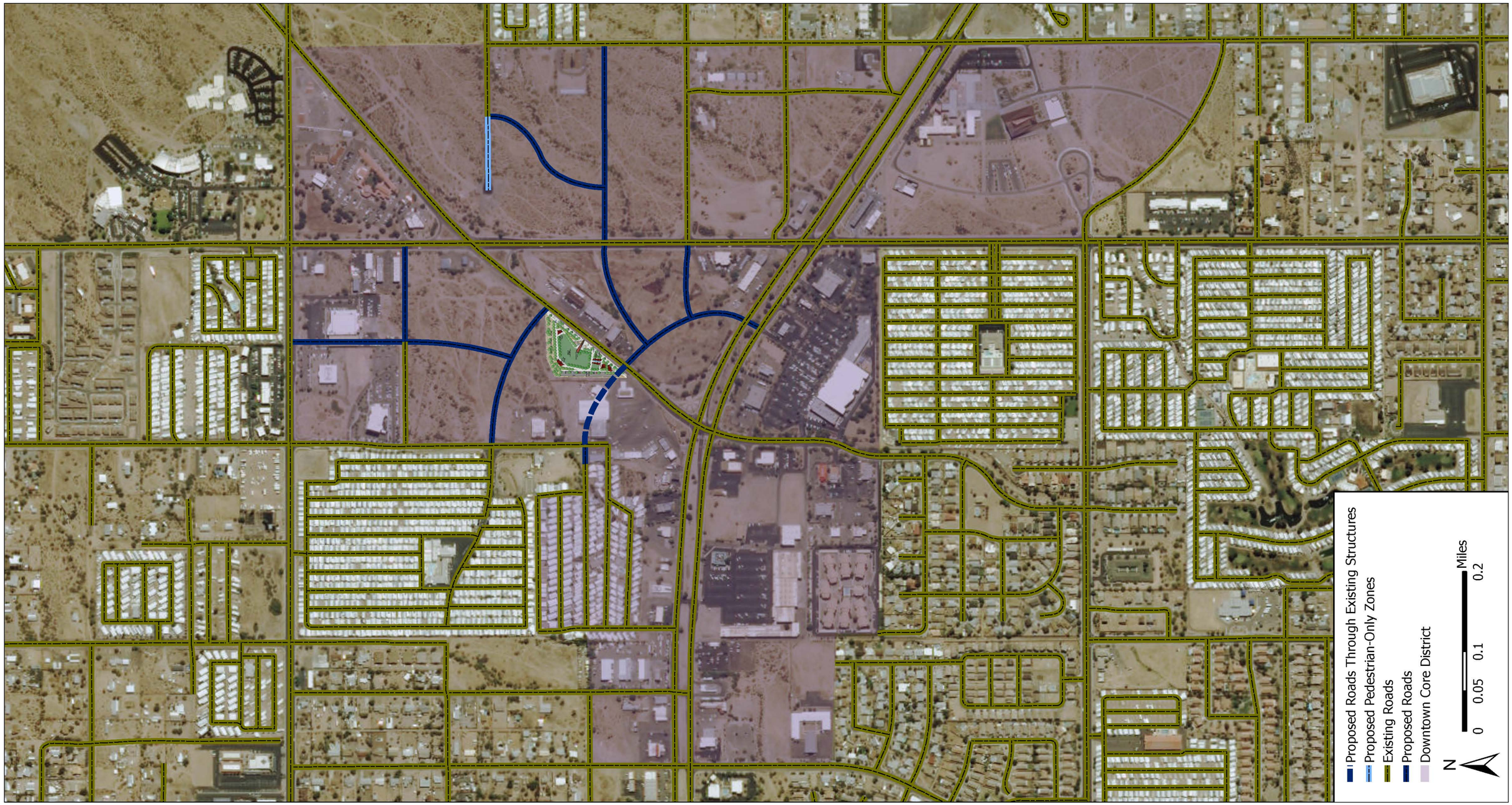
The District's brand should focus on views of the Superstition Mountains and should exemplify a Western feel. The Design Standards and Guidelines that follow will encourage new development and redevelopment to reflect an "old Arizona" architectural character. A western image for the District will satisfy the old Arizona feel, but an added focus will be on creating a pedestrian-friendly, identity-building, downtown core.

The District shall promote its unique identity through branding tools such as a unified color palette, digital assets, ads, flyers, posters, press kit, promotions, templates, merchandise; a physical presence via signage and wayfinding, amenity upgrades, brand ambassadors, events and activities, Master Plans, and streetscape designs; and an Internet presence via social media, photo and video libraries, publications, and press releases.

The transformation strategy for the District involves transitioning the current auto-oriented, big-box-commercial character to a walkable center with Western-style businesses and architecture. A mixture of Western, Pueblo, and Mission style structures will attract visitors to the District and creates a sense of place for residents. Over time, this style will gradually and mildly replace the existing contemporary big box retail. The average height of the buildings will grow to between two and three stories. The conceptual schematic (Figure 3-1) for the aforementioned transition was created based on the color palette from the City's Commercial Design Guidelines.

Figure 3-1: Future growth and development in the Downtown Core District

The Downtown Core District Standards and Guidelines apply to the area depicted in the boundary map on the following page. While the goal of the Standards and Guidelines is to establish a strong cohesive identity for Apache Junction, it is recognized that the district may develop distinct corridors and areas over time. These corridors and areas will differ in density, use, architectural style, and in the amount of space available for development or redevelopment so long as the overall historical quality and western character of the District is maintained.



3.3 Design Standards and Guidelines

Definitions of Standards and Guidelines

Standards are objective, measurable regulations with which all projects must comply. Unless noted as a guideline, all recommendations in this document are to be considered as standards. If a project of exceptional design is clearly consistent with the General Design Principles but does not conform to a certain standard, City staff may approve said project, citing the project's compliance with those principles and with justification. For projects not in compliance with height and setback regulations listed in the Zoning Ordinance for zoning other than Historic, an approved variance will also be required.

Design Guidelines are more subjective statements through which the City proposes additional design strategies. The guidelines should be suitable for most projects, and developers should attempt to ensure that guidelines are followed when possible. City staff will work with developers to explore design approaches that maximize compliance with guidelines. These standards are not intended to replace existing design guidelines, ordinances or standards. The following principles are to be used as a supplement for consistent design within the specially designated area of Downtown Apache Junction.

General Development and Design Principles

The following principles are the building blocks upon which the Standards and Guidelines are created and through which the development can best represent the desires of the community. The following principles will act as the reference point for cohesive development and will guide City staff's review of a project's compliance with the Standards and Guidelines.

1. Maintain a Sense of Place: Apache Junction is known as the gateway to the Superstition Mountains. As such, it not only represents a unique heritage for the city, but also plays a significant role nationally and internationally in preserving history. The desired western character of Apache Junction should be the general concept of all designs. By promoting a cohesive sense of development through architectural design and pedestrian-friendly walkability, these Standards and Guidelines can enhance the existing sense of western pride and identity. Within this district should be buildings, structures, and landscape features that contribute to the District's sense of place and historic character.
2. Maintain a High Standard of Development: The Standards and Guidelines will promote high quality and exceptional design, encourage creativity, and support the diversity of a mixed use environment. Creative and resourceful solutions with compatible local character are encouraged. The Standards and Guidelines will ensure positive growth and development of quality site layout, architectural character, streetscape, lighting, signage, and landscaping. It is important to balance land uses in the District in order to reinforce a diverse mix of housing and leisure opportunities that ensure a high quality of life and the economic support needed. Designs within the District should be planned with long-term viability and success in mind. New construction should make use of readily accessible durable materials and innovative construction techniques to support the sustainability of the District.
3. Preserve and Restore Historic Features: Adaptive reuse and preservation must be encouraged. Historic infrastructure should be preserved if possible, renovated, or adaptively reused. It is important to preserve the distinct urban form and character of the Downtown while pushing for new development. The new development should adhere to design standards in order to continue to embrace the aforementioned historic character.
4. Serve All Groups of People: All Standards and Guidelines should consider all groups of people including seniors and youth to create a comfortable environment. Designs within the District should take into account and attempt to alleviate challenges that may act as a barrier to those with disabilities and comply with state and federal accessibility regulations. The Downtown Core District should follow flexible and diverse development principles that are comfortable to everyone. Public security should be an integral part of the design of the District.

Prominent Architectural Styles

Old West Architecture

Rather than detached structures set back from the street with parking in front, Western commercial design is characterized by a series of connected structures that form a continuous sidewalk (often covered with a porch or awnings) and street façade. The physical continuity of the street façade is important. However, this street façade should be composed of a series of small buildings with vertically proportioned features, often with varied materials and colors, as well as some differences in the height of the structure and the detailing of the architecture. Structures are generally one and a half to two stories in height but may vary slightly from this standard in order to avoid a continuous parapet line. Most western style developments were constructed in an era before the automobile, so the scale of the windows, displays, entries as well as the architectural detail and signage were geared more towards pedestrians. The overall features of western architecture tended to be rectilinear, and 90 degree angles were widely used for major plan and elevation elements. Western style structures incorporate the following key design features:

- Buildings set to the front property line (zero front setback).
- Single and two story structures with building heights that were typically not uniform, but varied from building to building.
- Use of materials such as vertical wood board, horizontal wood siding, and brick masonry.
- Relatively articulated doors and windows with vertical proportions and relatively small panes of glass.
- Pedestrian friendly amenities such as porches, awnings, recessed entries, and planters along the sidewalk.
- Avoidance of the obvious use of more modern materials such as plywood, large plate glass windows, unfinished aluminum, and plastic.
- Signage compatible with this period in size, style, and lettering.

Figure 3-2: Example Western retail space for N Apache Trail, facing east, at the north end of the plaza

Figure 3-3: Example Western retail space for the northwest corner of Apache Trail and N Apache Trail, facing the existing antique mall

Figure 3-4: Example Western retail space for N Apache Trail, facing east, next to the TPG Tax and Accounting

Figure 3-5: Example Western retail/bar space for the intersection of Idaho Road and E Junction Street, facing west

Pueblo Revival Architecture

The Pueblo Revival style draws its inspiration from the Pueblos and the Spanish missions in New Mexico. This style strives to pay homage to the region's history. Traditional Pueblo developments tend to complement the natural, desert environment. Often made of adobe, Pueblo style buildings typically have thick walls protect people and regulate indoor temperatures in the harsh desert surroundings. Pueblo style structures incorporate the following key design features:

- Pueblo-style homes are sometimes made of traditional adobe and other earth-like materials but can also be built with concrete, stucco or mortar.
- Heavy doors, ceiling beams, and porch posts made of wood and exposed at the ends to balance the smooth walls.
- Enclosed courtyards or patios.
- Rounded exteriors with square windows.
- Flat or sloping roofs with parapets. Drainage canals sometimes extend through them.

Figure 3-6: Example Pueblo Revival restaurant/hotel space for Old West Highway, facing northeast

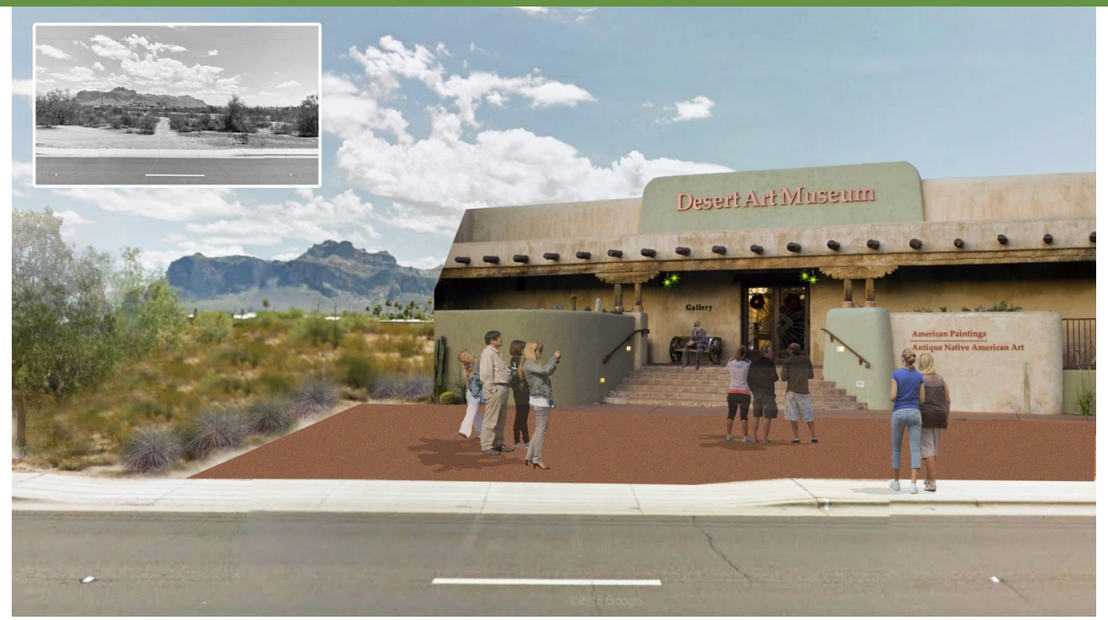


Figure 3-7: Example Pueblo Revival art gallery/museum space for Idaho Road between Scenic Street and E Junction Street, facing east

Figure 3-8: Example Pueblo Revival movie theater space for the intersection of Idaho Road and E Junction Street, facing west

Mission Revival Architecture

Mission style is generally characterized by covered archways and half-rounded windows, smooth stucco walls, and flat or shallow sloped tile roofs. Towers and roof parapets are also common. Extended roofs may form covered arcades with large square pillars or columns which allows interior temperatures to remain lower in hot climates. Mission style structures incorporate the following key design features:

- Simple, smooth stucco or plaster siding.
- Broad, overhanging eaves.
- Exposed rafters.
- Tiled rooftops.
- Roof parapets.
- Large square pillars.
- Twisted columns.
- Arched entry and windows.
- Covered walkways or arcades.
- Round windows.
- Decorative elements consisting of tile, iron, and wood.

Figure 3-9: Example Mission Revival retail space for the southwest corner of N Apache Trail and Idaho Road, south of the existing gas station

Figure 3-10: Example Mission Revival commercial space in Apache Junction

Building Edges: Architectural Standards and Guidelines

Awning and Overhang Guidelines

Covered walkways will be required on all building frontages except where the awning or cover may interfere with vehicular and loading entrances for the building, when the health and safety of the public is jeopardized, or where it may interfere with architectural style and integrity of the structure or obscure architectural details on the façade. Self-illuminated sign awnings are discouraged. Awnings or canopies should not be constructed on historic buildings where there is no evidence to support the existence of such a feature during the building's period of significance. Awnings shall be at least three feet in depth and shall be at least eight feet above the sidewalk.

Roofing Standards

Roof shape and roofing materials shall be harmonious with existing buildings and overall building design. Parapets shall be high enough to screen all roof mounted equipment from the view from grade level. Wind and solar energy devices visible from the public right-of-way require city staff approval. Buildings should have changes in roof heights and vertical planes to reduce the appearance of bulk and create interesting building silhouettes. Buildings should be designed with recognizable tops that employ strategies such as step-backs on upper floors, cornice treatments, roof overhangs, roof brackets, stepped parapets, special materials, or mechanical equipment screens designed as sculptural elements. A variety of roofing colors, textures, and component shapes should be provided.

Exterior Material Standards

Durable exterior materials and finishes including brick, masonry, stone, or stucco facades are encouraged. Creative uses of texture or brushed stainless steel, galvanized, sandblasted, and etched metals are encouraged. Unique treatments such as patinas, rusted, etched, and imprinted metals will be considered for special design objectives. Polished metal should be limited to accent trim. Painted or stained wood may be used in many design applications. In some cases, it may be used for larger architectural elements provided it fits within the design context of the development and District. The following is a list of prohibited materials:

- Plastic laminates
- Glossy material
- Easily damaged surfaces such as large amounts of drywall
- Mirror
- Reflective glass

Fencing Standards

A front fence or railing not exceeding 4 feet in height may extend beyond building façades if the fence encloses a private patio, yard, or sidewalk eating area. The fence is not permitted to encroach on the required sidewalk or other pedestrian space. Railings for outdoor dining shall not extend into the Pedestrian Way. Chain-link fences are not permitted. Developments must provide visual breaks to relieve the linear character of perimeter fencing.

Façade Standards

Changes to existing building facades should complement existing architecture and building footprint. The ground level shall be designed in a fashion to allow conversion to retail or other active uses if they are not feasible at the time of opening. Ground floor glazing and/or fenestration shall be provided in new buildings. Overly tinted, reflective, or opaque glass is not allowed on the ground floor of buildings. Upper-story sections of the building façade facing or visible from a public street shall not exceed fifty percent glass. In new buildings continuous facades greater than 30 feet in length should be broken up with articulation or other architectural treatments. This relief may include, but is not limited to the following: doors and windows, change in depth, columns or posts, changes in materials. Operable windows are strongly encouraged for all buildings. Painting of existing unpainted brick is highly discouraged. However, murals on buildings can be created as long as they are suitable to the western style of the District and do not damage historic materials as murals contribute to a downtown arts appeal and provide interest along an otherwise empty facade. Use energy-efficient design to reduce summer heat gain and winter heat loss. Some of the efficient design should include solar orientation of windows, corner windows, doors, landscaping, shading devices, roof color, and maximum shading in parking lots and outdoor environments. An attempt to mitigate solar effects on the southern and western exposure of buildings should be made. The Downtown Core District may have some higher density residential uses. These houses should often feature porches that address the street.

Entryway Standards

Windows, floors, stoops, and porches shall face the street. A minimum of one functional building entrance shall be provided along the building façade facing the street. Primary pedestrian building entrances shall be located on the street frontage of the building. For buildings fronting other public spaces, the primary pedestrian entrance shall be oriented to and accessible from the public space. This relief may include, but is not limited to the following: doors and windows, change in depth, columns or posts, changes in materials.

Equipment and Service Area Standards

Building equipment and service areas shall be designed and located so that they are not a primary feature and do not interfere with pedestrians or vehicular circulation unless the applicant can clearly demonstrate that it is physically impossible or not economically feasible based on the design of the original building. Equipment and service areas of new developments shall be incorporated into the design of the building. Placement of service boxes shall be located away from pedestrian zones. Waste receptacles shall be located at the rear of the property out of site from any street and screened from public view. Rooftop equipment should not be visible from neighboring properties at the same level or below. Visible equipment shall be constructed of non-reflective material and screened to the greatest extent possible. Screening materials shall be chosen to blend with and complement the architectural style of the building. Some yards can feature ancillary structures such as sheds and storage.

Elements of a Streetscape: Pedestrian Space Standards and Guidelines

In order to reinforce the District as a marketplace, pedestrian circulation at the street level should be encouraged. Sidewalks and streets can be seen as a linear park system by expanding comfortable sidewalks and creating energized streets in the District. Streetscape components should be chosen with the intent of fusing the environment and meet western style brand, in a way that will create a pleasant gathering place. The streets should support a mix of uses.

Sidewalk and Pedestrian Way Standards

The width of the sidewalk shall be consistent with the prevailing street pattern. All sidewalks shall be at least 7 feet wide and have a minimum of 5 feet of unobstructed Pedestrian Way. Sidewalks shall comply with ADA Standards except on minor renovation projects on properties with existing sidewalks. Where sufficient right-of-way and/or public access easement exists, the pedestrian way shall be greater in width. Sidewalks shall be installed along all street-facing façades. Concrete or a combination of brick and concrete shall be used for all sidewalks in the District. Asphalt is discouraged. Walkways shall be provided to connect the building entrance(s) to the public sidewalk. Walkways that cross parking areas or a drive aisle shall be clearly identified, either with different paving materials or with painted crosswalk striping.

Sidewalk and Pedestrian Way Guidelines

Landscaped sidewalks are encouraged. To strengthen functionality, the sidewalk should have directional signs and wayfinding devices tailored to the pedestrian. Signs detailing and identifying downtown destinations are encouraged as part of the Pedestrian Way.

Setback Standards

Primary structures shall be setback from any street no more than 15 feet. All street frontages require street-level, pedestrian-oriented uses. Larger setbacks will be approved if the space created provides an outdoor seating area, a hardscape plaza, or similar pedestrian space.

Landscaping Standards

Trees and landscaping will lead to increased comfort and sense of place for pedestrians. Trees shall be selected to fit the size and scale of the setting. Developments that are set back from the build-to line shall incorporate landscaping. Potted plants shall be compatible in scale and design with the immediate surrounding area. Public and private development shall provide shade trees. Natural native desert trees, shrubs, and groundcovers should match the surrounding undisturbed desert. Plant street trees and street landscaping shall be spaced a minimum of 25 feet apart or as specified by the City.

Bicycle System Standards

Bike routes should be clearly defined and implemented to provide continuity of access from outlying areas to the downtown. Bike racks should be provided at all activity centers. More bicycle system standards and guidelines are included in trail connectivity master plan.

Figure 3-11: Example bicycle rack *(CycleSafe, 2016)*

Figure 3-12: Example bicycle rack *(Xavier Snelgrove, Toronto, 2005)*

Lighting Standards

All new development and redevelopment shall provide pedestrian lighting. Lights should be durable and easy to maintain or replace. Lighting shall be designed in a manner to avoid disturbances and glare onto adjacent properties. Lighting should illuminate the street while showing consideration for the historic nature of the downtown area. Lights directed towards the sky are prohibited. Exterior lighting should be designed to complement the character of the building. Parking lots and pedestrian walkways should be illuminated uniformly and to the minimum level necessary to ensure safety. Street lamps should be of the decorative variety that's in scale with the size of the downtown street. Street lamps should be made of non-reflective metal.

Lighting Guidelines

Continuity of lighting style throughout the district is encouraged. Creative, energy-efficient, and high-quality designs for outdoor lighting that reflect the character of the local context are encouraged. Downtown street lamps should support banners celebrating the downtown area of Apache Junction.

Figure 3-13: Example light fixture *(Instructables)*

Figure 3-14: Example light fixture *(The Barn Light, 2015)*

Figure 3-15: Example light fixture *(1001 Pallets, 2015)*

Parking Standards

On-street parking is encouraged. The number of off-street spaces shall not exceed 100% of the total prescribed by the Zoning Ordinance, unless a parking study demonstrates need for additional spaces. Lots shall be located behind or to the side of buildings. Parking lots that front a street shall be separated from the sidewalk by a decorative and durable planted landscape buffer. Parking area lighting fixtures should match light sources and fixtures used to illuminate pedestrian and open spaces.

Furnishings Standards

Local businesses and public institutions can entice pedestrians passing by through enhancing the environment around their building with the addition of benches, planter boxes, moveable planters, and sidewalk cafes. Benches, bike racks, trash cans, and other movable objects shall be compatible with existing furnishing along the block and should be incorporated into streetscape designs on streets planned for high levels of pedestrian activity. Furnishing elements should be durable, cost effective, and easy to maintain. All elements found in the right of way should be constructed from materials found in or made from the desert setting or interpret such materials in form texture and color.

Figure 3-16: Example waste bin
(Google, Tempe, 2013)

Figure 3-17: Example waste bin
(Global Industrial Canada, 2016)

Figure 3-18: Example bench in Apache Junction

Figure 3-19: Example bench in Apache Junction

Signage Guidelines

Identification signs, vehicular signs, and pedestrian signs should be set up in the District to guide visitors. Banner, hanging, window, monument, temporary, and creative signs are encouraged to use for both business and public event. Signs should be considered both as a communication tool and as an art form that strengthen Apache Junction's brand. Creative signs bring fun and vitality to the City streets and are encouraged. City staff will review creative signage proposals. Signs should relate in color and material with the building façade and streetscape. Signature graphic and logos are allowed to be used as signs for the businesses they represent. Colors should contribute to legibility and visual appeal. Lettering should be in proportion to the size of the sign. Signs on side or rear building walls for a ground floor business are permitted provided that the wall contains a public entrance, fronts a parking lot, or fronts a street. The number of signs per building façade should be limited to the fewest necessary to clearly identify businesses located within the building.

Monument Sign Guidelines

A monument sign can be set on a base or frame, presenting a solid, attractive, and well-proportioned appearance that complements the building design and materials. Monument signs must have opaque backgrounds with a non-reflective material and may only display, at most, the building or development name, logo, and the business address.

Figure 3-20: Example monument sign in Apache Junction

Identification Sign Guidelines

Identification signs should be placed at predominant intersections or locations along major vehicular routes into the City. They should be designed with a grand appearance and should be large enough text to be read at higher traffic speeds.

Figure 3-21: Example identification sign *(Richard Cummins, Temecula)*

Figure 3-22: Example identification sign in Apache Junction

Vehicular Sign Guidelines

Vehicular signs should provide information to help visitors locate attractions and resources within the City. These signs should be located in close proximity to the actual site. Sign locations should consider turning and entry points.

Figure 3-23: Example vehicular sign
(Around Dublin Team, Dublin, 2014)

Figure 3-24: Example vehicular sign in Apache Junction

Hanging Sign Guidelines

Hanging Signs are projecting signs suspended below a marquee or canopy. Hanging signs can include logos, symbols, or lettering. A hanging sign is generally intended to be read by pedestrians and by motorists in slow-moving vehicles.

Figure 3-25: Example hanging sign
(Alabama Metal Art, 2016)

Figure 3-26: Example hanging sign
(Natural Signs)

Pedestrian Sign Guidelines

Pedestrian signs should be provided where the highest level of foot traffic is anticipated.

Figure 3-27: Example pedestrian sign in Apache Junction

Figure 3-28: Example pedestrian sign
(Simon L. Montgomery Photography, Dodge City, 2010)

Window Sign Guidelines

Window signs should not completely obscure visibility into or out of the window. A maximum of one window sign is permitted per window pane or framed window area. Window signs are limited to ground floor windows facing the primary street frontage and adjoining parking lot or commercial uses that do not have ground floor occupancy.

Figure 3-29: Example window sign *(Flatiron Hall, New York, 2016)*

Banner Sign Guidelines

Banner signs contain a logo or design placed on material that moves in the wind. The size of commercial banners should be in scale with the building. Flagpoles and brackets should be placed so as not to obscure architectural elements. Locations should be considered in context of the entire façade.

Figure 3-30: Example banner sign
(Sign999, 2014)

Temporary Sign Guidelines

Temporary signs include grand opening banners, community interest signs on private property, construction signs, and real estate signs. Temporary signs are allowed for a limited amount of time. Each restaurant is allowed to have one A-frame sign.

Figure 3-31: Example banner/temporary sign in Apache Junction

Open Space: Public Park, Plaza, and Art Standards

Public Art Guidelines

With regard to public art, three types of policies should be adopted:

- Adopt a policy to allocate a percentage of construction costs for public buildings to public art.
- Adopt an incentive program for private individuals to donate or loan art to be used in public places.
- Develop a process for evaluating and selecting public art for the downtown.

Public arts should serve to strengthen the Western-style brand and attract visitors to public spaces and events. Permanent and temporary public art installations should represent the history and identity of the city. Public art should include the following types:

- Art sites: These sites should be installations that are strategically located to serve as accents in the community, such as at gateways into the downtown or as focal points in public parks.
- Streetscape art: These installations should be designed as integral components of the streetscape elements.
- Sculpture gardens: Sculpture gardens are small spaces like plazas or courtyards that incorporate a series of sculptures.
- Art parks: These are sites where artists would be commissioned to develop an entire site as an art installation that would be considered a part of the parks system.
- Murals: Murals on buildings, as long as they do not damage historic materials, also contribute to a downtown arts appeal and provide interest along an otherwise empty facade.

Figure 3-32: Example public art site in Apache Junction

Public Parks and Plazas Standards

All public spaces in downtown Apache Junction should be designed at the human scale and should adapt to seasonal population changes. Seven types of parks, plazas, and open spaces should be added to the downtown to create a well-organized public space system. Large plazas for organized events, playgrounds for children, passive green space to serve nearby residents, seating areas for pedestrians to relax, small outdoor spaces for smaller gatherings, performance space for outdoor concerts and for other cultural events, and farmers' markets which can be adapted to serve other purposes on non-market days. To ensure public comfort, public spaces should include furnishings and provide shade as outlined in the Furnishings Standards and the Landscaping Standards and Guidelines above. Public open space should be provided within walking distance of all Downtown residents and employees. A network of open space within the Downtown District shall be created to connect various types of public and private parks.

Figure 3-33: Example public park or temporary event space for Idaho Road between Scenic Street and E Junction Street, facing northwest

Outdoor Rooms, Patios, and Courtyards Guidelines

New developments located in the District are encouraged to create outdoor rooms and open patios. Hospitality and entertainment businesses should include outdoor dining features. Developers should anticipate outdoor area in adjacent developments and create flexible open spaces that are harmonious with the public parks and plazas. Courtyards can be considered for single or multiple projects that create an exterior room not directly open to the street. The courtyard shall be accessible to the public during normal business hours. At least 10% of the outdoor space shall be landscaped with shade trees and or gardens. Entries to courtyards should be lighted and designed to avoid hiding places. For each 75 square feet of court (in addition of permitted outdoor dining), there shall be at least one additional sitting place. No more than 45% of the courtyard should be covered with a roof, canopies, awning, or balconies.

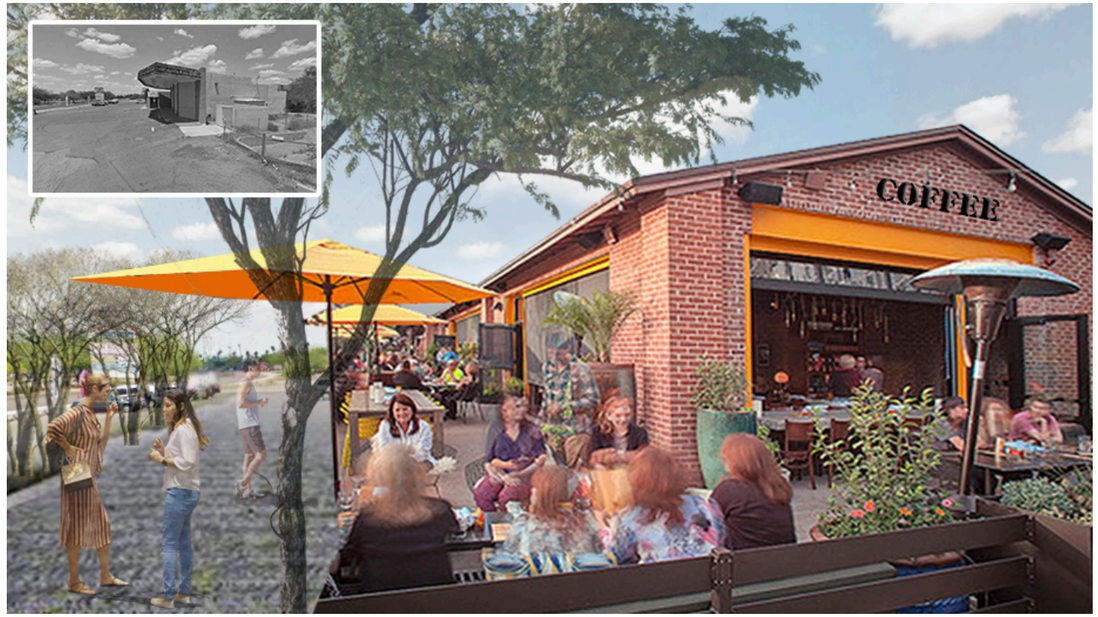


Figure 3-34: Example private patio space for the intersection of Old West Highway and Idaho Road

Figure 3-35: Example public plaza or temporary event space for the west end of Scenic Street

Figure 3-36: Example public plaza or temporary event space for the west end of Scenic Street

3.4 Funding Opportunities

There are opportunities to finance public initiatives for redevelopment and revitalization of Apache Junction's Downtown Core District Area, as shown in Table 3-1. These varying mechanisms can be sourced from either the Federal or Arizona State Government such as block grants or tax incentives.

One such grant program is HUD's Community Development Block Grant Program (CDBG). In the past, CDBG grants have been awarded to the City of Apache Junction, accounting for $100,000 in funding for FY 2016. CDBG funds usually give preference to projects that result in a benefit to low- and moderate-income individuals and households.

The Government Property Lease Excise Tax (GPLET) substitutes the fee of property tax with an excise tax based on aspects of the land-use such as building type, building use, and calculated gross square footage. The GPLET can stand for a maximum of twenty-five years. However, the fees can be abated for eight years if the property in question is location within a designated CBD or redevelopment area. In the past, GPLET has been blamed for halting small business development. Therefore, the GPLET now involves more restrictions to address that problem. GPLET rates will vary if the leases of government property improvements meet the following conditions:

- Leases entered into prior to June 1, 2010.
- Leases that were authorized by the governing body of the government lessor prior June 1, 2010.
- Lease was certified based on specified conditions occurring that alter the rate of GPLET.
- The lease was entered into within 10 years after the date the development agreement was entered into, or the ordinance or resolution was approved by the governing body.

The cost of cultural and placemaking efforts could be reduced through National Endowment of the Arts (NEA) grants. Grants range from $10,000 to $100,000 for projects that encourage development or enhancement of new or existing art forms, new ways to engage the public with art, and new ways to create or present art in distinctive or unconventional ways. The four objectives of the Art Works program are creation, engagement, learning and livability.

Tax incentives like the Low-Income Housing Tax Credit (LIHTC) would be beneficial in funding affordable housing. With a median income of approximately $36,771, the City of Apache Junction could use the LIHTC to ensure that residents are not burdened by the cost of their housing. Residents who spend more than 30% of their AMI on housing are considered cost burdened.

HUD's Main Street Grants help small communities develop affordable housing in connection to a Main Street revitalization project. The grant provides assistance to local governments with a population of 50,000 or less with 100 or fewer public housing units. Grants can only be awarded to communities with existing Main Street rejuvenation projects, and funding may be used to either build new affordable housing or to reconfigure obsolete or surplus commercial space into affordable housing units.

