Fountain Hills *On The Move*

Town of Fountain Hills

Active Transportation Plan

April, 2021

engineering and environmental design

Table of Contents

APPENDIX

Section 1

Introduction & Background

Fountain Hills *On The Move*

Introduction & Background

The Town of Fountain Hills (Town) is located in the northeast portion of the Phoenix Valley, within Maricopa County, and is bordered by the McDowell Mountain Regional Park.

The Town is east of the City of Scottsdale, north of the Salt River Pima-Maricopa Indian Community and west of the Fort McDowell Yavapai Nation (See figure 1).

The initial property that became the Town of Fountain Hills resulted from a partial sale of the P-Bar Ranch, a working cattle ranch, under the ownership of the Page Land & Cattle Company. Approximately 4,500 acres was split-off in 1968 in a sale to McCulloch Properties, a subsidiary of McCulloch Oil Corporation. In 1970, McCullough Properties Inc. (MCO), after a combination of other land purchases, directed the creation of an approximate 12,000-acre master-planned community. As a result, the company prepared documentation known as the initial "Development Master Plan: Fountain Hills".

The development of Fountain Hills included a variety of residential housing types, commercial and industrial land uses, provisions for schools, churches, a community park and a variety of open space corridors. The founders included, as an attraction for the new community, at that time, the "World's Tallest Fountain", christening its namesake on December 15, 1970. Interest in the new community was generated throughout the Midwest and Eastern regions of the country through an innovative "fly to see" program. Prospective buyers were flown to the fledgling community by private aircraft and toured their potential home sites by a Jeep-driving sales force. Initial residential construction began within months, and by February, 1972 residents began living in Fountain Hills.

In December, 1989, the Maricopa County Board of Supervisors voted to allow the incorporation of the Town of Fountain Hills after a vote of the citizens determined incorporation was desired. A seven-member Town Council was organized to establish governance for the community.

Development continued steadily throughout the 1990s. The land underlying Eagle Mountain, southwest of the Shea Boulevard/ Palisades Boulevard intersection, was annexed in 1991. Communities Southwest

Fountain Park Signature Feature

developed a mixture of approximately 500 residential units and commercial facilities and an 18-hole golf course adjacent to Eagle Mountain. In 2006, the Town Council approved the annexation of an approximate 1,276-acre area of State Trust land that bordered Fountain Hills to the north, increasing the incorporated area of the Town to 13,006 acres. This annexation was the last significant amount of contiguous property that increased the size of the Town.

The Town has experienced rapid growth in recent years. From 2000 - 2009, Fountain Hills grew by 29.0%, reaching an estimated 24,812 residents. The Town's popularity is reflected by its outstanding growth rate, which has historically outpaced the rest of Maricopa County, as well as its neighboring communities.

The Town of Fountain Hills (Town) Active Transportation Plan (ATP) is the first active transportation plan developed by and for the Town. The plan will serve as the primary tool for deployment and integration of connected, safe, and comfortable facilities for bicyclists, pedestrians, and other non-motorized modes within the Town. As the area continues to grow and new development comes to the Town, it is important to have a clear vision for a transportation network that meets the needs of all users.

This plan focuses on a staged implementation strategy for sidewalk and pedestrian walking areas centered on priority areas as identified by citizens and Town staff. The priorities are broken down as follows:

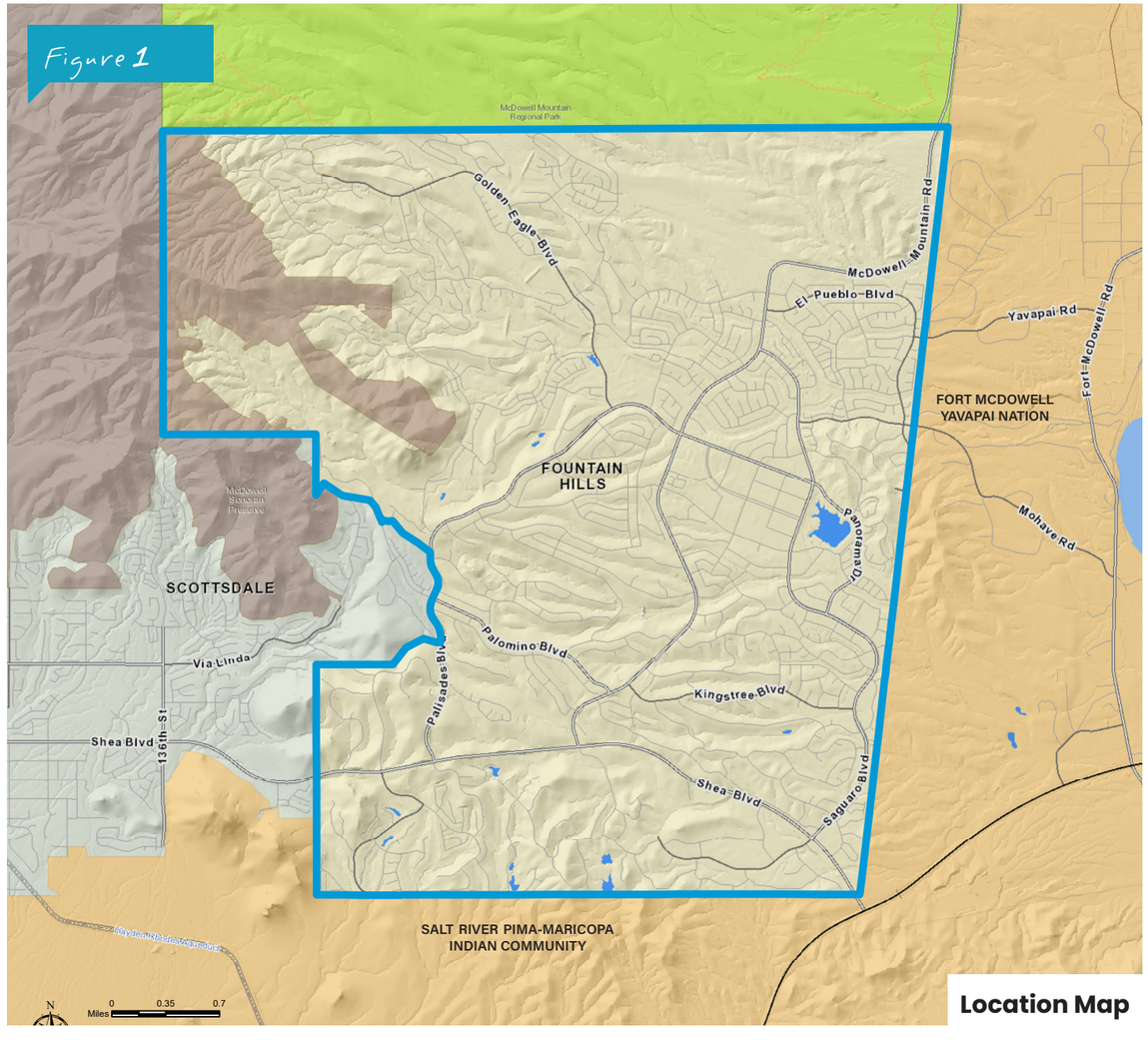
- **Priority 1:** 5 Year Plan
- **Priority 2:** 10 Year Plan
- **Priority 3:** 15 Year Plan
- **Priority 4:** To Be Determined

The sidewalk priority system allows the Town the flexibility needed to rearrange priorities based upon immediate needs and established budgets, as well as the potential for the Town to pursue outside funding sources, such as grants. This approach allows the Town to complete the overall sidewalk and pedestrian connectivity plan while allowing for maximum flexibility.

The active transportation plan will assist the Town with long-term multimodal transportation strategies that are built on the framework that transportation networks need to be developed beyond the singular focus of automobiles and be inclusive of other modes of transportation developed for all ages and abilities. The guiding principles of such a transportation network focuses on improving mobility options (sidewalks and bicycle facilities) developed for residents, regardless of age or ability, by prioritizing connectivity to identified destinations. These connections would include evaluating existing transportation routes that can easily accommodate multimodal improvements that are safe, comfortable and appropriate for a wide range of user groups.

The Town's existing bicycle network is more advanced than the existing sidewalks due to the nature of how the Town was developed. The wider streets have allowed bike lanes and routes to be more easily adapted to the current Town streets. That being said, there are still some gaps in the current bicycle network that need to be addressed and there have been identified safety concerns from cyclists that involve several major intersections within the Town relative to the conflicts between cyclists and automobiles. These gaps in connectivity and areas of concern will be broadly addressed in this plan. The Town offers some of the most topographically diverse bike lanes and bike routes in Maricopa County.

Figure 1



Location Map

Connecting these existing Bike Routes and Bike Lanes both within the Town and to the larger regional cycling community offers tremendous potential for the Town to build upon its existing success and continue to improve its designation as one of Maricopa's premier biking destinations.

The plan aims to respond to key concerns of the community and was developed in coordination with citizen and key stakeholder input. The plan seeks to include and embrace the Town's unique natural environment, while identifying an integrated network of paths, trails, sidewalks, bike lanes, bike routes and shared-use facilities that add to community health and safety, while expanding the existing transportation network.

PURPOSE OF THE PLAN:

The purpose of the ATP is to provide a blueprint for the Town of Fountain Hills to develop an integrated active transportation network that encourages activity, emphasizes local and regional connectivity, and provides persons of all ages and abilities with transportation choices that go beyond an auto-centric approach. Ultimately, the ATP is an action plan that guides decisions and investments about when, where, why, and how to logically implement the active transportation options in the Town of Fountain Hills. The actions and needs identified in this ATP will strategically address network gaps, support growth, and increase transportation and recreational route options within the Town of Fountain Hills for its residents and visitors.

VISION OF THE PLAN:

The Town of Fountain Hills is a community with unique natural beauty that offers the potential for an active transportation network for its residents, businesses and visitors. The Town of Fountain Hills envisions an interconnected transportation network with a variety of local and regional connections developed for people of all ages and abilities to **connect, walk, bike and move**. Such a vision will be achieved through:

1. **Pedestrian Facilities:** Improved/ connected sidewalks (closing gaps), links to existing shared use paths, and accessible facilities.

2. **Bicycle Facilities:** Improving connections and signing and striping of existing bike lanes, bike routes, paved shoulders, shared use paths, closing gaps, and making connections to off-street trails.

GUIDING PRINCIPLES:

Upon completion, the Active Transportation Plan will:

1. Assist the Town in strategically targeting improvements to their non-vehicular transportation system.

2. Provide an approach for future sidewalk routes and connections that close gaps in the current sidewalk infrastructure.

3. Result in walking and biking routes that connect to the Town's parks, trails and amenities.

4. Provide a method of establishing a strategy of identifying routes of the highest priority areas along with estimated costs of construction so that the Town can seek the necessary governmental approvals, secure funding and establish budgets for improvements every fiscal year.

5. Interconnect existing and proposed park and recreational facilities.

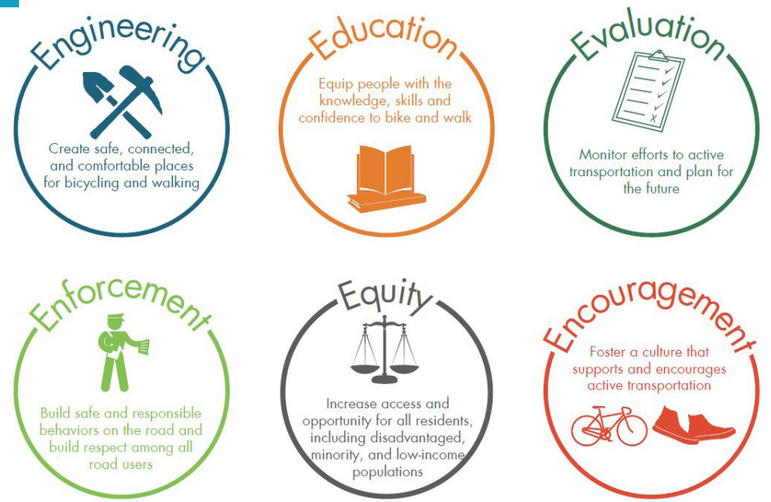
6. Promote improved public health by fostering outdoor recreation activities.

7. Establish a long-term vision for active transportation that promotes and enhances mobility, safety, efficiency, quality of life, connectivity, supports economic development and encourages year-round use by residents and visitors.

THE SIX E'S:

The 6 E's provide a framework which recognizes that improved transportation networks are best achieved through a combination of infrastructure and non-infrastructure projects and programs. Together, the 6 E's can help communities create lasting change for improved active transportation. The 6 E's are shown below in figure 2 and discussed further on the following page.

Figure 2



The 6 E's include:

Education: Equipping people with the knowledge, skills, and confidence to participate in active transportation choices including biking, walking and other non-motorized modes.

Enforcement: Building safe and responsible behaviors on the road and building respect among all modes of transportation by partnering with local community policing and law enforcement.

Encouragement: Fostering a culture that supports and encourages active transportation choices.

Engineering: Creating, building and improving the built environments to provide safe, connected and comfortable places for active transportation choices.

Equity: Increasing access and opportunity for all residents.

Evaluation: Monitoring the success and effectiveness of efforts to improve active transportation choices to assist with planning for the future.

GOALS/OBJECTIVES (CATALYSTS):

The goals/objectives that guided the drafting of this plan have been to develop a plan that:

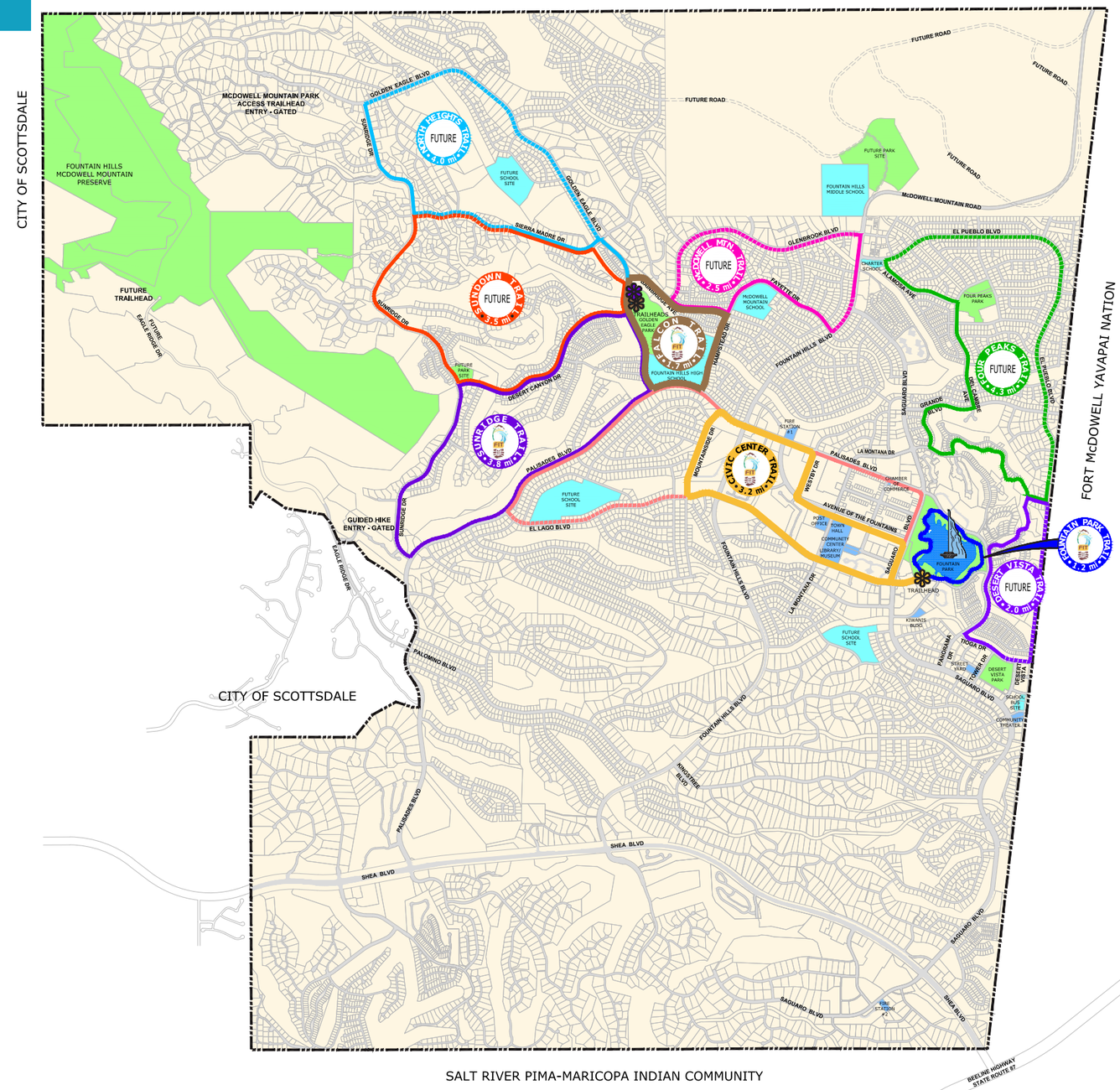
1. Seeks to improve connectivity of pedestrians and bicyclists throughout the Town so that seamless interconnections as well as external connections can be advanced.
2. Is continually balanced against ensuring the safety for all of the Town residents and Town visitors relative to their multi-modal transportation selection.
3. Builds upon the economic engine that can be realized when Town residents and visitors can easily traverse the Town utilizing any of the interconnected multi-modal corridors for commerce, retail, or recreation.
4. Establishes both internal and external community and municipality connections providing compatibility between neighborhoods as well as to other communities outside of the Town of Fountain Hills.
5. Continues to build upon the high quality of life that the Town enjoys through the promotion of a healthy lifestyle that includes walking and bicycling as an integral part of being a Town of Fountain Hills resident.
6. Provides a diversity of interconnected experiences and opportunities from ease of getting to commercial and retail developments to a system of interconnected schools, parks, and recreational open space.
7. Is based on a comprehensive community outreach effort and Town Council support.
8. Can easily be used to apply for grants and other funding sources to make planned improvements.
9. Identifies sidewalk/pedestrian connectivity to Town parks, trails and amenities.
10. Closes known gaps and improves signage and striping of existing bike lanes and bike routes with a focus on connectivity to Town parks, trails and amenities.
11. Identifies construction costs to assist with Town budget planning.
12. Identifies a network of interconnected active transportation alternatives to increase accessibility for residents and visitors to navigate the Town without requiring a vehicle.
13. Promote connecting schools to existing Town routes.
14. Helps to continue and builds upon the success of the Fountain Hills Interconnected Trails (FIT). (See figure 3 on page 5).

Sidewalk Gap

Sidewalk Gap

Sidewalk Gap

Figure 3



FIT
FOUNTAIN HILLS INTERCONNECTED TRAILS

LEGEND

- CIVIC CENTER TRAIL 3.2 MI
- FALCON TRAIL 1.7 MI
- SUNRIDGE TRAIL 3.8 MI
- FOUNTAIN PARK TRAIL 1.9 MI
- FOUR PEAKS TRAIL 4.3 MI
- DESERT VISTA TRAIL 2.0 MI
- McDOWELL MOUNTAIN TRAIL 2.5
- NORTH HEIGHTS TRAIL 4.0 MI
- SUNDOWN TRAIL 3.5 MI
- OTHER TRAIL

N
W E
S

MILES 0 1/4 1/2 1

FEET 0 1600' 3200' 4800'

SCALE: 1" = 1600'

MAP UPDATE: DECEMBER, 2015

Section 2

Inventory & Analysis

Fountain Hills *On The Move*

Inventory & Analysis

Inventory and analysis was an integral element and essential to the creation of this ATP. Research, site visits, and review of materials shows that sections of the Town of Fountain Hills' pre-incorporation roadway network were developed utilizing traffic counts and roadway Typical Sections (widths) that overestimated traffic volume projections.

Section 1 of this plan provides a contextual understanding of the Town of Fountain Hills, which includes gaining an understanding of the history of the Town, in order to establish the framework, objectives and goals for the ATP. As part of the planning process, a thorough gathering of information included assembling electronic information balanced against field verification. The information gathered is presented in Section 2.

GIS DATABASE

The electronic data gathering was focused on assessing the Town's extensive GIS database relative to components and features that may influence the development of an active transportation plan. This electronic data was reviewed and associated mapping was balanced against a field appraisal of existing conditions to better ascertain the physical and environmental opportunities and constraints associated with each potential active transportation corridor.

The GIS Database provided by the Town was extensive and included the following broad areas:

- Town Limits
- Town Bikeways
- Town Trails
- Town Parks
- Town Zoning
- Town Right-of-Way
- Town Roadway Classifications
- Town Trails
- Town Sidewalks (existing and proposed)
- Town Aerials

EXISTING SYSTEM ANALYSIS

The GIS data provided by the Town identified areas of concern that have been physically evaluated. The site field work included review of the known gaps in pedestrian connectivity throughout the Town as well as evaluating connections that are a potential link to Town identified activity centers or areas of known interest as vocalized by local residents.

REVIEW REGIONAL CONNECTIONS

Surrounding jurisdictions mapping and transportation plans

Scottsdale. The City maintains existing multi-use pathways along both the north and the south sides of Shea Blvd., but does not have any on-street bicycle facilities located within Shea Blvd. The north multi-use path along Shea Blvd. swings away from the Shea Blvd. alignment at approximately 1/4 mile east of N. 136th St. veering to the northeast and into a residential

Existing Condition
Vegetation Encroachment

Existing Condition
Inert Material Encroachment

Existing Condition
Sidewalk Gap

development. Scottsdale's multi-use path along the south side of Shea Blvd. follows the alignment of Shea Blvd. and currently terminates at approximately 142nd St. which is roughly 0.7 tenths of a mile west of the Town's Eagle Mountain Pkwy. East of Eagle Mountain Pkwy, there is an existing sidewalk/pathway located along the south side of Shea Blvd. that terminates at Palisades Blvd (See image on next page).

The Town of Fountain Hills and the City of Scottsdale have been working together to try and eliminate the gap in connectivity between the two communities. These multi-use trails are the only bicycle improvements currently shown on any City of Scottsdale bicycle related transportation plans in the vicinity of Shea Blvd. that could provide a direct connection to the Town of Fountain Hills Active Transportation Network. There is a bike route that has been signed and designated by the City of Scottsdale along 145th Way that has a direct pedestrian and bicycle pathway connection (privately owned with public usage) to Eagle Ridge Dr. and the Town's designated bike lane and public and private sidewalks. This connection is currently the only existing and direct multi-modal linkage between the two municipalities (See figure 4). The City of Scottsdale does have an extensive preserve trail network located throughout the McDowell Sonoran Preserve area that has the potential to provide a direct link to the Town of Fountain Hills' formal and informal trail system network.

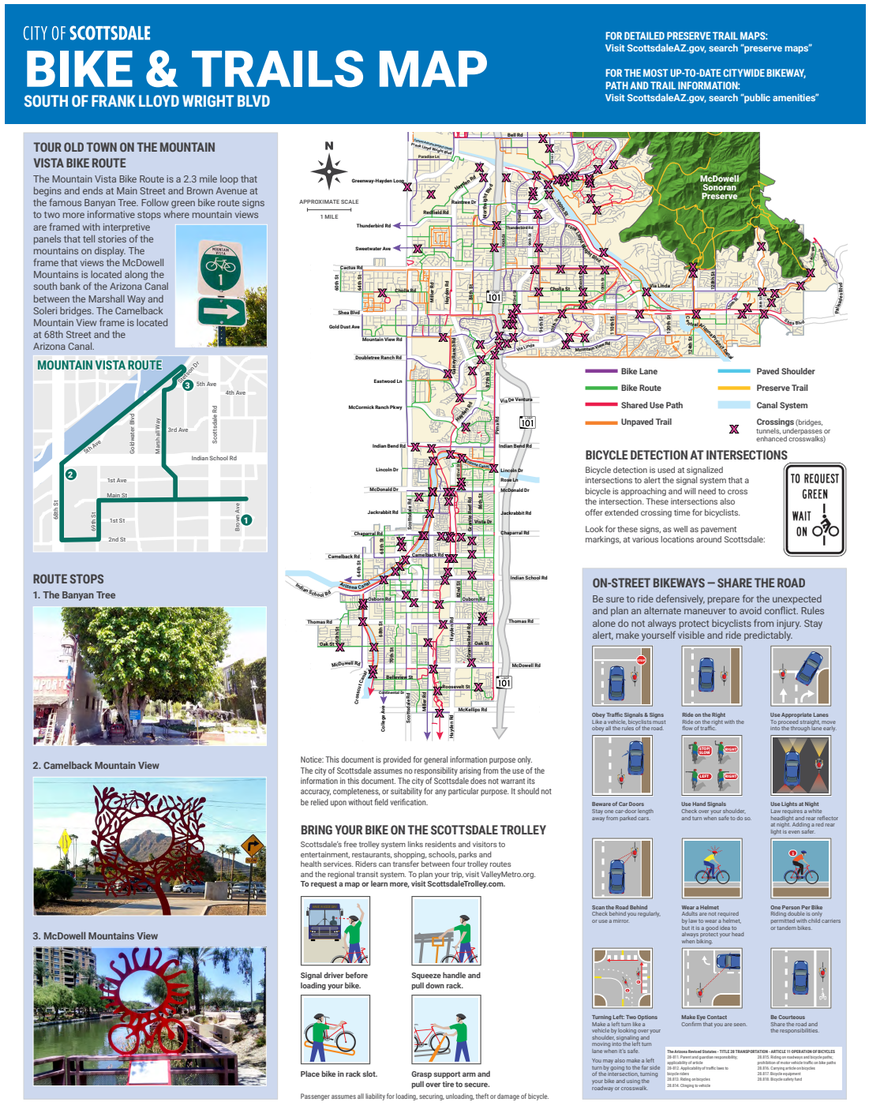
Maricopa County Parks. The hiking trails within McDowell Mountain Regional Park are extensive and connections to these from the Town need to continue to be pursued where feasible. There are currently two recreational trails that have a direct link into the Town of Fountain Hills: the Sonoran Trail and the Dixie Mine Trail (See figure 5 on next page).

The linkage to the other mountain trails within the park will be more difficult to achieve due to the location of these trails in relationship to the Town's existing and developing desert trail network. The roadways within the park are frequented by cyclists as the park roadways provide for an elevation change workout often sought by cyclists. That desire adds additional emphasis on the connectivity to the park from Fountain Hills Blvd. to N. McDowell Mountain Rd. and its designated bike lane.

Fort McDowell Yavapai Nation. This Community currently does not have any designated trails, bike lanes or bike routes.

ADOT. State Route 87 (SR-87) is a state Highway and is maintained by ADOT. SR-87 is used extensively by the local bicycle community typically between Shea Blvd. and Gilbert Rd. and occasionally extending that use to the Saguaro Lake turnoff. There are special events (Ironman) where SR-87 to Saguaro Lake is one of the routes used for the biking leg of that competition. SR-87 does not have any designated bike lanes or routes, but the cyclists use the paved shoulder of this roadway for that purpose (See image on next page).

Figure 4



FIELD DATA COLLECTION

- Physical Inspection of Known Gaps
- Aerial Mapping
- Photographs
- Town Provided Areas of Concern
- Town Provided CIP/Infrastructure Projects