Funding Agency	Type	Grantor	Description	Website
HUD Main Street	Affordable Housing	Federal	• Funds that usually give preference to projects that result in a benefit to low- and moderate-income individuals and households • Have accounted for $100,000 in funding for AJ for FY 2016	www.hud.gov
HUD CDBG	Community Development	Federal	• Funds that usually give preference to projects that result in a benefit to low- and moderate-income individuals and households • Have accounted for $100,000 in funding for AJ for FY 2016	www.hud.gov
Low-Income Housing Tax Credit	Housing/ Tax Incentive	Federal	• Tax incentive that ensures residents are not burdened by costs of housing • Those spending over 30% of their AMI are considered cost burdened	www.hud.gov
Government Property Lese Excise Tax	Economic Development/ Redevelopment	State	• Substitutes property tax with excise tax, based on aspects of land-use (building type and use, square footage). • Can stand for max 25 years, but fees can be abated for 8 years if property is located in CBD, or revitalization area.	www.azdor.gov
NEA Place-Making	Public Art	Federal	• $10,000 - $100,000 for projects that encourage development or enhancement of new or existing art, engage the public, and create or present art in new or distinctive ways.	www.arts.gov

Table 3-1: Funding opportunities for downtown development

4 STATE LAND VISIONING

4.1 Introduction

The State Land Visioning Group has been charged with creating a conceptual plan and guiding strategies for potential development of a vast area of under-developed state trust land in Apache Junction, Arizona. Almost all of the land is located south of the Superstition Freeway (US 60), with one parcel of the visioning study area located north of the US 60. The Arizona State Land Department and the City of Apache Junction have previously worked together creating their own conceptual plan, drafted in January 2014, known as the Lost Dutchman Heights (LDH) Concept Plan. The LDH plan covered 7,700 acres of build-out in the form of a master planned community which proposed 38,000 residential units, 13.5 million square feet of nonresidential development, and 1,500 acres earmarked for open and green space. This visioning exercise will consider this prior report, however, intends to build a unique plan to suit the currently understood needs of Apache Junction.

The State Land Visioning Group will look to guide the city and developers who may want to build on this large amount of state land held in trust. This project is limited in scope and will provide sample plans for four main development components: a circulation plan, a corridor for economic activity, a Planned Unit Development (PUD) area and preservation of the natural washes South of US 60, notably Siphon Draw.

The circulation plan is largely developed from existing plans sourced from the Arizona Department of Transportation (ADOT), with adjustments made to suit the geography of the area. The economic corridor is designed to broaden the city's tax base and provide jobs and amenities to the area. The PUD area will cover nearly half the total study area at approximately 3,600 acres that will largely be developed for residential units, providing an appropriate amount of amenities to promote walkability in the area. The existing washes are to be preserved in their natural state as much as possible while creating multi-modal trails to accommodate equestrian activity, walking, and biking, connecting the newly developed area with the more established natural amenities to the northeast leading up to the Superstition Mountains.

The economic corridor component of this report looks to determine the greatest opportunities for the development of big box stores and office facilities directly fronting the highway. This corridor is to be located at the northeast corner of Ironwood Dr. and Baseline Ave., extending to the northeast corner of Idaho Rd. and Baseline Ave. With the highway frontage maximized by stores that can grab attention due to their scale, development intensity will decrease moving further south of the Superstition Freeway.

Additionally, this development is intended to bring consumers into Apache Junction, improving the city's regional competitiveness and minimizing retail leakage. Superstition Springs Center and Superstition Gateway in East Mesa, along with Queen Creek Marketplace in Queen Creek, have been preliminarily noted as major competitors for the economic corridor's future business. Along the southern side of Baseline Rd. land is to be designated for a traditional "main street" development, hoping to create a sense of place and community through mixed use development. The goal here is to add to the potential sales tax base, while improving walkability in the overall area. In addition, the small business mixed use development connects the economic corridor with the PUD area to the East. Furthermore, the economic corridor component of the plan evaluates key industries to target for attraction in retail sectors, according to retail leakage reports. Last, a commuter shed is evaluated at 10, 20, and 30 minute intervals from the proposed employment corridor to determine the total market size.

One of the most important goals of this report is to develop a strategy to preserve some of Apache Junction's best amenities: natural washes that are ripe for use as the basis of a multi-modal trail system and incomparable views of the Superstition Mountains. Public input overwhelmingly noted a preference for keeping the washes largely natural in appearance while also adding amenities to improve their use. The citizens of Apache Junction believe that the city is falling behind rivals like Queen Creek and Mesa in terms of providing activities for permanent and seasonal residents.

In order to address these concerns, multimodal trails are to be placed wherever possible along the washes. The trails will be used to put in greenways that follow the natural topography of the land and maintain sight lines of the Superstition Mountains, providing space for low impact physical activity. Decreasing allowable development intensity and heights along the washes are key to creating a view corridor, essential to maintaining Apache Junction's label as "Gateway to the Superstitions". As development moves away from washes and their trails, development intensity increases, particularly in crucial areas connecting to the unincorporated community of Gold Canyon to the East. Additionally, this report will note potential areas for improving existing connections with established trails, right-of-ways, and development while also proposing entirely new connections.

The vision for development of the PUD framework is intended to demonstrate the application of described strategies and a potential form that would employ this land use at an acceptable build out level. The PUD area as envisioned will be divided into 5 sub-areas, regulated for acceptable land uses per Apache Junction's current city codes. In addition, zoning codes specific to the PUD boundaries are proposed. The designated PUD study area consists of approximately 3,600 acres located to the South of Baseline Road, bounded to the East by the Tomahawk Road alignment, to the West by the Mountain View Road alignment and to the South by the Elliot Road alignment. Though a majority of the land is to be zoned for residential uses, a variety of acceptable land uses are proposed within the PUD boundary.

The PUD is currently being referred to as Superstition Ranch by the project team, though this is simply an example of how the area can be branded for marketing purposes by future developers. Residential clustering will be key to reaching the goal of maximizing open space preservation while allowing for a high development intensity. To preserve the natural state of the washes, much of the development will be single family residential homes. In order to mitigate the detrimental socio-economic effects of sprawl, land use intensity will increase as development moves away from the washes. This increase in intensity is intended to improve the viability for future public transit corridors as well as maintain the critical mass of patrons to local businesses in an effort to decrease business closure and associated perceptions of blight.

In summary, this vision for development of the state land south of US 60 in Apache Junction has four primary goals and associated strategies:

1. Outline new right-of-ways to be developed for circulation in the area, adapting to the unique geography and environment while improving connections to existing development in the city and surrounding areas.
2. Establish economic vitality according to current best practices of retail development to enhance Apache Junction's tax base and competitiveness in the region in terms of business attraction potential.
3. Create and enhance the unique identity of the area by encouraging small business establishment in the new economic corridor as well as guiding development to maintain open green space around existing washes.
4. Encourage high density residential and mixed use development in strategic areas to improve regional viability of mass transit systems and local businesses.

The plans provided by the project team in this report are intended to demonstrate a way in which the above strategies can be manifested and maintained over the course of several decades of development in the subject area. While other means of carrying out these goals may ultimately be taken by the City of Apache Junction, it is believed by this project team that development guided by and intended to carry out these goals will ultimately be more sustainable in social, economic and environmental measures and qualities than development that is carried out not heeding these guiding principles.

4.2 Circulation Plan

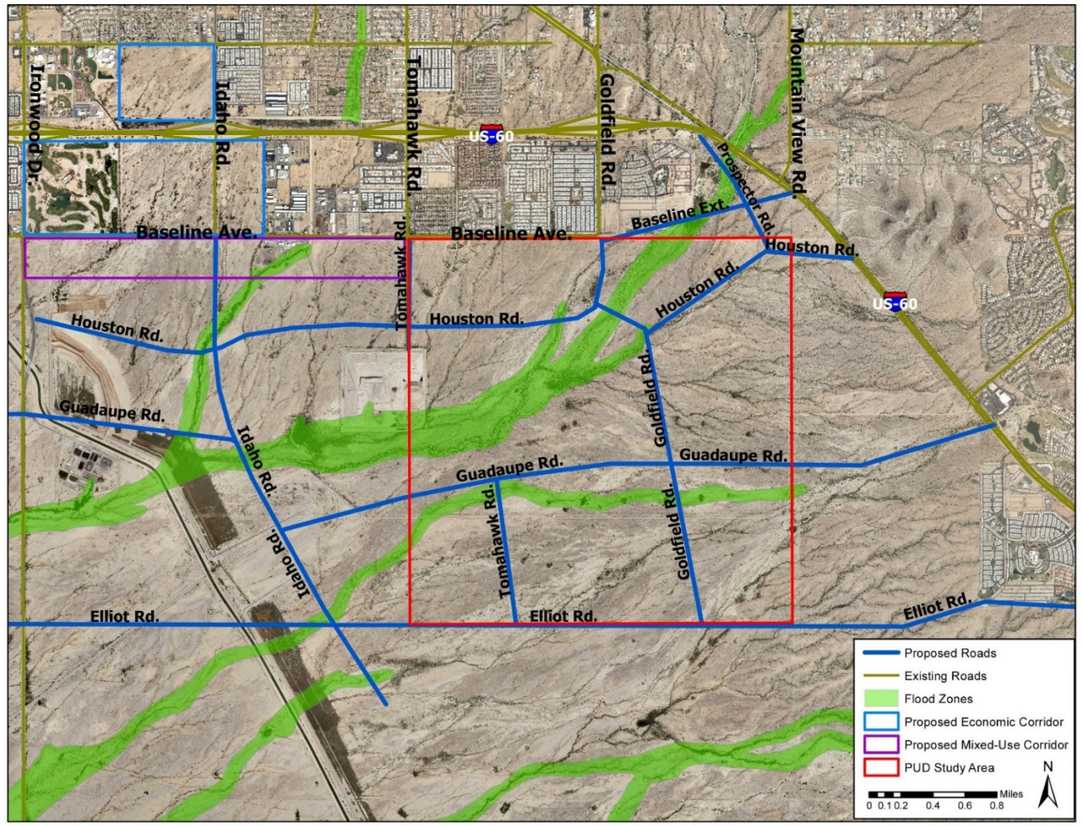
Regional Connectivity

With the proximity to Route US 60, Apache Junction serves as a connecting point with East Mesa and the community of Gold Canyon to the east. The routes described below are based on Arizona Department of Transportation's (ADOT) "Apache Junction Comprehensive Transportation Study". Development of new right of ways, as described in this plan will facilitate the implementation of the Planned Unit Development framework and necessary access from markets to the south for the Economic Corridor. Potential ADOT projects that were not included are the north-south freeway corridor, and the CAP canal enhancement.

Right of Way Changes & Improvements

The north-south arterials in the study area from west to east are as follows: Ironwood Dr., Idaho Rd., Tomahawk Rd., Goldfield Dr., and continuation of Route US 60 with Old West Highway. The East-West arterials from North to South are as follows: Baseline Ave., Houston Ave., Guadalupe Rd., and Elliot Rd.. To allow connection towards the downtown area and schools located north of the US 60, Idaho Rd., Tomahawk Rd., and Goldfield Rd. were continued. Houston Ave. intersects from Ironwood Dr. eastward and merges into Goldfield Rd.—allowing for Siphon Draw to remain unobstructed from major arterials. To the Northeast of the area, Baseline Ave. is extended eastward to the intersection of Mountain View Rd. and Rt. US 60.; Old West Highway diverts Southwest and merges with Houston Avenue into US 60. To Siphon Draw's Southern side, Guadalupe extends East into Idaho Rd. and bounds the Southern wash to the US 60. This is illustrated in Map 4-1.

(Arizona Department of Transportation: Apache Junction Comprehensive Transportation Study, 2012)



Map 4-1: Circulation Plan Outline

4.3 Economic Corridor

Economic Modeling Specialists International's regional demand for industries tool was utilized to obtain an understanding of the transactions which may contribute to Apache Junction's Transaction Privilege Tax (TPT) revenue. Before analyzing the figures, it should be noted there are unresolvable accuracy issues associated with sourcing these data at the zip code level as well as issues associated with counting transactions on private households and governments in this model. Using liberal assumptions, these figures are provided to establish a theoretical maximum for Apache Junction's ability to capture taxation revenue.

According to the data provided, industries in the zip codes associated with Apache Junction and the surrounding unincorporated communities of Pinal County require approximately $2,043,000,000 of transactions annually. Approximately $84,700,000 or 4.15% of these transactions are satisfied within the same geographic boundaries. Compared to more accurate transaction figures for the Phoenix Metropolitan Statistical Area, where total industry requirements equal $373,871,000,000; 55.48% of these requirements are satisfied within the region.

Granted, given the global nature of the economy, Apache Junction could never conceivably satisfy all the needs of the consumers and industries within its borders while maintaining its expected levels of growth or even its current population. However, if the city were somehow able to capture these expenditures at the retail tax rate of 2.4%, the 2016 general fund would increase from $25,019,850 by $47,989,200, to $72,009,050. Such an increase in Apache Junction's annual revenue would improve the city's ability to provide services by nearly 191% per capita if the population were to remain the same, or, would provide the same level of service to a population of approximately 114,000.

In order to more accurately and comprehensively analyze the industries which Apache Junction may develop to increase its fiscal revenue stream, a different data source is needed. Thankfully, the city has previously commissioned a retail leakage report from Buxton Company that provides a clear image of what industries Apache Junction has the potential to develop in order to meet resident's needs. This report uses transaction data from Visa so as to estimate the total amount spent by citizens of Apache Junction on various industries and how much of these sales are captured by firms located in the city's bounds. From this we can determine the opportunities that future retail developments can take advantage of to expand the city's tax base. With this more precise measure of retail activity summarized in Table 4-1, it can be seen that the city loses $644,563,392 to other areas in retail expenditures. This retail leakage amounts to $15,469,521 of lost fiscal revenue at the current tax rate.

Store Type	Potential Sales[1]	Estimated Sales[1]	Demand Captured[2]	Lost Sales[3]	Lost Fiscal Revenue[4]
Motor Vehicle Parts & Dealers	$285,190,058	$158,505,105	55.58%	$126,684,953	$3,040,439
Furniture & Home Furnishing*	**$46,447,448**	**$12,716,257**	**27.38%**	**$33,731,191**	**$809,549**
Electronics & Appliance Stores	$42,503,369	$25,238,865	59.38%	$17,264,504	$414,348
Building Material & Garden Equipment & Supply Dealers*	**$133,731,621**	**$54,539,931**	**40.78%**	**$79,191,690**	**$1,900,601**
Food & Beverage Stores	$229,964,327	$167,235,843	72.72%	$62,728,484	$1,505,484
Health & Personal Care Stores*	**$103,933,135**	**$47,616,261**	**45.81%**	**$56,316,874**	**$1,351,605**
Clothing & Clothing Accessories Stores*	**$80,955,133**	**$20,843,840**	**25.75%**	**$60,111,293**	**$1,442,671**
Sporting Goods, Hobby, Book & Music Stores*	**$41,307,846**	**$13,623,583**	**32.98%**	**$27,684,263**	**$664,422**
General Merchandise Stores	$238,206,774	$194,374,284	81.60%	$43,832,490	$1,051,980
Miscellaneous Store Retailers	$58,391,127	$37,022,270	63.40%	$21,368,857	$512,853
Foodservice & Drinking Places*	**$189,821,663**	**$74,172,870**	**39.08%**	**$115,648,793**	**$2,775,571**
Total/Average	$1,450,452,501	$805,889,109	55.56%	$644,563,392	$15,469,521
Selected Store Types[5]	**$596,196,846**	**$223,512,742**	**37.49%**	**$372,684,104**	**$8,944,418**

Table 4-1: Summary of Retail Leakage Findings *(Buxton Company)*

[1] Potential and Estimated Sales are provided by the Buxton Study, sourced from the Current Year CAPE (Census Area Projections & Estimates) Consumer Expenditure Estimates and Census of Retail Trade, Merchandise Line Sales. These two components were then combined in order to derive estimated potential by store type.
[2] Demand captured or the ratio of Potential Sales to Estimated Sales was presented originally in the study as a single digit decimal. This was recalculated here as a percentage to be more comprehensible to the reader.
[3] Lost Sales were calculated by subtracting potential from estimated sales.
[4] Lost Fiscal Revenue was calculated by multiplying each store type's Lost Sales by the municipal retail tax rate of 2.4%
[5] Selected Store Types refers to retail categories that have been bolded and noted with a star.

Based on the preliminary numbers above, it is clear that the greatest opportunities in retail development lie in the sectors of Furniture & Home Furnishing, Building Material & Garden Equipment & Supply Dealers; Health & Personal Care Stores; Clothing & Clothing Accessories Stores; Sporting Goods, Hobby, Book & Music Stores and Foodservice & Drinking Places.

These retail sectors account for $8,944,418, more than 50% of the lost fiscal revenue described above. These are exactly the kind of stores that retail centers are known to contain, demonstrating both the need and viability to pursue their location at the development site at Ironwood Drive and Baseline Road. Further analysis below will determine the degree to which these needs are met by regional competitors that are within driving distance of the city and may detract from the long term sustainability of such establishments at this location. Additionally, a more detailed breakdown of the selected store types can be found in Appendix 4-A.
(Economic Modeling Specialists International, Buxton Company, City of Apache Junction)

4.3.1 Major Competitor Retail Centers

Apache Junction faces competition for retail spending from the adjacent cities of Mesa and, to a lesser extent, Queen Creek. The retail centers of Superstition Springs, Superstition Gateway and Queen Creek Marketplace have been identified as the primary competition to future retail development in the study area.

Superstition Springs

Superstition Springs is a large shopping mall in East Mesa, the closest enclosed mall to the City of Apache Junction. It is located approximately 12 minutes without traffic from Baseline Ave. and Ironwood Dr. via the US-60, 8.6 miles separate the two points. Apache Junction residents can make the trip, but there is an opportunity to create a successful retail center closer to Apache Junction, also serving Gold Canyon which does not have a significant amount of retail development currently. The anchor department stores at Superstition Springs are:

- Dillard's (General Merchandise)
- JC Penney (General Merchandise)
- Macy's (General Merchandise)
- Sears (General Merchandise)

Other major stores include:

- Aeropostale (Clothing)
- Applebee's (Full Service Restaurant)
- Chick Fil-A (Limited Service Restaurant)
- Finish Line (Shoe Store)
- Foot Locker (Shoe Store)
- GameStop (Games Store)
- GNC (Health and Personal Care)
- Hollister Co. (Clothing)
- McDonalds (Limited Service Restaurant)
- Olive Garden (Full Service Restaurant)
- Panda Express (Limited Service Restaurant)
- Sports Authority (Sporting Goods Store)

Superstition Gateway

Superstition Gateway is an outdoor mall in East Mesa that is highly proximate to the proposed location, just 2.2 miles or 5 minutes West of Ironwood Dr. on Baseline Ave. at Signal Butte Rd. If development were to proceed, potential tenants' decisions to locate are highly likely to be impacted by the amenities provided by this shopping center. Anchor tenants for Superstition Gateway are:

- Walmart (General Merchandise)
- Best Buy (Electronics and Appliance)
- Kohl's (Family Clothing)
- LA Fitness
- IMAX Theatres
- Bed Bath & Beyond (Home Furnishing)
- Ross Dress for Less (Family Clothing)
- Babies 'R' Us (Children's and Infants' Clothing and Care)

Other major stores include:

- Cold Stone Creamery (Special Foodservices)
- Del Taco (Limited Service Restaurant)
- Famous Footwear (Shoe Store)
- Gamestop (Games Store)
- GNC (Health and Personal Care)
- Chili's (Full Service Restaurant)
- In-n-out Burger (Limited Service Restaurant)
- Jamba Juice (Special Foodservices)
- KFC (Limited Service Restaurant)
- Mattress Firm (Home Furnishing)
- Panda Express (Limited Service Restaurant)
- Party City (Miscellaneous Retailer)
- PetSmart (Pet Supplies)
- Sally Beauty Supply (Cosmetics and Beauty Supplies Store)
- Staples (Miscellaneous Retailer)
- Starbucks (Limited Service Restaurant)
- Subway (Limited Service Restaurant)

Queen Creek Marketplace

Queen Creek Marketplace is located approximately 14 miles from the proposed economic corridor at the Southwest corner of Ellsworth Rd. and Rittenhouse Rd. By car the drive is approximately 16 minutes without traffic via the US-60 and Loop 202 or 18 minutes without traffic via Ironwood Dr. and Ocotillo Rd. Though Queen Creek's retail may not be so easily accessible as locations in East Mesa, development strategies for this location must consider the amenities provided here, particularly as both Queen Creek and Apache Junction expand into the miles of state land that currently lie undeveloped between them. Anchor tenants for Queen Creek Marketplace are as follows:

- Target (General Merchandise)
- Harkins Theatre
- Sport Chalet (Sporting Goods Store)

Other major stores include:

- Bed, Bath & Beyond (Home Furnishings)
- Buffalo Wild Wings (Full Service Restaurant)
- Dollar Tree (General Merchandise, Discount)
- Kohl's (Family Clothing)
- Ross Dress for Less (Family Clothing)
- PetSmart (Pet Supplies)
- Smashburger (Limited Service Restaurant)
- Jo-Ann Fabrics and Crafts (Sew/Needlework/Piece Goods, Home Furnishings)
- Stein Mart (Home Furnishings)
- Sally Beauty Supply (Cosmetics and Beauty Supplies Store)
- BevMo! (Food and Beverage)
- Ulta Beauty (Cosmetics and Beauty Supplies Store)

For the 56 stores listed above, the described store types are summarized in Table 4-2

Children's and Infants' Clothing and Care	1
Clothing	2
Cosmetics and Beauty Supplies Store	3
Electronics and Appliance	1
Family Clothing	4
Food and Beverage	1
Full Service Restaurant	4
Games Store	2
General Merchandise	6
General Merchandise, Discount	1
Health and Personal Care	2
Home Furnishings	4
Limited Service Restaurant	10
Miscellaneous Retailer	2
Other	3
Pet Supplies	2
Sew/Needlework/Piece Goods, Home Furnishings	1
Shoe Store	3
Special Foodservices	2
Sporting Goods Store	2

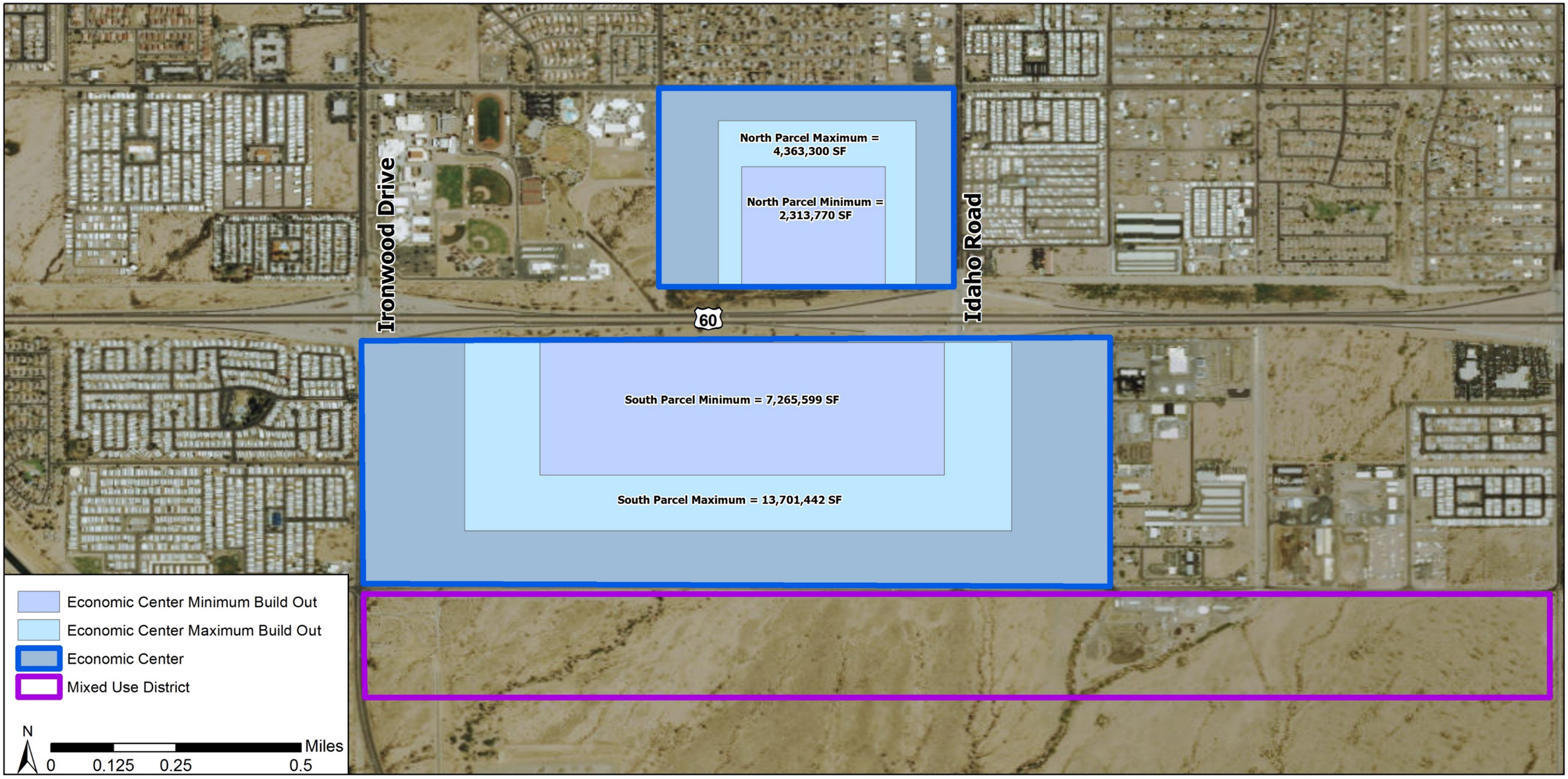
Table 4-2: Summary of Noted Competitor Amenities

Considering both Table 4-2 and the retail leakage report analyzed above, it is clear that the greatest single opportunity for retail development in Apache Junction lies in Building Material & Garden Equipment & Supply Dealers. This retail type represents a $1.9 million revenue stream for the city if its full potential is tapped. Further industries that provide high potential revenue for the city, though their demand seems to be well provided for in these competitive retail centers, are Foodservice and Drinking Places, Clothing & Clothing Accessories Stores and Health & personal care stores. The ubiquity of these store types makes it so that healthy revenues can be expected despite other relatively proximate locations of their type.
(Macerich, Google Maps, Superstition Springs, Superstition Gateway, Queen Creek Marketplace)

4.3.2 Strategy for Retail Development

Site Location and Potential Site Yield

As described at the beginning of this section, the parcels located at the Northeast Corners of Baseline Ave. and Ironwood Dr. and Idaho Rd. respectively as well as the Southwest corner of Idaho Rd. and Southern Ave., are suggested to be developed for retail and office space. Specifically these parcels are, as identified by the Pinal County Assessor's Office, 102-01-8010, 102-01-7010, 102-20-033B, 102-20-047D and 102-01-7000. These parcels combine for a total area of 744.4 acres or 32,426,064 SF. As is often the case, the maximum capacity for development, or site yield, is largely limited by prescribed parking requirements. Apache Junction's current zoning standards call for 1 parking stall per 300 SF of retail or office space and 1 stall per 100 SF of restaurant space. Using these as minimum and maximum scenarios for site yield, this establishes a range for potential development of between 18,064,743 and 9,579,369 SF of retail floor area between the two primary development areas. This range is visualized in Map 4-2. While the analyses above and below focus largely on retail development due to time limitations associated with this report and the complexity of other types of market analysis, it is highly advised that this not be the singular focus of development in this area, as, at present, the market will likely not support this number of retail stores at this location.


North Parcel Maximum = 4,363,300 SF
North Parcel Minimum = 2,313,770 SF
Ironwood Drive
Idaho Road
60
South Parcel Minimum = 7,265,599 SF
South Parcel Maximum = 13,701,442 SF
Economic Center Minimum Build Out
Economic Center Maximum Build Out
Economic Center
Mixed Use District
N
0
0.125
0.25
0.5
Miles

The suggested layout tends toward the lower parking requirements so as to provide more space within the development for landscaping and shade structures. This will provide a greater maximum of possible square footage accessible for developers. Table 4-3 below displays a high-level overview of suggested development specifications while Figure 4-3 visualizes a potential layout of buildings meeting these specifications on the land. Additionally, though it would increase construction costs substantially, there may be an opportunity to connect the two parcels across the US-60, improving pedestrian access to these amenities.

Gross Building Area	13,658,326 SF	
Total Parking Ratio (1 space per X SF)	260	
Total # Spaces Required	52,177	
Total Parking Area	12,444,215 SF	285.1 Acres
Total Area for Green Space/Landscaping & Shade Structures	6,323,524 SF	144.9 Acres

Table 4-3: Summary of Economic Corridor Development Specifications

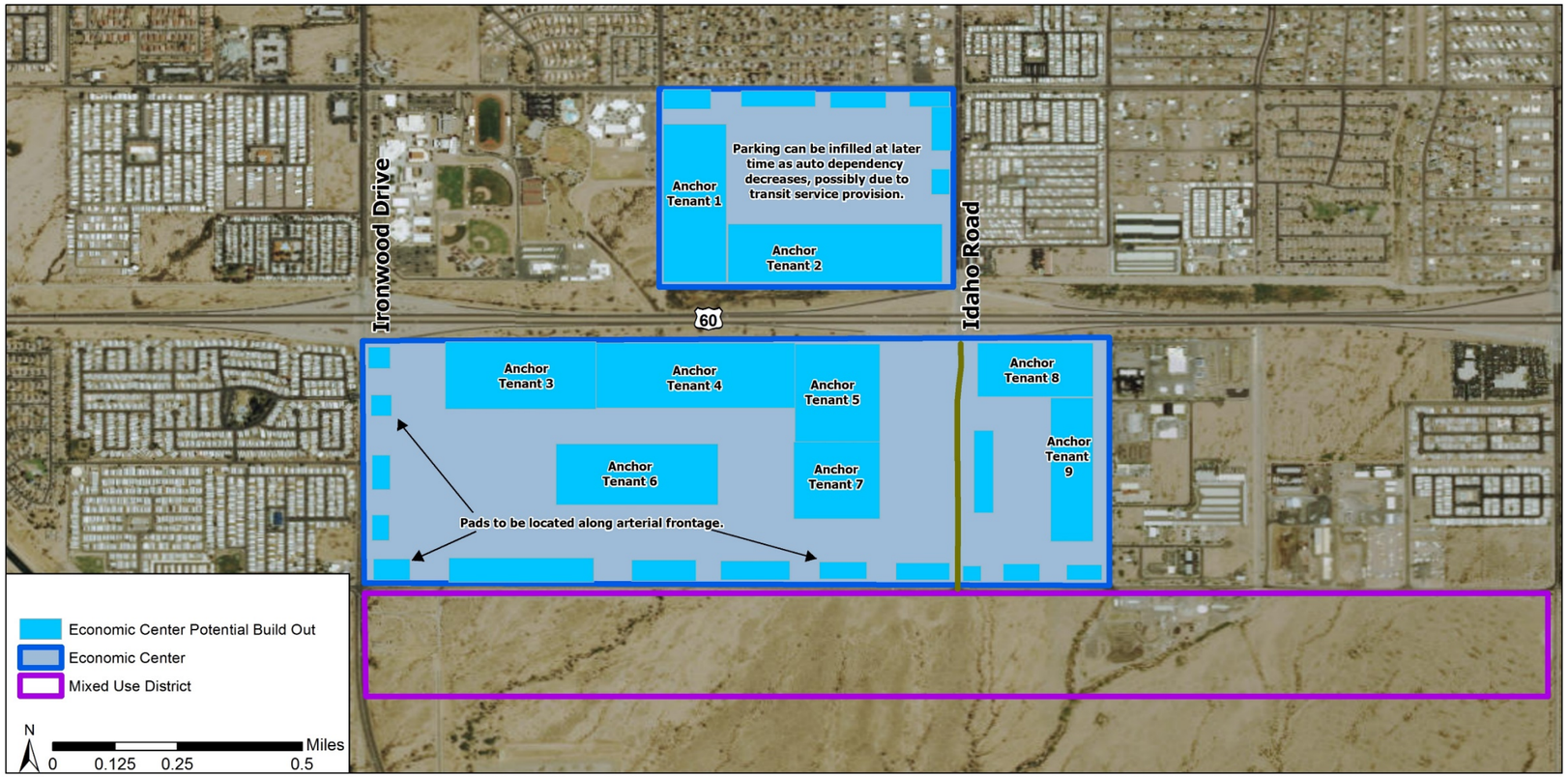
It should be noted that as automobile dependency in the region decreases in the future, whether due to regional design, transit accessibility or technological advances, parking area can be redeveloped so as to provide greater developed square footage.
(Pinal County Assessor, City of Apache Junction Zoning Code)

Commute Sheds and Market Area

Census Block Group data were analyzed so as to provide an estimate regarding current population and labor force counts within varying drive times of the proposed development sites. For this analysis, the Northeast corner of Baseline Ave and Ironwood Dr. was used as the point of origin while Freemaptools.com's "How Far Can I Drive?" tool was used to calculate drive-time radii with the speed parameter set at 60 miles per hour for each time interval. For the purpose of this analysis and to more easily accommodate the age groupings of Census' American Community Survey data, potential labor force is defined as the total population aged between 15 and 64. Table 4-4 summarizes the population and labor force estimates within each drive-time radius while Figure 4-4 displays these drive-time radii.