Image: Fountain Park Trail Connections Needed

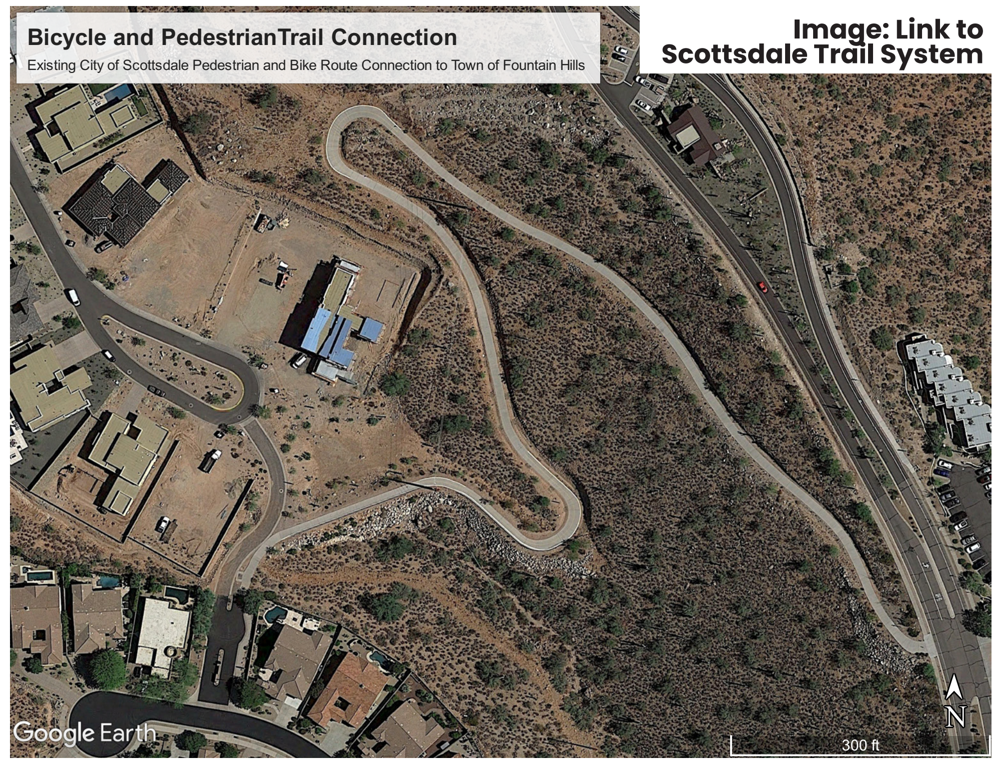


Image: Link to Scottsdale Trail System

Image: Ironman on SR-87

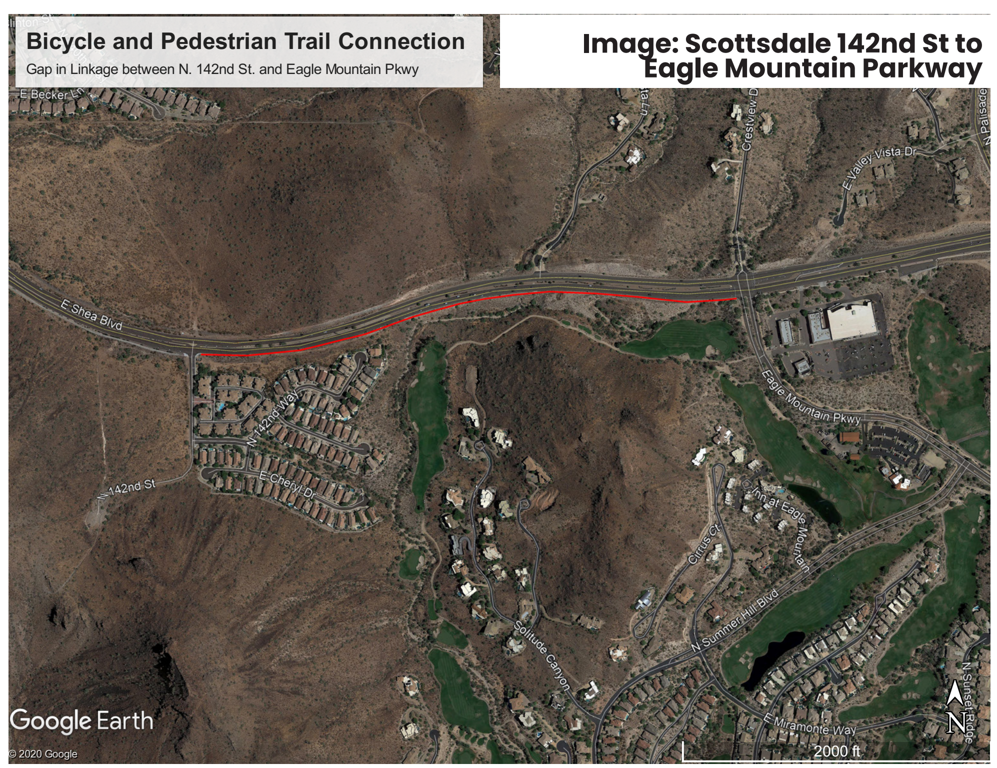
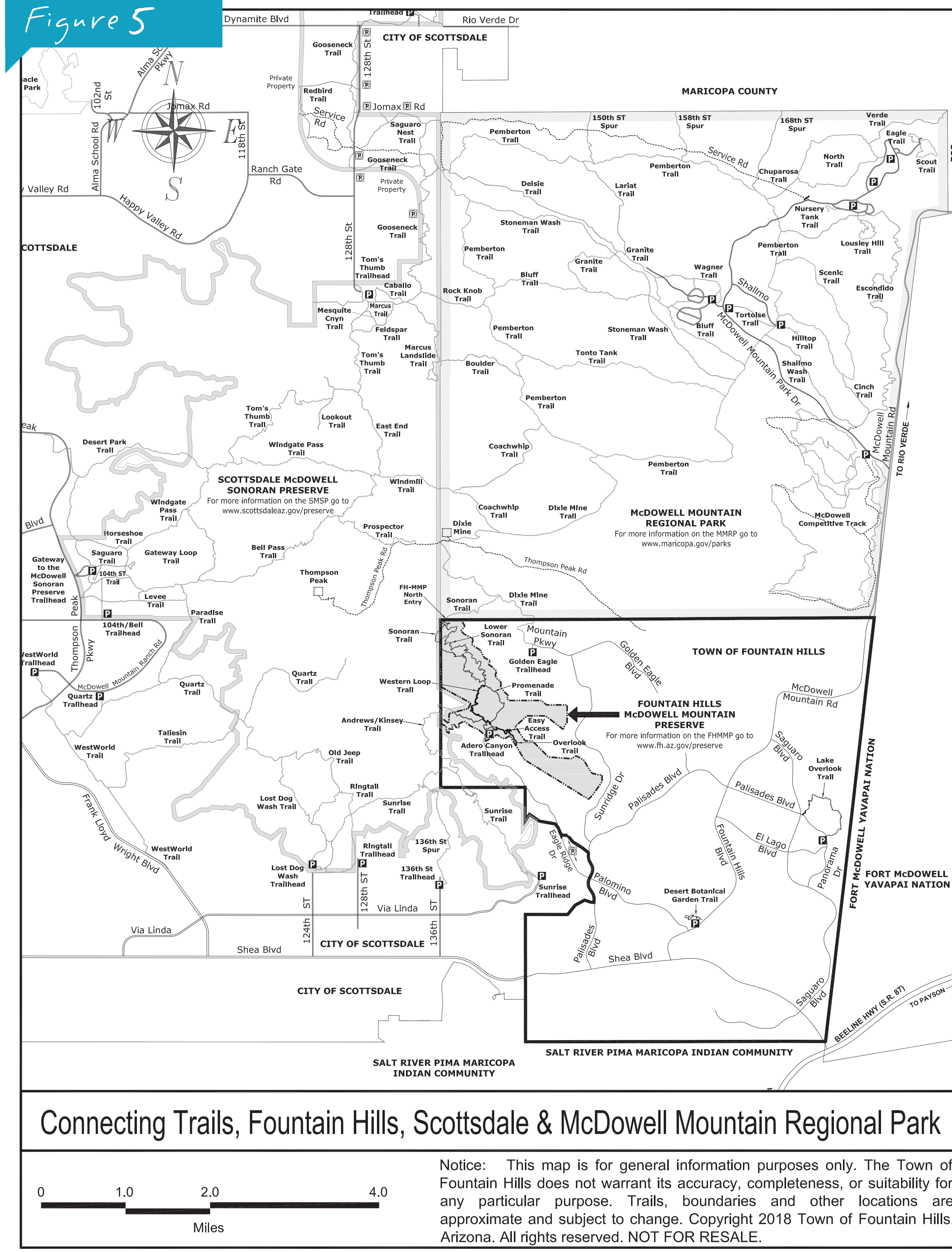


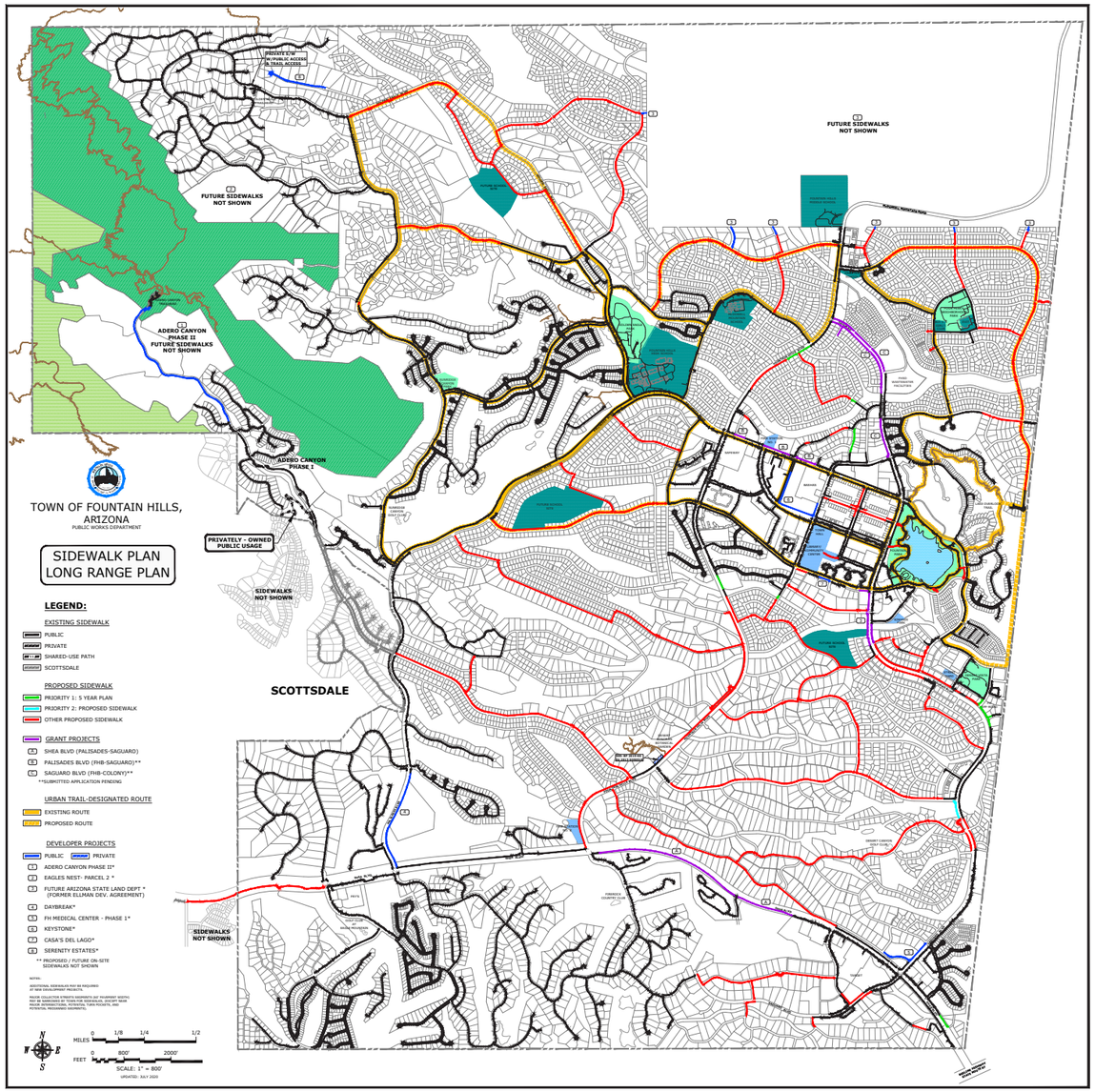
Image: Scottsdale 142nd St to Eagle Mountain Parkway

Figure 5



Fountain Hills On The Move

Figure 6



SIDEWALKS

The Town of Fountain Hills was initially developed without the incorporation of sidewalks as an integral or required part of the Town. Since incorporation in 1989, the Town quickly realized that sidewalks are a necessary component of the street network and their inclusion became required. There are areas of the Town that are lacking integrated sidewalks and connectivity to the overall multi-modal corridors within the Town. To address this issue the Town staff developed a sidewalk plan that identified all existing and proposed sidewalks throughout the Town. The plan provided the Town with a phased implementation approach of new sidewalk additions. It identified the highest priority areas based upon known gaps in the existing sidewalk system that needed to be addressed within a five year window. The other identified sidewalk connections or extensions that were not as critical were to be completed over an extended period of time beyond the priority areas (See figure 6).

BIKE LANES AND BIKE ROUTES

The Town currently has both designated Bike Lanes and Bike Routes within the Town and is continually linking to these designated routes.

- **Principal Arterials –** Shea Blvd. is striped and marked for both east and west bound bicycle lanes. Shea Blvd. has limited sidewalk continuity along the Town's frontage. There is a section of sidewalk along Shea Blvd.'s northern edge between Palisades Blvd. and Fountain Hills Blvd. Additionally, on the eastern end of the corridor, there are segments of sidewalk on both the north and south sides of Shea Blvd. between Technology Dr. and the end of the commercial district on the south side of Shea Blvd. at approximately N. Firebrick Dr.
- **Minor Arterials -** Palisades Boulevard, Fountain Hills Boulevard, McDowell Mountain Road, Saguaro Boulevard and portions of Golden Eagle Boulevard are striped for one lane of automobile traffic in each direction and are able to accommodate a striped edge lane in each direction that serves as a designated bike lane, but in many areas is not marked as such. These minor arterials have intermittent sidewalk connectivity due to the random nature of private development along these corridors.
- **Collectors -** Kingstreet Blvd., Palomino Blvd., Glenbrook Blvd., El Pueblo Blvd., N. Boulder Dr., E. Golden Eagle Blvd., Desert Canyon Dr., Sunridge Dr., Eagle Ridge, E. Palomino, La Montana, and El Lago Blvd. are also striped for one lane of automobile traffic in each direction with the remaining roadway area

striped for edge parking that can serve as a bike route when parking is not being utilized or is not needed due to adjacent land use. Many of these collectors often do not have any sidewalks, but have been identified by the Town as areas that need to be evaluated for adding sidewalks within these transportation corridors.

- **Local Streets –** Currently the Town's local streets do not have any striping to allow for any designated bike routes or bike lanes. These local streets, depending upon when they were developed, may or may not have sidewalks, or the sidewalks may only be present on one side of the street.
- **Events** - The Town hosts or participates in several major bike events every year. These events result in exposure to the Town's unique topography, active lifestyle opportunities and a chance to showcase the innate beauty of the Town. The bicycle events include:
  - » Tour De Scottsdale
  - » Mountain to Fountain
  - » Craft Classic

(See figures 7 and 8 from the Town's General Plan)

Figure 7

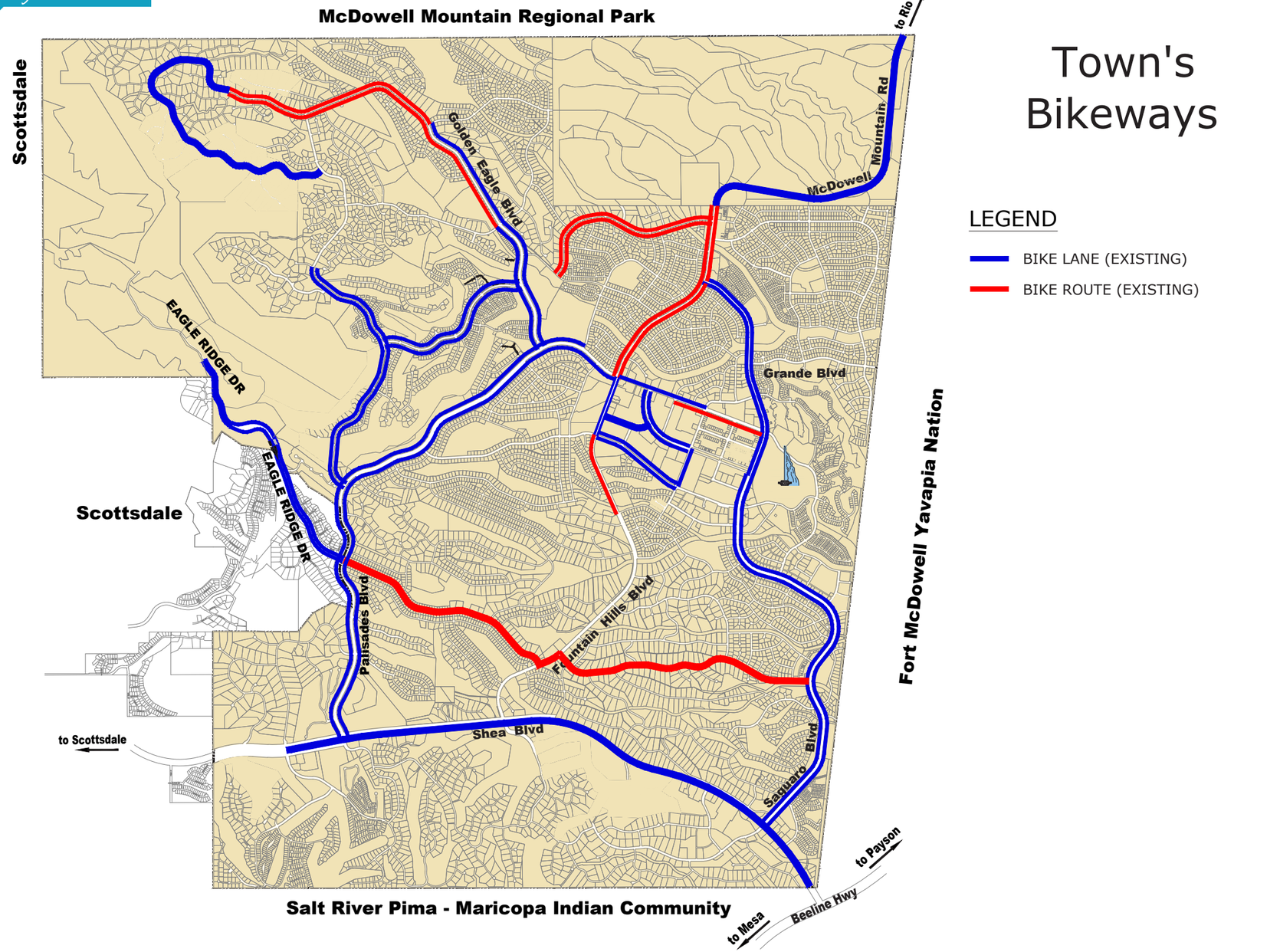
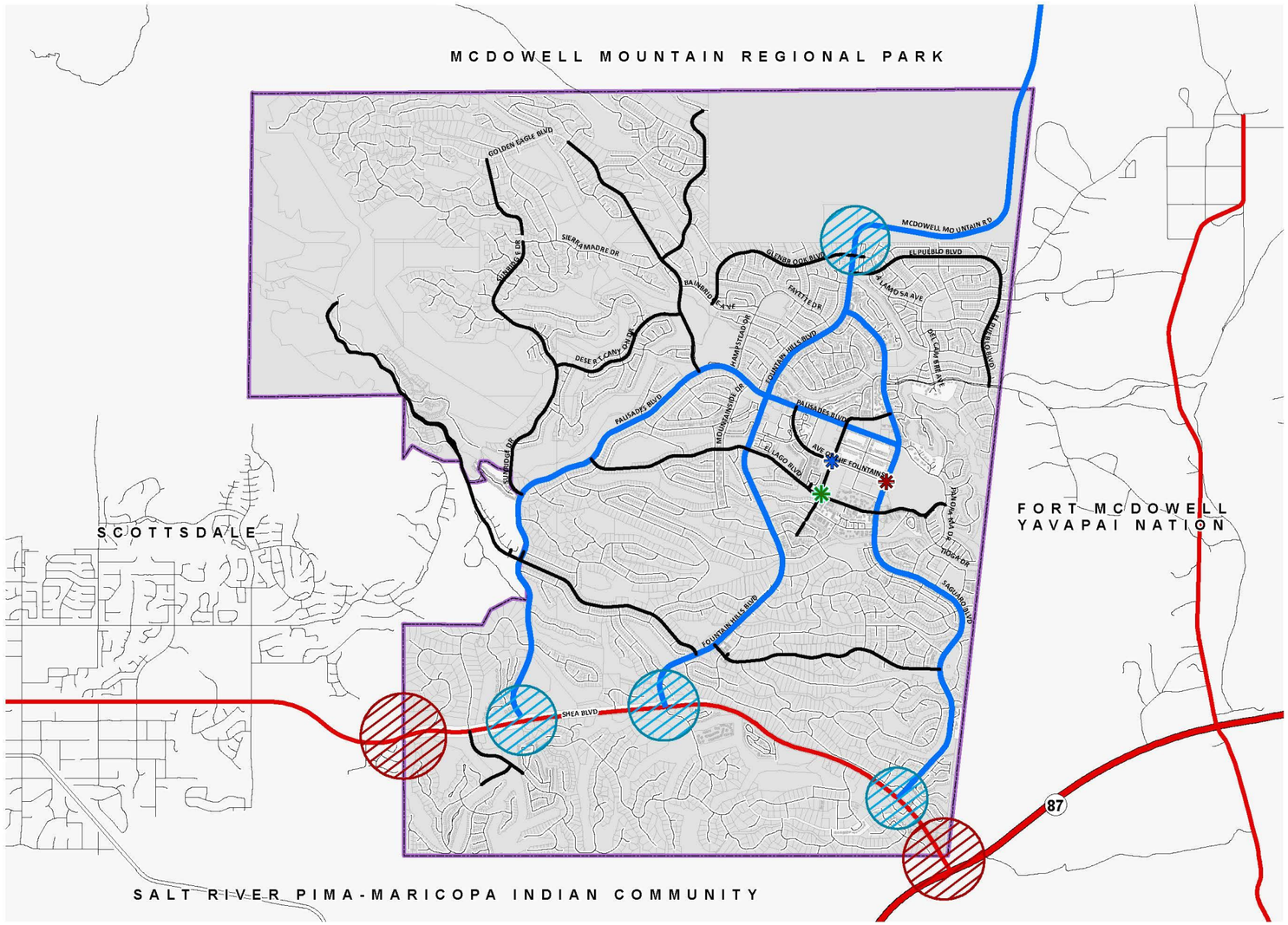


Figure 8

Connectivity, Access and Mobility Plan



LEGEND

ROADWAY SYSTEM

- State Route 87
- Principal Arterial
- Minor Arterial
- Collector
- Local

GATEWAYS

- Primary Gateway
- Secondary Gateway

TOWN CENTER GATEWAYS

- Signature Entrance
- Secondary Entrance

OTHER FEATURES

- Fountain Hills Town Limits
- Base
- Transit Stop

PROJECT: TFH-01
FILE NAME: TFH-01_Transportation_11x17

Sources: Fountain Hills GIS Department 2018, Arizona State Land Department, 2017 Arizona Department of Transportation, 2018 Arizona Land Resource Information Services, 2013

NORTH 0 3,250'

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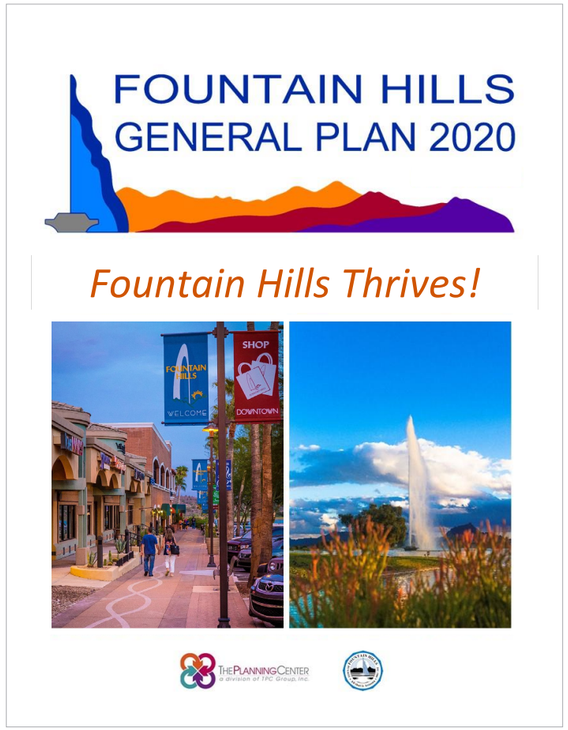
REVIEW TOWN OF FOUNTAIN HILLS PUBLISHED DOCUMENTS

A number of plans and policies influence current practice for active transportation in the Town of Fountain Hills. Current land use and comprehensive plans provide an overall vision for the Town, while previous trail and multimodal plans outline the community vision for bicycle and pedestrian connectivity. A wide range of plans, data sources and studies were used in the development of this ATP, including plans for adjacent jurisdictions. Documents from Scottsdale, Maricopa County, Fort McDowell Indian Community, Arizona Department of Transportation, among others, were also included in this review.



TOWN OF FOUNTAIN HILLS GENERAL PLAN (2020) discussed in great length and frequency the need for trails and connectivity within the Town. Some of the highlights from that document include the following statements:

- The Town's location within the foothills of the McDowell Mountain Regional Park and adjacent to the City of Scottsdale's existing and proposed active transportation corridors provides an excellent opportunity for local and regional connections.
- Increasing walkability supports the healthy life style valued by the community and increases opportunities for social interaction and networking. Sidewalks and trails are public spaces that function as social connectors.
- Sidewalks are an integral component of the street network. Fountain Hills has developed a sidewalk circulation network that serves most of the community. In 2007, the Town adopted a Sidewalk Plan that identifies all existing and proposed sidewalks throughout the Town. The Sidewalk Plan should be revised to support this General Plan and to schedule maintenance projects needed to support the sidewalk network.
- The Town's location within the foothills of the McDowell Mountain Regional Park, Scottsdale McDowell Sonoran Preserve and Fountain Hills McDowell Mountain Preserve provides a network of trails, natural drainage channels and washes that extend throughout the community. These washes, primarily owned by the Town, are typically undeveloped, although most also contain utilities and utility easements, as well as serving as surface drainage corridors. Such a network of undeveloped washes provides visual connectivity to natural open space between neighborhoods.

Fountain Hills includes three (3) types of trail systems:

1. **Preserve Trails:** The Preserve trail system consists of a diversity of developed trails within preserve areas of Town, including the Promenade, North, Western Loop, Town Overlook, Ridgeline Trail and Interpretive trails. This system currently stretches 8.3 miles.

2. **Fountain Hills Interconnected Trails (FIT):** This trail system consists of multiple existing and future trails and sidewalks throughout the Town and include four (4) existing urban trails and five (5) future trails.

Existing Urban FIT Trails:

- **Sunridge Trail:** A 3.8-mile loop that begins at Golden Eagle Park along Desert Canyon Dr. and Palisades Blvd.
- **Falcon Trail:** A 1.7-mile loop that begins at Golden Eagle Park around Fountain Hills High School continuing to Bainbridge Ave.
- **Civic Center Trail:** A 3.2-mile trail that begins at Fountain Park, along Avenue of the Fountains to Mountainside Dr. and back along El Lago Blvd.
- **Fountain Park Trail:** A 1.9 mile path that loops around the lake at Fountain Park.

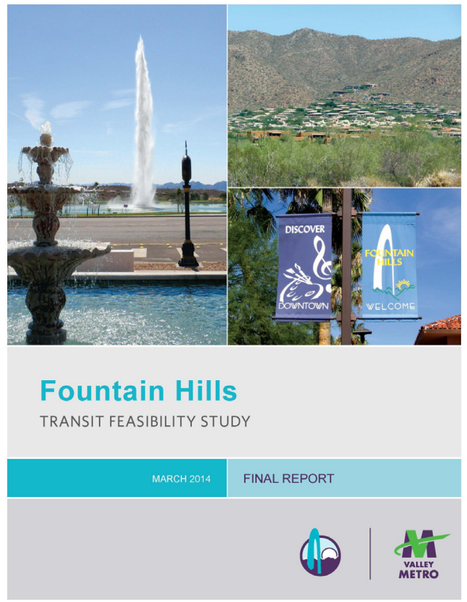
Future FIT System Trails:

- Four Peaks Trail: 4.3 miles
- Desert Vista Trail: 2 miles
- McDowell Mountain Trail: 2.5 miles
- North Heights Trail: 4 miles
- Sundown Trail: 3.5 miles

3. **Community Trails:**

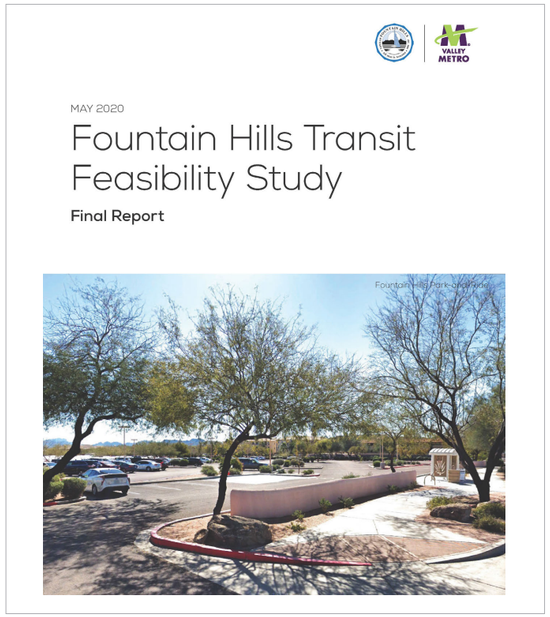
- **Lake Overlook Trail:** A 1.9 mile system of trails within the Bela Lago, Diamante del Lago, and Arriba del Lago subdivisions uphill from Fountain Park

- In addition, there is a trail access off the upper end of Golden Eagle Blvd. that utilizes an existing easement in the Eagles Nest MCO development that allows access to the McDowell Mountain Regional Park trail system



FOUNTAIN HILLS TRANSIT FEASIBILITY STUDY (2014) This plan, under section 4.2.3 Evaluate Bicycle and Pedestrian Infrastructure Needs, indicates multiple references to multimodal accommodations. Some of the highlights from that document include the following statements:

- The plan emphasizes the Town's desire to provide alternative transportation modes, envisioning the expansion of transit, bicycle and pedestrian systems to provide enhanced mobility to a population base with a diversity of needs.
- The development of safe bicycle and pedestrian infrastructure is an important precursor to the implementation of transit services.
- As walking becomes an increasingly popular activity, especially among aging populations who derive exercise and social benefits from walking-related activities, investing in pedestrian facilities will help encourage walking as a means of accessing local destinations, connecting neighbors and neighborhoods and enhancing safety.
- Given the popularity of bicycling in Fountain Hills, consideration of striped bicycle lanes on neighborhood collector streets, that also establish connections with the local trail system, will provide added comfort and separation between bicyclists and cars, especially for novice or occasional bicycle riders.



FOUNTAIN HILLS TRANSIT FEASIBILITY STUDY (2020) This plan, under section 1 Demographic Profile, identifies that the Town has seen a dramatic increase (163%) in

Figure 9

Schools In Fountain Hills

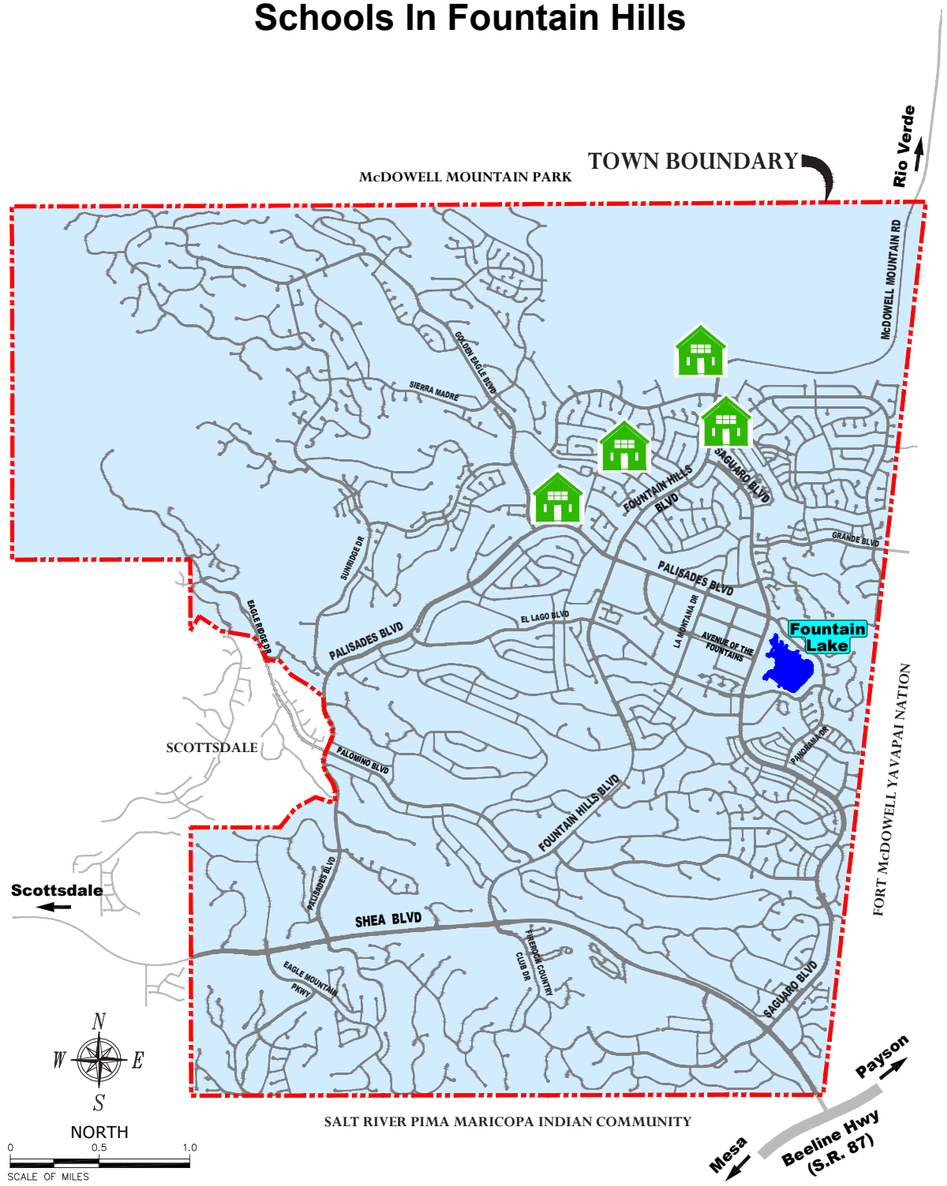
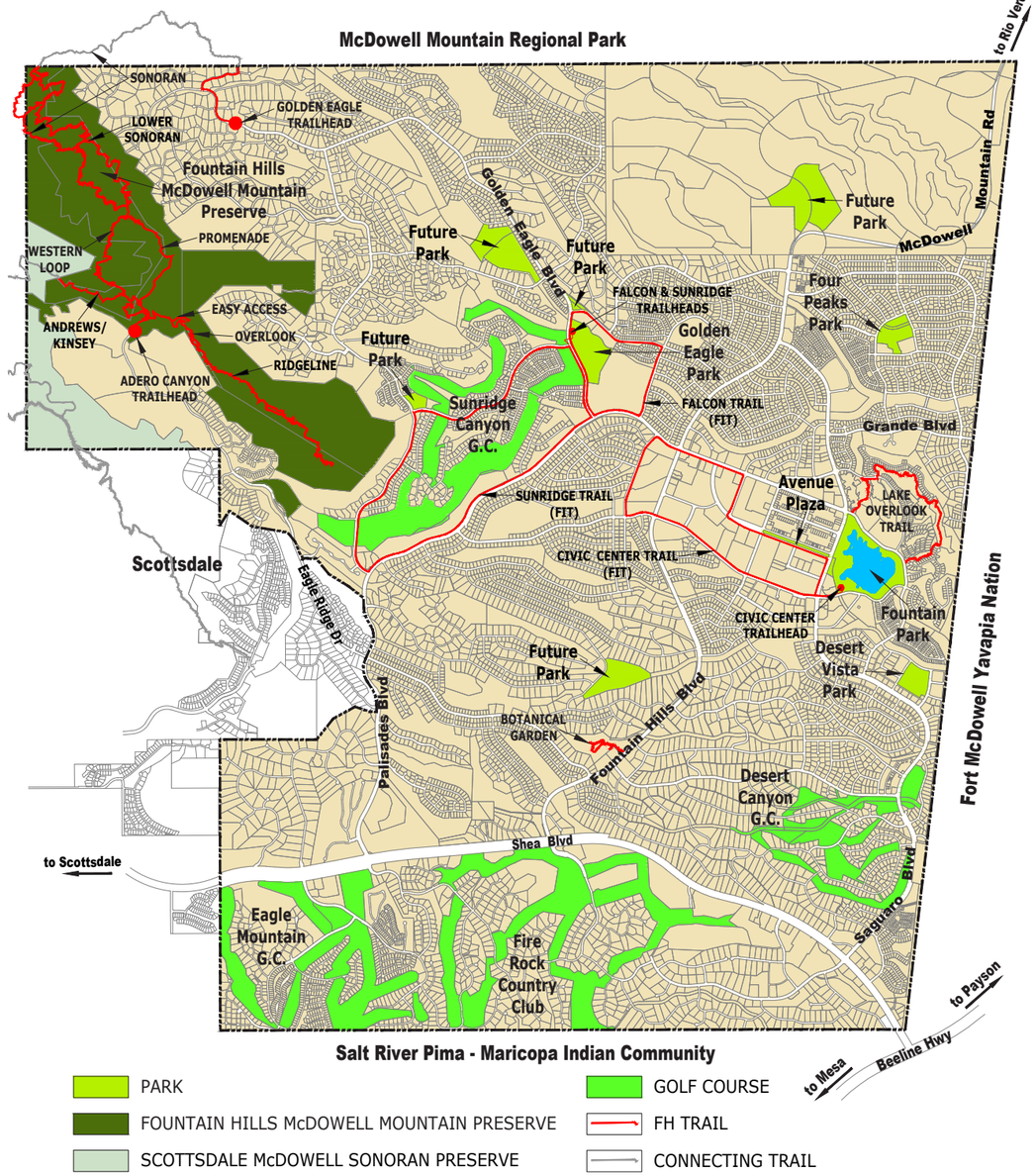