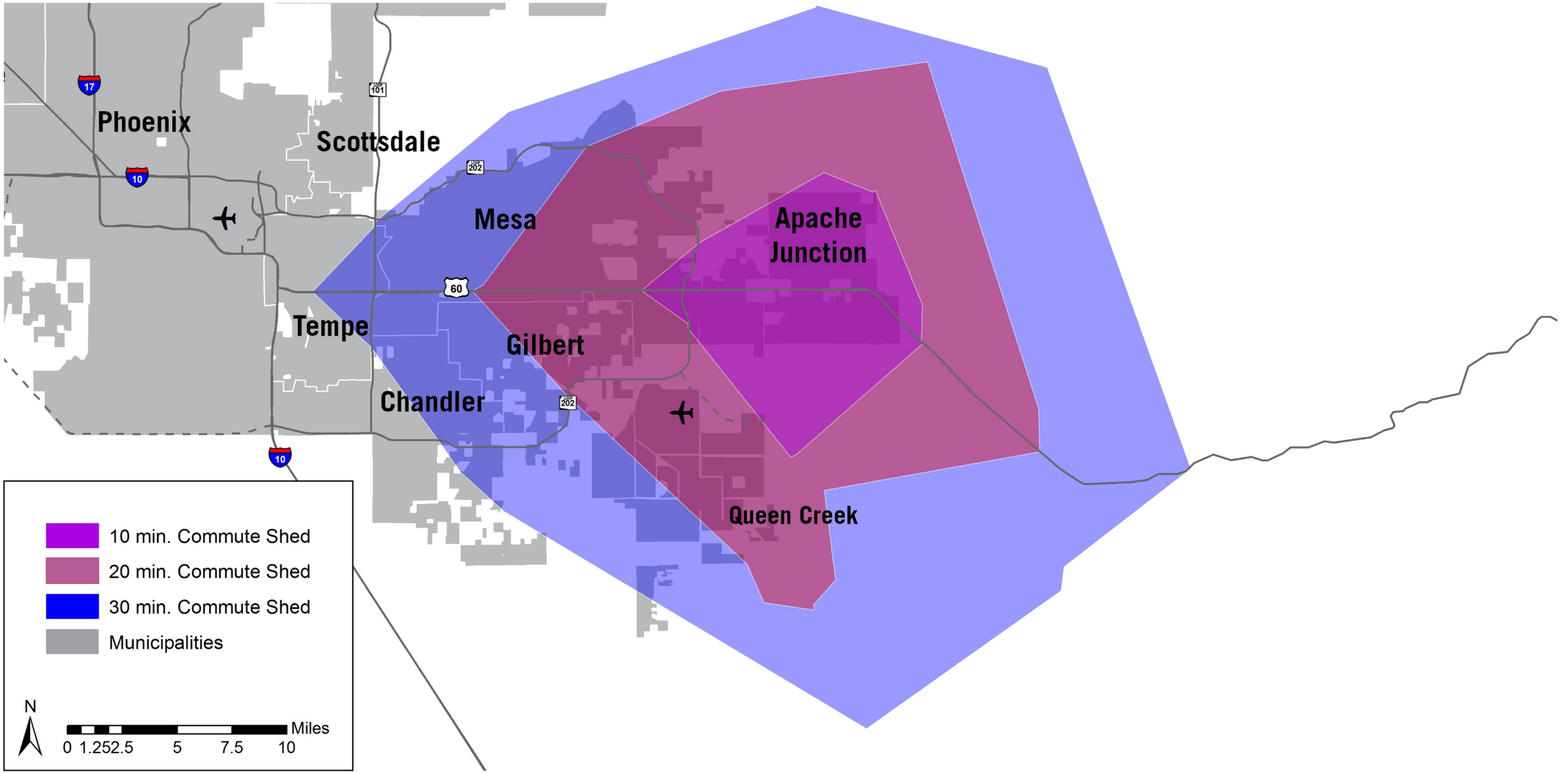
Drive Time	Total Population Estimate	Labor Force Estimate
10 Minutes	170,710	98,091
20 Minutes	568,463	347,290
30 Minutes	1,125,131	724,413

Table 4-4: Economic Corridor Market Area and Commute Shed
(Census Bureau, American Community Survey 2008-2014 Estimates)



Map 4-3: Economic Corridor Suggested Site Layout

Map 4-4: Economic Corridor Commute Shed *(freemaptools.com)*



Mixed Use Corridor

To add a buffer to the strictly commercial activities of the retail centers described above with the predominantly residential areas to be developed to the southeast, this strategy proposes a mixed use corridor. This corridor is to extend from the western border of Ironwood Dr. to the eastern border of Tomahawk Rd. and the Planned Unit Development described below.

The character of this corridor, particularly along Baseline Ave. is that of a main street to promote local businesses and walkability, improving access to businesses in the retail development as well as provide a complementary character to the Downtown area to the north. Previously described design standards as noted on pages 3-7 to 3-19 should be enforced in this area so as to present visitors and residents alike with a cohesive vision for the long term character and aesthetic of Apache Junction. Additionally, land use in this area is to follow the standards for mixed use development established by the PUD framework on pages 4-26 and 4-27 as this is to serve as the basis for comprehensive planning over the entire study area. It should be noted, however, that development with frontage along Baseline Ave. should include street level shops, possibly of the arcaded type, as described below in the Prescott case study. Baseline Ave. itself should maintain on street parking and protected bike lanes, though public parking structures can be developed as needed based on demand, in order to maintain walkability.

Moving south from the main street development, the area is to be decidedly more residential and open/green in character, though small stores (not singularly convenience stores) can provide amenities and services to residents at regular intervals. Collector streets should utilize traffic calming design features so as to discourage their use as an alternative to nearby arterials, specifically for the safety of children who will be residing in the area, as this will remain relatively proximate to local schools north of US-60. Table 4-5 below describes permitted land use and maximum build-out levels for each land use in both the mixed use corridor and commercial area.
(Pinal County Assessor's Office, Census Bureau, City of Apache Junction Zoning Code, freemaptools.com)

Case Studies

Below are several selected examples of main street and mixed use developments in Arizona. Highlighted characteristics of each can be used to guide development in the mixed use corridor.

Prescott, Arizona

Per the 2015 Prescott General Plan, The City along with their Chamber of Commerce, Prescott Downtown Partnership, Prescott Area Arts and Humanities Council, and historic preservation supporters have been collaborating to keep downtown as the focal point exhibiting the character of Prescott. The "Downtown Business District" as described in the plan, is a crucial driver of economic development and redevelopment. Prescott's downtown is characterized by the traditional mixed use development one may be accustomed to in small towns. There is a mix of land uses including: retail, hospitality, light industry, professional offices, government, and residential activities. Retail in the downtown area is largely made up of tourist oriented business. Several buildings are also arcaded in that they allow for multiple non-contiguous retail spaces to exist in an area away from the street, connected by hallways. This brings visitors back to a different time as this sort of development is not often seen recently and may be reminiscent of other lands as this style of design is popular in parts of Spain.

Currently, Apache Junction is not as popular as Prescott in terms of tourist interest, but the natural amenities and abundance of RV parks make tourism a potential growth sector for the city. Apache Junction can create the type of vibrant small town mixed use development that can attract tourist spending, much like Prescott does. In their general plan, Prescott notes that consistent effort is needed to maintain vibrant neighborhoods such as their downtown. They attribute restoration of historic downtown buildings and maintaining a low vacancy rate downtown to attention to detail in their planning efforts.

Prescott is similar to Apache Junction with respect to population. In 2014, the city of Prescott housed 40,958 residents according to Census data, just under 4,000 greater than Apache Junction the same year. Apache Junction is smaller in terms of land, at 34 square miles compared to Prescott's 40 square miles. With similar population and land amount, the density of the two cities are quite close. Prescott houses 915.6 people/ sq mi with Apache Junction actually having a slightly higher overall density of 944.36 people/ sq mi. Based on these statistics, and the fact Apache Junction is expected to grow with the rest of the valley, it would seem that economically sustainable mixed use development is a very real opportunity.

Figure 4-1: Image of Downtown Prescott *(veryshareimg.com)*

Several planning strategies are cited in Prescott's plans for their historic mixed use downtown. The city looks to solicit and encourage new regional commercial development to targeted areas including downtown. In terms of new business, the goal is to retain and expand on neighborhood oriented business. Prescott clearly wishes to do more business, but also concentrates heavily on keeping the existing development thriving. Lastly, the City makes the point that events explore the use of License Agreements rather than Conditional Use Permits to allow for mobile food vending in pre-specified permanent locations in the downtown area. This is a strategy that Apache Junction can replicate in this area as well as downtown to improve vitality.

Scottsdale, Arizona

Old Town Scottsdale is a part of Scottsdale's "Downtown Character Area". The mixed use district has been marketed as "Where Old West meets New West." Even though Scottsdale is a wealthier area than Apache Junction, it may be worth trying to incorporate aspects of Old Town into the proposed employment corridor's "main street" development. Scottsdale's downtown is regarded highly by tourists and residents alike with excellent streetscaping, adjacent spring training facilities, and an exciting bar/restaurant scene.

Old Town can be viewed as a best practice for Greater Phoenix mixed use main street development. The area comes alive with the excellent events open to the public each week. There is a prominent art walk every Thursday evening and an Old Town farmers market each Saturday. These types of weekly events are crucial for attracting TPT revenue to the city, as an indirect effect of attendance is to shop/eat in adjacent businesses.

Scottsdale's Downtown Core development, as defined by their Character Area Plan, is designed for urban neighborhoods with specialty retail and regional tourist attractions. Old Town is identified as a part of the downtown with the lowest intensity in the area. Keeping small lot development and activating ground level uses are some of the main elements that give Old Town its character.

A goal that Apache Junction could aim to emulate can be found in Scottsdale's planning literature as policy LU 1.2 reads: "Maintain Downtown as a year round, 24 hour highly functional mixed use center, containing areas of different densities, architectural styles and land uses that support the needs of Scottsdale residents and visitors" (Downtown Scottsdale Character Area Plan, pg. 8). With enough economic development, Apache Junction can aim to have mixed use development that can function well into reasonable hours of the night, being active during the day as well.

It should be noted that the intent here is not to turn Apache Junction into the party center of the Southeast Valley, but there is certainly an interest in providing some nightlife as a regional attraction strategy. The aim is to draw people into work and shops, and generate the desire to stay and have fun afterwards. Developing with a mix of uses and densities along with careful attention to detail in planning is crucial to creating a vibrant, walkable district within Apache Junction. Scottsdale provides a fine example to follow with what they have done with Old Town, in line with the goals in mind for Apache Junction's mixed use "main street."
(City of Prescott, Census Bureau, City of Scottsdale)

Figure 4-2: Image of Old Town Scottsdale *(veryshareimg.com)*

Land Use Regulations

Tables 4-5 and 4-6 define maximum permitted land uses and maximum potential build out figures for the two areas of the economic corridor described above. Again, it should be noted that these are not necessarily regulations that should be strictly enforced, rather this is a vision for potential development that has been devised to carry out the strategies described above. As such, the development that meets such parameters for the defined area is deemed likely to be sustainable in economic, environmental and social measures.

Subarea Allowable Land Uses	Economic Corridor	
	Commercial Zone	Mixed Use Corridor
Residential		
Single-Family Dwelling		Y
Two-Family Dwelling		Y
Multi-Family Dwelling		Y
Elderly Housing		Y
Mixed-Use		Y
Civic uses		
Recreational Facilities		Y
Community Center		Y
Public Utilities		Y
Religious Facilities		Y
Performing Arts, Cultural Uses		Y
Institutional		
Assisted Living/Nursing Home		
Health Care Facility (Small Clinic)		
Public Education Facility		Y
Commercial		
Retail Sales	Y	Y
Professional Office	Y	
Business Center Development	Y	
Restaurant	Y	Y
Education/Training Facility		Y
Private School		
Repair Services		Y
Dedicated Office Building	Y	
Child Care Facility	Y	Y
Financial Institution	Y	Y
Home Occupation		Y
Accommodation		
Bed and Breakfast		Y
Hotel		Y
Light Industrial		
Reseach/Developmnet Lab		
Wholesale		
Warehouse		

Table 4-5: Economic Corridor Acceptable Land Uses

Land Use Categories	Unit of Measure	Total Development Area	Commercial Zone	Mixed Use Corridor
Total Land Area	Acres	1,120.6	744.4	376.2
Buildable Area	Acres	621.6	414.7	206.9
Density	du/acre	23.4	0	7.2
Residential	Units	1500	0	1,500
Civic Uses	GSF	1,351,950	--	1,351,950
Institutional	GSF	819,363.6	--	819,363.6
Light Industrial	GSF	--	--	--
Commercial	GSF	19,703,469	18,064,742	1,638,727
Accommodations	No./Rooms	200	--	200
Green Space and Open Space	Acres	201.3	144.9	56.4
Percent to be Allocated	Percent of Land	18%	19%	15%
**mixed-use to be developed at a 30% residential/70% non-residential split of gross area*				
**mixed-use non-residential proposed to develop at 0.4 FAR with exception of central commercial district proposed at 0.75 FAR*				
**overall mixed-use maximum FAR is 1.5*				

Table 4-6: Economic Corridor Maximum Buildout Figures

4.4 Washes, Open Space and Trails Plan

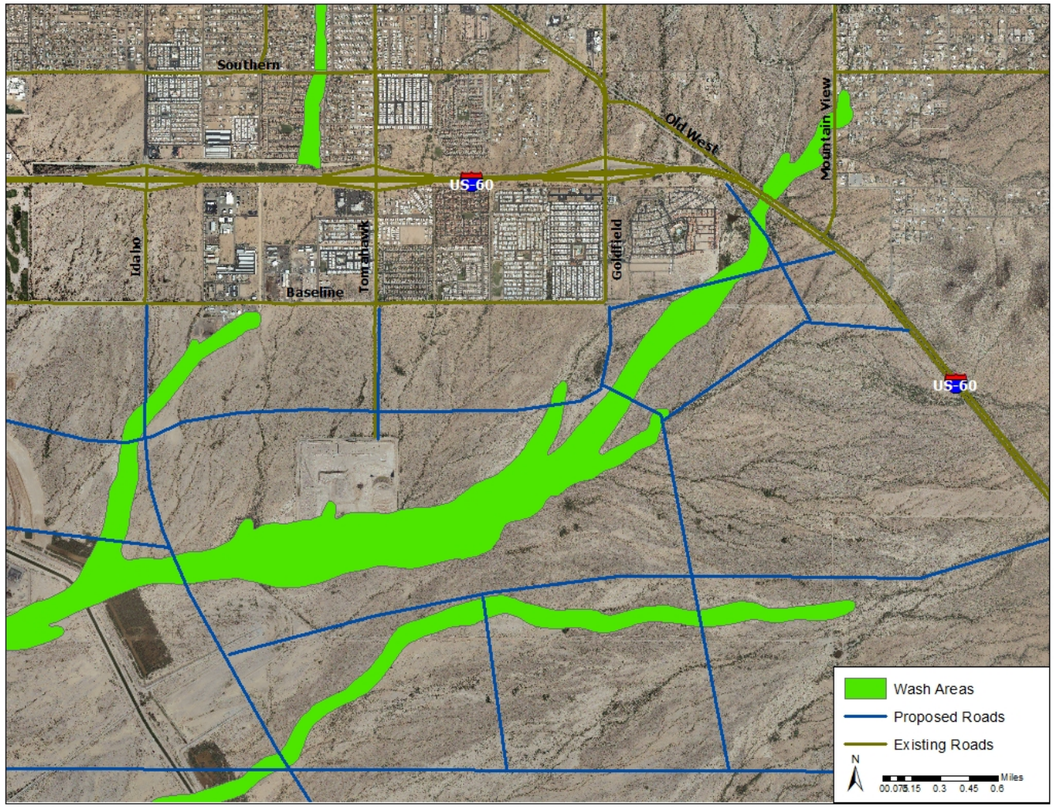
On February 29, 2016 members of this project team presented initial strategies and design concepts to local residents and city officials. During this community meeting, stakeholders were presented with multiple illustrations of the washes, PUD framework and economic corridor. Members of the public were very supportive of the overall strategy for wash preservation. Concerns were voiced by citizens on maintaining the city's connection to the natural environment while also adding amenities for resident's passive and active recreation. Many felt that other cities, particularly Queen Creek, have made greater efforts to attract tourists to their area, and Apache Junction should add more of such amenities. In addition, a common theme received through public input was that seasonal residents of Apache Junction would like more opportunities to take advantage of the warm weather by being provided more outdoor amenities.

Based on this feedback, a main focus of this section is to add multi-use trails along the existing washes and provide an open space park. These additions would provide amenities for multiple activities for people to enjoy the trails whether they be pedestrians, mountain bikers or equestrian riders. Additionally, a need for public open space was identified.

At the second community meeting on March 30th, 2016 the group presented a more comprehensive vision for washes, trails and parks. Residents were very pleased about the multi-use paths and especially how equestrian amenities would be accommodated in the wash, separate from the 10 foot trails on the perimeter. Many felt that this would keep the trails clean, making it more desirable for bikers and pedestrians to use. Also, the idea of keeping the landscape natural and not adding cement to the trails was met with great enthusiasm because of its maintenance of the natural desert landscape.

Geographic Description of Study Area

Currently, there are two major washes that are both located South of US-60 running through the previously described proposed PUD. The northern wash, Siphon Draw, is the larger of the two though both play a significant role in this proposal because they provide natural drainage systems for the city and also add natural amenities. Siphon draw extends roughly from the intersection of East 28th Ave and South Mountainview Rd in Apache Junction to the city's western border with Mesa, Arizona. All proposals mentioned regarding Siphon Draw are intended to be replicated in the more southerly, unnamed wash, located between the Guadalupe Rd. and Elliot Rd. alignments.



Map 4-5: Geography of Existing Washes

4.4.1 Current Vegetation and Recommendations

Vegetation that currently exists in washes discussed in this study consists primarily of cacti and select desert trees. Trees such as Ironwood (Figure 4-6), Mesquite (Figure 4-8) and Palo Verde (Figure 4-7) are fairly common within the washes and should be considered to provide shading along trails. Cacti are the dominant plant species throughout the washes which include Jojoba, Hedgehog, and Prickly Pear. This report recognizes that there are many other types and species of plant life residing in these washes, thus it is recommended future studies be commissioned to determine what species are native and invasive, as well as to determine natural biological corridors to be maintained. Where appropriate however, in certain parts of the washes where vegetation could be added close to trails, it is recommended that only vegetation be used that is both native to this area and known to require very little water. Figures 4-3 through 4-8 show examples of native cacti and tree species that may be considered for landscaping and re-vegetation efforts. Additionally, to add to the natural beauty of the landscape, Ocotillo plants may be considered as they are very symbolic to Arizona and can be planted in open rocky areas where the soil is drained. Places like rocky slopes, and washes are known as their natural habitat. Mesquite trees can grow much faster than Ironwoods and are more practical to put along the trails because they indirectly provide shade for pedestrians on the trails.

Figure 4-3: Jojoba Cactus *(delange.org)*

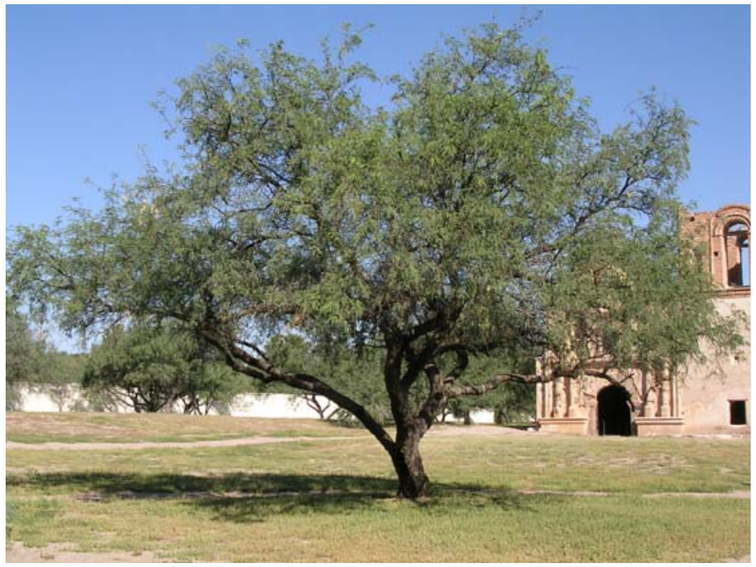
Figure 4-4: Hedgehog Cactus *(fineearthphotgraphy.com)*

Figure 4-5: Prickly Pear Cactus *(zastavki.com)*

Figure 4-6: Ironwood Tree *(franksrose.com)*

Figure 4-7: Palo Verde Tree *(statesymbolsusa.org)*

Figure 4-8: Mesquite Tree *(dirtdoctor.com)*



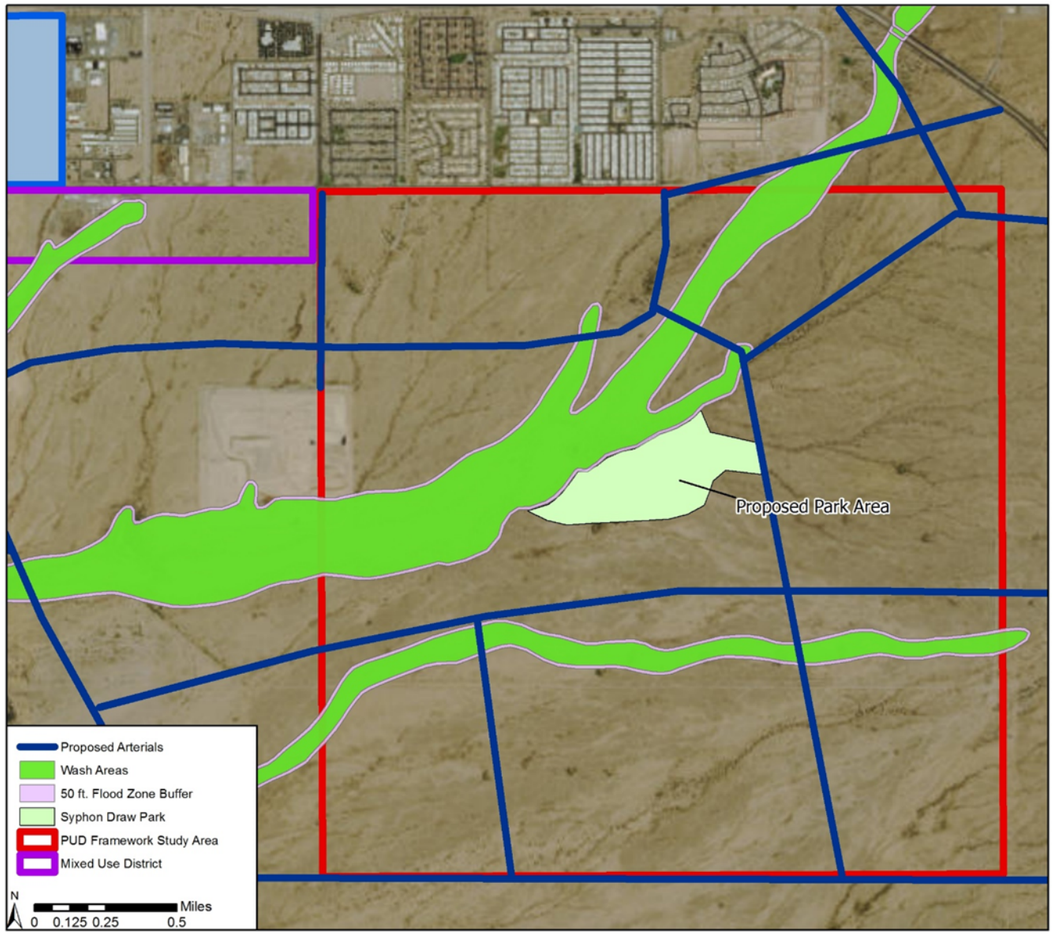
4.4.2 Parks and Green Space

Along with preserving the washes, preserving additional green space in the form of a large park is recommended, this will complement the development of other parks within residential areas. These smaller parks, however, are not likely to be connected to the larger trails system being proposed in this report and therefore have been excluded from this analysis. After designing the PUD framework and meeting with city officials and the public, it has been determined that an area on the Southern bank of Siphon Draw may be a suitable place for such a park. This location is shown in Figure 4-15 to the right. Table 4-7 below provides standards for the provision of amenities within parks and can be used along with population and build out estimates to determine what features future parks in the area will need.

Table 4-7: Parks/Open Space Facilities Provision Per Population *(Hok-Lin Leung: Land Use Planning Made Plain)*

Facility	Standard Per Population
Baseball diamonds	1 per 6,000
Softball diamonds	1 per 3,000
Tennis courts	1 per 2,000
Basketball courts	1 per 500
Swimming pools	1 per 10,000
Neighbourhood centers	1 per 10,000
Community centers	1 per 25,000
Shooting ranges	1 per 50,000
Golf courses (18 holes)	1 per 25,000

Per resident feedback, a large park will be a critical component in providing the region with green/open space for active recreational activities. The location of this park is proposed along the southern bank of Siphon Draw due to this location's strong connectivity with washes, proposed trails, and future residential and commercial development. The park would be developed as needed, per Table 4-7 above, to provide residents and tourists with active recreational space which may include baseball/softball, tennis, basketball, swimming, and/or shuffleboard facilities while also providing zoned space for a neighborhood/community center. Contextual consideration of existing natural landscapes will take priority however, with designated open space corridors being a dominant feature with the goal of promoting the natural beauty of the desert landscape while simultaneously providing essential storm water runoff mitigation. Natural desert vegetation is to be used to provide shading. Figures 4-9 and 4-10 provide potential analogs to be mimicked when developing Siphon Draw Park. Figure 4-9 shows a small developed lawn that can serve as an area for family recreation with picnic tables, playground equipment, shaded areas while also providing entrances to the natural washes. Figure 4-10 shows how natural corridors can help stabilize water usage while giving residents a scenic trail throughout the park. The overall goal of these design features is to provide the user with comforting amenities, but also allow them to be surrounded by the beautiful natural landscape.



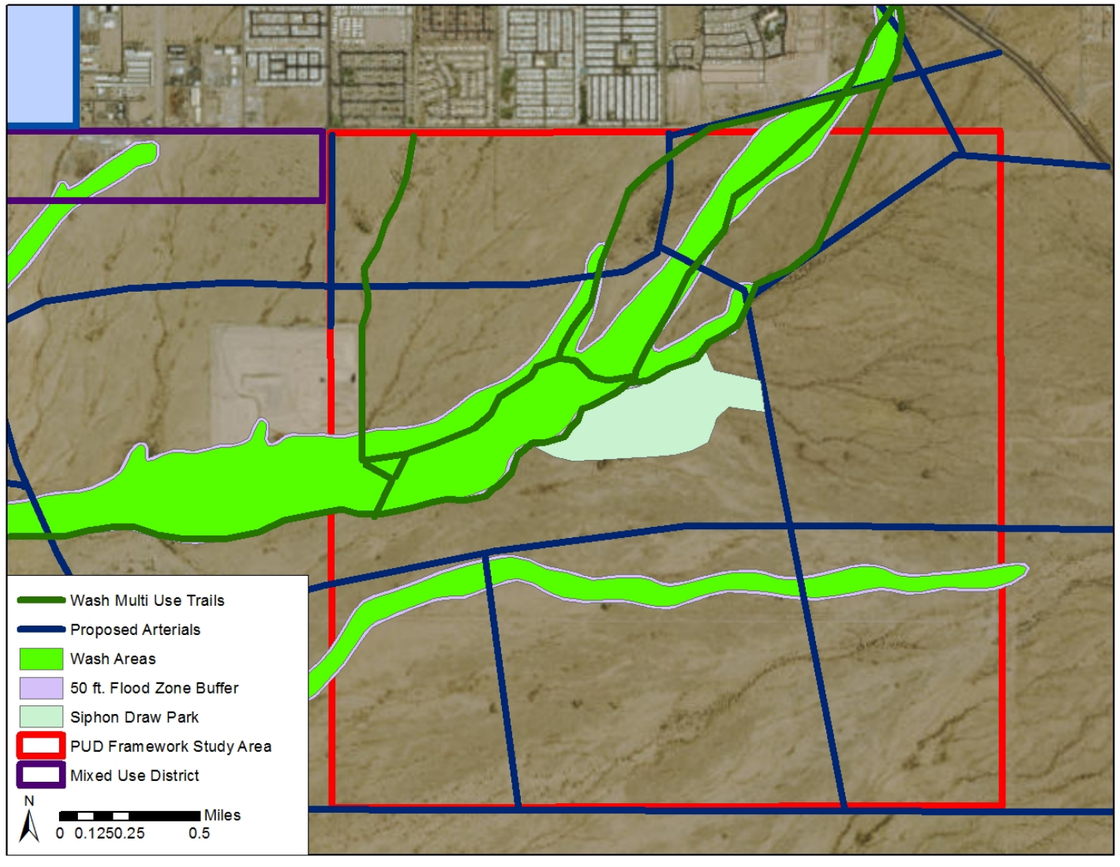
Map 4-6: Concept Location for Siphon Draw Park

Figure 4-9: Example of Developed Park *(theguardian.com)*

Figure 4-10: Example of Natural Corridor *(dreamstime.com)*

4.4.3 Multi-Use Trail System (Siphon Draw Connector)

Along with the design of Siphon Draw Park, the other critical component of the open space plan is the multi-use trail system along Siphon Draw. After examining many case studies and talking to the public, we recommend a 50 foot buffer between the washes and any sort of non trail way development. This will allow for the creation of multiple types of trails so users can walk, run or cycle without impeding the activities of others. Additionally, it is recommended that the trails and washes should not have any cement or add any impervious surfaces. Adding cement will take away the natural look of the trails, cost more money to implement and can also injure horses' hooves. Potential routes of trails relative to Siphon Draw Park and other relevant geographic features is shown below in Map 4-7.



Map 4-7: Potential and Recommended Multi-Use Trail Routes

Connecting downtown Apache Junction with the multi-use trail system is crucial for the development of the study area. Without a proper connection to downtown, the city is likely to suffer from a lack of cohesive identity and different areas will lose access to certain amenities, possibly generating blighted areas that may detract from the perception of existing development in the city. By having trail paths along major washes/parks it provides a simple system which helps catalyze flow between the state land and the rest of the city.

Figure 4-11: Siphon Draw Overpass Before

Figure 4-12: Siphon Draw Overpass Concept

The main junction for multi-use trails is to be located just northwest of the proposed park within Siphon Draw. It will act as a midway point for trails to branch off of as well as a rest area adjacent to the park. The main objective of this trail system is to connect our site to the rest of downtown. By utilizing the Siphon Draw overpass at the US 60, a transitional pathway to the trails master plan described above can be implemented. Above in Figure 4-10 is a conceptual rendering of a potential bike path compared to the current conditions of the overpass shown in Figure 4-11. It should be noted that this plan does not recommend a hard-pack bike lane in this location, this feature has been added above for visual effect.

4.5 Superstition Ranch PUD Vision

4.5.1 Geographic Description & Context

Area & Bounds

The PUD project area totals approximately 3,600 acres, just over five and half square miles, located to the South of Baseline Rd. as shown delineated in red in Figure 4-12. It is bounded to the East by the Tomahawk Rd. alignment, to the West by the Mountainview Rd. alignment and to the South by the Elliot Rd. alignment. For the purposes of this report, the study area will be referred to as Superstition Ranch.

Context

As the City of Apache Junction continues to expect growth in population and geographic size in coming decades, it is essential to guide development in a direction that fosters economic vitality and promotes social and environmental sustainability, while maintaining the city's long standing image as the Gateway to the Superstitions. As regional economic competition continues to increase, future development in and around Apache Junction will need to take the city in a direction that increases its competitive advantage while maintaining its historic character and protecting its most precious resource, the natural environment. The city understands these challenges and has put forth a number of land use goals within their General Plan as a vision to guide future growth. This plan will use these goals as it's foundation. The following goal descriptions outline those which this plan will address most directly, as well as a brief description as to how that may be done:

Goal 1: Retain the Rural Character of the City

This goal is accomplished through the preservation of mountain views and land use recommendations that avoid sprawl suburban development. Development intensity standards will discourage high rise development in key areas that would lead to the obstruction of major view corridors, while residential clustering will maximize open space in any new development by setting a minimum overall average open space standard of 33%. In addition, the planning of lineal open space links are include that provide for multi-use trails and biological corridors. These considerations have previously been discussed in the Washes, Open Space, and Trails Plan.

Goal 2: Maintain Consistency in Land Use Decisions

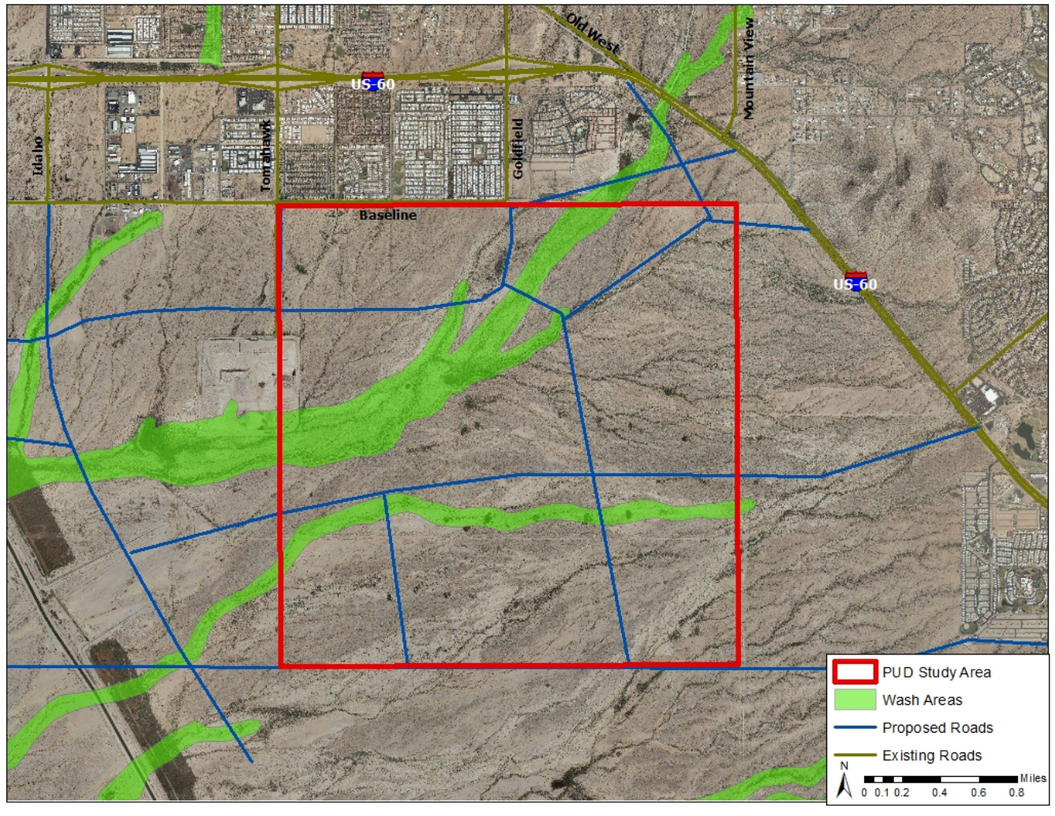
To satisfy this goal, the Superstition Ranch Plan utilizes existing development standards set forth in the Apache Junction General Plan. In addition to existing code, this plan utilizes standards compiled through comparative case study reviews. Together, these standards will ensure any new development maintains continuity with the existing built environment while also providing the necessary flexibility for future development to shift with changing conditions and context.

Goal 3: Provide a Balance of Uses Throughout the Community

Through implementation of mixed-use development standards, open space requirements, and multi-modal trails networks a balance of uses will be accomplished. This plan seeks to create a sustainable walkable community in which residents can live, work and play, while also providing flexible zoning that allows for the establishment of attractions and destinations for the rest of the region.

Goal 4: Encourage and Promote Sustainable Land Use Development

The natural environment and connection to the Superstition Mountains are some of Apache Junction's most notable attributes. In an effort to maintain these amenities for future generation, residential clustering is used around washes to preserve as much open space as possible and minimize the footprint of the built environment. Walkability is a priority with mixed-use zoning requirements set to achieve critical densities needed for walkable urban form and shift focus away from short trip automobile use. Lastly, this plan identifies the potential for low impact development standards to play a role in mitigating storm water runoff and associated water quality issues and recommends future research on its applicability. Resources are provided for future research into LID applications at the end of this report.
(Apache Junction General Plan)



Map 4-8: PUD Geographic Bounds

4.5.2 Planned Unit Development Framework

Introduction

To guide development in a direction that satisfies the goals stated above, the Superstition Ranch Plan sets forth a planned unit development framework to provide a foundation for development standards that may be applied to the entirety of the state trust land South of Apache Junction. A planned unit development (PUD) is a comprehensive development plan intended to provide flexibility in design and building placement, promote attractive and efficient environments that incorporate a variety of uses, densities and dwelling types, provide for economy of shared services and facilities, and preserve natural resources.

With this definition in mind, this plan will serve to guide future development through land use plans that will promote sustainable, attractive, and varietal urban form that preserves existing natural conditions while allowing flexibility of building placement, design and development intensities. This plan primarily focuses on guiding development around existing washes and future trails and parks to maintain Apache Junction's connection to its natural surroundings. However, strategically placed high intensity commercial zones are essential to increasing the city's regional economic competitive advantage.

The two washes located within the study area are Siphon Draw and a smaller wash located directly to the south of Siphon Draw, as previously described in the Washes, Open Space, and Trails Plan. Both are FEMA designated A flood zones requiring increased regulation on any new development within their boundaries. For this reason, the washes provide the foundation for distribution of land uses and densities within this PUD to minimize the chances of any future built structure becoming subject to repetitive inundation from flood waters. In addition to protection of washes, strategic corridors of high intensity commercial development along arterial roads will serve to increase Apache Junction's regional economic competitive advantage. Arterial road alignments used in this plan have been adapted from ADOT alignment studies for this area as previously outlined in the Circulation Plan.

The Superstition Ranch PUD Plan consists of two primary tools; a list of allowable land uses and a development intensity guide. The objective of these tools is to provide for maximum development standards and recommendations for the distribution of land use. They include the following planning components:

- Overall Maximum PUD Development Standards (number of units and maximum building area dependent upon use)
- Distribution of Uses Allowed in Plan (allowable uses are to be distributed among designated subareas)
- Flexibility (shifting of uses and intensities within and amongst subareas)

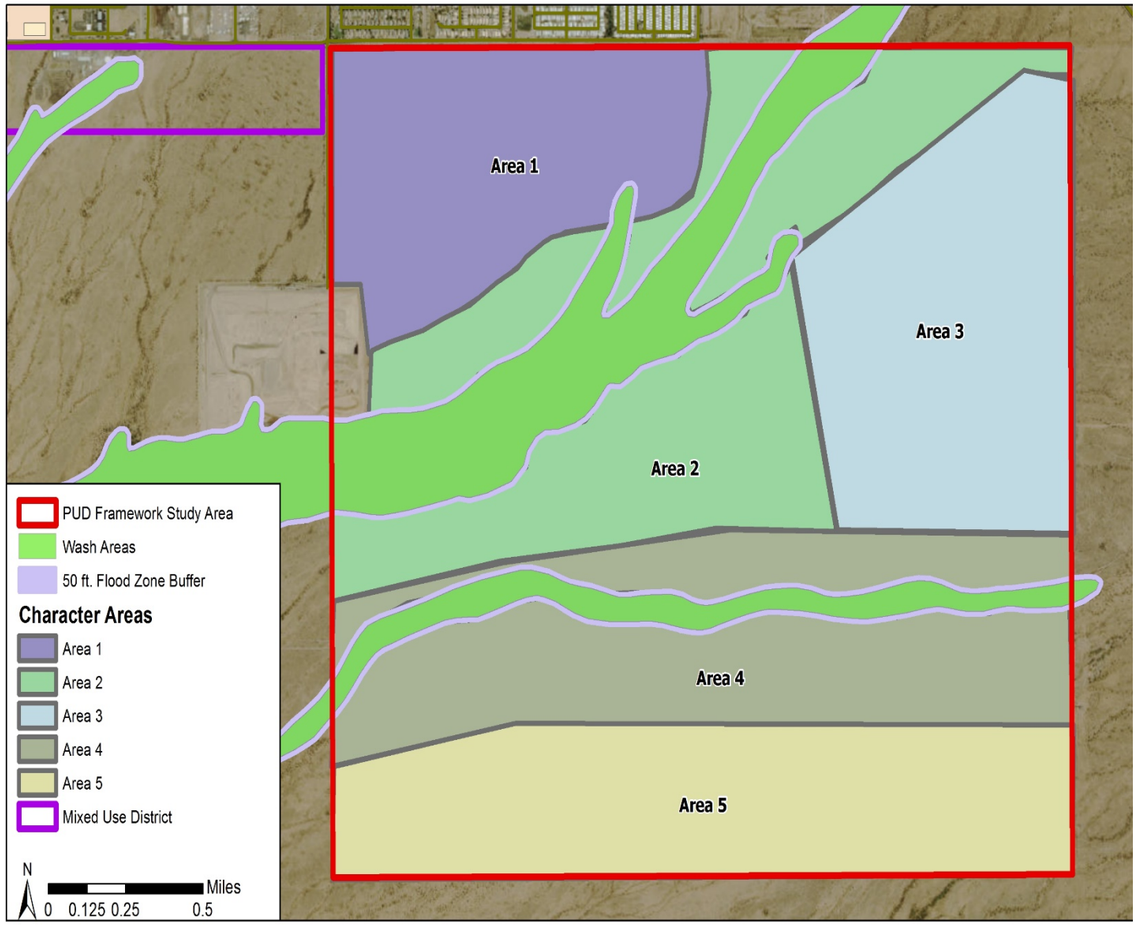
Flexibility of the standards are essential to ensuring successful accomplishment of goals set forth in this plan. Developers will have the option of shifting recommended density maximums spatially within subareas in exchange for provision of parks, greenways, civic land uses, and other public amenities. The shift of density from one zone to another within a subarea is to be proportional and maintain the overall maximum density standards for the subarea. Submitted plans requiring flexibility of this PUD plan will require review and approval by the city's Development Services Department to ensure submitted site plans are in alignment with the overall vision of the PUD and associated character of the subarea in question. Land uses in each subarea are subject to regulations set forth in the Apache Junction General Plan.

Overall maximum development standards have been calculated using standards described within the Apache Junction General Plan in combination with new development standards established through case study reviews.
(Planning and Development Department of Eugene, Oregon, Woodmont Commons PUD Master Plan)

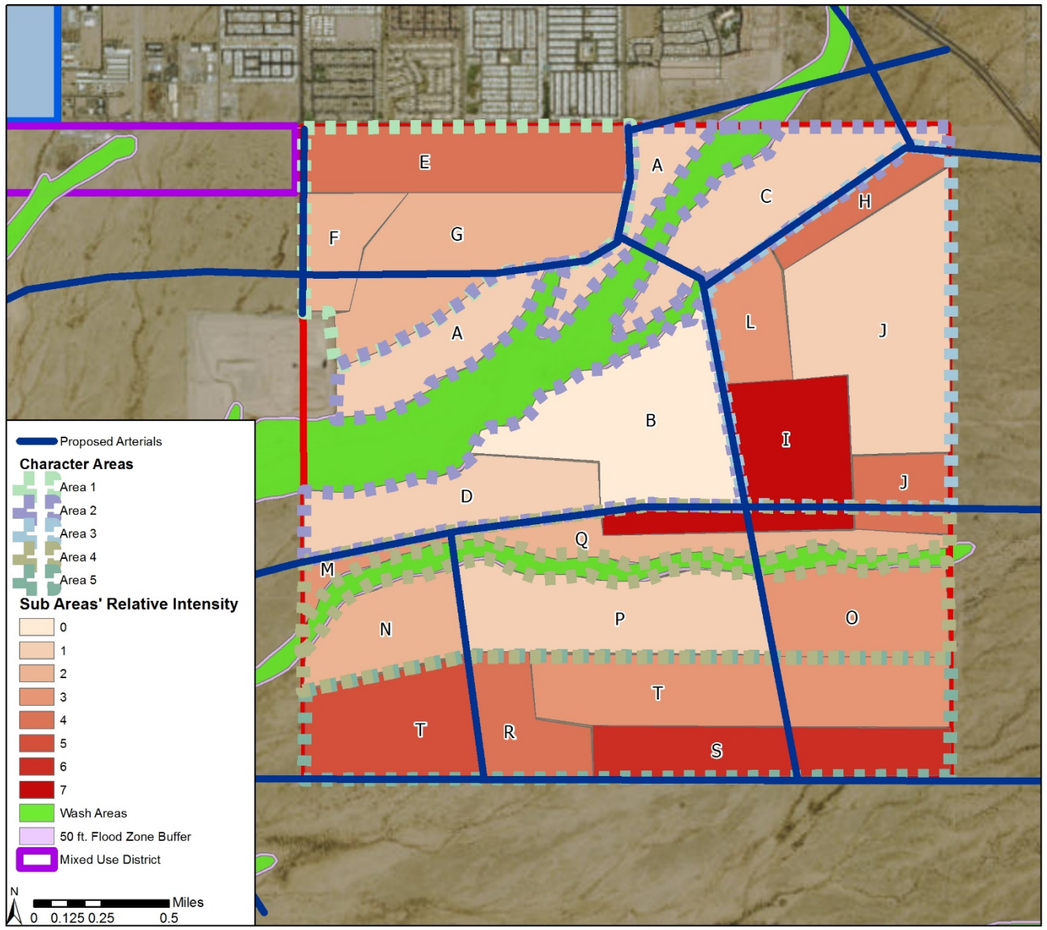
Subareas

This Planned Unit Development framework divides the 3600 acre study area into five subareas delineated according to a designated character and intent. Subareas are designated Superstition Ranch 1 (SR-1) through Superstition Ranch 5 (SR-5). These subareas will serve to regulate the distribution and amount of various uses that may occur within them, the internal boundaries of which will subsequently be subject to minor variations as part of the review and approval process by the Development Services Department. Each subarea will have its own set of characteristics that include mixed-use, residential clusters, commercial, institutional, and/or accommodation. They will also include their own definitions of each of the described planning components for this PUD framework; maximum development standards and recommended land use distribution. These subareas are not to be individually unique in nature but rather complementary to each other and the overall vision of this plan.

In addition to the five delineated subareas, this plan will provide an example land use guide comprised of twenty one smaller character zones lettered A through U. These zones are used to show relative development intensity in accordance with the aforementioned goals. That is, lower intensity closer to preserved green space and higher intensity along major arterial roadways and intersections. These sub areas and zones are not to be rigid in definition, but rather moldable and flexible in character to accommodate a wide variety of potential development plans. However, rigid one open space requirements are to be maintained. Site plans submitted by developers requiring flexibility shall be subject to more stringent review by the city's planning and development department to determine whether they are in accordance with the plan's overall vision. The five subareas are shown in Map 4-9. Map 4-10 shows the location of zones within subareas and their recommended development intensities. Maximum development standards and recommended land use examples for each subarea and zone can be viewed in Tables 4-8 and 4-9.



Map 4-9: PUD Character Subareas



Map 4-10: PUD Recommended Intensity Distribution Zones

Development Intensity Key

Map 4-10 depicts the twenty one recommended zones, lower level development intensities are shown in lighter shades of red while higher intensity development is shown in darker shades of red. This layout is determined to be the optimal intensity distribution aimed at protecting existing washes while providing high intensity commercial and retail amenities along major arterial roadways.

These higher intensity areas, specifically the central commercial core shown in the darkest red color and the southernmost commercial corridor along Elliot Rd., are designated as the highest intensity zones to provide the economic competitiveness important for a development of this size to thrive while also providing the necessary critical densities for future public mass transit routes. In addition, this example subarea and zone map shows optimal placement for commercial corridors to provide direct access for residents of Gold Canyon and other communities to the East. Intensity is shown on a scale from 0 to 7, with 0 representing the lowest intensity and 7 representing the highest intensity.

Residential Clustering

In subareas characterized as primarily residential space, clustering will be key in reaching the goal of preserving existing desert landscapes and washes, and providing the space needed for previously proposed recreational corridors. As defined by FEMA and the American Planning Association, residential clustering is a tool used to establish greater requirements on the size and quality of protected open space. Clustering allows for the same gross density as conventional zoning, however requires a large portion of parcels be reserved for open space. In this case, residential zones are required to provide a minimum of 40% of parcels for common use.

To permanently protect this reserved open space, conservation easements may be used, as well as restrictions placed on deeds to limit future owners from building on protected areas. The goal is that these requirements will encourage developers to build smart, utilizing natural high ground around floodplains, while allowing them to maintain the same gross density determined within the given subarea. In addition to the environmental and social benefits of residential clustering, this planning tool also provides developers with a cost saving opportunity. Due to the decrease in buildable area and resulting smaller lot sizes, cost savings may be realized by developers and the city due to decreased investment needed for land clearance, site preparation and infrastructure compared to conventional subdivision zoning. Figure 4-13 shows an example land use layout of residential clustering.

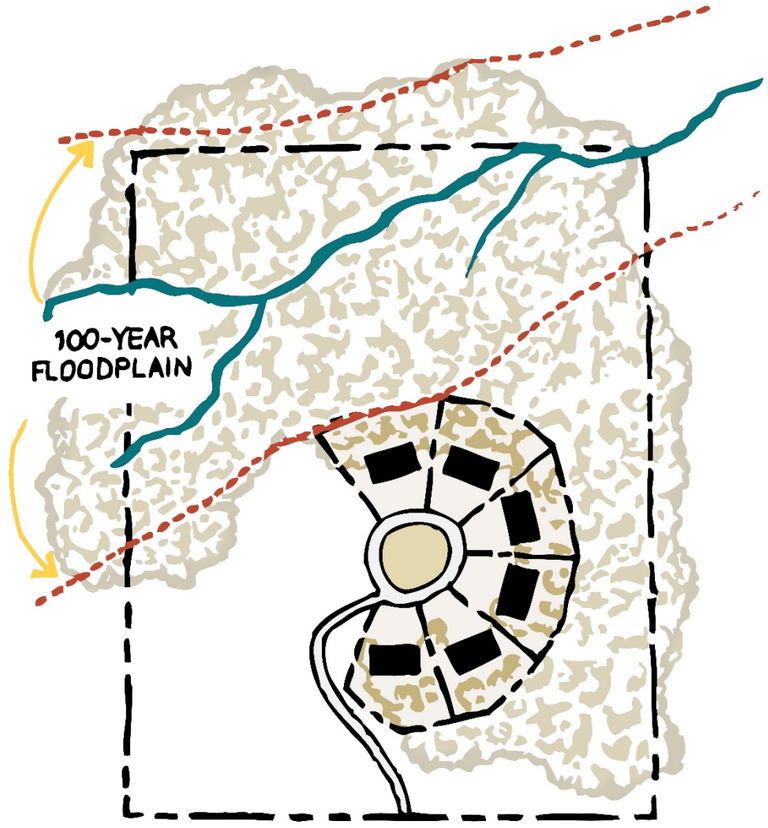


Figure 4-13: Cluster Plan: All floodplain lands and other sensitive lands kept as open space; net density remains equal to conventional plans; lot sizes reduced to protect natural features; all home sites are on natural high ground. *(Subdivision Design in Flood Hazard Areas: APA, FEMA)*

Detailed Subarea Descriptions

SR-1 is the central development corridor surrounding Siphon Draw, extending northeast from the existing landfill to the US-60 curve. This grouping encompasses 777 acres with a specific intent of protecting Siphon Draw wash allowing it to remain a wildlife/biological corridor and passive open space, ensure the view corridor within the wash looking toward the Superstition Mountains is uninterrupted, and discourage development within currently delineated FEMA A floodplains. The character of this subarea is low density residential with flexibility allowed via density bonuses in exchange for open space provisions. A minimum 50' buffer extending along the entirety of the floodplain, delineated in light purple in Maps 4-9 and 4-10, is to act as a shared open space corridor and provide a regulatory boundary between developable land and Siphon Draw.

Land use in SR-1 is to be restricted to residential with mixed densities allowed. The objective is to provide housing for mixed income levels to ensure every citizen has the option of living adjacent to recreation and green space corridors, while also ensuring the preservation of existing natural landscapes and floodplains. To protect environmentally sensitive lands, and to increase development densities in targeted areas, it is recommended that flexibility be used in the form of density bonuses to encourage developers to concentrate development intensities away from Siphon Draw and toward the outer edges of this subarea. To accomplish this, the city may provide density bonuses to lots closer to major arterials in exchange for the preservation of open space along Siphon Draw through lower density cluster development.

Overall averaged maximum development density in SR-1 is 5.4 du/acres, allowing for a maximum of 2,514 new residential units, with a minimum average open space requirement of 59%. In addition, there are provisions in this subarea to allow for up to 150,000 gross square feet (gsf) of civic uses 150,000 gsf for institutional. SR-1 has been divided into four smaller zones to show recommended distributions of land use and density. Maximum development standards for SR-1 and its zones are shown in Table 4-8 and its associated allowable land use table may be found in Table 4-13.

Zone A is located along the entire north side of Siphon Draw extending from the existing landfill northeast to Baseline Rd and consists of 178 acres of land. It is recommended that the character of this zone remain residential with an average medium density of 9 du/acre, however due to the flexible nature of this plan, SR-1 and the recommended Zones therein may be developed at much higher densities through density bonuses in exchange for increased open space allocations. Given the amount of flexibility afforded, consideration of lower density cluster development along the washes should be made, as well as allowing for higher density development bonuses on the outer edges of Zone A along arterial roadways.

Zone B consists of 253 acres of land and is located to the south of Siphon Draw. It is bounded by Guadalupe Rd. to the south, Zone D to the west, and Subarea 3 to the east. The intent of this zone is to provide a central active use park with provisions for up to 150,000 gsf of civic land use and up to 150,000 gsf of institutional land use (approx. 7 acres). Open space is therefore recommended at a minimum of 97%. The location of this zone is important as it provides residents with active recreational opportunities in close proximity to a highly walkable high density regional core. The Trails section of this chapter may be referred to for specific active recreational land use standards.

Zone C is located in the northeastern most section of SR-1 and consists of 182 acres of land recommended for residential use. It is bounded by an arterial road to the south, northern border of the study area to the north and Siphon Draw to the west. The character of this zone is similar to Zone A; average medium density of 9 du/acre with allowable flexibility. Due to the location of this zone it is recommended that building heights be limited to no more than two stories to preserve the view corridor looking north east toward the Superstition Mountains. Maximum new residential units is 981 with a 40% minimum open space requirement.

Zone D is a lower density residential area located on in the south west corner of SR-1. It is bounded by Siphon Draw to the north, Guadalupe Rd. to the south, Zone B to the east, and the western boundary of the study area to the west. This zone is characterized by lower density residential with an overall average density not to exceed 6 du/acre. The intent of this zone is to provide a more open residential space connecting to the active park space recommended in Zone B and passive open space within Siphon Draw, adding to the options provided to citizens on how and where they want to live. New residential units are not to exceed 570 in this area and minimum open space requirement is 40%.

SR-1 Siphon Draw

Land Use Categories	Unit of Measure	Total Development Area	A	B	C	D
Total Land Area	Acres	772	178	253	182	159
Developable Area	Acres	318	107	7	109	95
Density	du/acre	5.4	9	0	9	6
Residential	Units	2,514	963	0	981	570
Civic Uses	GSF	150,000	--	150,000	--	--
Institutional	GSF	150,000	--	150,000	--	--
Light Industrial	GSF	--	--	--	--	--
Commercial	GSF	--	--	--	--	--
Accommodations	No./Rooms	--	--	--	--	--
Open Space	Acres	454	71	246	73	64
Percent to be allocated	Percent of Land	40%	40%	97%	40%	40%

Table 4-8: SR-1 Maximum Development Standards

SR-2					
Land Use Categories	**Unit of Measure**	**Total Development Area**	**E**	**F**	**G**
Total Land Area	Acres	490	190	68	232
Buildable Area	Acres	341	161	41	139
Density	du/acre	23.4	40	20	9
Residential	Units	4003	1932	820	1251
Civic Uses	GSF	Subject to Review	--	--	--
Institutional	GSF	3,000	3,000	--	--
Light Industrial	GSF	--	--	--	--
Commercial	GSF	1,963,685	1,963,685	--	--
Accommodations	No./Rooms	--	--	--	--
Green Space and Open Space	Acres	149	29	27	93
Percent to be Allocated	Percent of Land	30%	15%	40%	40%

**mixed-use to be developed at a 30% residential/70% non-residential split of gross area*
**mixed-use non-residential proposed to develop at 0.4 FAR with exception of central commercial district proposed at 0.75 FAR*
**overall mixed-use maximum FAR is 1.5*
**civic uses in this zone are to be allowed by permit, GSF to be determined on a case by case basis by the city.*

Table 4-9: SR-2 Maximum Development Standards

SR-2 is the north westernmost subarea bounded by Baseline Rd to the north and South Tomahawk Rd to the East. It's south western boundary consists of the current landfill and to the south and east is SR-1. The specific character of this subarea is to allow for higher intensity development, including mixed-use retail as well as traditional residential. Average maximum development density for this subarea is not to exceed 23.4 du/acre, with a new residential unit maximum of 4,003 units and average minimum open space requirement of 30%. Maximum development standards for SR-2 and its zones are shown in Table 4-9 and its associated allowable land use table may be found in Table 4-13.

Zone E is located along the south side of Baseline Rd. and consists of 190 acres of land. This zone is recommended to act as an extension of the mixed-use corridor connecting Baseline Rd. to the US-60 commercial corridor to the west. Maximum development density is not to exceed 40 du/acre, yielding a maximum 7,600 new residential units. Commercial development is not to exceed 0.4 FAR within mixed-use zones with overall FAR not to exceed 1.5. Building heights area not to exceed four stories, with building height restrictions in this location designated for contextual consideration of existing single story dwellings to the north. In addition, a minimum of 15% of land is to be allocated for open space.

Taking into context the character of Apache Junction and in keeping the local feel of any new development, commercial space in this zone is to be allocated only for local style business rather than general chain retailers. The vision for this corridor is to act as the gateway to the new development while also creating a connection to the existing built environment and creating a sense of place for residents. These goals are to be used as a foundation for review of specific development site plan submittals in the future.

Zone F consists of 68 acres of land and has been separately delineated due to its border of South Tomahawk Rd the west, high density Zone E to the north, and existing landfill to the south. Due to possible future plans for conversion of the landfill into a public park, it is seen as an opportunity to allow for higher development densities along its border, allowing for mixed housing types in an effort to maintain housing affordability adjacent to future public amenities. For this reason, maximum development density in Zone F is recommended at 20 du/acre with a maximum 1,360 new residential units. Recommended medium to high density allowable housing is characterized by one to three story buildings for this development area. In addition, there is a 40% minimum requirement for open space allocation.

Zone G is the centermost section of subarea SR-2 and the largest of all three zones encompassing 232 acres. This zone is characterized as a density transition zone, providing a buffer between the higher density zones to the north and west and the lower density zone to the south and east. Maximum density is recommended at 9 du/acre, giving this zone a medium density residential character and allowing for up to 1,251 new residential units. Minimum open space requirement is 40% for this zone.

SR-3 is located along the eastern edge of the study area and consists of zones H, I, J, K, and L. The specific character of SR-3 is that of a regional commercial core with high development intensities. This area consists of 661 acres with maximum development standards including an average density of 13 du/acre, 6,190 new residential units, 9,000 gsf of institutional space, 4,787,244 gsf of commercial space, and provisions for one hotel of up to 200 rooms. Open space is required at an average minimum of 29% of total land. Maximum development standards for SR-3 and its zones are shown in Table 4-10 and its associated allowable land use table may be found in Table 4-13.

This area is designed to help create a regional competitive advantage for Apache Junction, while also maintaining the plan's goals of environmental preservation. Commercial development is recommended to maintain its highest intensities nearest the major arterial intersection located in the south west corner of the subarea, Zone I. This area is proposed to develop at a floor area ratio of 0.75 for commercial space, with a 15% open space allocation and is located to attract Gold Canyon residents. Flexibility may be given to open space allocations in this area to allow for higher building/parking coverage, however changes must maintain the vision of this plan and are subject to review.

Walkability is an important factor in creating a healthy urban living environment in combination with a mix of housing types. Best planning practice indicates that walkable mixed-use communities need a minimum of 1.5 FAR to achieve densities and scale needed for optimum walkability. This subarea is therefore subject to a higher maximum mixed-use FAR of 1.5. Rather than setting a minimum of 1.5 FAR for this subarea, a maximum is set to ensure walkability can be achieved while simultaneously furthering the goal of preserving view corridors of the Superstition Mountains. If floor area ratios are set too high, there exists a possibility that these view corridors may be obstructed.

In addition to walkability, the highest development intensities are recommended along the south western edge due to its proximity to Zone B, a recommended active park and civic land use zone. Such a large public amenity adjacent to high intensity commercial and mixed-use development is designed to boost the appeal of this commercial core and help to provide it with an identity, fostering a sense of place for residents. This open space also serves as a convenient connection to the trail's corridor for residents. Conversely it creates a connection for trail users to access the commercial core and mixed-use corridors, creating a local destination with local shops, restaurants, and cafes for residents and visitors utilizing the trails. Keeping commercial development along the outer arterials in this manner will also ensure that the low density central residential zone is unaffected by traffic associated with high intensity commercial development.

SR-3							
Land Use Categories	**Unit of Measure**	**Total Development Area**	**H**	**I**	**J**	**K**	**L**
Total Land Area	Acres	672	54	184	64	294	76
Developable Area	Acres	478	46	156	54	176	46
Density	du/acre	13	40	60	40	9	13
Residential*	Units	6190	552	2808	648	1584	598
Civic Uses	GSF	Allowed by Permit*	--	--	--	--	--
Institutional	GSF	9,000	3,000	3,000	3,000	--	--
Light Industrial	GSF	--	--	--	--	--	--
Commercial*	GSF	4,787,244	561,053	3,567,564	658,627	0	0
Accommodations	No./Rooms	1/200	--	200	--	--	--
Green Space and Open Space	Acres	194	8	28	10	118	30
Percent to be Allocated	Percent of Land	29%	15%	15%	15%	40%	40%

**mixed-use to be developed at a 30% residential/70% non-residential split of gross area*
**mixed-use non-residential proposed to develop at 0.4 FAR with exception of central commercial district proposed at 0.75 FAR*
**overall mixed-use maximum FAR is 1.5*
**civic uses in this zone are to be allowed by permit, GSF to be determined on a case by case basis by the city.*
**commercial core proposed to develop at 0.75 FAR*

Table 4-10: SR-3 Maximum Development Standards

SR-4							
Land Use Categories	**Unit of Measure**	**Total Development Area**	**M**	**N**	**O**	**P**	**Q**
Total Land Area	Acres	578	24	104	140	211	99
Developable Area	Acres	346	14	62	84	127	59
Density	du/acre	8.04	9	6	9	6	13
Residential	Units	2783	126	372	756	762	767
Civic Uses	GSF	Allowable by Permit*	--	--	--	--	--
Institutional	GSF	--	--	--	--	--	--
Light Industrial	GSF	--	--	--	--	--	--
Commercial	GSF	--	--	--	--	--	--
Accommodations	No./Rooms	--	--	--	--	--	--
Green Space and Open Space	Acres	232	10	42	56	84	40
Percent to be Allocated	Acres	40%	40%	40%	40%	40%	40%

**civic uses in this zone are to be allowed by permit, GSF to be determined on a case by case basis by the city.*

Table 4-11: SR-4 Maximum Development Standards

SR-4 located along the north and south sides of the smaller wash south of Siphon Draw and consists of 578 acres of land. The specific character of this area is to act as a residential buffer between the high density regional core to the north and the southern wash. Maximum development standards include an overall average density of 8.04 du/acre and a minimum open space requirement of 40% of total land. This subarea consists of Zones M, N, O, P, and Q and encompasses the entirety of the southern wash with the goal of activating this corridor as a residential green belt. To allow for the protection of the wash, acting as a buffer between residential buildings and the FEMA AE flood plain, a 50-foot open space buffer is placed along the wash. Just as in subarea 1, this buffer provides the necessary open space allocation for the implementation of trails along the wash corridor. Maximum development standards for SR-4 and its zones are shown in Table 4-11 and its associated allowable land use table may be found in Table 4-13.

Zone M consists of 24 acres of land located in the north west corner of subarea SR-4, bounded by the small wash on its south side and Guadalupe Rd. on its north. Maximum development standards for this area include an overall density of 9 du/acre, a maximum of 126 residential units, and a minimum open space requirement of 40% of total land.

Zone N is located just below Zone M on the south side of the small wash. This zone encompasses 104 acres recommended for low/medium density residential development. Maximum development standards include an overall density of 6 du/acres with a maximum of 375 new residential units and a minimum open space requirement of 40%. This zone is designed to provide a residential buffer between high intensity light industrial development and the wash on its north side.

Zone O is a 140 acre section located in the south eastern section of SR-4 recommended for medium density residential land use. Maximum development standards include an overall density of 9 du/acre with a maximum of 756 new residential units permitted and a minimum open space allocation of 40%. Bordering the smaller wash with its northern edge, this zone is designated medium density residential to ensure a mix of housing types and levels of affordability, as previously outlined in the SR-1 description.

Zone P is the central residential district of SR-4 and is comprised of 211 acres of land. Development of this zone is recommended at a maximum density of 6 du/acre with no more than 762 new residential units. There is a minimum open space requirement of 40% with residential clustering the preferable development strategy.

Zone Q is located in the north central section of SR-4 encompassing 99 acres of land. This area is recommended as a medium/high density residential corridor to provide a step down in development intensity from the regional core to the lower density neighborhoods immediately to the south. In addition, the overall vision of the Guadalupe Rd. corridor is to foster higher intensity development along its length leading into the regional core, creating a smooth increase in density and development intensity from the fringe of the study area inward toward the commercial core. Maximum development standards for Zone Q include an average density of 13 du/acre, up to 767 new residential units, and a minimum 40% open space requirement.

SR-5 is located along the southern most border of the PUD study area and consist of approximately 661 acres. This subarea is characterized as a commercial and light industrial corridor, with provisions for mixed housing types along its northern half. Maximum development standards are set at a density average of 6 du/acre, 2,955 new residential units, 3,000 gsf of institution space, 1,437,480 gsf of light industrial space, 5,749,920 gsf of commercial space, and allocation for one hotel of up to 150 rooms. Open space is required at an average minimum of 19% of total land. Like the commercial center, this area is designed to attract residents of Gold Canyon and of other communities to the south and east. It consists of the final three zones in this plan. Maximum development standards for SR-5 and its zones are shown in Table 4-12 and its associated allowable land use table may be found in Table 4-13.

Zone S, which is bounded by the southern and eastern most edges of the study area and split by the main north south arterial road, is recommended to develop as an all commercial corridor. While the economic corridor along the US-60 provides the bulk of commercial development for the region south of the freeway, Zone S may act as a supplemental commercial zone with provisions for retail and commercial uses not generally identified as local in character. Development should be guided in a direction that provides necessary retail destinations for residents of communities to the south and east, such as Gold Canyon. Carefully selected big box retailers or larger supermarkets, commercial land uses that may not be found in the commercial core, may choose to locate here.

The zone consists of a total of 155 acres with a minimum open space requirement of 15%. Maximum development standards proposed for this zone include 5,749,920 gsf of commercial space to develop at a maximum of 1.0 FAR, 3,000 gsf of institutional land use (may be used to provide for a small health care facility such as a local walk-in clinic), and provisions for one hotel of up to 150 rooms. It is recommended that this zone remain entirely open for commercial development with no provisions for residential land use.