Figure 10



walking to work. The document builds on the 2014 study. Some of the highlights from this document include the following statements:

- The plan makes note: Likely a result of the increased employment and housing densities in the core of Fountain Hills, there was an increase in the number of workers who walk to work (163.3 percent increase from the 2014 study results).
- Transportation and land use are directly related – the greater the presence and proximity of compatible land uses, the greater the inclination to use alternative modes of transportation such as transit, walking, and biking.

SCHOOLS (PUBLIC AND CHARTER)

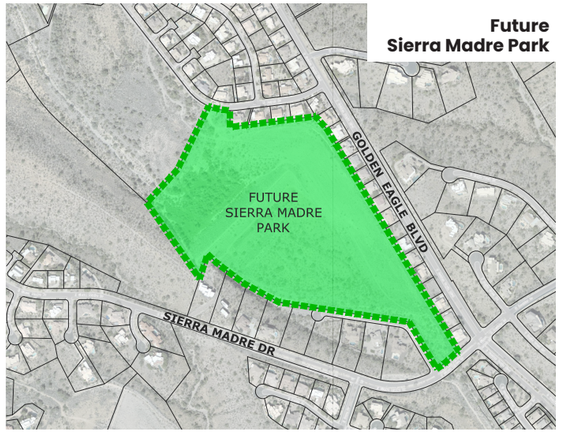
- Fountain Hills Unified School District is comprised of four (4) schools: Fountain Hills, McDowell Mountain Elementary School, Fountain Hills Middle School and Fountain Hills High School.
- Fountain Hills Charter School is a kindergarten through 8th grade Montessori school that has been a part of the Fountain Hills community for over 22 years (See figure 9 on previous page).

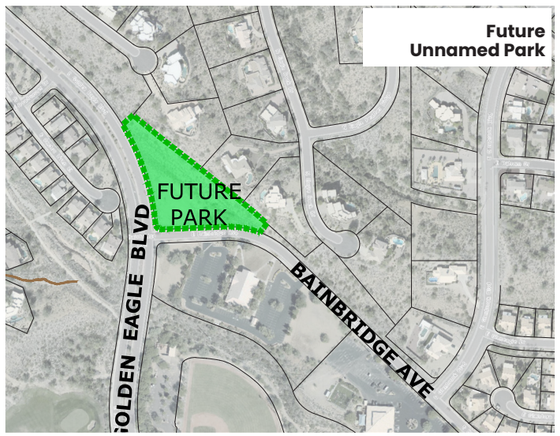
PARKS (See figure 10)

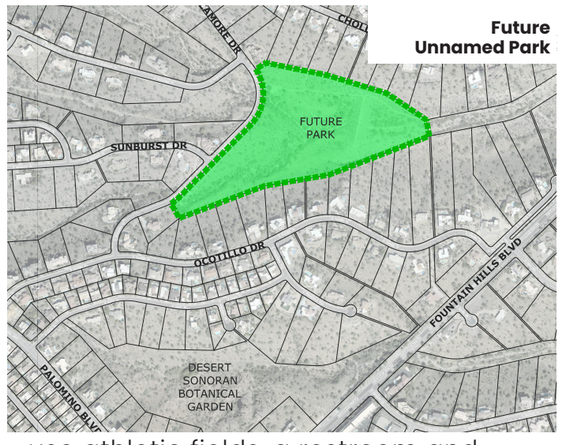
According to studies by the Centers for Disease Control and Prevention, creating, improving and promoting places to be physically active can improve individual and community health and results in a 25 percent increase of residents who exercise at least three times per week. Studies also correlate stress reduction, lowered blood pressure and perceived physical health to the length of stay while visiting parks. In addition, parks improve water quality, protect groundwater, prevent flooding, improve air quality, provide vegetative buffers to development, provide habitat for wildlife and provide a place for children and families to connect with nature and recreate outdoors together. Fountain Hills' parks are the places that people go to get, and stay, healthy and fit.

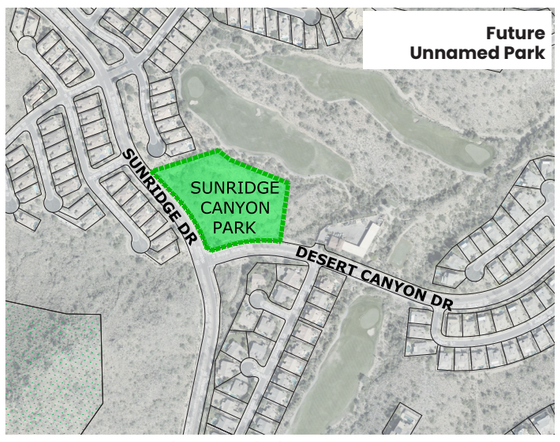
The Town currently operates and maintains five parks encompassing a total of 116 acres: Fountain Park, Desert Vista Park, Four Peaks Park, Avenue Linear Park and Golden Eagle Park.

- **Fountain Park** is a 64-acre passive recreation area and anchor to the Town Center. Built in 1970, the park includes a 29-acre, 100-million-gallon effluent lake, 35 acres of turf, a dam, an 18-hole championship disc golf course, a children's playground, 2 chilled drinking fountains, parking lots, a pump station, restrooms, the world-famous fountain, a sculpture garden with over 30 art pieces, 5 ramadas, and various picnic tables and benches. Sub-facilities of Fountain Park include an amphitheater, the Rotary Centennial Splash Park and a Veterans Memorial.
- **Desert Vista Park** is a 12-acre neighborhood park that includes a skate park and a 3-acre dog park. Desert Vista Park includes lighted multi-









use athletic fields, a restroom and concessions building, 2 chilled drinking fountains, picnic and shade ramadas, age-appropriate children's playground, walking paths, landscaping, area lighting and parking areas. The lighted athletic fields are primarily used by the Fountain Hills Soccer Club, who have consolidated the majority of games and practices to the improved facilities at this park.

- **Four Peaks Park** is a 15-acre active recreation area. The park includes a 100-foot pedestrian footbridge, an 18-foot by 24-foot ramada with a barbecue, softball fields, 2 lighted tennis courts, 2 multipurpose ball fields with lights and spectator seating, 50 parking spaces, 2 chilled drinking fountains, a 750 square foot restroom/control building, 2 children's playgrounds and a lighted 150-foot by 300-foot soccer field with spectator seating.
- **Golden Eagle Park** is a 25-acre active recreation area adjacent to Fountain Hills High School. The park hosts numerous activities and leagues throughout the year, including Little League, adult softball, senior softball, high school athletics and drop-in sports such as basketball, sand volleyball and tennis. The park includes 3 ramadas with barbecues, 8 chilled drinking fountains, 2 age appropriate children's playgrounds, 2 lighted basketball courts, 2 lighted sand volleyball courts, 4 lighted multipurpose ball fields, 4 lighted tennis courts, a horseshoe pit, restroom and concessions building and a meeting room. Golden Eagle Park was developed in 5 phases utilizing both Town funding and grants, and was completed in December, 1998. The 25-acre parcel was donated to the Town by MCO Properties shortly after incorporation and became the Town's first municipal park. The Town received nearly $1.4 million in grants from Arizona State Parks Heritage Fund to develop the park. Golden Eagle Park was recognized by the Arizona Parks and Recreation Association with the Outstanding Facility Award for a community under 60,000 in 1999.
- **Avenue Linear Park** is a 3-acre Park in the heart of the town center. This linear park connects from Fountain Park to La Montana. The park is host to several community events and includes an art walk, fountains, chilled drinking fountains and ramadas.

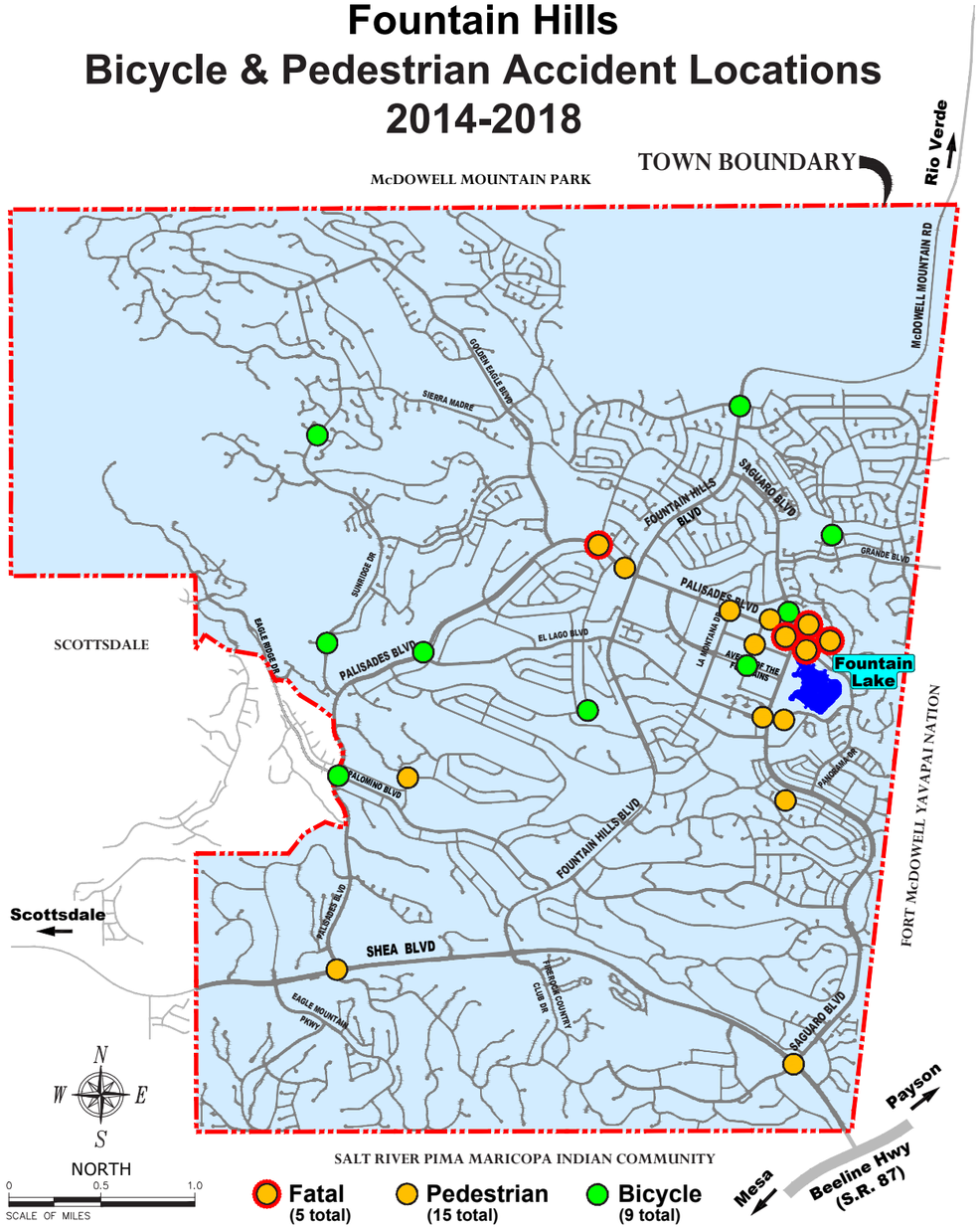
Future Parks

The Town has identified four (4) new park sites for future development.

1. One new site has been identified as Sierra Madre Park located west of the intersection of E. Sierra Madre Dr. and Golden Eagle Blvd. The park site is approximately 32 acres and is adjacent to a future Fountain Hills School District school site.
2. The second identified park site has not yet been officially named. It is located east of Sycamore Dr. near E. Sunburst Dr. intersection. This park site is approximately 21 acres, but if the drainage ways east of the site that are also owned by the Town are included, the park site would measure approximately 26 acres total.
3. The third new park site has been identified as Sunridge Canyon Park and is on the northeast corner of N. Sunridge Dr. and E. Desert Canyon Dr. The site is approximately 4 acres in size.
4. The fourth new park site located on the northeast corner of E. Golden Eagle Blvd. and E. Bainbridge Ave. This site is approximately 3/4 of an acre in size.

These park sites will be tremendous additions to the Town's existing recreational facilities and will immediately provide additional destinations for residents. Pedestrian and bicycle connectivity to the surrounding

Figure 11



neighborhoods to these park sites will need to be strongly considered during design (See images page 15).

SAFETY REVIEW

In addition to public input regarding unsafe locations, a review of collisions involving bicycles and pedestrians can help identify locations in greater need of improved active transportation facilities. Using data from the Arizona Department of Transportation and the Town of Fountain Hills, the project team assessed both location and severity of collisions occurring between 01/01-2011 and 06/27-2019. This information is shown in figure 11 on this page.