Zone T is the proposed location of a light industrial/business park. This zone consists of 155 total acres allocated for 1,437,480 gsf of light industrial and business park uses only. Open space requirements are at a minimum of 15% with proposed development intensity of 0.25 FAR.

With such a high concentration of commercial and light industrial land uses in this subarea, Zone R is proposed as a 92 acre medium/high density residential development site to provide close living options for employees of businesses located in this area. Maximum development density for this zone is 20 du/acre, which provides up to 1,560 new residential units. There is a 15% open space requirement in this area to allow for a higher ratio of built area to open space allow developers the flexibility to build larger apartment complexes.

Zone U acts as the medium density residential central buffer to the north between the high intensity commercial district in Zone S and the lower density residential zones in Subarea 4. This zone is proposed to develop at a density of 9 du/acre with an area of 259 acres. This provides for up to 1,395 residential units with a minimum open space requirement of 40%.

SR-5						
Land Use Categories	**Unit of Measure**	**Total Development Area**	**R**	**S**	**T**	**U**
Total Land Area	Acres	661	92	155	155	259
Developable Area	Acres	497	78	132	132	155
Density	du/acre	6	20	0	0	9
Residential	Units	2,955	1,560	0	0	1,395
Civic Uses	GSF	Allowable by Permit*	--	--	--	--
Institutional	GSF	3,000	--	3,000	--	--
Light Industrial*	GSF	1,437,480	--	--	1,437,480	--
Commercial*	GSF	5,749,920	--	5,749,920	--	--
Accommodations	No./Rooms	1/150	--	150	--	--
Green Space and Open Space	Acres	164	14	23	23	104
Percent to be Allocated	Acres	19%	15%	15%	15%	40%

**civic uses in this zone are to be allowed by permit, GSF to be determined on a case by case basis by the city.*
**light industrial proposed to develop at 0.25 FAR.*
**southern commercial corridor connecting to Gold Canyon proposed to develop at 1.0 FAR*

Table 4-12: SR-5 Maximum Development Standards

Land Uses	SR-1 Flood Wash				SR-2 North West Corridor			SR-3 East High Intensity Corridor					SR-4 South Siphon Draw Corridor					SR-5 South Border Corridor			
	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
Residential																					
Single-Family Dwelling	Y		Y	Y		Y	Y				Y	Y	Y	Y	Y	Y	Y				Y
Two-Family Dwelling	Y		Y	Y		Y	Y	Y		Y		Y	Y		Y		Y	Y			Y
Multi-Family Dwelling	Y		Y		Y	Y		Y		Y								Y			
Elderly Housing	Y		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y			Y
Mixed-Use					Y			Y	Y	Y								Y			
Civic uses																					
Recreational Facilities		Y			P	P	P	P	P	P		P	P	P	P		P	P	P		P
Community Center		Y			P			P	P	P								P	P		
Public Utilities	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Religious Facilities		P			P			P		P								P			
Performing Arts, Cultural Uses		P			P			P	P	P								P	P		
Institutional																					
Assisted Living/Nursing Home												Y									Y
Health Care Facility (Small Clinic)					Y			Y	Y	Y								Y	Y		
Public Education Facility		Y																			
Commercial																					
Retail Sales					Y			Y	Y	Y								Y	Y		
Professional Office					Y			Y	Y	Y								Y	Y	Y	
Business Center Development									Y										Y		
Restaurant					Y			Y	Y	Y								Y	Y		
Education/Training Facility									Y										Y		
Private School					Y			Y		Y								Y			
Repair Services					Y			Y	Y	Y								Y	Y		
Dedicated Office Building									Y										Y	Y	
Child Care Facility					Y			Y	Y	Y								Y	Y		
Financial Institution					Y			Y	Y	Y								Y	Y		
Home Occupation	Y		Y	Y	Y	Y	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y			Y
Accommodation																					
Bed and Breakfast						Y	Y	Y		Y		Y	Y	Y	Y		Y	Y			Y
Hotel									Y										Y		
Light Industrial																					
Reseach/Development Lab																				Y	
Wholesale																				Y	
Warehouse																				Y	

**Y is Yes/Allowable*

**P is Permit Required*

Table 4-13: PUD Total Allowable Land Use

Land Use Categories	Unit of Measure	Total PUD Maximum Development	SR-1	SR-2	SR-3	SR-4	SR-5
Total Land Area	Acres	3600					
Subareas	Acres	3173	772	490	672	578	661
Developable Area	Acres	1980	318	341	478	346	497
Development Density	du/acre	8.7	5.4	23.4	13	8	6
Residential	Units	18,445	2,514	4,003	6,190	2,783	2,955
Civic Uses	GSF*	150,000	150,000	--	--	--	--
Institutional	GSF	165,000	150,000	3,000	9,000	--	3,000
Light Industrial	GSF	1,437,480	--	--	--	--	1,437,480
Commercial	GSF	12,500,849	--	1,963,685	4,787,244	--	5,749,920
Accommodations	No./Rooms	2/ 350	--	--	1/200	--	1/150
Green Space and Open Space	Acres	1619					
Southern Wash	Acres	113					
Siphon Draw Wash	Acres	313					
Conserved Green Space	Acres	426					
Open Space	Acres	1,193 (33%)	454 (59%)	149 (30%)	194 (29%)	232 (40%)	164 (19%)

**GSF=Gross Square Feet*

Table 4-14: PUD Total Maximum Development Standards

Additional Considerations

Sprawl Mitigation

While the primary concern of this plan is to protect existing natural features and maximize open space in any new development, it also serves as a tool for sprawl mitigation. Apache Junction will benefit from measures taken early to prevent uncontrolled urban sprawl stimulated by land speculation and leapfrog development that has plagued so many cities in the Greater Phoenix Region. This plan may serve as a foundation for future controls on growth in Apache Junction to maximize open space in new development while maintaining compact and efficient urban form.

Future Studies

Transportation and Wildlife Corridors

According to the Arizona Department of Transportation, the vast open space South of US-60 is being considered for future freeway expansions. Most imminent among these plans is a North-South freeway alignment that would potentially run through the middle of the study area. In maintaining this plan's flexible nature, it may be adapted to accommodate any new freeway expansions. This may be done through shifting medium and high density zones to compliment freeway frontage roads and interchanges. In this scenario, high intensity commercial development would take on a shape more consistent with the proposed commercial corridor along the US-60/ Idaho Rd. interchange. Types of commercial development should maintain the character set forth in this plan, that is, local in nature. In addition, preservation of Siphon Draw and other natural washes should remain a consistent theme regardless of future roadway and freeway alignments. It is the position of this plan that wildlife and biological corridors are essential components of any future development in this area. A wildlife survey should be conducted to assess existing animal and plant species and movement patterns. The results of such a study should be used in guiding the placement of any future transportation corridors, other infrastructure, and building developments.

Low Impact Development

Sustainability is a key component of this plan and should remain consistent in the event of changes to the plan or the adoption of other plans. While cluster development provides an innovative technique for preserving existing natural environments and open space, sustainable practice should be implemented throughout the built environment. It is recommended that future studies be conducted to determine potential benefits and applicable uses of low impact development standards within the Superstition Ranch PUD, and indeed on any other new development in Apache Junction. LID is generally used as a way to mitigate storm water runoff as an alternative to expensive conventional storm water management infrastructure. It has been shown to provide cost savings to developers and cities will also providing ground water quality improvements and protection of natural landscapes.

Public Input

This plan takes into account recommendations and concerns collected from stakeholders and the public during the two previously mentioned public meetings. Citizens were asked as to what their vision of future development in the study area was, as well as if they had any concerns regarding specific areas or details proposed in this plan. The input collected fell into two categories; land use and environmental concerns. Residents expressed common interest in seeing more land uses dedicated to activities and "things to do". To address this, the Superstition Ranch PUD Plan was adapted by increasing the total allowable land usage for commercial mixed-use. In addition, 150,000 gsf of allowable civic space was added to Subarea 1 to provide a basis for the building of a multi-generational/community center. Active park space was also added in this zone to provide recreational opportunities. Environmental concerns were also voiced regarding biological corridors. The original PUD plan stated the importance of conducting a wildlife corridor study prior to any new development to ensure measures were taken to minimize their disruption. The plan was changed in response to these concerns to include recommendations for a complete biological corridor study, to include plant life.

Transportation and Wildlife Corridor Resources:

Wildlife Corridor Connectivity Analysis Toolkit: Developed by Klamath Center for Conservation Research, software package downloadable at http://www.klamathconservation.org/science_blog/software/

Arizona Department of Transportation South Central Projects: Information and documents may be found at ADOT.gov. https://www.azdot.gov/projects/south-central/north-south-corridor-study/overview

LID Resources:

Low Impact Development Toolkit, Prepared for the City of Mesa by Logan Simpson and Dibble Engineering, April 2015: Document may be retrieved from mesaaz.gov. www.**mesa**az.gov/home/showdocument?id=14999

Urban Design Tools for Low Impact Development: Information may be found by contacting the Low Impact Development Center by email at: info AT lowimpactdevelopment.org or by visiting http://www.lid-stormwater.net/

Pima County LID and Green Infrastructure Guidance Manual, March 2015: Document may be retrieved from the Pima County website at pima.gov. http://webcms.pima.gov/UserFiles/Servers/Server_6/File/Government/Flood%20Control/Floodplain%20Management/Low%20Impact%20Development/li-gi-manual-20150311.pdf

Maricopa County Post-Construction Requirements: Information may be found by visiting maricopa.gov or by email at mcesd.sw@mail.maricopa.gov for information on the Maricopa County Stormwater Program and at participate@mail.maricopa.gov for regulation related questions. https://www.maricopa.gov/EnvSvc/QC/StormWater/PostConstruction.aspx

Green Infrastructure Requirements and Incentives, A Survey of 50 Municipalities Across the U.S.: Prepared by the National Association of Home Builders. Information may be found by visiting nahb.org. https://www.nahb.org/en/research/~/media/3569DD400B824B57B9138BE28F5D7191.ashx

Land Use Case Study Sources:

Apache Junction General Plan
Lost Dutchman Heights, Apache Junction
DC Ranch, Scottsdale
Mesa Proving Grounds Redevelopment
Caterpillar Property, Maricopa County
City of Phoenix 3rd on Osborn PUD Plan

PUD Concept Plan Case Study Sources:

Woodmont Commons PUD Master Plan, Londonberry, New Hampshire
Subdivision Design in Flood Hazard Areas by Marya Morris, FEMA, and APA
United States Department of Housing and Urban Development PUD Standards
Planning and Development Department of Eugene, Oregon

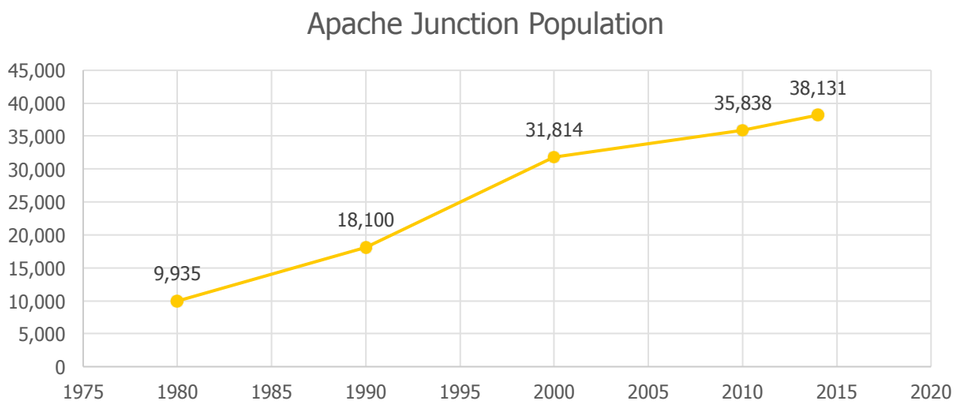
Appendix A: Apache Junction General Plan Updated Figures

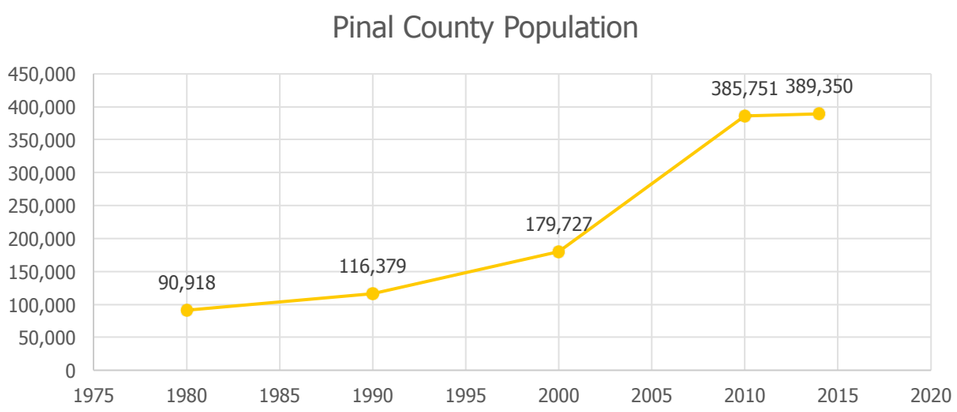
The tables and figures provided below are updates to the statistics provided in Apache Junction's 2010 General Plan Update. Statistics provided are the most recent currently available as of 4/3/2016

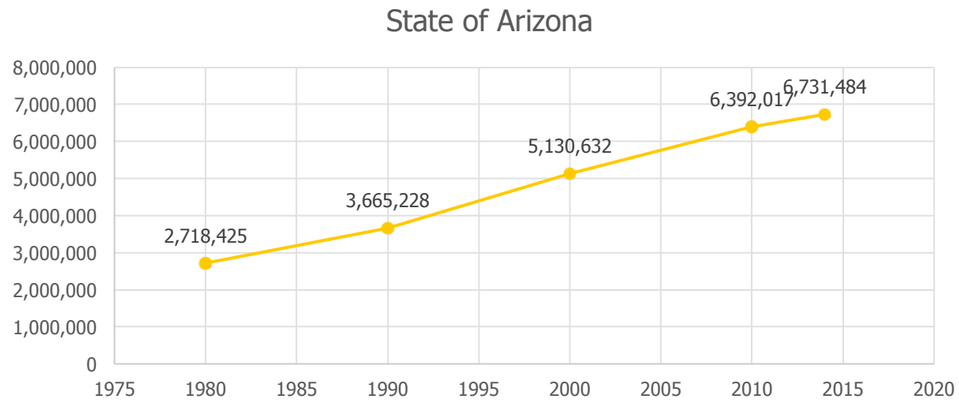
Resident Population Demographics The following table illustrates the historical population characteristics of the City of Apache Junction, Pinal County, and State of Arizona:

Census Year	Apache Junction City	% Change	Pinal County	% Change	State of Arizona	% Change
1980	9,935	-	90,918	-	2,718,425	-
1990	18,100	82.1	116,379	28	3,665,228	24.6
2000	31,814	75.7	179,727	54.4	5,130,632	39.9
2010	35,838	16.1	385,751	114.6	6,392,017	24.6
2014 (est.)	38,131	6.4	389,350	0.9	6,731,484	5.3

Source: US Census Bureau



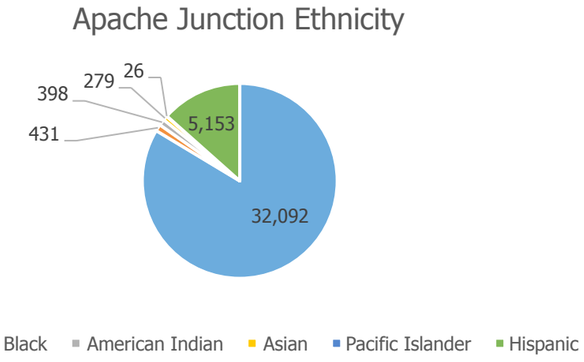


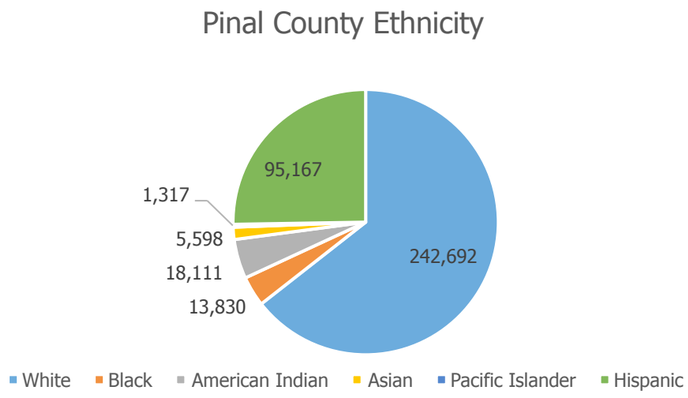


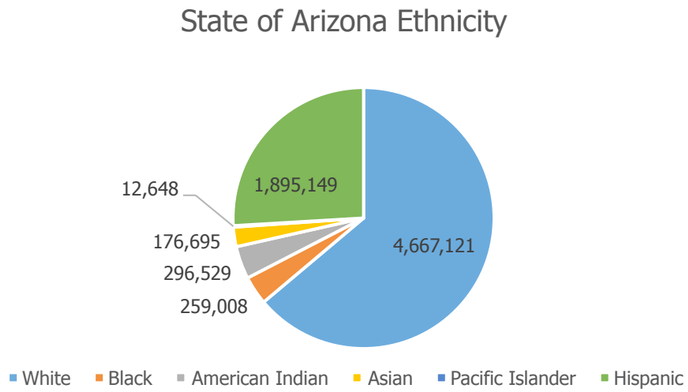
The following table illustrates the population characteristics of ethnicity in the City of Apache Junction, Pinal County and State of Arizona:

Ethnic Group	Apache Junction City	% of Total	Pinal County	% of Total	State of Arizona	% of Total
White	32,092	89.5	242,692	73.7	4,667,121	73
Black	431	1.2	13,830	4.2	259,008	4.1
American Indian	398	1.1	18,111	5.5	296,529	4.6
Asian	279	0.8	5,598	1.7	176,695	2.8
Pacific Islander	26	0.1	1,317	0.4	12,648	0.2
Hispanic	5,153	14.4	95,167	28.9	1,895,149	29.6

Source: US Census Bureau, 2010 Census



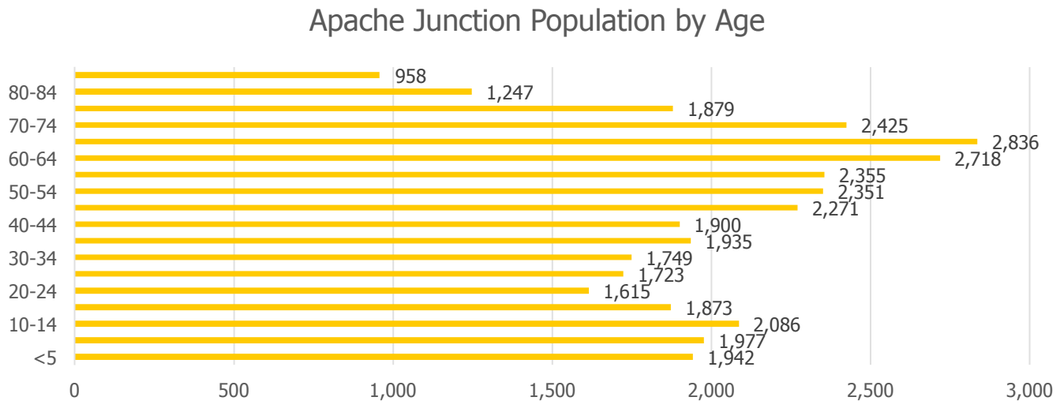


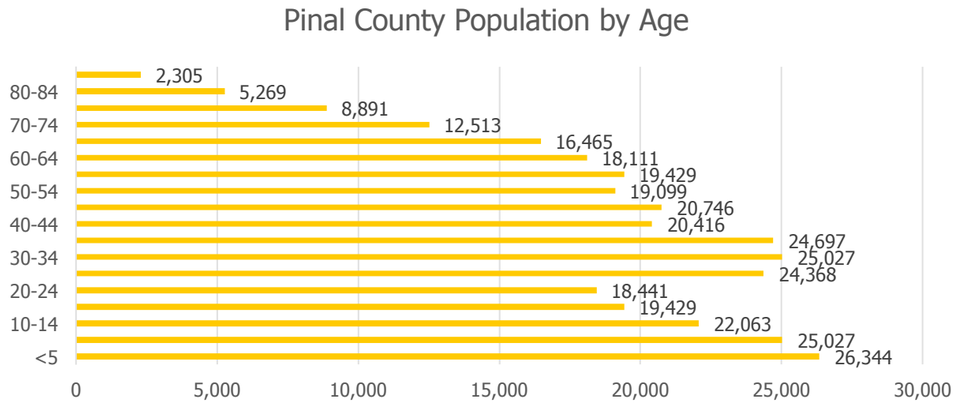


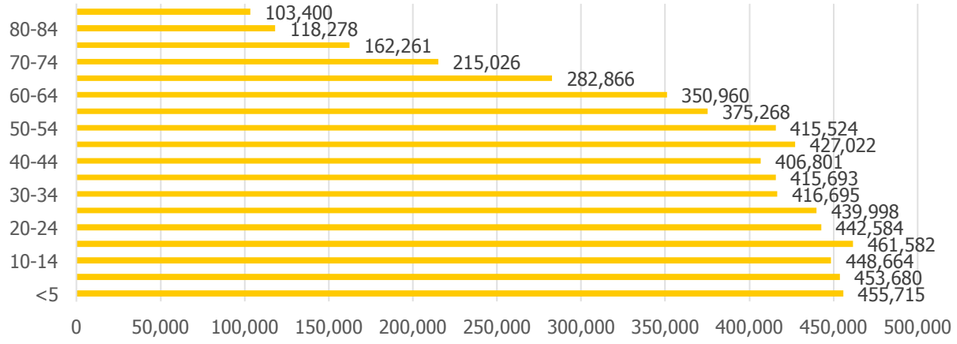
The following table illustrates population characteristics of age in the City of Apache Junction, Pinal County and State of Arizona:

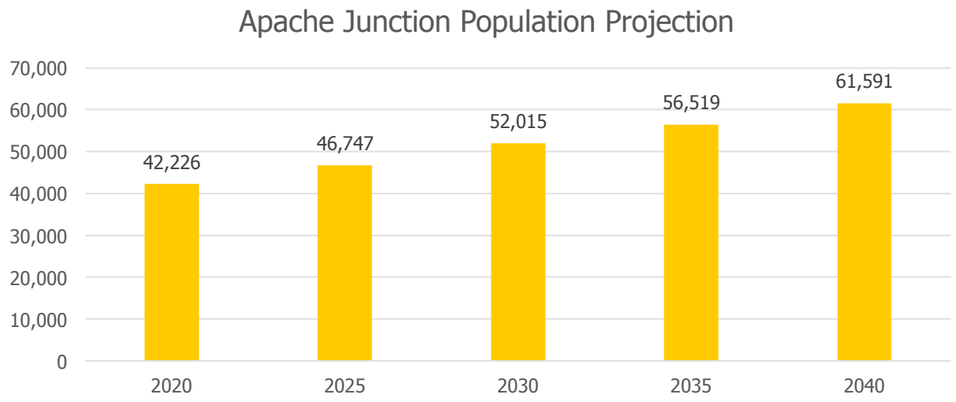
Cohort	Apache Junction City	% of Total	Pinal County	% of Total	State of Arizona	% of Total
<5	1,942	5.4	26,344	8	455,715	7.1
5-9	1,977	5.5	25,027	7.6	453,680	7.1
10-14	2,086	5.8	22,063	6.7	448,664	7
15-19	1,873	5.2	19,429	5.9	461,582	7.2
20-24	1,615	4.5	18,441	5.6	442,584	6.9
25-29	1,723	4.8	24,368	7.4	439,998	6.9
30-34	1,749	4.9	25,027	7.6	416,695	6.5
35-39	1,935	5.4	24,697	7.5	415,693	6.5
40-44	1,900	5.3	20,416	6.2	406,801	6.4
45-49	2,271	6.3	20,746	6.3	427,022	6.7
50-54	2,351	6.6	19,099	5.8	415,524	6.5
55-59	2,355	6.6	19,429	5.9	375,268	5.9
60-64	2,718	7.6	18,111	5.5	350,960	5.5
65-69	2,836	7.9	16,465	5	282,866	4.4
70-74	2,425	6.8	12,513	3.8	215,026	3.4
75-79	1,879	5.2	8,891	2.7	162,261	2.5
80-84	1,247	3.5	5,269	1.6	118,278	1.9
>85	958	2.7	2,305	0.7	103,400	1.6

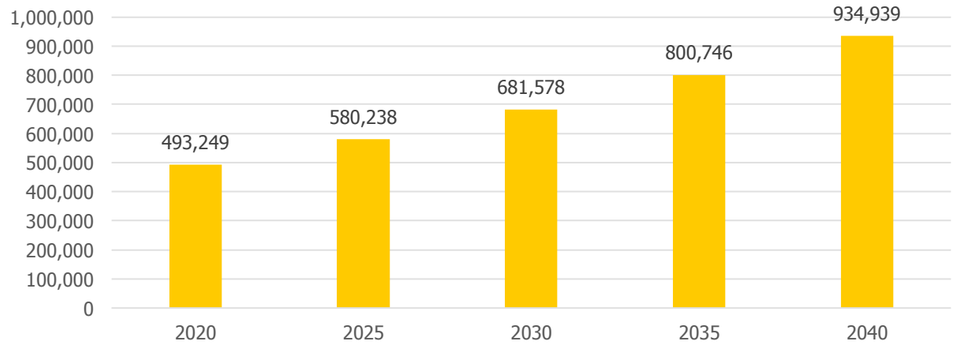
Source: US Census Bureau, 2010 Census

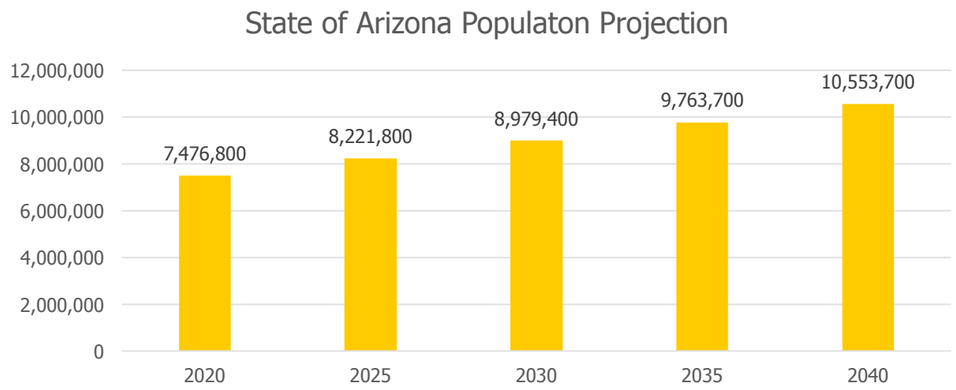












The following table illustrates population projections for the City of Apache Junction, Pinal County and State of Arizona:

Year	Apache Junction City	Pinal County	State of Arizona
2020	42,226	493,249	7,476,800
2025	46,747	580,238	8,221,800
2030	52,015	681,578	8,979,400
2035	56,519	800,746	9,763,700
2040	61,591	934,939	10,553,700

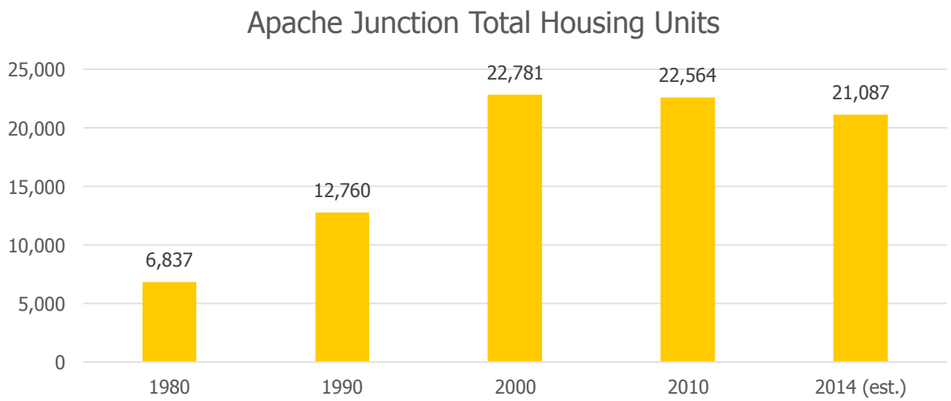
Source: Central Arizona Association of Governments, Arizona Department of Administration; 2015

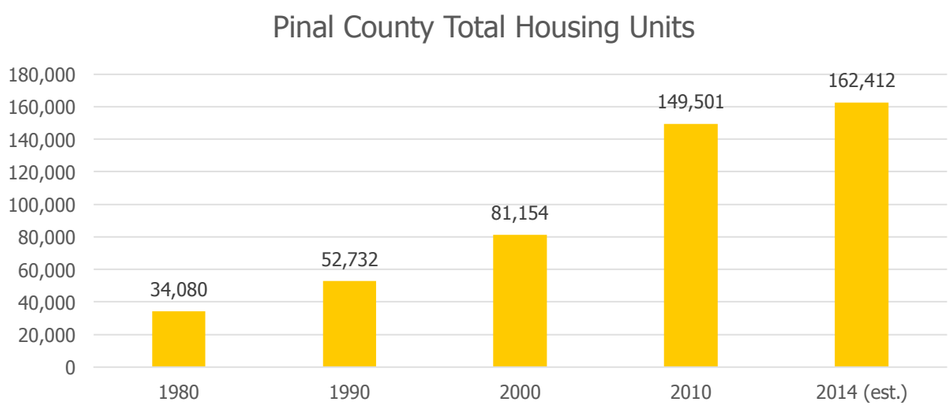
Housing Demographics

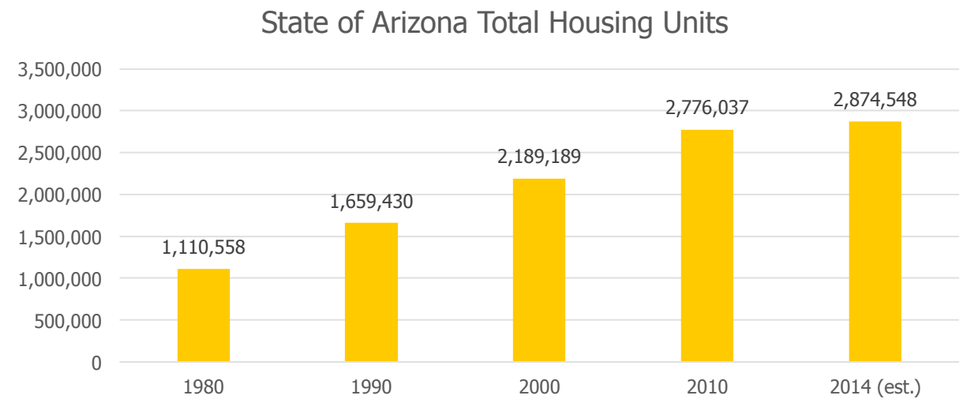
The following table illustrates the number of total housing units for the City of Apache Junction, Pinal County and State of Arizona:

Year	Apache Junction City	Pinal County	State of Arizona
1980	6,837	34,080	1,110,558
1990	12,760	52,732	1,659,430
2000	22,781	81,154	2,189,189
2010	22,564	149,501	2,776,037
2014 (est.)	21,087	162,412	2,874,548

Source: US Census Bureau



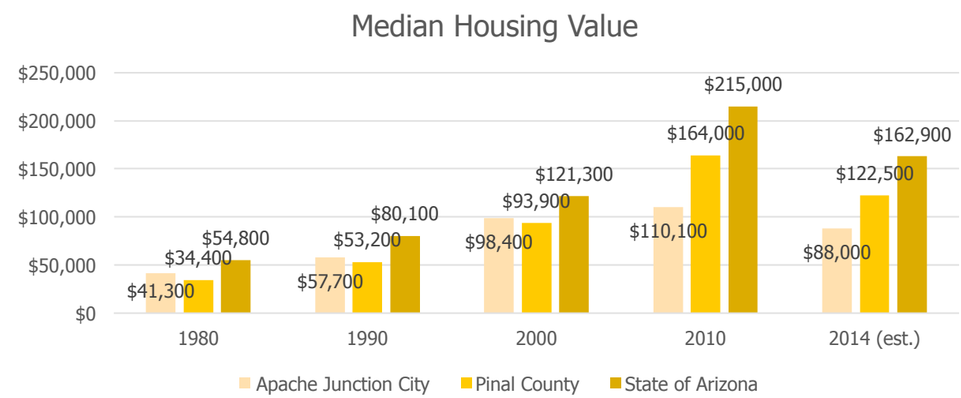




The following table illustrates the time series of median housing value for the City of Apache Junction, Pinal County and State of Arizona:

Year	Apache Junction City	Pinal County	State of Arizona
1980	$41,300	$34,400	$54,800
1990	$57,700	$53,200	$80,100
2000	$98,400	$93,900	$121,300
2010	$110,100	$164,000	$215,000
2014 (est.)	$88,000	$122,500	$162,900

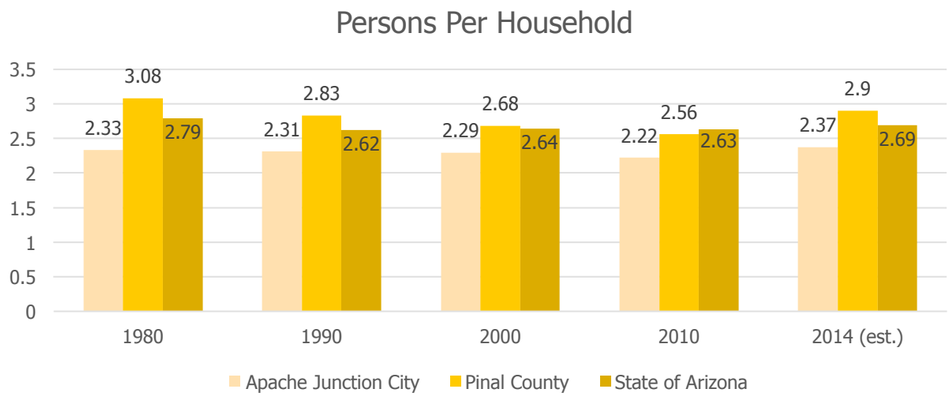
Source: US Census Bureau



The following table shows the number of persons per household for the City of Apache Junction, Pinal County and State of Arizona:

Year	Apache Junction City	Pinal County	State of Arizona
1980	2.33	3.08	2.79
1990	2.31	2.83	2.62
2000	2.29	2.68	2.64
2010	2.22	2.56	2.63
2014 (est.)	2.37	2.9	2.69

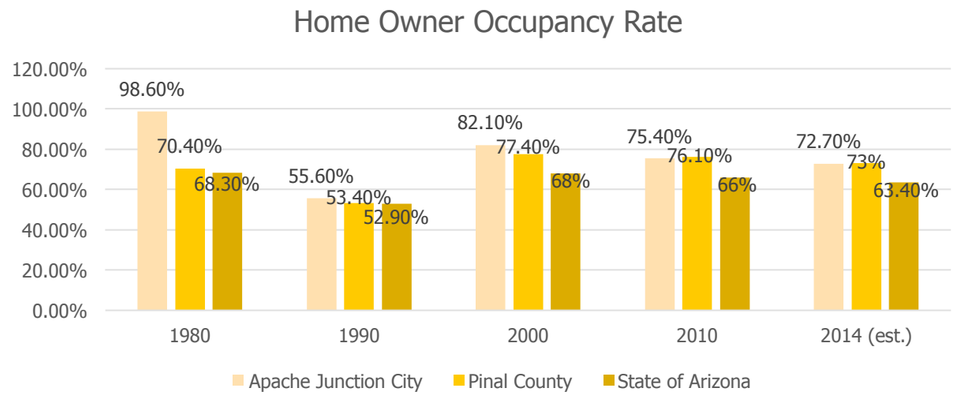
Source: US Census Bureau



The following table shows the homeownership rate for the City of Apache Junction, Pinal County and State of Arizona:

Year	Apache Junction City	Pinal County	State of Arizona
1980	98.6%	70.4%	68.3%
1990	55.6%	53.4%	52.9%
2000	82.1%	77.4%	68%
2010	75.4%	76.1%	66%
2014 (est.)	72.7%	73%	63.4%

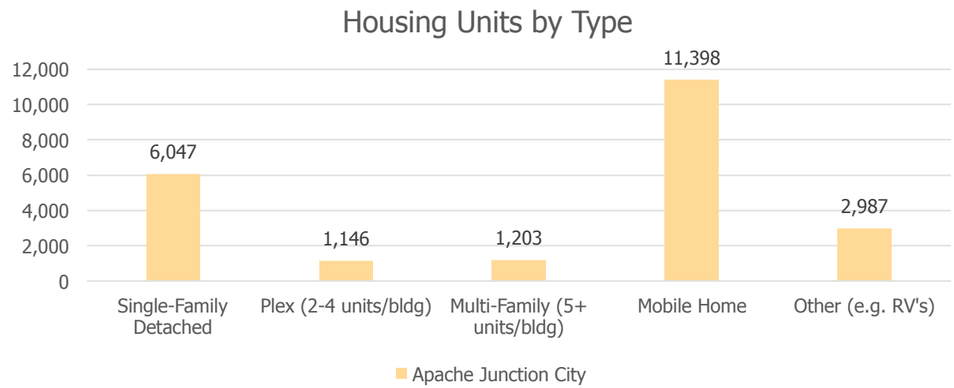
Source: US Census Bureau

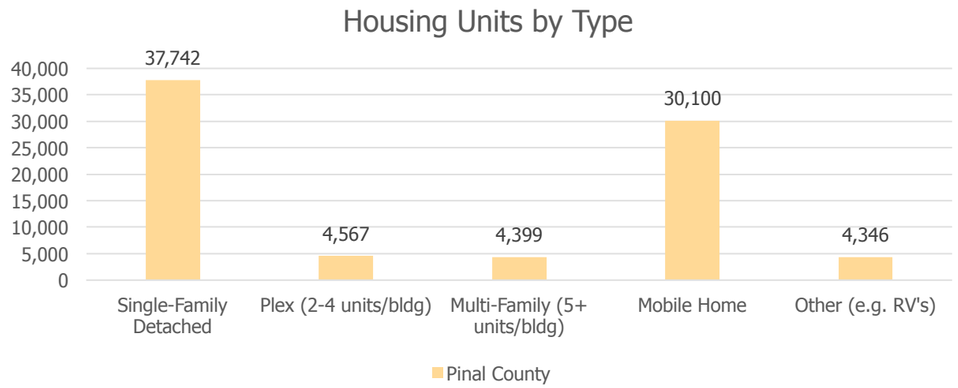


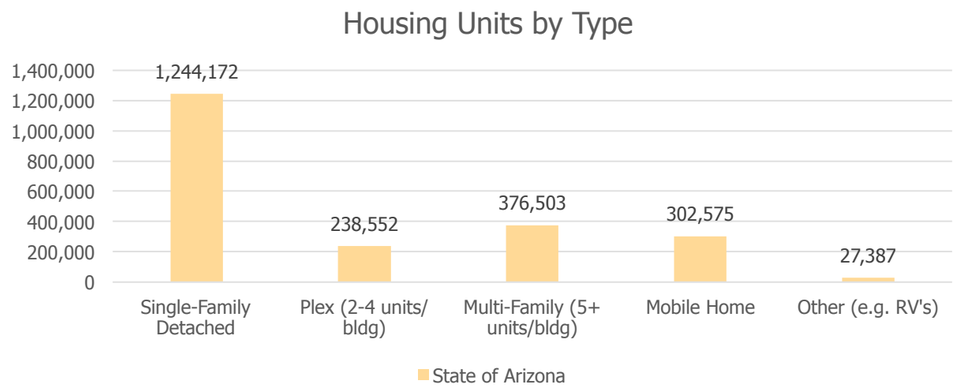
The following table outlines the for the breakdown of housing units in the City of Apache Junction, Pinal County and State of Arizona:

Type	Apache Junction City		Pinal County		State of Arizona	
	# units	% of total	# units	% of total	# units	% of total
Single-Family Detached	6,047	26.6	37,742	46.5	1,244,172	56.8
Plex (2-4 units/bldg)	1,146	5	4,567	5.6	238,552	10.9
Multi-Family (5+ units/ bldg)	1,203	5.3	4,399	5.4	376,503	17.2
Mobile Home	11,398	50	30,100	37.1	302,575	13.8
Other (e.g. RV's)	2,987	13.1	4,346	5.4	27,387	1.3
Totals	**22,781**		**81,154**		**2,189,189**	

Source: US Census Bureau, 2010 Census





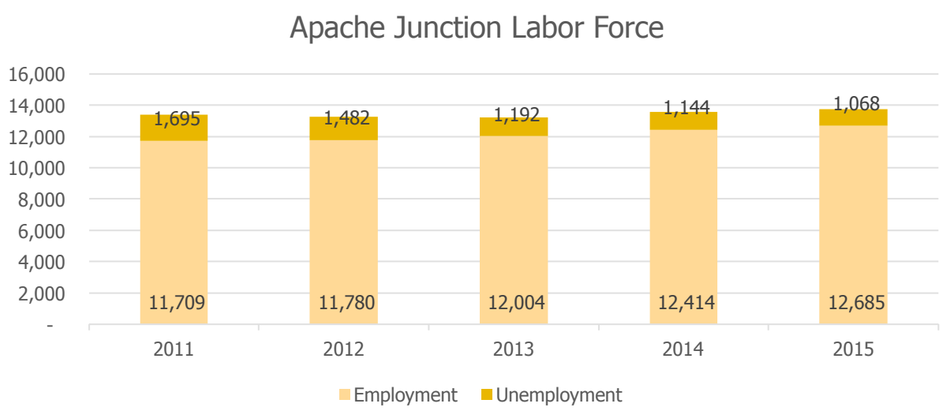


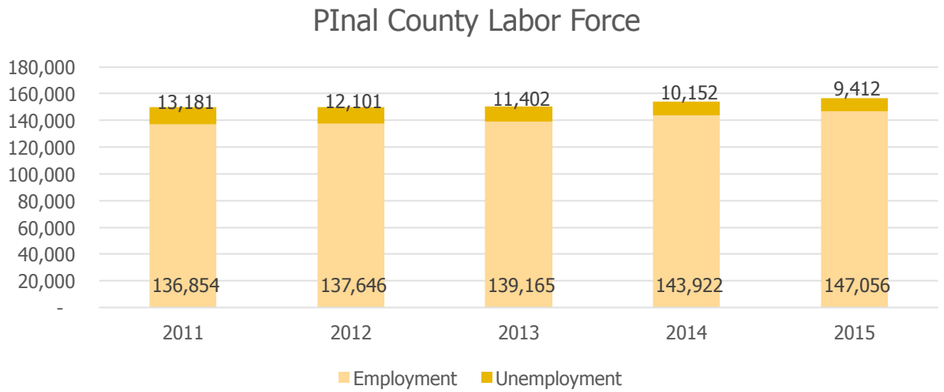
Economic Demographics

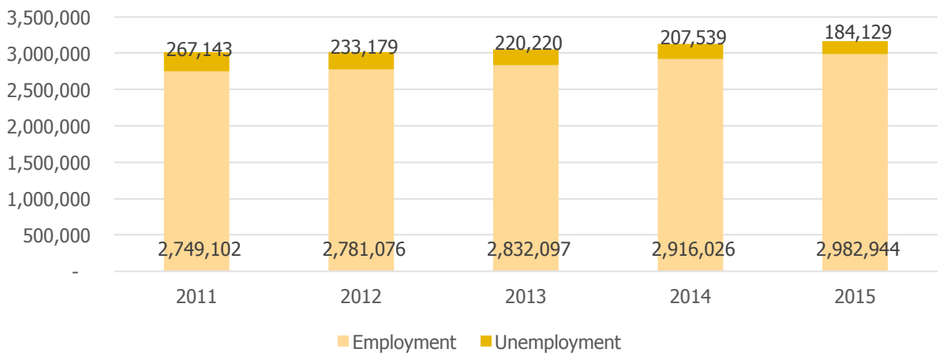
The following tables illustrate employment, income, and educational characteristics for the City of Apache Junction, Pinal County, and the State of Arizona:

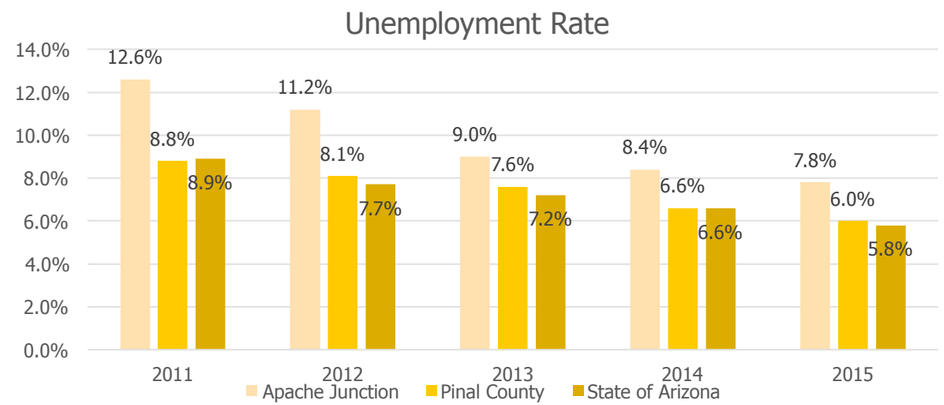
Apache Junction	Employment	Unemployment	Unemployment Rate	Labor Force
2011	11,709	1,695	12.6%	13,404
2012	11,780	1,482	11.2%	13,262
2013	12,004	1,192	9.0%	13,196
2014	12,414	1,144	8.4%	13,558
2015	12,685	1,068	7.8%	13,753
Pinal County	**Employment**	**Unemployment**	**Unemployment Rate**	**Labor Force**
2011	136,854	13,181	8.8%	150,035
2012	137,646	12,101	8.1%	149,747
2013	139,165	11,402	7.6%	150,567
2014	143,922	10,152	6.6%	154,074
2015	147,056	9,412	6.0%	156,468
State of Arizona	**Employment**	**Unemployment**	**Unemployment Rate**	**Labor Force**
2011	2,749,102	267,143	8.9%	3,016,245
2012	2,781,076	233,179	7.7%	3,014,255
2013	2,832,097	220,220	7.2%	3,052,317
2014	2,916,026	207,539	6.6%	3,123,565
2015	2,982,944	184,129	5.8%	3,167,073

Source: Bureau of Labor Statistics, Local Area Unemployment Statistics



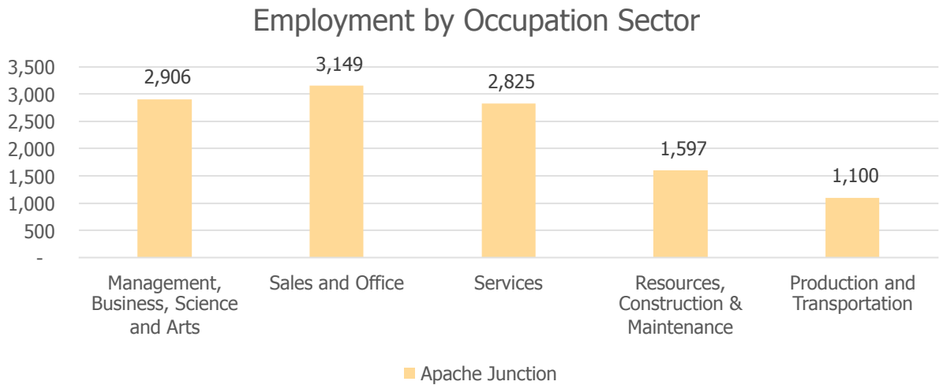


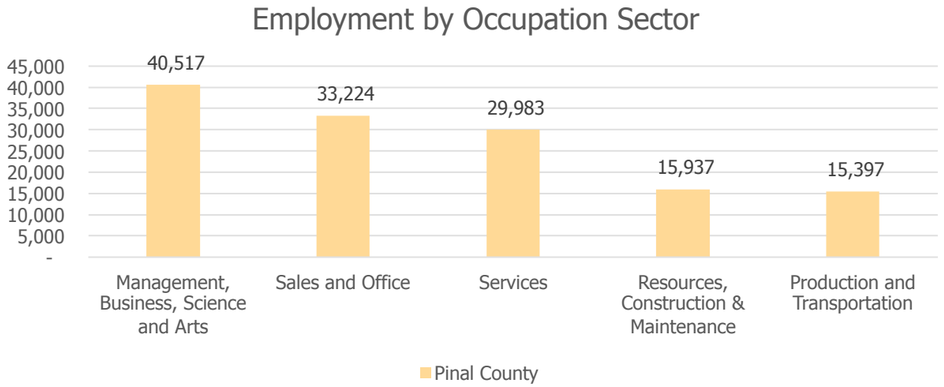


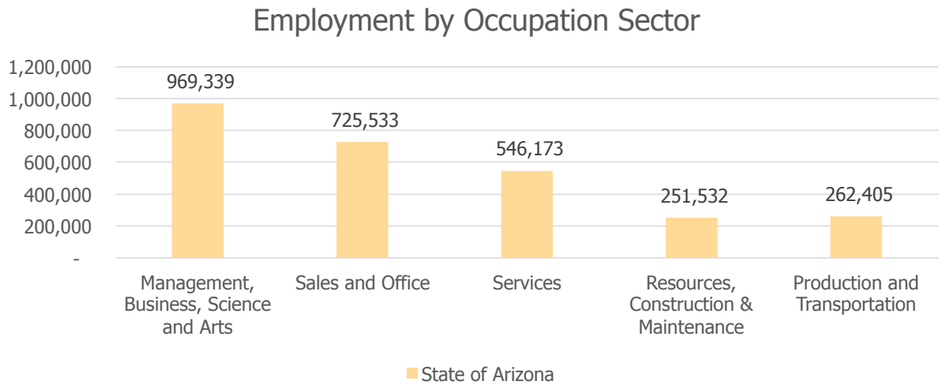


The following table outlines the for the breakdown of housing units in the City of Apache Junction, Pinal County and State of Arizona:

Sector	Apache Junction		Pinal County		State of Arizona	
	Employment	% of total	Employment	% of total	Employment	% of total
Management, Business, Science and Arts	2,906	25.1%	40,517	30.0 %	969,339	35.2%
Sales and Office	3,149	27.2%	33,224	24.6 %	725,533	26.3%
Services	2,825	24.4%	29,983	22.2 %	546,173	19.8%
Resources, Construction & Maintenance	1,597	13.8%	15,937	11.8 %	251,532	9.1%
Production and Transportation	1,100	9.5%	15,397	11.4 %	262,405	9.5%
Total	**11,576**		**135,058**		**2,754,982**	



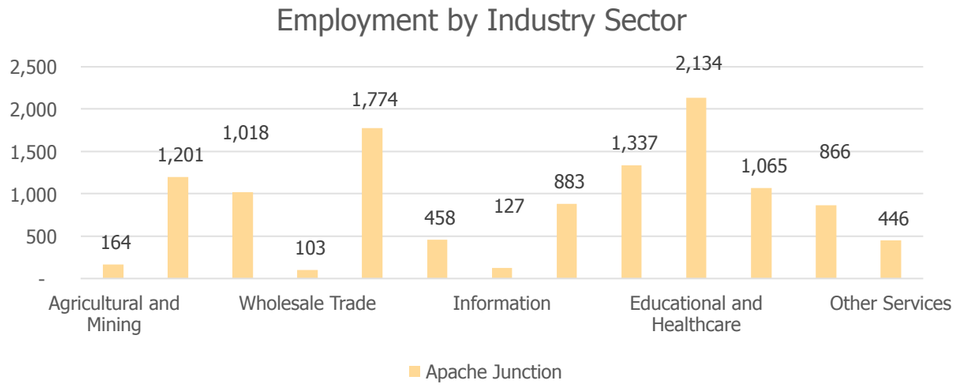


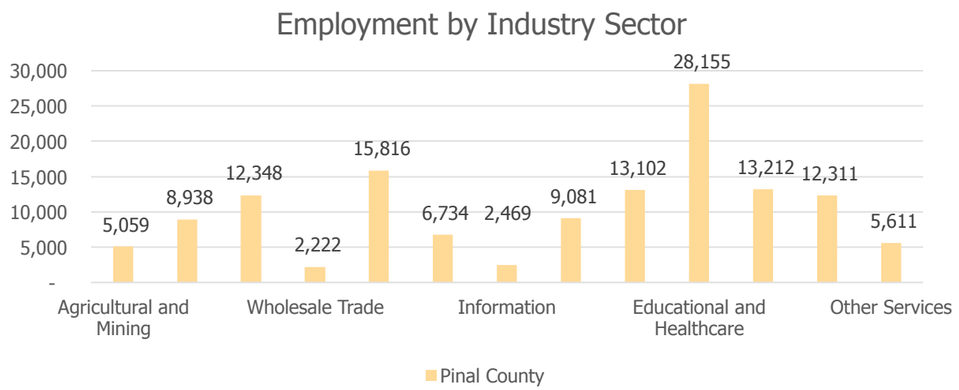


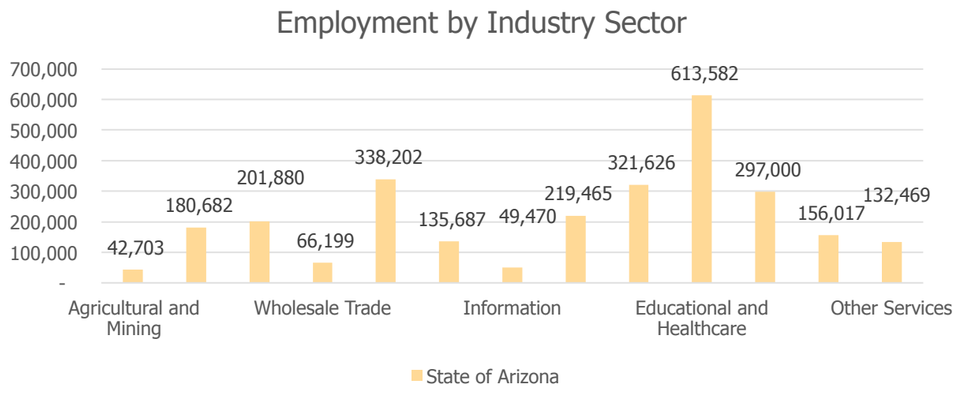
The following table outlines employment by industry sector for the City of Apache Junction, Pinal County, and the State of Arizona:

Sector	Apache Junction		Pinal County		State of Arizona	
	Employment	% of total	Employment	% of total	Employment	% of total
Agricultural and Mining	164	1.42%	5,059	3.75%	42,703	1.55%
Construction	1,201	10.37%	8,938	6.62%	180,682	6.56%
Manufacturing	1,018	8.79%	12,348	9.14%	201,880	7.33%
Wholesale Trade	103	0.89%	2,222	1.65%	66,199	2.40%
Retail Trade	1,774	15.32%	15,816	11.71%	338,202	12.28%
Transportation, Warehousing & Utilities	458	3.96%	6,734	4.99%	135,687	4.93%
Information	127	1.10%	2,469	1.83%	49,470	1.80%
Finance, Insurance and Real Estate	883	7.63%	9,081	6.72%	219,465	7.97%
Professional, Scientific and Management	1,337	11.55%	13,102	9.70%	321,626	11.67%
Educational and Healthcare	2,134	18.43%	28,155	20.85%	613,582	22.27%
Arts, Entertainment, Recreation and Food Service	1,065	9.20%	13,212	9.78%	297,000	10.78%
Public Administration	866	7.48%	12,311	9.12%	156,017	5.66%
Other Services	446	3.85%	5,611	4.15%	132,469	4.81%
Total	**11,576**		**135,058**		**2,754,982**	

Source: US Census Bureau, 2010 Census



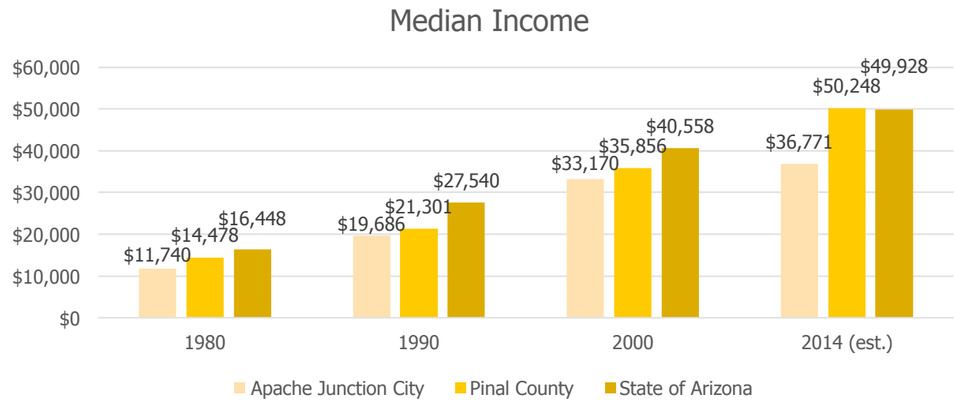




The following table shows median income for the City of Apache Junction, Pinal County and State of Arizona:

Year	Apache Junction City	Pinal County	State of Arizona
1980	$11,740	$14,478	$16,448
1990	$19,686	$21,301	$27,540
2000	$33,170	$35,856	$40,558
2014 (est.)	$36,771	$50,248	$49,928

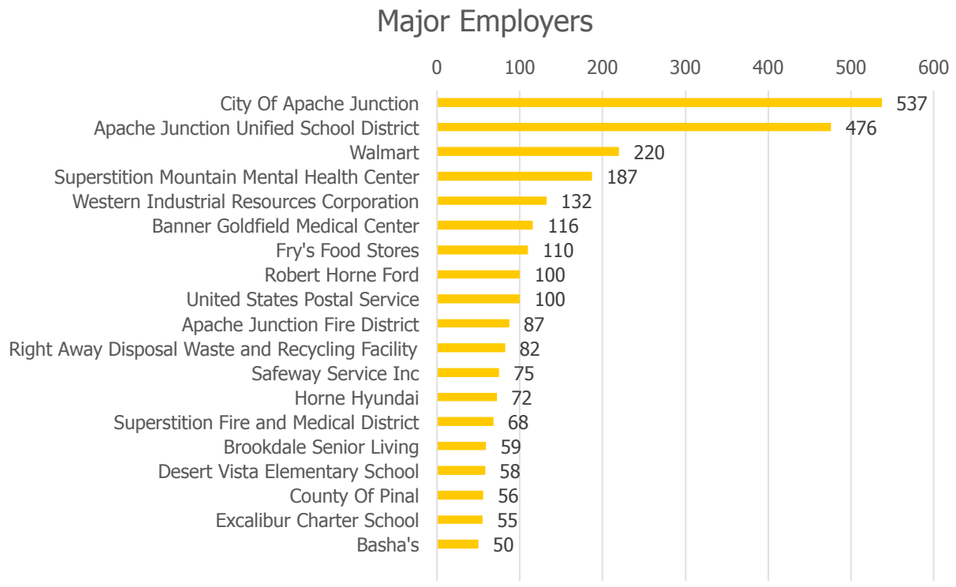
Source: US Census Bureau



The following table shows major employers in the City of Apache Junction:

Employer	Full Time Employees
City of Apache Junction	537
Apache Junction Unified School District	476
Walmart	220
Superstition Mountain Mental Health Center	187
Western Industrial Resources Corporation	132
Banner Goldfield Medical Center	116
Fry's Food Stores	110
Robert Horne Ford	100
United States Postal Service	100
Apache Junction Fire District	87
Right Away Disposal Waste and Recycling Facility	82
Safeway	75
Horne Hyundai	72
Superstition Fire and Medical District	68
Brookdale Senior Living	59
Desert Vista Elementary School	58
County of Pinal	56
Excalibur Charter School	55
Basha's	50

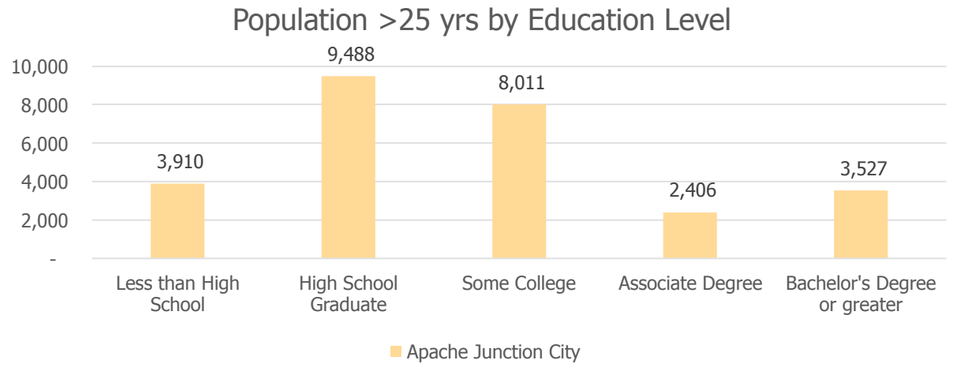
Source: Maricopa Association of Governments, Employer Database 2014

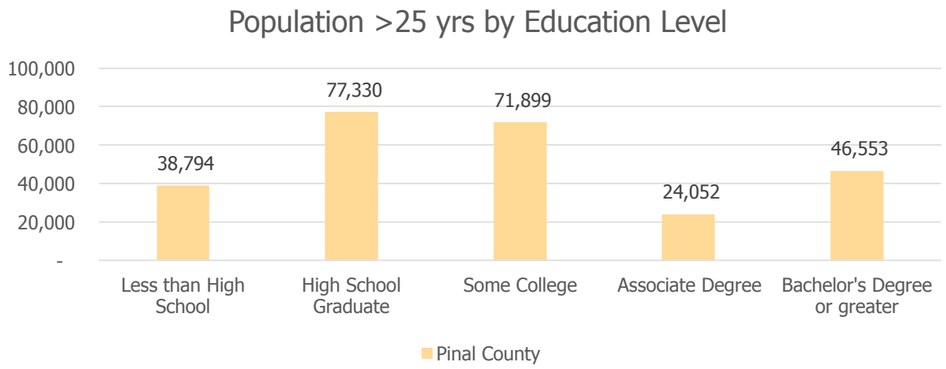


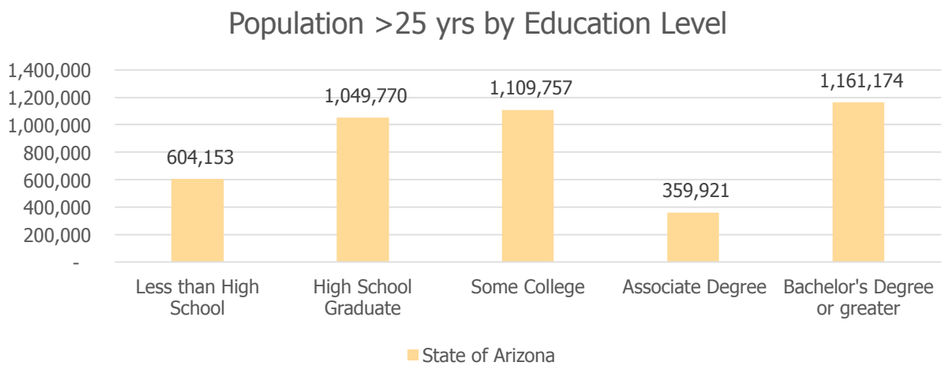
The following table education levels of the population of the City of Apache Junction, Pinal County, and the State of Arizona:

Education Level	Apache Junction		Pinal County		State of Arizona	
	# of Persons	% of total	# of Persons	% of total	# of Persons	% of total
Less than High School	3,910	14.3%	38,794	15.0%	604,153	14.1%
High School Graduate	9,488	34.7%	77,330	29.9%	1,049,770	24.5%
Some College	8,011	29.3%	71,899	27.8%	1,109,757	25.9%
Associate Degree	2,406	8.8%	24,052	9.3%	359,921	8.4%
Bachelor's Degree or greater	3,527	12.9%	46,553	18.0%	1,161,174	27.1%
Total Population 25 yrs and over	**27,343**		**258,629**		**4,284,776**	

Source: US Census Bureau, American Community Survey 2010-2014 Estimates




Population >25 yrs by Education Level
100,000
80,000
60,000
40,000
20,000
-
38,794
77,330
71,899
24,052
46,553
Less than High School
High School Graduate
Some College
Associate Degree
Bachelor's Degree or greater
Pinal County


Population >25 yrs by Education Level
1,400,000
1,200,000
1,000,000
800,000
600,000
400,000
200,000
-
604,153
1,049,770
1,109,757
359,921
1,161,174
Less than High School
High School Graduate
Some College
Associate Degree
Bachelor's Degree or greater
State of Arizona

Appendix B-1: Community Surveys

Site Surveys

The Connectivity Team conducted several site surveys to gain a better understanding of Apache Junction. These site surveys included a tour guided by city staff, information gathered through visits to Apache Junction in which the group both drove and walked around the city; and data gathered through analysis on Google Earth.

Public Participation Plan

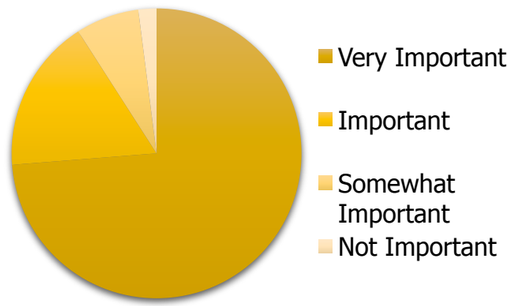
The goals of the public participation process were both to learn how Apache Junction residents currently use the trails and to gather feedback on suggested trail and bike lane placement, trail and bike land design, as well as selected trail and street features. The process relied heavily on a survey distributed at several and events, including the Multi-Generational Center, The Social Justice Forum at Central Arizona College, and two community meetings. The results of the survey largely showed that hiking was the main use of the current trail network; however, improvements to both trails and bike lanes would encourage greater use of these systems. It was also discovered that safety is the biggest concern of residents and the most significant factor stopping residents from cycling, hiking, or horseback riding.

To further receive input that could not be gathered from a survey, two community meetings were conducted by the ASU Capstone Class in conjunction with Apache Junction City Staff. During the first community meeting, residents were asked to participate in two activities. The first to identify and mark either frequently used or desired trails and bike lanes on a large map of Apache Junction. The second activity was a dot survey, in which residents were shown multiple picture examples of different trail and street features and designs and asked to place a sticker dot on their favorite. The results of these two activities revealed that residents prefer simple, rustic designs for trail and street features, as well as natural designs that highlight the environment and scenic views along trails. Residents also shared that they would like greater bike lane and trail connectivity to points of interest throughout Apache Junction.