It is important to note that while the data available provides insight into safety concerns within the Town, pedestrian and bicycle involved collisions may not be reported if they do not result in a serious injury or fatality. For this reason, the data available may not reflect these scenarios.

Bicyclists

From 2001 to 2019, 39 bicyclists' collisions were reported, resulting in 1 fatality, 5 suspected serious injuries, 16 suspected minor injuries, and 13 possible injuries. Four (4) collisions did not result in injury. Of these collisions, over 46% (18) were located on minor arterials, 23% (9) on local roads, 23% (9) on collectors and only 8% (3) on a principal arterial. 64% (25) occurred at intersections. Most collisions occurred during evening hours 61% (24). See list of bicycle conflicts in figure 13 on page 17.

Figure 12

Traffic Incidents with Pedestrians

Street Designation	Incident Injury Severity Description	Incident First Harmful Description
Collector	Suspected Serious Injury	Pedestrian
Local	Suspected Serious Injury	Pedestrian
Collector	Suspected Serious Injury	Pedestrian
Principal Arterial	Suspected Serious Injury	Pedestrian
Collector	Suspected Serious Injury	Pedestrian
Local	Suspected Minor Injury	Pedestrian
Local	Suspected Minor Injury	Pedestrian
Collector	Suspected Minor Injury	Pedestrian
Minor Arterial	Suspected Minor Injury	Pedestrian
Local	Suspected Minor Injury	Pedestrian
Local	Suspected Minor Injury	Pedestrian
Minor Arterial	Suspected Minor Injury	Pedestrian
Minor Arterial	Suspected Minor Injury	Pedestrian
Minor Arterial	Suspected Minor Injury	Pedestrian
Minor Arterial	Suspected Minor Injury	Pedestrian
Local	Possible Injury	Pedestrian
Minor Arterial	Possible Injury	Pedestrian
Local	Possible Injury	Pedestrian
Local	Possible Injury	Pedestrian
Collector	Possible Injury	Pedestrian
Minor Arterial	Possible Injury	Pedestrian
Collector	Possible Injury	Pedestrian
Local	Possible Injury	Pedestrian
Minor Arterial	Possible Injury	Pedestrian
Collector	Possible Injury	Pedestrian
Minor Arterial	Possible Injury	Pedestrian
Minor Arterial	No Injury	Pedestrian
Minor Arterial	No Injury	Pedestrian
Minor Arterial	No Injury	Pedestrian
Collector	No Injury	Pedestrian
Local	No Injury	Pedestrian
Minor Arterial	Fatal	Pedestrian
Minor Arterial	Fatal	Pedestrian
Minor Arterial	Fatal	Pedestrian

Figure 13

Traffic Incidents with Bicyclist

Street Designation	Incident Injury Severity Description	Incident First Harmful Description
Principal Arterial	Suspected Serious Injury	Pedalcycle
Collector	Suspected Serious Injury	Pedalcycle
Minor Arterial	Suspected Serious Injury	Pedalcycle
Minor Arterial	Suspected Serious Injury	Pedalcycle
Principal Arterial	Suspected Serious Injury	Pedalcycle
Collector	Suspected Minor Injury	Pedalcycle
Collector	Suspected Minor Injury	Pedalcycle
Collector	Suspected Minor Injury	Pedalcycle
Collector	Suspected Minor Injury	Pedalcycle
Local	Suspected Minor Injury	Pedalcycle
Local	Suspected Minor Injury	Pedalcycle
Local	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Minor Arterial	Suspected Minor Injury	Pedalcycle
Collector	Possible Injury	Pedalcycle
Collector	Possible Injury	Pedalcycle
Collector	Possible Injury	Pedalcycle
Local	Possible Injury	Pedalcycle
Local	Possible Injury	Pedalcycle
Local	Possible Injury	Pedalcycle
Local	Possible Injury	Pedalcycle
Local	Possible Injury	Pedalcycle
Minor Arterial	Possible Injury	Pedalcycle
Minor Arterial	Possible Injury	Pedalcycle
Minor Arterial	Possible Injury	Pedalcycle
Minor Arterial	Possible Injury	Pedalcycle
Minor Arterial	Possible Injury	Pedalcycle
Collector	No Injury	Pedalcycle
Local	No Injury	Pedalcycle
Minor Arterial	No Injury	Pedalcycle
Minor Arterial	No Injury	Pedalcycle
Principal Arterial	Fatal	Pedalcycle

Pedestrians

From 2001 to 2019, 34 pedestrian collisions were reported, resulting in 3 fatalities, 5 suspected serious injuries, 10 suspected minor injuries, and 11 possible injuries. Five (5) collisions did not result in any injury. Of these collisions, over 44% (15) were located on minor arterials, 29% (10) on local roads, 24% (8) on collectors and only 3% (1) on a principal arterial. 53% (18) of the incidents occurred at intersections. Most collisions occurred during evening hours 62% (21). See list of pedestrian conflicts in figure 12 on page 17.

PUBLIC ENGAGEMENT

Flexible methods of public engagement provided multiple opportunities for residents to participate in meaningful conversation about active transportation within the Town of Fountain Hills. Virtual public meetings were held and web-based surveys were implemented that were available for input over an extended period of time. Public input was also gathered at a booth during the Festival of Fine Arts & Crafts event. The outreach also included numerous conference calls and email correspondence, as well as presentations and working sessions with the Town Council, the Community Services Department and the Planning and Zoning Advisory Board.

The key steps to the Town's public engagement were to ensure that the plan provided the following:

Reach – Get the word out to the people most impacted

Engage – Lowering the barriers to participation and tailoring it to the Town of Fountain Hills

Capture – Collect the most data and information for analysis

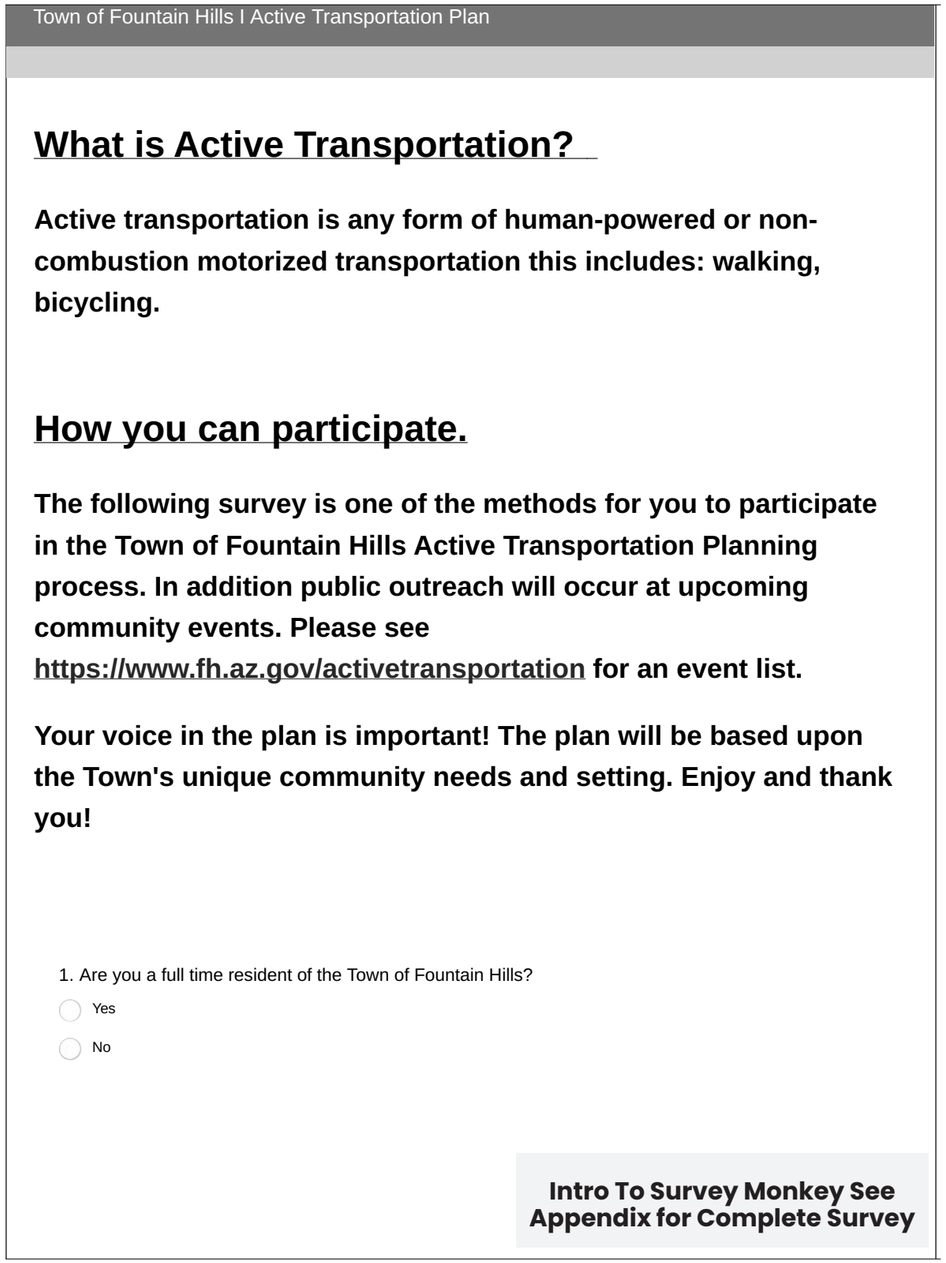
Report – Provide a feedback loop to all participants, demonstrating what was heard and what the next steps are

Comply – To meet the requirements of the Town's exemplary citizen driven decision process

The virtual meetings followed these general guidelines:

- Did not require a sign-in to participate but an optional sign-in was provided to facilitate follow-up communication with participants.
- Permitted two-way communication between participants and the Town through both chat features and web-based survey features where written comments were welcomed.

The public engagement efforts were developed around equitable and consensus-based engagement to assist in providing a strong base for this active transportation plan. This engagement has allowed the Town and the design team to work collaboratively with the community, and positively synthesize ideas, strategies and actions that best meet the needs of the Town residents through the planning included with this active transportation plan. The efforts involved showcase a commitment from the Town towards embracing and utilizing the new digital democracy as one of the tools needed


Town of Fountain Hills I Active Transportation Plan

What is Active Transportation?

Active transportation is any form of human-powered or non-combustion motorized transportation this includes: walking, bicycling.

How you can participate.

The following survey is one of the methods for you to participate in the Town of Fountain Hills Active Transportation Planning process. In addition public outreach will occur at upcoming community events. Please see https://www.fh.az.gov/activetransportation for an event list.

Your voice in the plan is important! The plan will be based upon the Town's unique community needs and setting. Enjoy and thank you!

1. Are you a full time resident of the Town of Fountain Hills?

Yes

No

Intro To Survey Monkey See Appendix for Complete Survey

1

Booth At Festival of Fine Arts and Crafts

to provide a comprehensive approach to public engagement.

Throughout the development of the plan, a comprehensive public engagement process augmented the plan process providing invaluable insight as the plan moved forward. A series of outreach events encouraged community involvement and built support for the plan's vision and recommendations. Participants were able to provide feedback through a variety of communication channels, including online surveys, direct interaction with Town staff and event-specific questionnaires. Further outreach was achieved through the team's physical inventory of the project corridor that added to the electronic input format. The team's knowledge of the specific features and attributes of the Town's Active Transportation study were on full display when the team attended and participated in the Town's annual Festival of Fine Arts & Crafts event along the Avenue of the Fountains. This outreach effort provided residents and visitors another opportunity to engage with the project team and share knowledge about the Town's active transportation elements and features.

KEY FINDINGS

The results of these exercises informed the plan recommendations and contributed to a more robust understanding of the citizens' needs, concerns and context. Feedback included comments that ranged from specific modes of transportation to general comments on the larger network and system. Overall, residents indicated the need for improved safety, increased connectivity among facilities and destinations and more facilities for all modes. The key findings are summarized below.

General Feedback:

A focus on the downtown and Fountain Park were elements that were repeatedly requested by the public.

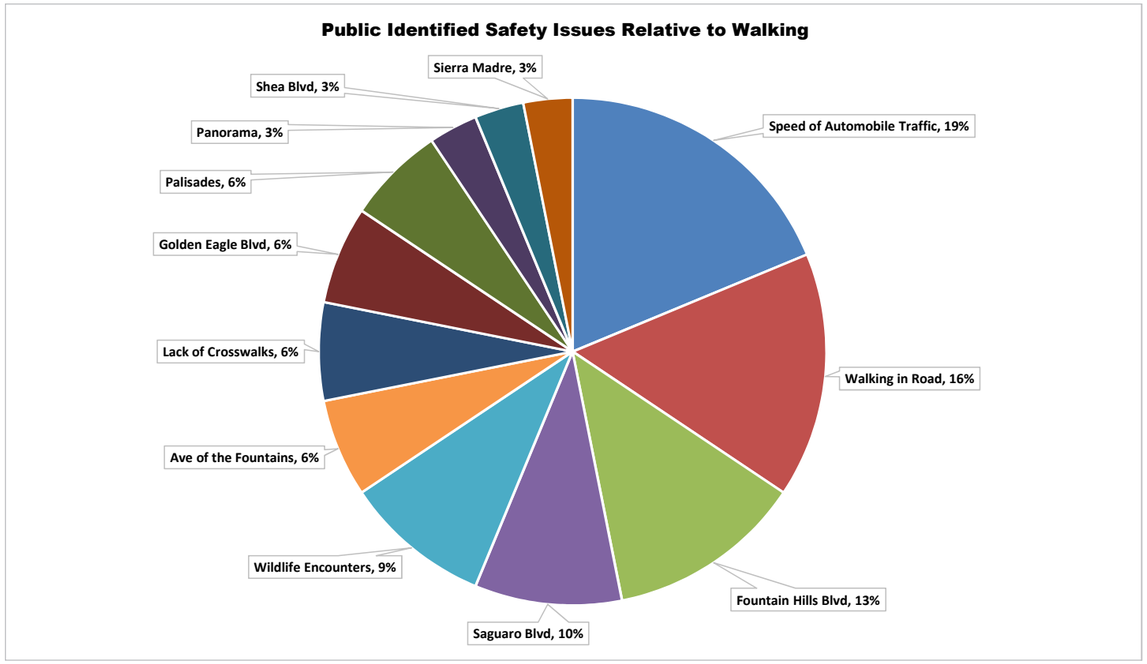
- An increase in designated crosswalks throughout the Town was requested, including where appropriate, the use of Pedestrian Activated Beacons for designated pedestrian and bicyclists crossings.
- Educational outreach for motorist, bicyclists, and pedestrians is a priority. This would include educational sessions about the responsible use of these modes of travel within the existing public and charter schools in Fountain Hills. Additionally, local driver education programs would include sessions about the responsible use of these modes of travel. One method would be having brochures available at Town events and at Town Hall, describing appropriate behavior when using the many active transportation modes of travel. Note that ADOT has developed several resources available to the Town in regards to this issue (http://www.azbikeped.org/index.asp). These available resources will be an excellent starting point to initiate

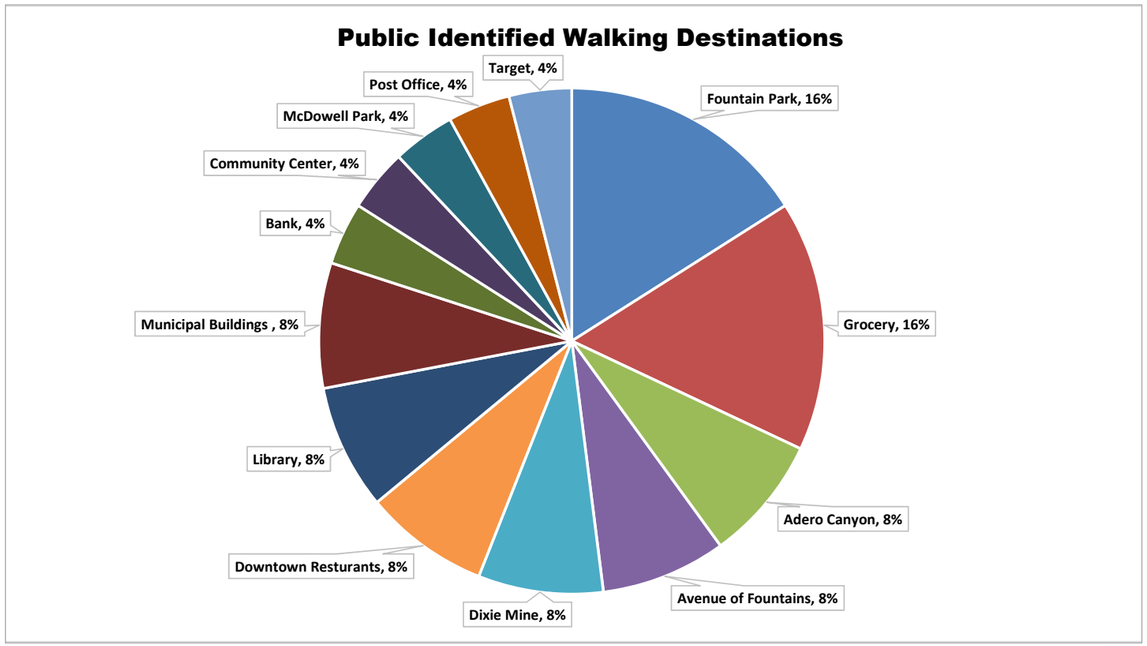
additional public education about these different modes of travel.

- Improved wayfinding signage throughout the Town is needed for all active modes of travel. This includes increased lane markings and the use of internationally recognized symbols for pedestrians, bicyclists and automobiles.
- A strong desire for connectivity among destinations and to recreational opportunities, internal and external of Town, including linking to the City of Scottsdale to the west.
- Preference for separated sidewalk facilities was indicated as a strong desire by the public.
- Network gaps in sidewalk continuity exist throughout the Town that need to be addressed with an emphasis on downtown areas and around the lake, as well as connections to the parks and schools within the Town.
- Lighting in the Town of Fountain Hills is a sensitive issue due to the Town's objective to maintain a dark sky approach towards lighting as defined by the Town's association with Fountain Hills Dark Sky Association. Intersection lighting and the use of pavement markings for bicycle lanes and routes need to be upgraded to improve visibility during lower light level scenarios.
- Recreational linkage opportunities with trails may be expanded through partnerships with the City of Scottsdale to the west and Maricopa County Parks to the north.
- Common barriers towards the use of active transportation throughout the Town were identified by the public with multiple comments in regards to speed of motor vehicle traffic and closing the existing gaps in sidewalks.
- The public identified that the Town needs to improve maintenance or enforcement of landscape regulations to help contain and/or maintain existing landscapes from overgrowing or encroaching onto adjacent sidewalks or bike lanes/bike routes.

Pedestrians:

- The vast majority of the public identified walking destinations are centered on the facilities, restaurants and municipal buildings located within the downtown.
- Fountain Park remains one of the highest and most identifiable spaces used for walking, followed by Avenue of the Fountains.
- Closing the existing gaps between paved sidewalks is a desired improvement. Palisades and Fountain Hills Blvd. were the most frequently identified routes with known sidewalk gaps.
- School and park connections for pedestrians need to be improved throughout the Town.
- Separated sidewalks should be considered in areas where feasible and



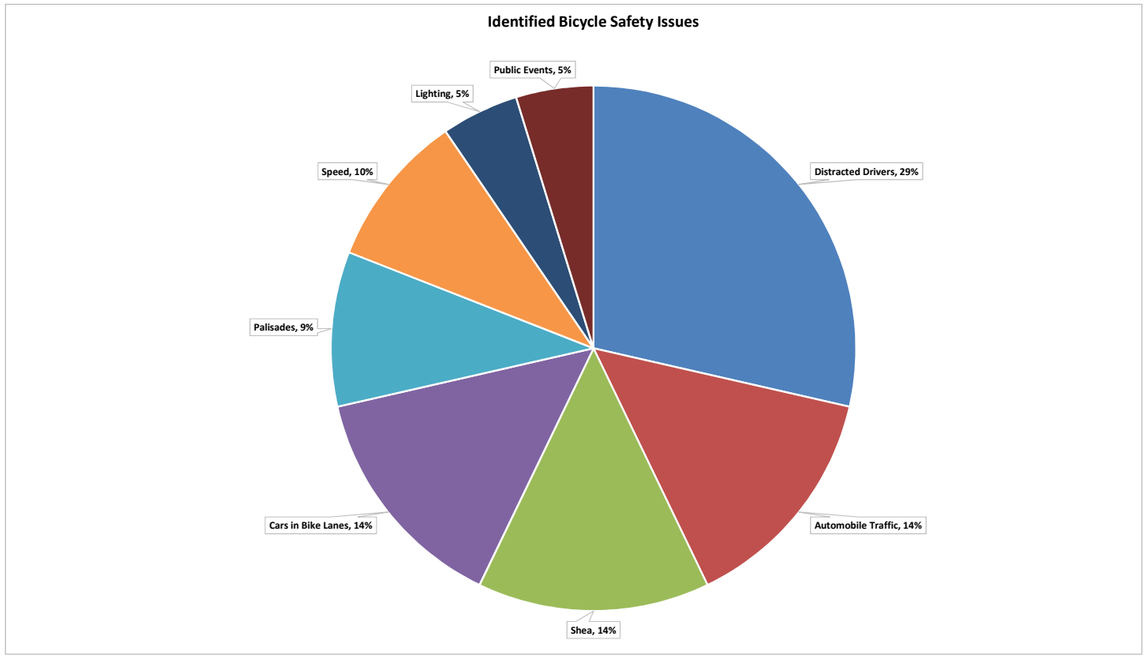


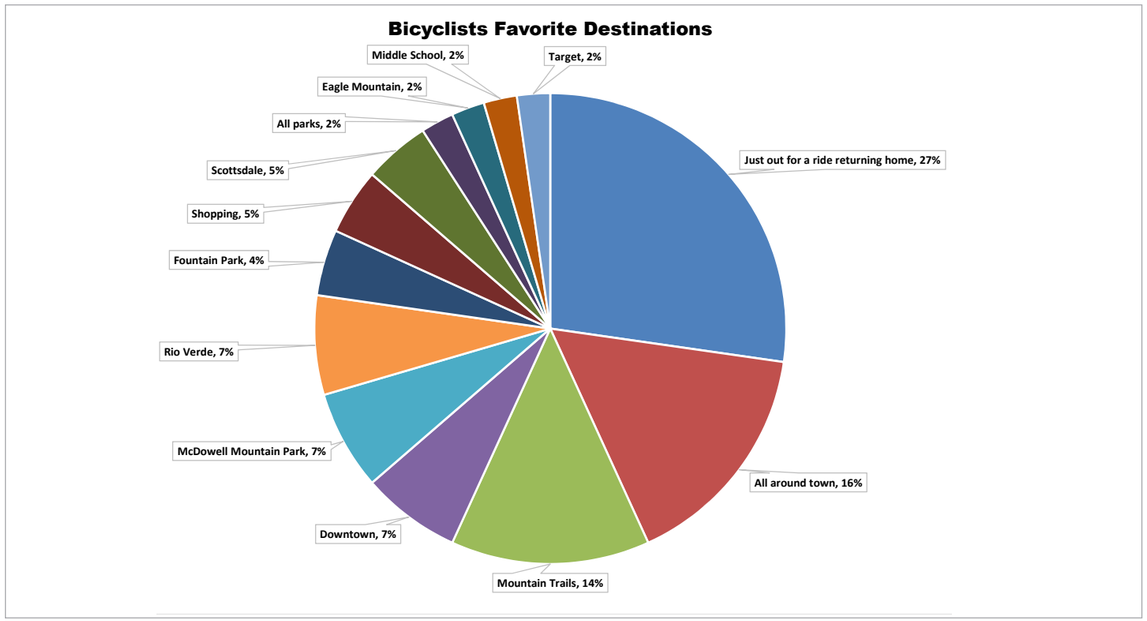
where residents currently use streets for active travel.

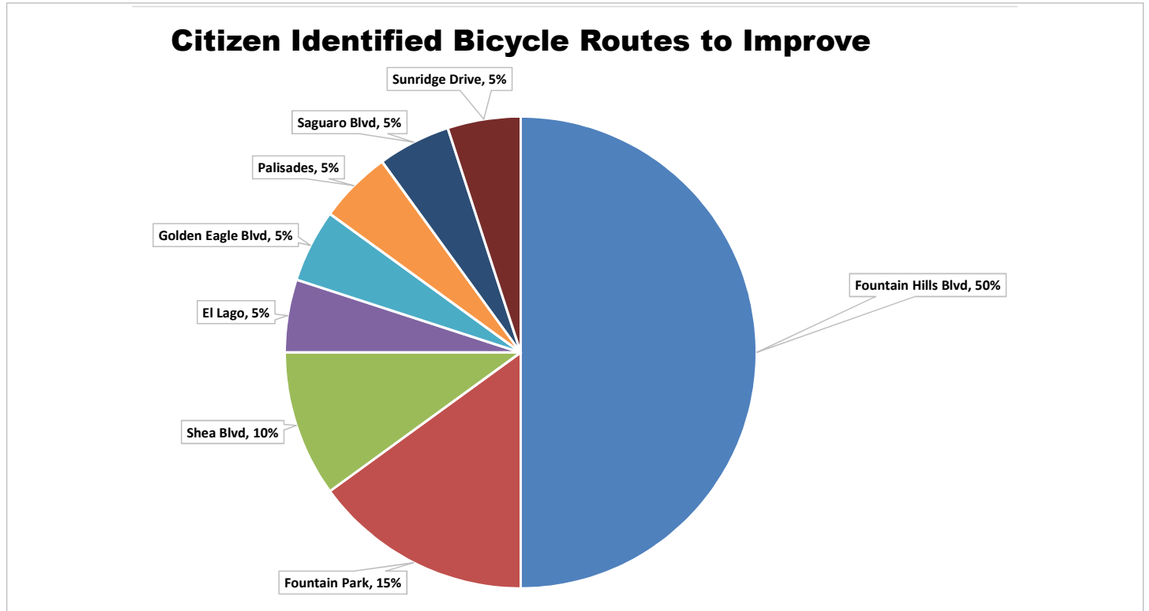
- Participants identified the need for a connected and complete network of sidewalks and pathways throughout the Town.
- Pedestrian safety at intersections should be a priority, including the incorporation of designated crosswalks, and the investigation of Pedestrian Activated Beacon crossing mechanisms, or other traffic control notifications, in high pedestrian crossing zones.
- Reducing the speed limits on Town streets was raised as an issue relative to walkers who may have to share the street due to lack of separate sidewalk facilities.
- Pedestrians identified that their desired walking routes or corridors would be Fountain Hills Blvd., Shea Blvd., and Saguaro Blvd. if the gaps in sidewalk connectivity within these corridors were addressed.

Bicyclists:

- Pavement markings should be more consistent, expanded and improved, clearly identifying bicycle routes and bicycle lanes.
- The public identified Fountain Hills Blvd. as their most frequented bicycle corridor within the Town that needs to be improved; connecting the gap that exists and identifying this corridor through appropriate signage and lane markings.
- The public identified the most popular roadways within the Town for bicycling as Saguaro Blvd., Palisades Blvd., Fountain Hills Blvd., and Fountain Park.
- The public identified that the most popular destination was a ride that returned to their residence.
- Education for motorist, pedestrians and the bicycle community was mentioned during the public meeting and in the written comments provided. This educational component could be emphasized in schools, drivers' education programs and using other organized civic events to educate the public about how to responsibly use and share these multi-modal facilities and increase awareness of other user types.
- The Town should investigate the use and deployment of signage that is energized (blinking lights or other indications) or activated by pedestrians or bicyclists in high traffic areas. This may include the use of Pedestrian Activated Beacon type signals in specific areas of Town.
- Signage identifying lane markings, as well as designating bike lanes and bike routes should be considered in areas where residents currently use streets for multi-modal activities.
- Traffic signal timing should be reviewed so that the timing is conducive to travel for bicyclist and not solely based on automobile traffic.
- Bicycle safety signage at intersections should be a priority, informing both the







Avenue of the Fountains Connection to Fountain Park

motoring public and bicyclists on correct use of the intersection lanes of travel.

MEETINGS

- Town staff bi-weekly check in calls initiated on July 28, 2020 completed in April, 2021
- Public Meeting#1
  - » September 8, 2020 Virtual Meeting
    - Brief presentation overview of ATP
    - Present graphic schedule of ATP process
    - Present existing inventory of Town sidewalks
    - Present existing inventory of Town bikeways
    - Present overview of inventory of existing conditions
    - Introduction to web based survey questions
    - Public comments and public chats on virtual meeting
- Community Services Advisory Board and Planning and Zoning Work Session November 9, 2020
  - » November 13 – 18, 2020 Fall Festival of Fine Arts & Crafts Event
    - Board What is ATP?
    - Board showing graphic schedule
    - Sidewalk Preliminary Priority Maps (enlarged quadrants)
    - Bicycle Preliminary Priority Map (enlarged quadrants)
    - Dot Voting/Post It Notes for sidewalk improvements and bicycle routes
- Public Meeting#2
  - » December 8, 2020 Virtual Meeting
    - Review results from web based survey
    - Review results from Festival of Fine Arts & Crafts event
    - Review of Preliminary Sidewalk Phasing Plan
    - Review of Preliminary Bike Lane and Bike Route Improvement Plan/Approach
    - Public comments and public chats on virtual meeting
- Town Council – January 5, 2021
- Community Services Advisory Board and Planning and Zoning Work Session April, 2021
- Planning and Zoning Commission Approval May, 2021
- Town Council Approval June, 2021

Section 3

Implementation Strategy

Fountain Hills *On The Move*

Implementation Strategy

The Town of Fountain Hills and how it's roadways were developed provides for potential to incorporate walking and bicycling as an integral part of the roadway network with minimized disturbance areas beyond the existing pavement edges if desired.

Section 2 of the plan provides a wealth of information from both an inventory and analysis stage including an extensive public input process. The information gathered included evaluating connections to Scottsdale and Maricopa County parks, evaluating current Town approach towards sidewalk improvements, current Town approach towards its extensive Bikeways, how the Town designates its streets, how published Town documents support the development of an active transportation model, and an evaluation of the Town's pedestrian and bicycle crash data all coupled with an extensive public input process. This thorough inventory and analysis step has allowed the Town to develop a realistic long range implementation approach that addresses sidewalks as well as bicyclist's needs throughout the Town with an ability to realistically estimate the cost for these improvements for future Town budgeting and the flexibility to adapt to current and future needs as they occur.

PROPOSED SIDEWALK FACILITIES

The sequence of sidewalk priorities for these proposed additions grew out of the public's stated desires, the focus on making connections to the highest priority areas, and ultimately alignment with the Town's budget model. The overall approach has been built around providing the Town the flexibility needed to shift emphasis when a situation or circumstance requires a reshuffling of priorities when necessary. The proposed recommendations build upon the success that the Town has already demonstrated using a five (5) year incremental approach. The priority sidewalk additions have been divided into the following priority years:

- **Priority One:** A 5-year plan (Purple) (Grant Projects, Potential Grant Projects, or Town Funded) See figure 14 on page 26
- **Priority Two:** A 10-year plan (Green) See figure 14 on page 26
- **Priority Three:** A 15-year plan (Blue) See figure 14 on page 26
- **Priority Four:** A to be determined gap connection plan (Pink) See figure 14 on page 26
- **Urban Trails** (Gold on the map with existing trails a solid line; proposed, a dashed line) See figure 14 on page 26

Major Collector Existing Pavement

Major Collector Proposed Pavement Reduction

SIDEWALK IMPLEMENTATION APPROACH

The initial key projects would include:

1 Complete sidewalk gaps to Fountain Park from Residential and Commercial

- Palisades sidewalk gap elimination
- Saguaro Blvd. gap elimination
- Fountain Hills Blvd. gap elimination
- Shea Blvd. widening improvements will include sidewalks

The Town has focused on procuring grants for Palisades Blvd. and Saguaro Blvd. for sidewalk gap elimination to connect residents to Fountain Park. Palisades Blvd, Avenue of the Fountains, and Saguaro Blvd. serve as main vessels to connect residents to the Fountain Park. These major roadways are also adjacent to grocery stores and other commercial developments. Current grant funding for Shea Blvd. widening will provide sidewalk along Shea Blvd. between Palisades Blvd. and Technology Dr. Shea Blvd. has been an ongoing improvement project for the Town.