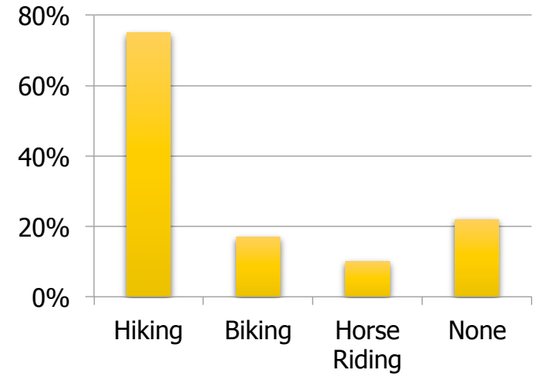
During the second community meeting, residents were asked to review the completed proposed trail and bike lane network, as well as the example equestrian and bike lane design, and provide feedback. The results of this meeting revealed that residents were receptive to the proposals.

The public participation process helped shape the Connectivity Master Plan, as residents' comments and concerns for both trail and bike lane placement and design heavily influenced decisions made. Safety proved to be the biggest concern for residents; therefore, improvements of trails and bike lanes to increase safety measures were the main focus of the master plan.

How important to you is the goal of creating a safe and connected trail network in AJ?

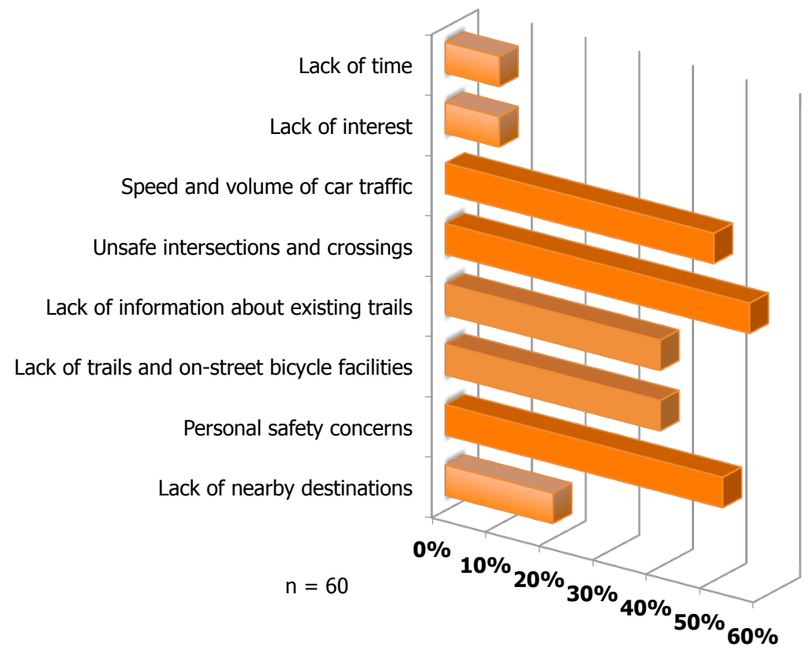


How do you use trails currently?



n = 60

What factors discourage trail and bike use in AJ?



n = 60

Print Survey

Apache Junction
Connectivity & Trails Master Plan Survey

1. How important to you is the goal of creating a safe and connected trail network (for bicycles, equestrians and pedestrians) in AJ?

○ Very Important ○ Important ○ Somewhat Important ○ Not Important

2. How do you use city trails currently?

○ Hiking
○ Biking
○ Horse riding
○ None

3. How often do you use city trails?

○ Several times a week
○ A few times a month
○ A few times a year
○ Never

4. How often do you walk or bike along city roads?

○ Several times a week
○ A few times a month
○ A few times a year
○ Never

5. How likely would bike lanes make you more willing to bike?

○ Very likely ○ Somewhat likely ○ Not very likely

6. How likely would sidewalk improvements make you willing to walk?

○ Very likely ○ Somewhat likely ○ Not very likely

7. What are the factors that discourage trail and bike use in AJ?

☐ Lack of nearby destinations
☐ Personal safety concerns
☐ Lack of trails and on-street bicycle facilities
☐ Lack of information about existing trails
☐ Unsafe intersections and crossings
☐ Speed and volume of car traffic
☐ Lack of interest
☐ Lack of time
☐ Other: _____

8. Do you live or work in Apache Junction? ☐ Live ☐ Work ☐ Neither

Please provide any additional comments on the back.
Thank you for your input! Contact Bailey at bfdubois@asu.edu for additional info.

How important to you is the goal of creating a safe and connected trail network in AJ?

Very Important	**73%**
Important	17%
Somewhat Important	7%
Not Important	2%

How do you use city trails currently?

Hiking	**75%**
Biking	17%
Horse Riding	10%
None	22%

How often do you use city trails?

Several times a week	22%
A few times a month	**38%**
A few times a year	23%
Never	17%

How often do you walk or bike along city roads?

Several times a week	25%
A few times a month	**32%**
A few times a year	18%
Never	25%

n = 60

How likely would bike lanes make you more willing to bike?

Very Likely	**42%**
Somewhat Likely	30%
Not Very Likely	25%

How likely would sidewalk improvements make you willing to walk?

Very Likely	**62%**
Somewhat Likely	30%
Not Very Likely	7%

What are the factors that discourage trail and bike use in AJ?

Lack of nearby destinations	20%
Personal safety concerns	52%
Lack of trails and on-street bicycle facilities	40%
Lack of information about existing trails	40%
Unsafe intersections and crossings	**57%**
Speed and volume of car traffic	50%
Lack of interest	10%
Lack of time	10%

Do you live or work in AJ?

Live	**70%**
Work	35%
Neither	18%

Appendix B-2: Source Information

This project drew inspiration from many additional reports, including:

1. Apache Junction Comprehensive Transportation Study, May 2012
2. Apache Junction 2010 General Plan, September 2010
3. Map, City of Apache Junction Parks and Recreation Maintained Facilities, July 2010
4. Old Apache Junction Trails Maps, created by Wayne Standage
5. Federal Highway Association Equestrian Design Guidebook for Trailheads and Campgrounds, April 2014
6. Town of Cave Creek Technical Design Guidelines – Trails, March 2009
7. Land Water Use Drought Tolerant Plant List: Phoenix Active Management Area, Arizona Department of Water Resources, 2004
8. U.S. Department of Transportation Federal Highway Administration Manual on Uniform Traffic Control Devices, 2009
9. Multimodal Driveway Design. Gattis, 2014.
10. Geometric Design of Driveways. Gattis, 2010.
11. *A study of safety impacts of different types of driveways and their proximity.* Williamson, 2014.

Appendix C-1: Downtown Visioning Public Participation Process

Public Meeting 1: Identity Assessment

Multiple Choice Questions

Meeting participants were asked five multiple choice questions. Two were general demographic questions, two were to get a better sense of how much time people were spending in the downtown area, and one was to determine how people primarily travel to the downtown. The responses to these multiple choice questions are represented in the following tables. There were 20 participants, but not every participant answered each question. For some questions, participants were asked to select more than one answer choice.

Residency Status	Full Time	Part Time	I do not live in AJ
	80%	5%	15%

Age group	0-19	20-29	30-39	40-49	50-64	65+	Prefer not to answer
	0%	5%	0%	20%	40%	30%	5%

Frequency of Trips	Every day	Once a week	A few times a week	Every couple of weeks	Once a month	Rarely, if ever
	50%	11%	39%	0%	0%	0%

Duration of Trips	Less than 1 hour	1-2 hour	2-3 hour	3-4 hour	4 or more hours
	22%	56%	17%	5%	0%

Mode of Transportation	On foot	Car	Bike	Horse	Motorcycle	Golf cart	Bus
	4%	71%	17%	4%	0%	4%	0%

Short Answer Questions

Participants were also asked a series of short answer questions. The short answer questions were designed to extract more specific, detailed information regarding Apache Junction's strengths, weaknesses, and sense of identity. Participants were also asked to list existing establishments and qualities they believe should be protected as the City continues to grow. The response column indicates the percent of participants who listed that quality or establishment.

Apache Junction's Strengths	Response Percentage
Mountain views, parks, trails, recreational facilities	31%
Sense of community, community involvement	18%
Rural, small town	14%
Room to grow, open space	9%
Low congestion, easy to get around	4%
Equestrian-friendly	4%
Location, weather	4%
Yearly events	4%
City government	4%
History	4%
Central Arizona College	2%
Self-defining	2%

Apache Junction's Weaknesses	Response Percentage
Lack of infrastructure, not walkable, no transportation	20%
Lack of businesses, retail, restaurants	17%
Entertainment, event space, cultural center	14%
Image, sense of place, vision	9%
Only thrives in the winter	8%
Ugly/temporary housing stock	8%
Lack of aesthetic standards	6%
Demographics, age	6%
No defined downtown	3%
Growth only to the south	3%
Lack of financial resources	3%
Building heights block views	3%

Qualities to Preserve	Response Percentage
Mountain views, washes, open space, trails	33%
Rural character, small town feel	15%
Western lifestyle and architecture	15%
Equestrian features	11%
Community gathering places	7%
History	7%
Multi-generational center	4%
RV parks	4%
The old grand hotel	4%

Apache Junction's Identity	Response Percentage
Undeveloped, does not have one	25%
Western, old west	22%
Small town, rural, friendly	19%
Outdoor recreation, superstition mountains	13%
Traditional	6%
Safe, comfortable	6%
Tourist center	3%
Historical	3%
Active seniors	3%

Significant Establishments	Response Percentage
Multigenerational center	17%
Dirtwater Springs	10%
Goldfield Ghost Town	10%
Filly's Roadhouse	6%
Hitchin' Post Pizza	6%
The Handlebar Pub and Grill	6%
Antique/western shops	6%
City Hall	3%
Prospector Park	3%
Hospital	3%
Central Arizona College	3%
Barleens Arizona Opry	3%
There are none within the city limits	3%
Apache Junction Public Library	3%
Chamber of Commerce	3%
Senior centers	3%
Superstition Mountain Museum	3%
Apache Trail	3%
Lost Dutchman State Park	3%
Fry's	3%

Mapping Activity

Participants were asked to indicate on a map of Apache Trail (with WE limits of Meridian Road and Royal Palm Road and NS limits of Superstition Boulevard and Broadway Avenue) where they considered the center of downtown to be. The first three participants (both were residents of AJ) had no idea where the center of downtown was. Their indications included Plaza Drive and Virginia Street, Idaho Road and Old West Highway, and Junction Street and Colt Road. The fourth and fifth participants indicated that the center of downtown was at the junction of Apache Trail and Old West Highway. All following participants also indicated that the junction of Apache Trail and Old West Highway was the center of downtown. It is unclear whether the first two participants were unique in that they were unsure where downtown was or if participants 6-20 simply followed the lead of the third and fourth participants, skewing the results.

Participants were then asked to indicate on the map where (geographically) and at which establishments they spend the most time. Most activities were clustered between Thunderbird Drive and Idaho Road. Most people spent time at Frys (7), The Handlebar Pub and Grill (3), and the Multigenerational Center/Library (2). Other frequented establishments included Best Western Apache Junction Inn, Bealls, Los Gringos Locos, Wells Fargo Bank, Pinal County Credit Union, Post Office, and various restaurants. Participants also spent time between Meridian Drive and Delaware Drive. Two people indicated they spent time at Walmart. Other responses included Shoppers Supply and Superstition Harley-Davidson.

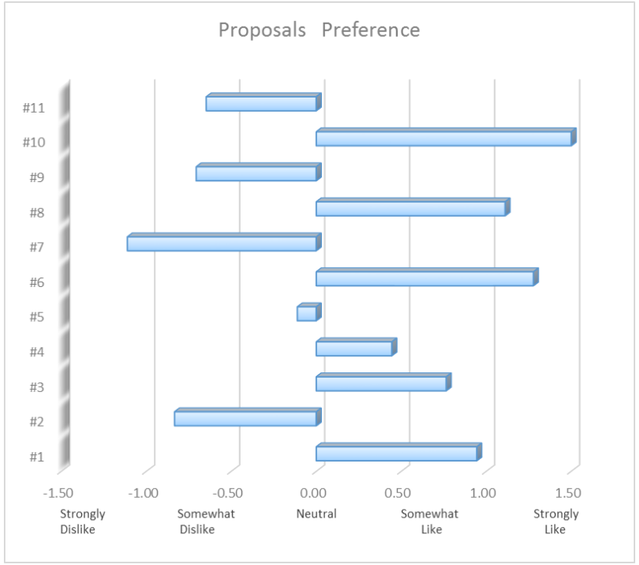
Participants were also asked to suggest activities or districts they would like to see added to the downtown and indicate where on the map those activities or districts should be located. Most people placed their suggestions between Thunderbird Drive and Winchester Road. The two most popular suggestions were public space and parks (3) and public transit options (3). One handicapped resident was particularly upset about the lack of public transportation. Other suggested additions included an art gallery, event/concert space, a movie theater, restaurants, a tourist attraction, a historical feel, centralized antique shops, an old town area, a bed and breakfast, hitching posts to parks to be more equestrian-friendly, a more pedestrian-friendly nature (including an overhead sidewalk to get to the proposed park area from Frys), bike stations at all parks and municipal buildings, a bike share program, an indoor pool at the Multigenerational Center, and high density housing between Idaho Road and Winchester Road.

Other Comments

After completing the survey and map activity, participants were given a comment card where they could share any other suggestions. An analysis of these comment cards shows a desire for bed and breakfasts to increase tourism and a desire to create places for students at Central Arizona College to both study and relax. Participants were also unified in their support for promoting a downtown with a Western feel. One resident suggested removing digital signs because they do not fit the Western feel people want to promote. The comment cards did indicate a division between those that would under no circumstances support roundabouts, public transportation, or park and rides because they feared it would disrupt the unique, small town feel they sought to preserve and those who thought creating roundabouts and welcoming public transit and bike share programs would allow the City to prepare for its inevitable growth.

Public Meeting 2: Visual Preference Survey

Meeting participants were shown eleven proposals of potential western style developments in the Downtown Core District. Each proposal presented before and after depictions. A linear scale survey was used to collect participants' preferences for each proposal: Strongly Dislike, Somewhat Dislike, Neutral, Somewhat Like, Strongly Like, and No Opinion. A mathematic method was used to evaluate responses. Each response is given a score (Strongly Dislike = -2, Somewhat Dislike = -1, Neutral = 0, Somewhat Like = 1, strongly like = 2), and an average response value was calculated. There were 18 participants and every participant responded to each proposal.



Proposals and Responses

Proposal #1: Outdoor equipment specialty shop - N Apache Trail, facing east, north end of the plaza.

Participants like the natural look to this design. They think it is beneficial to have retail in the heart of town. However, the bids are often too large and block the mountain views. The average response rating was 0.94.

Proposal #2: Western souvenir specialty shop - N Apache Trail, facing east, next to the TPG Tax and Accounting.

Participants perceived this proposal as hokey, junky, and trashy. It was criticized for being too similar to Goldfield Ghost Town. One participant suggested creating an open space park with recreational facilities at this location. One participant, however, thought this type of western theme would attract tourism. The average response rating was -0.83.

Proposal #3: Temporary event space - West end of Scenic.


Participants thought this better embodied their idea of a western theme. They said it was a very artistic use of desert views and contained a nice, multi-use community space. However, some participants argued that this proposal is a bit too urban and could disrupt the mountain views. The average response rating was 0.76.

Proposal #4: Bead & Breakfast - Southwest corner of N Apache Trail and Idaho, south of the gas station.


Participants noted that while this small town, "old-time-look" proposal would be better than a vacant lot, the proposal did not improve the space enough. The proposed building is a good example of the type of infill they would like to promote. However, there would still be too much open space surrounding it. The average response rating was 0.44.

Proposal #5: Coffee shop - Northwest corner of Old West and Idaho.


Participants thought that although this proposal is better than what currently exists, this area needs much more. Furthermore, many participants thought the architecture and materials were too modern for the City. The average response rating was -0.11.

Proposal #6: Bar - Intersection of Idaho and E Junction, facing west.


Participants said this proposal provided good variety. Most people like this type architecture and development. One participant claimed there would not be enough parking since the parking in that area is already a problem. The average response rating was 1.28.

Proposal #7: Hotel - Old West Hwy, facing northeast.

Participants said this proposal was too old and rustic. One participant noted how nice the trails and paths were but did not like the hotel itself. The average response rating was -1.11.

Proposal #8: Movie theater - Intersection of Idaho and E Junction, facing west.

Participants like the clean lines and thought this proposal fit the natural environment without being "junky." Many said a theater would be great for tax revenue. Others said the architecture wasn't quite western which is acceptable since the proposed style fits the usage. The average response rating was 1.11.

Proposal #9: Outdoor concert space - On Idaho between Scenic and E Junction, facing northwest.

Participants stated that this proposal is better than what exists, but they think it could be better. They liked that it provided for outdoor gatherings, public space, cultural space, and family gathering space. The average response rating was -0.71.

Proposal #10: Art gallery - On Idaho between Scenic and E Junction, facing east.

Participants liked this architectural style and thought the City would really benefit from a great museum. The average response rating was 1.56.

Proposal #11: Antique shops - Northwest corner of Apache Trail and North Apache Trail, facing the existing Antique shop mall.

Participants were conflicted with this proposal. Some thought it was too dilapidated. Others thought these types of shops would be a great way to preserve western theme. Two participants stated that simply removing the existing shops would be an improvement. The average response rating was -0.65.

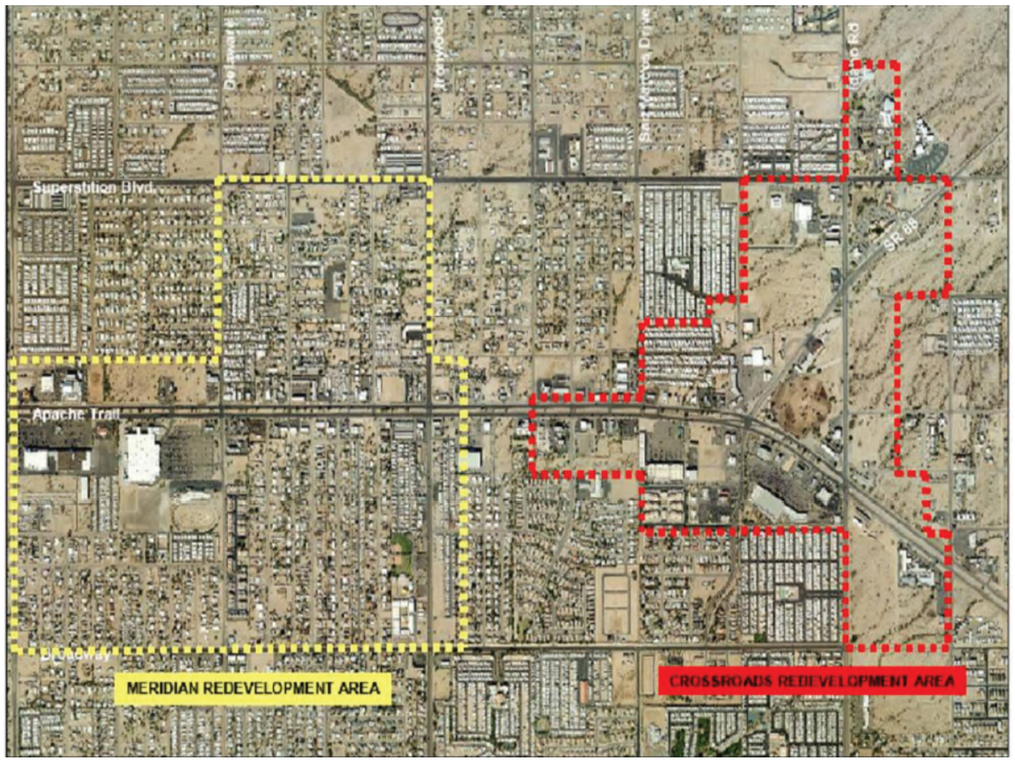
Other Comments

Many participants expressed their disapproval for overly Western style buildings because it could begin to look "hokey." It was mentioned that the downtown should not solely rely on such a strong theme since Goldfield Ghost Town is 10 minutes away. Some participants preferred the pueblo and mission style buildings stating that architectural style should be determined by use: shops should be western, museums should be pueblo, and cafes and theaters should be mission style. Several participants expressed a desire to require efficiency and sustainability standards in new developments.

Appendix C-2: Review of Existing Plans

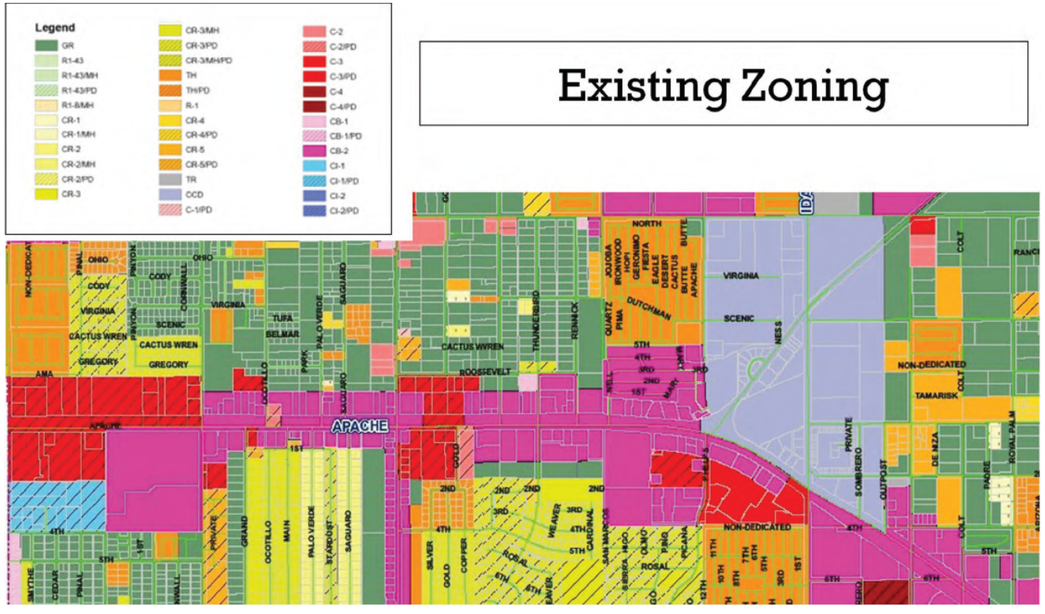
Downtown Redevelopment Implementation Strategy (DRIS)

The Downtown Redevelopment and Implementation Strategy (2010) provides a framework of design guidelines for the City of Apache Junction's Downtown area. Several prior studies have been focused on redeveloping Apache Junction Downtown. Two redevelopment districts -- the Meridian Redevelopment Area and the Crossroads Redevelopment Area -- have been mentioned and designated in studies. The DRIS designs a three zone districts which will be mentioned in Principle II. The following visioning sections will focus on the Downtown Core District which is one of the redevelopment districts and one of the three zone districts mentioned in the DRIS. The SCBD (Single Central Business District) program was approved in 2000. It allows the City to leverage low land costs and maximize future land values by offering financial incentives for new development on city owned land.



Redevelopment Districts

Along Apache Trail in Downtown, three types of commercial zoning code are present. CB-2 is the original commercial zoning code which was issued before city incorporated. During the redevelopment and revitalization process CB-2 has been shifted to C-3/PD and C-3. Technically, CB-2 can be seen as old commercial parcel while C-3/PD and C-3 can be seen as new commercial area. An important funding from these transfer is that numerous properties have been redeveloped because of the initiative taken by a few properties, which means redevelopment of a poor-quality building can cause leakage to buildings around it. A CCD (Central City District) is located in region indicated in the image below. A focal point of prospective growth and economic development, the CCD allows for greater building heights and intensities of use. Although 55% of the street frontage properties between Meridian and Delaware have experienced new development within the past 15 years, one challenge that persists for Apache Junction, a municipality with a small population and minimal housing stock relative to other parts of the Phoenix Metropolitan Area, is that of attracting and sustaining commercial development.



Existing Downtown Zoning

CITY OF APACHE JUNCTION ARIZONA

ASU SCHOOL OF Geographical Sciences & Urban Planning ARIZONA STATE UNIVERSITY

Seven guiding principles and some existing conditions are included in the report. Together they create a comprehensive, systematic, and innovative perspective of Downtown development and revitalization. The principles embedded in DRIS can guide the ongoing Downtown redevelopment process. To date, 81 of the 161 tasks described in the seven principles have been completed or are in the works. Some have not been done by choice, others due to lack of funding or poor timing. This vision plan will be consistent with and promote these principles and remaining tasks.

Principle I – Unique Identity/Branding. The report suggests that the City of Apache Junction identify a unique western/southwestern brand that complements the best natural resource AJ has, the Superstition Mountains. The brand should exhibit an independence of attitudes, love of the outdoors, appreciation for the natural beauty of the area, and an active lifestyle. It could be used in promotion, landscape, street furniture, signage, architecture, color and material, and lighting. In order to guide visitors a clear route to downtown, City of Apache Junction recognizes the need to select several clearly marked entries to downtown. A logo which is created from the brand can be used in these main entries on public signs, street furniture, light poles and other visible public improvement. Seasonal banners can be set up along Apache Trail that celebrate history and character of AJ.

Principle II – Three Zone Concept. DRIS states that a series of pedestrian oriented streets and walkable blocks are generally related to a downtown for small city. It suggests City of Apache Junction create a 2 miles manageable and pedestrian scale downtown corridor along Apache trail from Meridian to Winchester. Three zones are identified in this corridor, which are the suburban zone, transition zone, and core downtown zone. Each zone will be associated with distinct design guidelines. Furthermore, City of Apache Junction calls for a modification of their general plan and amendments to zoning code to allow for their vision to be realized.

Principle III – Apache Trail median. Although the existing 6 lanes or 160 feet Apache Trail is a barrier for pedestrian movements, reducing it to 4 lanes is not a good strategy due to congestion and the burden placed on retail. The report suggests to preserve existing width of Apache Trail and improve the 64 feet median. The improvement includes lighting, public art, signage and additional landscaping along it. Also, on-street bike lanes and 8 feet sidewalk should be added to both sides. Due to width of Apache Trail and its median, striped crosswalks and midpoint signals should be set up. The future development should be in a systematic way that includes non-motor access.

Principle IV – Revitalization/Economic Vitality. Revitalization efforts in City of Apache Junction should reduce the barriers to small business growth. One of the barriers is flood control on the north side of Apache Trail. The report suggests that the City, not only create a comprehensive Area Drainage Master Plan, but also encourages all commercial building to connect to local sewer system. Another encouraged strategy is reducing costs to small business by waiving development fees for new development and redevelopment projects within the Transition Zone that are less than 20,000 square feet in building size and meet the adopted design guidelines. The supporting of revitalization should follow an older Arizona highway commercial image. The City can establish an ongoing facade and sign matching grant program for smaller businesses using local funds. Furthermore, City can allocate 1% of construction cost of all new public projects to be spent for art work within the downtown.

Principle V – Downtown Core. The report arranges the Downtown Core into three centers. From north to south it includes a Government Center, Education Center, and Town Center. The Town Center would have a mixture of specialty retail, entertainment venues, offices, and various types of residential uses with pedestrian friendly features. Several signs and art installations would be added to downtown core. The new main street will be along North Apache Trail to Phelps Drive, which would be an attractive, western-themed street with shaded 8 feet wide sidewalks. A community and special event location should be included in Town Center.

Principle VI – Supporting Principles. The supporting principles provides more details about the five core principles above. It suggests to incorporate southwestern architecture style as the primary design for Apache Junction and street furnishings to create a welcoming downtown. Furthermore, it proposes to organize roads, trail, and public event space in a systematic way as to hold downtown together.

Principle VII – Implementation and Measuring Success. The report points out those process improvements can also serve as incentives for redevelopment. It lists some potential process improvements that may cause developers to consider the downtown for projects. For example, the downtown "fast track" permit is a market attractiveness factor to developers because time is money for them. In addition the City could use other improvements and regulatory changes to get the prime position compare with other areas of the City. Those improvements and regulatory changes include permit fee reduction; business façade rebate program; incentives, rebates, and subsidies; and investment in infrastructure or projects.

Downtown Overlay District Design Guidelines

The Downtown Overlay District Design Guidelines, approved by Apache Junction City Council in 2011, is a replacement of the City of Apache Junction Commercial Design Guidelines previously adopted by the city council through Resolution No. 04-06. These overlay guidelines are based on the Downtown Redevelopment and Implementation Strategy (DRIS) adopted by the city council in 2010 and the definitions of three distinct design zones conform to the DRIS document.

The purpose of this document is to enhance the unique western character of Apache Junction by increasing development pressure for standardized and corporate-driven design solutions. The Development Services Director or Designee shall apply these design standards to substantial building and/or sign improvements being proposed in the downtown area.

The following basic design principles highlight the most important concepts in transforming Downtown Apache Junction into the community desired by its residents and businesses. These principles are the foundation and reference point for the specific guidelines and design criteria developed in the following visioning sections:

- Design for the Human Scale: Create a sense of neighborhood and community that is interesting, safe, walkable, comfortable, and attractive to businesses, shoppers, and tourists.
- Design Character: Provide design guidance to owners, architects, and designers that result in a unique and harmonious physical downtown area. The Guidelines reflect a southwestern architectural style for the Suburban Zone, an old west architectural style for the Transition Zone, and an urban contemporary southwestern style for the Core Downtown Zone.
- Mixed Use: Design for a mix of residential and commercial land uses to vitalize the community and encourage people to live, work, and play within the downtown area.
- Property Values and Investment: Design for lasting value that protects property values and investments.
- Sensitivity to Individual Expression: The Guidelines were designed to be specific enough to provide direction and ensure quality development. At the same time, they are flexible enough to foster creative design that meets individual business requirements and current methods of construction.

2012 ASU Downtown Plan

The 2012 ASU Downtown Plan is a general plan developed by a group of ASU students in 2012 for the City of Apache Junction. The plan reviewed existing demographic, land use, commercial, industrial, medical, education, tourism, and community conditions in Apache Junction's downtown area. It proposed a pedestrian friendly land use plan at the junction and provided some recommendations that were adapted from the DRIS.

The report discusses input from 30 residents and 9 business owners in the downtown core. Both residents and business owners agreed to increase medical and education opportunities. A very popular answer from residents was to enhance the small town and rural feel. They also suggested to increase retail opportunity and green space by building an urban park. Business owners wanted to less zoning regulations, decreased property taxes, a walkable western theme downtown with more entertainment emerge. However, the final plan was never presented to the public.

The 2012 ASU Downtown Plan also includes recommendations. It suggests creating directional signage and event banners, promoting access and mobility through pedestrian and bike paths, establishing a southwestern architectural style, using pedicabs, building an amphitheater, hosting more community events, increasing dining options such as temporary food vendors and farmers markets, establishing a horseback riding tour, and setting up signage along trails.

The land use plan proposes high density and form-based code zoning but also recommends setting aside space for big box commercial retailers at the junction. The report presents two street design guidelines in their land use plan. One is for an equestrian pathway, which should be a 36-foot setback. It allows a 10-foot travel lane with 13 feet on either side for desert trees and plants, and sidewalks. Signage should be set to indicate pedestrian crossings and directions. Building height would be a maximum of 24 feet at ground level with additional stories stepped back 20 feet from the building face. Buildings would be required to install continuous shade awnings along the length of the building, 10 feet clear of the sidewalk, and extending out no less than 6 feet and no more than 10 feet out from the building.

The other is for a pedestrian boulevard, which should have a 22-foot setback with desert trees aligned in wells 2 feet to the north of the centerline of the street, for streets running in the line of sight of Superstition Mountain (east-west). For streets oriented north-south desert trees should be located 2 feet to the east of the centerline. In addition all buildings would be required to install continuous shade awnings along the length of the building, 10 feet clear height from the sidewalk, and extending out no less than 6 feet out from the building. Building height would be a maximum of 15 feet at the ground level, with additional stories stepped back 15 feet from the first floor.

Appendix C-3: Source Information

This project drew inspiration from many additional reports, including:

- City of Avondale City Center Specific Plan, 2008
- City of Casa Grande Residential Design Standards for PAD, 2003
- City of Chandler Residential Design Standards, 2002
- Denton Pattern Book from Urban Design Associates, 2006
- City of Denver Urban Design Standards and Guidelines, 2012
- City of Fort Worth Stockyards Design Overlay District, 2015
- City of Fort Worth Urban Downtown Design Standards & Guidelines, 2009
- City of Georgetown Downtown Framework Strategy, 2014
- City of Georgetown Downtown Gateways, Wayfinding, and Public Signs, 2014
- City of Georgetown Downtown Parks Open Space, and Public Art, 2014
- City of Georgetown Downtown Pedestrian & Bicycle Circulation & Streetscape Design, 2014
- City of Kalamazoo Downtown Design Review Standards and Guidelines, 2012
- City of Knoxville South Waterfront Vision Plan, 2006
- City of Orcutt Old Town Design Guidelines, 2006
- City of Platteville Downtown Design Standards, 2010
- City of Scottsdale Downtown Character Area Plan, 2009
- City of Scottsdale Downtown Urban Design & Architectural Guidelines, 2004
- City of Scottsdale Scenic Corridor Design Guidelines, 2003
- City of Scottsdale General Plan 2035, 2014

Appendix D-1: Comprehensive Summary Table of Buxton Company's Retail Leakage Report

The tables below summarize the findings of Buxton Company's Retail Leakage report, supplied to this project team by the City of Apache Junction

Store Type	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Motor Vehicle Parts & Dealers	$285,190,058	$158,505,105	55.58%	$126,684,953	$3,040,439
Furniture & Home Furnishing	**$46,447,448**	**$12,716,257**	**27.38%**	**$33,731,191**	**$809,549**
Electronics & Appliance Stores	$42,503,369	$25,238,865	59.38%	$17,264,504	$414,348
Building Material & Garden Equipment & Supply Dealers	**$133,731,621**	**$54,539,931**	**40.78%**	**$79,191,690**	**$1,900,601**
Food & Beverage Stores	$229,964,327	$167,235,843	72.72%	$62,728,484	$1,505,484
Health & Personal Care Stores	**$103,933,135**	**$47,616,261**	**45.81%**	**$56,316,874**	**$1,351,605**
Clothing & Clothing Accessories Stores	**$80,955,133**	**$20,843,840**	**25.75%**	**$60,111,293**	**$1,442,671**
Sporting Goods, Hobby, Book & Music Stores	**$41,307,846**	**$13,623,583**	**32.98%**	**$27,684,263**	**$664,422**
General Merchandise Stores	$238,206,774	$194,374,284	81.60%	$43,832,490	$1,051,980
Miscellaneous Store Retailers	$58,391,127	$37,022,270	63.40%	$21,368,857	$512,853
Foodservice & Drinking Places	**$189,821,663**	**$74,172,870**	**39.08%**	**$115,648,793**	**$2,775,571**
Total/Average	$1,450,452,501	$805,889,109	55.56%	$644,563,392	$15,469,521
Selected Industries	$596,196,846	$223,512,742	37.49%	$372,684,104	$8,944,418

Sub-Categories of Furniture & Home Furnishing Stores	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Furniture Stores	$22,070,661	$3,638,923	16.49%	$18,431,738	$442,362
Home Furnishing Stores	$24,376,787	$9,077,334	37.24%	$15,299,453	$367,187
Total Furniture & Home Furnishing	**$46,447,448**	**$12,716,257**	**27.38%**	**$33,731,191**	**$809,549**

Sub-Categories of Building Material & Garden Equipment & Supply Dealers	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Home Centers	$50,984,308	$39,085,583	76.66%	$11,898,725	$285,569
Paint and Wallpaper Stores	$4,921,640	$629,455	12.79%	$4,292,185	$103,012
Hardware Stores	$10,249,371	$8,141,941	79.44%	$2,107,430	$50,578
Other Building Materials Dealers	$37,349,458	$4,750,895	12.72%	$32,598,563	$782,366
Outdoor Power Equipment Stores	$5,044,862	$0	0.00%	$5,044,862	$121,077
Nursery and Garden Centers	$25,181,982	$1,932,057	7.67%	$23,249,925	$557,998
Building Material & Garden Equipment & Supply Dealers	**$133,731,621**	**$54,539,931**	**40.78%**	**$79,191,690**	**$1,900,601**

Sub-Categories of Health & Personal Care Stores	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Pharmacies and Drug Stores	$86,895,509	$32,494,593	37.40%	$54,400,916	$1,305,622
Cosmetics, Beauty Supplies and Perfume Stores	$5,370,841	$1,051,125	19.57%	$4,319,716	$103,673
Optical Goods Stores	$4,350,279	$5,879,565	135.15%	-$1,529,286	-$36,703
Other Health and Personal Care Stores	$7,316,506	$8,190,978	111.95%	-$874,472	-$20,987
Health & Personal Care Stores	**$103,933,135**	**$47,616,261**	**45.81%**	**$56,316,874**	**$1,351,605**

Sub-Categories of Clothing & Clothing Accessories Stores	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Men's Clothing Stores	$2,411,382	$0	0.00%	$2,411,382	$57,873
Women's Clothing Stores	$12,653,336	$5,077,328	40.13%	$7,576,008	$181,824
Children's and Infants' Clothing Stores	$4,368,934	$1,133,882	25.95%	$3,235,052	$77,641
Family Clothing Stores	$32,614,454	$2,720,720	8.34%	$29,893,734	$717,450
Clothing Accessories Stores	$2,293,575	$4,991,491	217.63%	-$2,697,916	-$64,750
Other Clothing Stores	$4,198,542	$650,519	15.49%	$3,548,023	$85,153
Shoe Stores	$13,558,993	$1,136,096	8.38%	$12,422,897	$298,150
Jewelry Stores	$6,682,935	$2,100,821	31.44%	$4,582,114	$109,971
Luggage & Leather Goods Stores	$2,172,982	$3,032,983	139.58%	-$860,001	-$20,640
Clothing & Clothing Accessories Stores	**$80,955,133**	**$20,843,840**	**25.75%**	**$60,111,293**	**$1,442,671**

Sub-Categories of Sporting Goods, Hobby, Book, & Music Stores	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Sporting Goods Stores	$19,188,421	$4,998,049	26.05%	$14,190,372	$340,569
Hobby, Toys and Games Stores	$10,383,420	$5,440,549	52.40%	$4,942,871	$118,629
Sew/Needlework/Piece Goods Stores	$4,163,953	$273,184	6.56%	$3,890,769	$93,378
Musical Intrument and Supplies Stores	$1,065,353	$259,387	24.35%	$805,966	$19,343
Book Stores	$4,192,892	$836,030	19.94%	$3,356,862	$80,565
News Dealers and Newsstands	$903,186	$348,835	38.62%	$554,351	$13,304
Prerecorded Tape, Compact Disc, and Record Stores	$1,410,621	$1,467,549	104.04%	-$56,928	-$1,366
Sporting Goods, Hobby, Book & Music Stores	**$41,307,846**	**$13,623,583**	**32.98%**	**$27,684,263**	**$664,422**

Sub-Categories of Foodservice & Drinking Places	Potential Sales	Estimated Sales	Demand Captured	Lost Sales	Lost Fiscal Revenue
Full-Service Restaurants	$81,992,739	$2,969,530	3.62%	$79,023,209	$1,896,557
Limited-service Eating Places	$81,245,983	$38,716,686	47.65%	$42,529,297	$1,020,703
Special Foodservices	$17,912,774	$3,112,196	17.37%	$14,800,578	$355,214
Drinking Place - Alcoholic Beverages	$8,670,167	$2,874,458	33.15%	$5,795,709	$139,097
Foodservice & Drinking Places	**$189,821,663**	**$74,172,870**	**39.08%**	**$115,648,793**	**$2,775,571**

SR-1 Land Uses

Subarea Allowable Land Uses	SR-1 Siphon Draw			
	A	B	C	D
Residential				
Single-Family Dwelling	Y		Y	Y
Two-Family Dwelling	Y		Y	Y
Multi-Family Dwelling	Y		Y	
Elderly Housing	Y		Y	Y
Mixed-Use				
Civic uses				
Recreational Facilities		Y		
Community Center		Y		
Public Utilities	Y	Y	Y	Y
Religious Facilities		P		
Performing Arts, Cultural Uses		P		
Institutional				
Assisted Living/Nursing Home				
Health Care Facility (Small Clinic)				
Public Education Facility		Y		
Commercial				
Retail Sales				
Professional Office				
Business Center Development				
Restaurant				
Education/Training Facility				
Private School				
Repair Services				
Dedicated Office Building				
Child Care Facility				
Financial Institution				
Home Occupation	Y		Y	Y
Accommodation				
Bed and Breakfast				
Hotel				
Light Industrial				
Reseach/Developmnet Lab				
Wholesale				
Warehouse				

SR-2 Land Uses

Subarea Allowable Land Uses	SR-2 North West Corridor		
	E	F	G
Residential			
Single-Family Dwelling		Y	Y
Two-Family Dwelling		Y	Y
Multi-Family Dwelling	Y	Y	
Elderly Housing	Y	Y	Y
Mixed-Use	Y		
Civic uses			
Recreational Facilities	P	P	P
Community Center	P		
Public Utilities	Y	Y	Y
Religious Facilities	P		
Performing Arts, Cultural Uses	P		
Institutional			
Assisted Living/Nursing Home			
Health Care Facility (Small Clinic)	Y		
Public Education Facility			
Commercial			
Retail Sales	Y		
Professional Office	Y		
Business Center Development			
Restaurant	Y		
Education/Training Facility			
Private School	Y		
Repair Services	Y		
Dedicated Office Building			
Child Care Facility	Y		
Financial Institution	Y		
Home Occupation	Y	Y	Y
Accommodation			
Bed and Breakfast		Y	Y
Hotel			
Light Industrial			
Reseach/Developmnet Lab			
Wholesale			
Warehouse			

SR-3 Land Uses

Subarea Allowable Land Uses	SR-3 East High Intensity Corridor				
	H	I	J	K	L
Residential					
Single-Family Dwelling				Y	Y
Two-Family Dwelling	Y		Y		Y
Multi-Family Dwelling	Y		Y		
Elderly Housing	Y		Y	Y	Y
Mixed-Use	Y	Y	Y		
Civic uses					
Recreational Facilities	P	P	P		P
Community Center	P	P	P		
Public Utilities	Y	Y	Y	Y	Y
Religious Facilities	P		P		
Performing Arts, Cultural Uses	P	P	P		
Institutional					
Assisted Living/Nursing Home					Y
Health Care Facility (Small Clinic)	Y	Y	Y		
Public Education Facility					
Commercial					
Retail Sales	Y	Y	Y		
Professional Office	Y	Y	Y		
Business Center Development		Y			
Restaurant	Y	Y	Y		
Education/Training Facility		Y			
Private School	Y		Y		
Repair Services	Y	Y	Y		
Dedicated Office Building		Y			
Child Care Facility	Y	Y	Y		
Financial Institution	Y	Y	Y		
Home Occupation	Y		Y	Y	Y
Accommodation					
Bed and Breakfast	Y		Y		Y
Hotel		Y			
Light Industrial					
Reseach/Developmnet Lab					
Wholesale					
Warehouse					

SR-4 Land Uses

Subarea Allowable Land Uses	SR-4 South Siphon Draw Corridor				
	M	N	O	P	Q
Residential					
Single-Family Dwelling	Y	Y	Y	Y	Y
Two-Family Dwelling	Y		Y		Y
Multi-Family Dwelling					
Elderly Housing	Y	Y	Y	Y	Y
Mixed-Use					
Civic uses					
Recreational Facilities	P	P	P		P
Community Center					
Public Utilities	Y	Y	Y	Y	Y
Religious Facilities					
Performing Arts, Cultural Uses					
Institutional					
Assisted Living/Nursing Home					
Health Care Facility (Small Clinic)					
Public Education Facility					
Commercial					
Retail Sales					
Professional Office					
Business Center Development					
Restaurant					
Education/Training Facility					
Private School					
Repair Services					
Dedicated Office Building					
Child Care Facility					
Financial Institution					
Home Occupation	Y	Y	Y	Y	Y
Accommodation					
Bed and Breakfast	Y	Y	Y		Y
Hotel					
Light Industrial					
Reseach/Developmnet Lab					
Wholesale					
Warehouse					

SR-5 Land Uses

Subarea Allowable Land Uses	SR-5 South Border Corridor			
	R	S	T	U
Residential				
Single-Family Dwelling				Y
Two-Family Dwelling	Y			Y
Multi-Family Dwelling	Y			
Elderly Housing	Y			Y
Mixed-Use	Y			
Civic uses				
Recreational Facilities	P	P		P
Community Center	P	P		
Public Utilities	Y	Y	Y	Y
Religious Facilities	P		P	
Performing Arts, Cultural Uses	P	P		
Institutional				
Assisted Living/Nursing Home				Y
Health Care Facility (Small Clinic)	Y	Y		
Public Education Facility				
Commercial				
Retail Sales	Y	Y		
Professional Office	Y	Y	Y	
Business Center Development		Y		
Restaurant	Y	Y		
Education/Training Facility		Y		
Private School	Y			
Repair Services	Y	Y		
Dedicated Office Building		Y	Y	
Child Care Facility	Y	Y		
Financial Institution	Y	Y		
Home Occupation	Y			Y
Accommodation				
Bed and Breakfast	Y			Y
Hotel		Y		
Light Industrial				
Reseach/Developmnet Lab			Y	
Wholesale			Y	
Warehouse			Y	

Appendix E-1: Apache Junction City Code, Land Development Code: Modifications/ Recommendations

1-6-3 (B & C) Fences and Walls – Suggestion to add chain link to the prohibited fence material list and remove galvanized sheet metal from the prohibited list. Prohibiting the use chain link can improve the overall aesthetic image of an area. Allow the use of standard concrete block for a Decorative Wall/ Fence material as concrete blocks can be painted and used creatively to create a decorative wall.

1-6-5 Accessory Structures – Suggest stricter size and height requirements in zoning districts that allow a 20 ft. high structure. Many of the main building unit structures were only one floor, allowing an accessory structure that dwarfs the main structure can destroy the curb appeal of the property. 15 ft. high would still allow enough height clearance of a recreational vehicle. Also, putting a size limit in the RS-GR would ensure that an accessory structure is smaller than the main structure.

1-6-8 Cargo Containers – Suggestion to prohibit the use of a cargo containers in residentially zoned areas for ascetic and overall image purposes. Limiting the number of cargo containers on commercially zoned properties would also be suggested to help reduce the image of blight.

1-6-18 Agriculture – Suggestion for the creation of a AG (Agricultural) zoning for commercial agricultural use. Rather than just allowing it in the RS-GR.

1-7-3 (F) – Suggestion to not allow RV or Semi-trucks to be parked in the side or rear yard setback for aesthetic purposes. Or require a CUP if a RV / semi is going to be parked in a side or rear yard setback.

1-8-5 (B)(1) & (B)(2) – Suggestion to change the wording of the code. Remove the term "encouraged" and add "shall." Having the code that is "encouraged" means it can easily be overlooked. These two codes are important to promote higher quality development.

1-8-5 (B)(3) and 1-8-6 (D) Interior Parking Lot Landscaping – Conflicting text. 1-8-5 (B)(3) reads, "Properties with greater than 20 parking stalls shall comply with Section 1-8-6 (D)", but 1-8-6 (D) reads, "Parking lots containing ten or more parking stalls". Is it 10 or 20?

1-8-5 (B)(8) Planters, Planting Pots and Raised Planters – Suggestion to create a minimum size for landscape planters/ tree boxes. Having the code read as "appropriately sized" allows for open interpretation. Plant and tree boxes that are not large enough will end up killing the landscape in the boxes.

1-8-6 (A)(5) Substitutions – Suggestion to remove this substitution option. Shade trees are crucial to have effective street frontage. Saguaros provide much less shade than a shade tree. While saguaros are aesthetically pleasing, they should not be a substitute to shade trees along the street front.

1-8-6 (B)(5) Screening of Dumpsters – Suggestion to add a requirement to include a recycle receptacle in refuse enclosure area, especially in non-residential zoning districts.

1-10-8 (B) Zoning Review – Suggestion to include photometric plans as a required plan. Photometric plans are important as they provide a comprehensive understanding of the project and the lighting of a project. A photometric plan helps planners find areas that are too illuminated (bright) / not illuminated enough (dim) on a site.

1-13-3 (C)(1) Zero design requirements for accessory buildings in RS-GR, RVP and MHP – Suggestion to create very basic design requirements to improve the aesthetic image in these zoning districts.

Appendix E-2: City of Apache Junction Comments

Additional suggestions from joint meeting of P&Z and P&R Commissions, re: ASU Capstone Project, held on April 26, 2016:

Commissioner Borey suggested that with regard to the types of businesses the city should try to attract, we should also try and attract more entertainment type businesses, such as bowling alleys and movie theaters.

Commissioner Standage suggested that bike lanes on heavily traveled, higher speed roads, may be unsafe.

Commissioner Buzzin suggested that speed limits in the city should not exceed 25 mph.

Commissioners Runyon and Borey both liked the idea of the western theme such as Pueblo, Santa Fe and southwestern, but did not favor styles that look old; and they also support modern architectural styles and the incorporation of public art.

Commissioner Standage suggested that horse trails should not be located just in close proximity to where the equestrian commercial boarding facilities are located. He stated that there are many horse riders throughout the city and that extended trails would better serve the larger population. Perhaps keeping bike lanes on one side of the street and horse trails on the opposite side of the street would also be better.

Chairwoman Nesser stated that she likes the idea that Apache Junction is going from being a "town" to becoming a "city".

Commissioner Schroeder stated that he would have liked more input from younger residents, such as from the youth commission that the city is forming.

Additional suggestions from City Council meeting, re: ASU Capstone Project, held on May 3, 2016:

Councilman Wilson recommended that Table 2-7: Trail Surface Materials (Federal Highway Association) be revised as it shows some surface types for equestrian trails as "good" or "fair," though they are not ideal surfaces for horses.

Councilman Wilson suggested that the recommended Multi-Generational Center Trailhead be moved farther south to the downtown area.

Councilman Wilson suggested that restaurant patio fencing was useful for security, especially when serving alcohol.

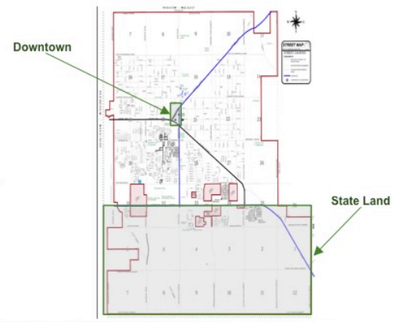
Councilman Barker recommended moving the high-density residential area near the landfill in the State Land PUD farther away and replace it with low-density residential.

Appendix E-3: Final City Council Presentation

Planning Projects

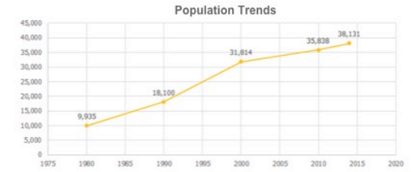
Planning Process
a. Research
b. Community Meetings
c. Recommendations
d. Combined Report

1. **Community Profile**
2. **Trail Connectivity Master Plan**
3. **Downtown Visioning**
4. **State Land Visioning**



Research including:

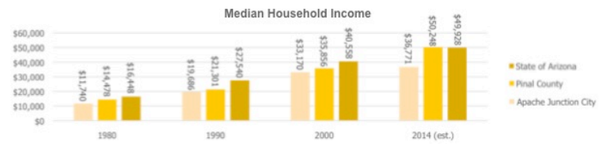
- Population projections
- Age breakdown
- Education rates
- Racial/ethnic composition
- Housing stock
- Employment characteristics



Education Rates

	Apache Junction City		Pinal County		State of Arizona	
Education level	# of persons	% of total	# of persons	% of total	# of persons	% of total
Less than High School	3,910	14.30%	38,794	15.00%	604,153	14.10%
High School Graduate	9,488	34.70%	77,330	29.90%	1,049,770	24.50%
Some College	8,011	29.30%	71,899	27.80%	1,109,757	25.90%
Associate Degree	2,406	8.80%	24,052	9.30%	359,921	8.40%
Bachelor's Degree or greater	3,527	12.90%	46,553	18.00%	1,161,174	27.10%
Total Population 25 yrs and over	27,343		258,629		4,284,776	

Median Household Income



Commuting Patterns

Home Ownership Rate

1980	98.60%
1990	55.60%
2000	82.10%
2010	75.40%
2014 (est.)	72.70%

Community Profile Summary

Population increase of 23,460 expected by 2040.

Median age of residents expected to decrease as the city grows.

Homeownership rate likely to decrease with population age.

Median household income likely to improve with greater education rates, increased anchor institutions (such as Central Arizona College), and increased private sector employment.

Goals and Objectives:

Provide safe multi-modal routes

Connect community and recreation facilities

Preserve close connection to nature (urban-rural trails, park linkages)

Enhance user experience through design and amenities

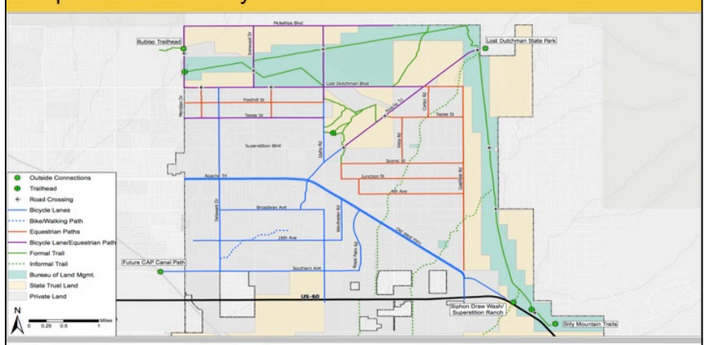
Components:

Existing Conditions

Connectivity Master Plan

- Multi-use Trails
- Trailheads
- Equestrian Trails
- Bike Lanes
- Sidewalks

Proposed Connectivity Network



Equestrian & Multi-Use Trail Design Standards

Trail Design Standards

Element	Requirement
Trail Area - Minimum Width	18'
Tread Area - Minimum Width	6'
Minimum Distance from Roadways and Pedestrian Paths	8'
Buffer (Vegetation) - Minimum Width*	2'
Buffer (Vegetation) - Minimum Height	54"
Minimum Distance from Buffer (Load Clearance)	2'
Vertical Clearance	10'

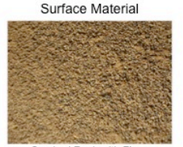
*Buffer width can be contained within the distance from roadways and pedestrian paths.

Buffer Area Plant Examples

Brittlebush

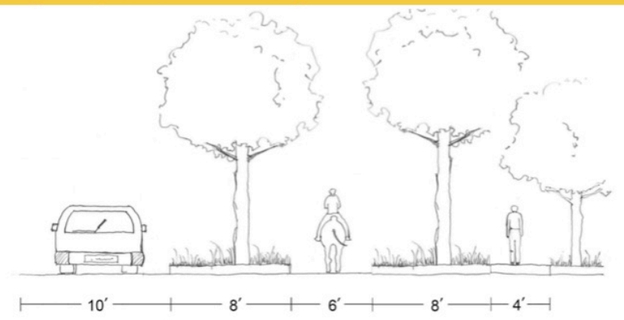
Ironwood

Surface Material

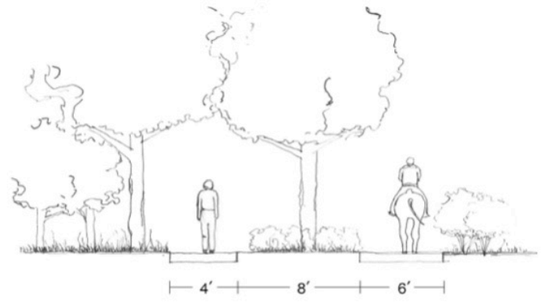


Crushed Rock with Fines

Example Equestrian Trail Design

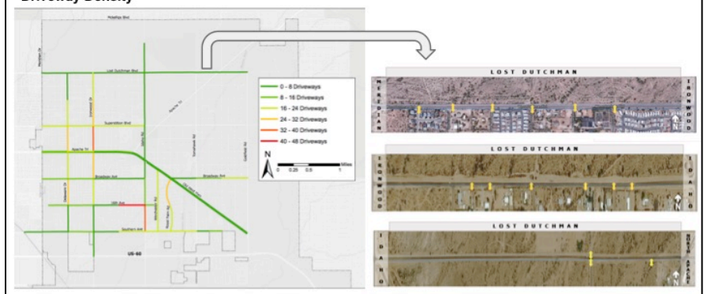


Example Multi-Use Trail Design



Street Analysis

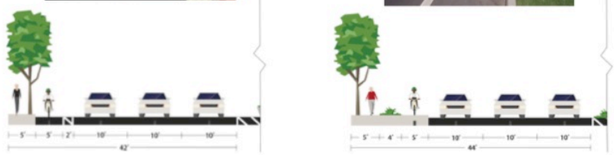
Driveway Density



Bike Lane Design Standards

Buffered Bike Lanes

Raised Bike Lanes



Trail Features

Street Features

Connectivity Master Plan Summary

To ensure safety for both horses and riders, equestrian and multi-use trails should comply with the design standard of a minimum 6' tread area and 8' vegetated buffer between any other paths, trails, or roads.

To ensure safety for cyclists, bike lanes should comply with the design standard of a 5' bike lane, and either have a buffer or be raised.

Trail and street features should be added in the specified locations to ensure comfort for all trail and bike lane users.

Goals and Objectives:

Establish a town center

Reestablish the grid system

Maintain views of the Superstition Mtns

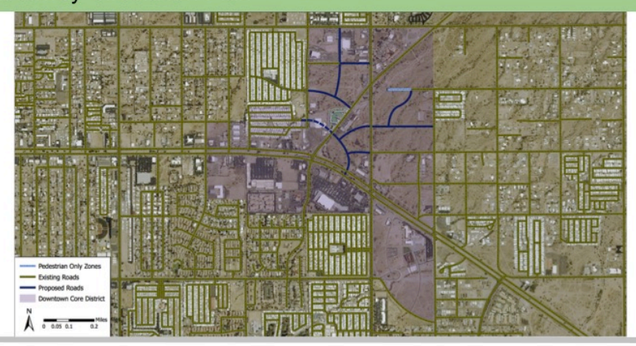
Create identity and a sense of place

Components:

Design standards and guidelines

Roadway circulation plans

Roadway Circulation Plan



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Establishing a Brand

Designing Future Developments: Standards and Guidelines

Example Pueblo Revival art gallery or museum space on Idaho between Scenic and E Junction.

Example public park or temporary event space on Idaho between Scenic and E Junction.

Example Pueblo Revival movie theater space at the intersection of Idaho and E Junction.

Example Western retail space for N Apache Trail, facing east, next to the TPG Tax and Accounting

General Development and Design Principles Summary

1. Maintain a Sense of Place
2. Maintain a High Standard of Development
3. Preserve and Restore Historic Features
4. Serve All Groups of People

Goals and Objectives:

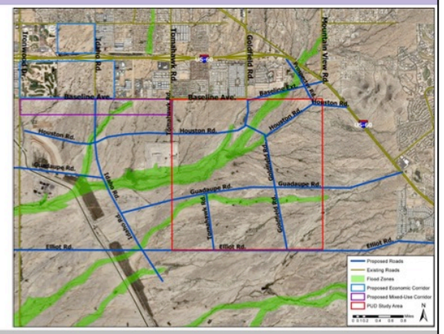
- Create a conceptual plan and guiding strategies for potential development of state trust land located south of U.S. 60
- Incorporate social, environmental, and economic sustainability
- Improve city's regional attraction, tax base and revenue to provide services

Components:

1. Circulation Plan
2. Economic Corridor
3. Trails and Open Space Plan
4. Planned Unit Development Framework

Circulation Plan

- Adapted from the ADOT "Apache Junction Transportation Study"
- Components:
  - New right-of-ways
  - Access to the Economic Corridor for markets to the south
  - Connection between any new development in the study area and Gold Canyon to the east



Economic Corridor

Components:

Commercial development allocations:

- In freeway frontage parcels
- Along Baseline Ave. from Ironwood Dr. to Tomahawk Rd.

Rudimentary market analysis:

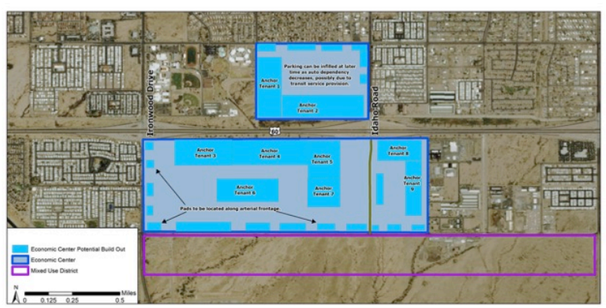
- Commute shed/market area
- Retail leakage
- Potential buildout

Mixed-use corridor along Baseline Ave.

Encourage small business growth

Store Type	Potential Sales[1]	Estimated Sales[2]	Demand Captured[3]	Lost Sales[4]	Lost Fiscal Revenue[5]
Motor Vehicle Parts & Dealers	$285,190,058	$158,505,105	55.58%	$126,684,953	$3,040,439
Furniture & Home Furnishing**	$46,447,448	$12,716,257	27.38%	$33,731,191	$809,549
Electronics & Appliance Stores	$42,503,369	$25,238,865	59.38%	$17,264,504	$414,348
Building Material & Garden Equipment & Supply Dealers*	$133,731,621	$54,539,931	40.78%	$79,191,690	$1,900,601
Food & Beverage Stores	$229,964,327	$167,235,843	72.72%	$62,728,484	$1,505,484
Health & Personal Care Stores*	$103,933,135	$47,616,261	45.81%	$56,316,874	$1,351,605
Clothing & Clothing Accessories Stores*	$80,955,133	$20,843,840	25.75%	$60,111,293	$1,442,671
Sporting Goods, Hobby, Book & Music Stores*	$41,307,846	$13,623,583	32.98%	$27,684,263	$664,422
General Merchandise Stores	$238,206,774	$194,374,284	81.60%	$43,832,490	$1,051,980
Miscellaneous Store Retailers	$58,391,127	$37,022,270	63.40%	$21,368,857	$512,853
Foodservice & Drinking Places*	$189,821,663	$74,172,870	39.08%	$115,648,793	$2,775,571
Total/Average	$1,450,452,501	$805,889,109	55.56%	$644,563,392	$15,468,521
Selected Store Types[6]	$596,196,846	$223,512,742	37.49%	$372,684,104	$8,944,418

Economic Corridor



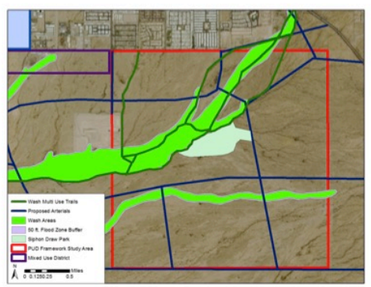
Trails and Open Space Plan

Goals:

- Preserve washes and vegetation
- Create connections with trails networks to the north
- Provide outdoor recreation

Components:

- Buffer between future development and washes
- Multi-use trails network
- Guidelines for centrally located park



Planned Unit Development Framework

Goals:

- Retain rural character
- Consistency in land use
- Balance of uses throughout the community
- Sustainable land use development

Planned Unit Development (PUD) Components:

- Maximum PUD development standards
- Recommended distribution of land uses
- Flexibility

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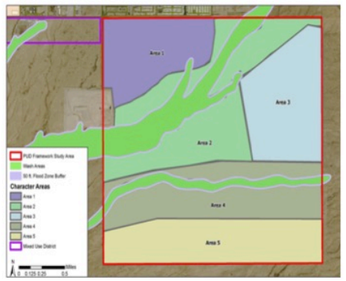
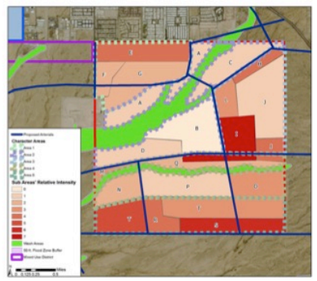
Planned Unit Development Framework



PUD Character Areas



PUD Recommended Intensity Distribution Zones

State Land Visioning Summary

1. Circulation Plan
   - Comprehensive transportation network
1. Economic Corridor

   Regional competition and accessible markets
   Maximum development standards
1. Trails and Open Space Plan

   Preservation of washes
   Establishment of multi-use trails network
   Centrally located park
1. Planned Unit Development Framework

Report Summary

1. Community Profile
Statistical analysis of AJ's past and present to inform decision-making

2. Connectivity Master Plan
Comprehensive trail and bike network with improved design standards to ensure safety

3. Downtown Visioning
Design standards and guidelines with roadway circulation to establish a distinct city center

4. State Land Visioning
Conceptual plans with guiding strategies to develop state trust land south of the U.S. 60

Implementation/Next Steps

Thank You!

Questions?

Amenity: A desirable feature, facility, or service that adds value to a place.

Commute-shed: The potential area from which people commute between their home and workplace.

District: A defined geographic area that establishes additional guidelines or regulations specific to that area.

Earth tones: A color scheme which utilizes natural colors, including browns, greys, and greens.

Floor Area Ratio (FAR): The ratio of a building's total floor area to the size of its lot.

General Plan: A planning document that guides the development and manages growth of a jurisdiction by providing policies, objects, and goals.

Historical markers: A plaque that marks a structure or location of historical significance as identified by the National Register of Historic Places.

Infrastructure: The basic physical and organizational structures necessary for economic activity and daily life. Examples include hard infrastructure (e.g. transportation, waste removal, energy development, and communications) or soft infrastructure (e.g. governance, financial, and social).

Low-Impact Development (LID): A planning and design approach that emphasizes resource conservation and takes advantage of existing natural features in the development area.

Market Area: A geographic zone containing the people who are likely to purchase a firm's goods or services.

Mixed-use: Any development that utilizes two or more land uses on the same property.

Multi-Family Residential: Two or more connected dwelling units.

Open Space: Land that is developed (e.g. parks, golf courses, pathways) or undeveloped (e.g. washes, trails, greenways) and is free of structures.

Pedestrian Scale: A design method that emphasizes walking and street-level interactions.

Pedicab: A small pedal-operated vehicle, serving as a taxi in some countries.

Placemaking: Capitalizes on a local community's assets, inspiration, and potential, with the intention of creating public spaces that promote people's health, happiness, and well being.

Planned Area Development (PAD): An overlay zoning district that provides flexibility in the number of land uses and design standards. Property owners applying for a PAD are allowed to mix uses and specify their own design standards, so long as they meet or exceed the underlying zoning district(s') requirements.

Planned Unit Development (PUD): A zoning designation intended to create a built environment superior to that which is accomplished through conventional zoning districts. This is achieved by allowing the PUD rezoning applicant to propose the uses, development standards, and design guidelines for a site, and by doing so, entering into a collaborative review process.

Pocket Park: A very small park or outdoor area for public leisure, especially an urban plaza or courtyard with benches and fountains.

Public Space: An area that is open for public use and freely accessible.

Rehabilitation: The process of returning a building to a functional state through repairs and alteration.

Restoration: The process of returning a building to its original state.

Retail Leakage: Occurs when local people are spending more for goods, than local businesses actually acquire.

Right-of-Way: The legal right, established by usage or grant, to pass along a specific route through grounds or property belonging to another.

Single-Family Residential: A home or dwelling unit that exists as a single, detached structure.

Streetscape: The physical design of roadways that impact the movement and interaction of pedestrians and other modes of transportation.

Walkability: A measure of how friendly an area is to walking

Wayfinding signage: A concept of creating maps, signs, and other attractive markers to assist pedestrians and motorists in navigating a designated area.

Zoning District: A district designated by the Zoning Ordinance that allows a defined set of uses.

Zoning Ordinance: A legal document containing land use regulations delineating uses for certain plots of land.