1b Focus on Town Arterials and Town Collectors due to high usage and connectivity to Town residential areas

- Close all remaining sidewalk gaps along Saguaro Blvd. between E. Kiwanis Dr. and Shea Blvd.
- Close sidewalk gap along the south side of Fountain Hills Blvd. between E. Fayette Dr. and E. Ashbrook Dr.

2 Complete the sidewalk gaps in the downtown

- Close sidewalk gaps along E. Parkview Ave. between Saguaro Blvd. and N. La Montana Dr.
- Close sidewalk gaps along N. Verde River Dr. between Palisades Blvd. and E. Ave. of the Fountains
- Close sidewalk gaps along N. La Montana Dr. between Palisades Blvd. and E. Ave. of the Fountains
- Extend sidewalk through the Town owned undeveloped parcel west of the intersection of N. Verde River Dr. and Paul Nordin Pkwy. Extend sidewalk into the community center library and museum plaza area.

2b Complete the sidewalk gaps around Four Peaks Neighborhood Park, Boys and Girls Club

- Initiate sidewalk along west side of N. El Pueblo Blvd. from near the intersection with E. Calico Dr. to N. Fountain Hills Blvd. Note - this connection will also complete part of the Urban Trail Designated Route.
- Add spoke connections from school/4 Peaks Park to N. El Pueblo Blvd. along E. Calaveras Ave. and N. El Sobrante Ave.
- Close sidewalk gap along E. Grande Blvd. south side of the street between just west of Arrowweed Dr. and N. El Pueblo Blvd.

Minor Arterial Existing Pavement

Minor Arterial Proposed Pavement Reduction

- Add stub connections into surrounding neighborhoods east of N. El Pueblo Blvd. at E. San Marcus Dr. and N. Bahia Blvd.
- Close all remaining sidewalk gaps along Fountain Hills Blvd. between E. Segundo Dr. and Shea Blvd.

2c Complete the sidewalk gaps around Desert Vista Park

- Connect northern side of existing park sidewalk between N. Tower Dr. on the west and Desert Vista on the east. Note - grade change along this route will require retaining walls. Note - this connection will also complete part of the Urban Trail Designated Route.

3 Complete the sidewalk gaps around McDowell Mountain School, Fountain Hills High School, and Golden Eagle Park

- Initiate sidewalk along E. Glenbrook Blvd. between N. Fountain Hills Blvd. and E. Bainbridge Ave. Note - this connection will also complete part of the Urban Trail Designated Route.
- Complete gap in sidewalk along west side of N. Fountain Hills Blvd. between E. Oxford Pl. and E. Fayette Dr. Note - this connection will also complete part of the Urban Trail Designated Route.
- Add spoke connections between E. Fayette Dr. and E. Glenbrook Blvd. along N. Greenhurst Ave.
- Consider direct connection to Morningside at Lakeside Village development. The Town's Community Services Department has received several requests from residents of Morningside at Lakeside Village development located north of the park about the possibility of making a more direct connection from the park site to their development. This direct connection to the north crosses an existing wash that is shallower the further east you go. This direct park connection could be completed from two different routes. The first connection, and potentially the least disruptive, would be to connect a trail from the end of E. Teal Dr. at the existing cul-de-sac turning south towards the park. The second option for a connection would be through an existing utility/drainage easement (parcel 176-076-509) between developed parcels 176-07-49 and parcel 176-07-499. The crossing of the existing wash in either location would have to be evaluated and approved by FEMA. Colony Wash in this area is designated as a floodway, but it appears that the wash crossing could be either a low water crossing (easier further east) or it may require a pedestrian bridge dependent upon flows within the wash, the depth of the wash, ADA and other impacts. With either option, it would require dedicating an access easement on

Local Street Existing Pavement

Local Street Proposed Pavement Reduction

either parcel 176-07-509 or parcel 176-07-507 from the HOA. This easement would allow pedestrian access through either of these existing parcels and create a direct connection between the residential developments to the park.

4 Focus on some of the significant east west connections within the Town

The significant east west streets within the Town of Fountain Hills that should be considered for sidewalk additions and/or street designations for pedestrians include, but are not limited to, the following:

- E. El Lago Blvd.
- E. Thistle to Ironwood Dr.
- E. Palomino Blvd.
- E. Kingstree Blvd.
- E. Trevino Dr.
- E. Nicklaus Dr. to N. Indian Wells Dr.
- E. Inca Ave. and N. Inca Ave.
- E. Hawk Dr.
- E. Arroyo Vista Dr. and N. Arroyo Vista Dr.

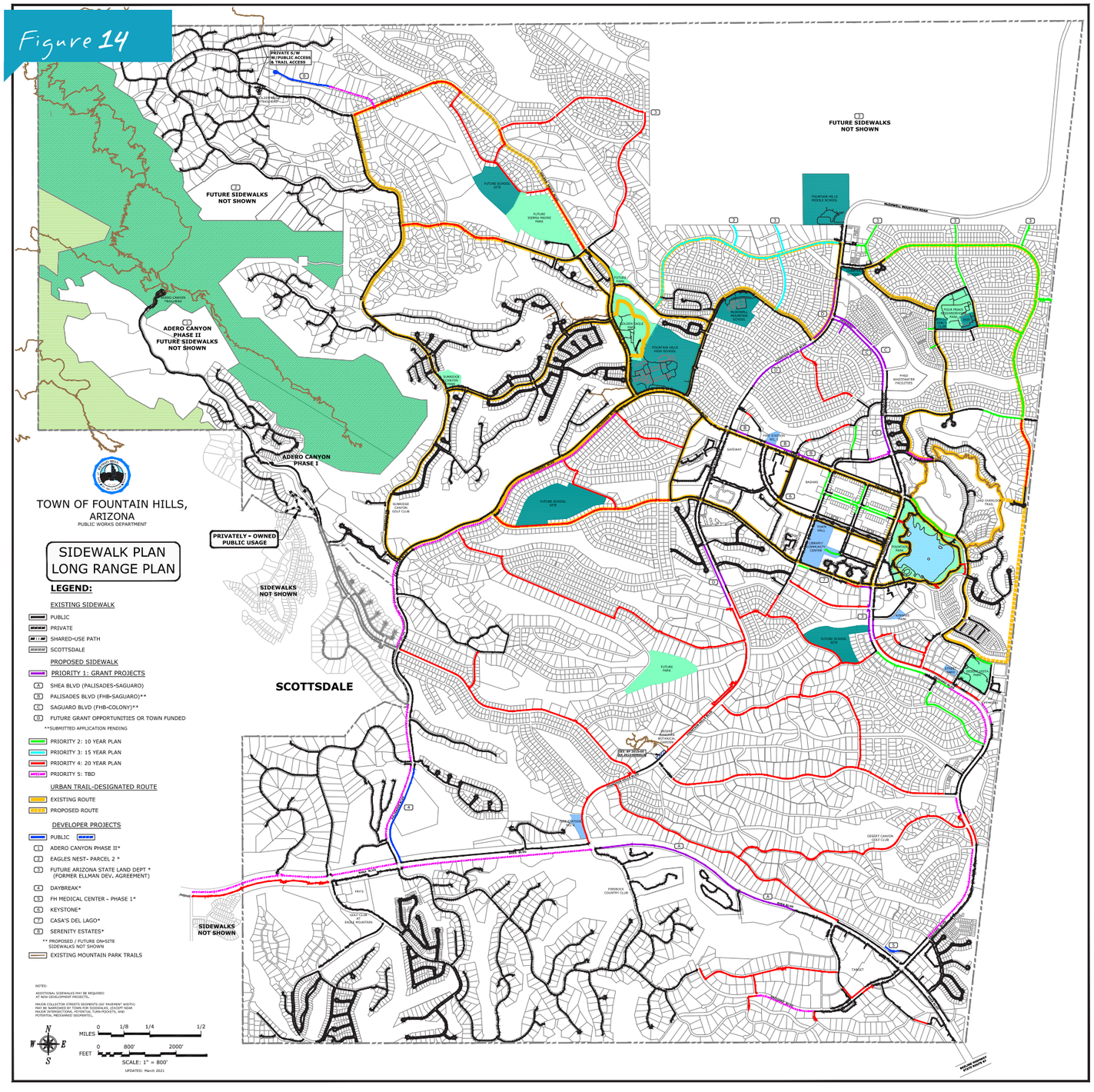
4b Focus attention on the Northwestern part of the Town and the areas south of Shea Blvd inline with the balance of sidewalk connections.

The significant roadways in the northwest part of Town include the following:

- E. Golden Eagle Blvd. Note - this connection will also complete part of the Urban Trail Designated Route.
- N. Aspen Dr.
- E. Sierra Madre Dr.
- N. Boulder Dr.
- E. Richwood Blvd.

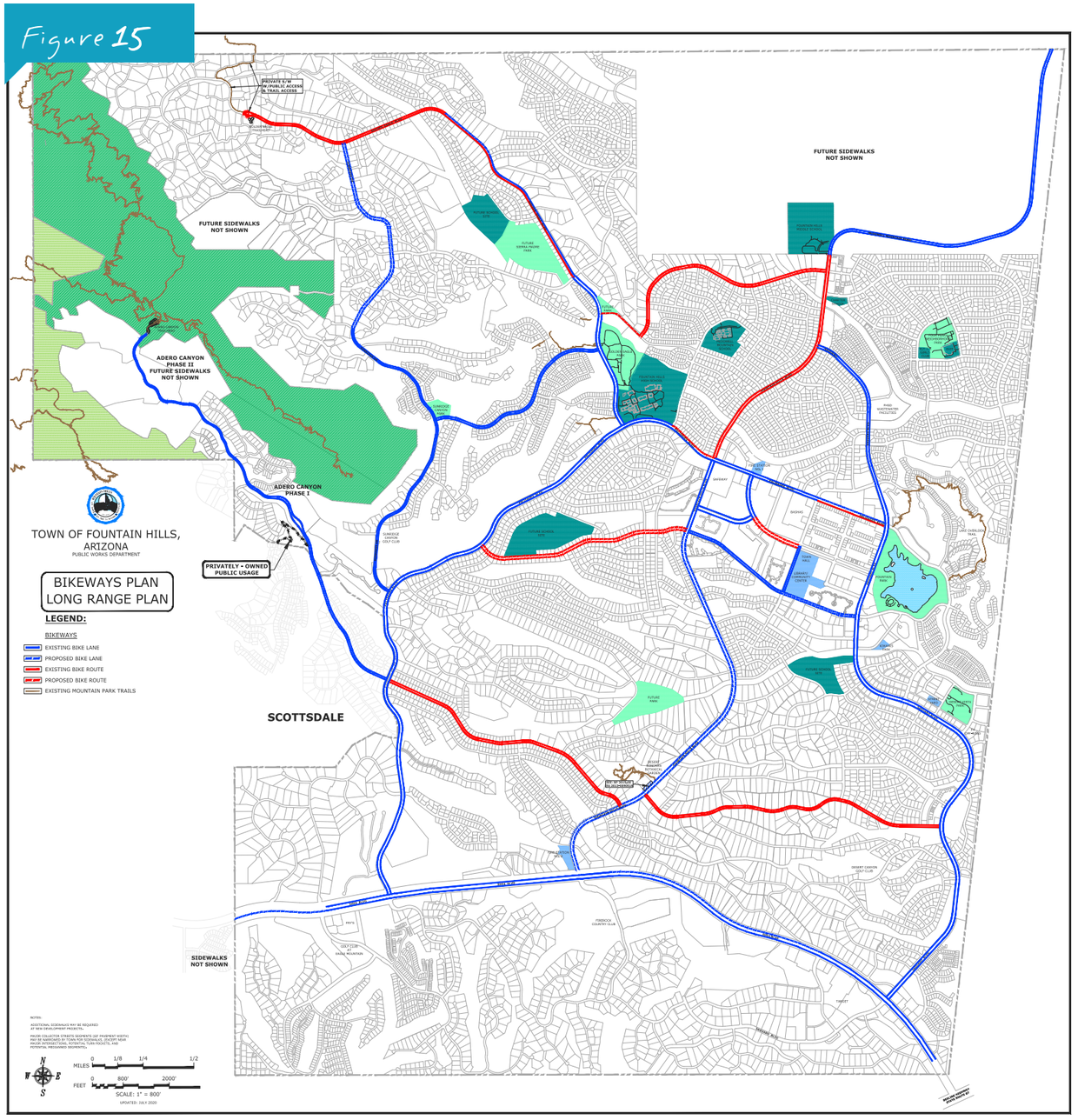
See Pages 29 and 30 for Map Enlargements

Figure 14



See Pages 31 and 32 for Map Enlargements

Figure 15



Existing Conditions

Simulation of Sidewalk Addition

Simulation of Sidewalk Addition

The significant roadways south of Shea Blvd. include the following:

- N. Saguaro Blvd.
- E. Laser Dr. to E. Tombstone Ave (See figure 14 on previous page)

APPROACH TO MAINTAINING TOWN STANDARDS FOR BICYCLE FACILITIES

The Town has done an excellent job, where space permits, of incorporating and including bike lanes and bike routes into their existing street infrastructure. The Town tries to implement the Maricopa Association of Governments' recommendations of bike lane widths:

- Where adjacent to on street parking providing 5 feet minimum
- Where adjacent to curb with gutter providing 4 feet minimum (exclusive of gutter)
- Where additional space is available, buffers should be considered

The recommended improvements to the Town's existing bike lanes and bike routes are focused on closing several gaps along Fountain Hills Blvd. and consistently applying the use of Manual on Uniform Traffic Control Devices (MUTCD) and/or National Association of City Transportation Official (NACTO) signage and striping protocols on all of the existing bike lanes and bike routes that exist within the Town.

The signage and striping protocols currently in use throughout the Town provide motorists and bicyclists with established lanes for use and help with general awareness, with a primary goal of reducing

conflicts between automobiles and bicycles. Green pavement markings, not currently in use within the Town, have received FHWA approval and are being more commonly used in situations where conflicts between motorists and bicyclists, such as where a motorists must cross over a bike lane to make a right turn, or through an intersection. The use of these materials provides additional benefits that includes reflectivity, assisting in identifying these conflict areas in the early morning or evening hours. Utiliztion of the green paint or clearly identifiying the various travel ways are options the Town can evaluate. It should be noted that Town Maintenance staff does have concerns with the longevity, costs, and maintenance of the colored pavement therefore the use of this method will need to be evaluted based on specific location need and available funding. (See Figure 15 on previous page.)

APPROACH TO ESTABLISHING TOWN STANDARDS FOR SIDEWALK FACILITIES

Sidewalk additions will follow current Town Standards, per Article 3 of the Subdivision Ordinance, of providing a Maricopa Association of Governments (MAG) standard 8'-0" wide concrete sidewalk for arterials, 6'-0" wide concrete sidewalk for collectors and 5'-0" minimum on hillsides. The sidewalk should always maintain a five-foot unobstructed width where circumstances dictate a different width to the standard stated above. All sidewalks will be designed to comply with the latest edition of Americans with Disabilities Act (ADA). When a sidewalk addition is adjacent to any vertical drop of equal to or greater than 30" a safety rail will be provided, however the safety rail should not obstruct the stated sidewalk width standards.

IMPLEMENTATION STRATEGY

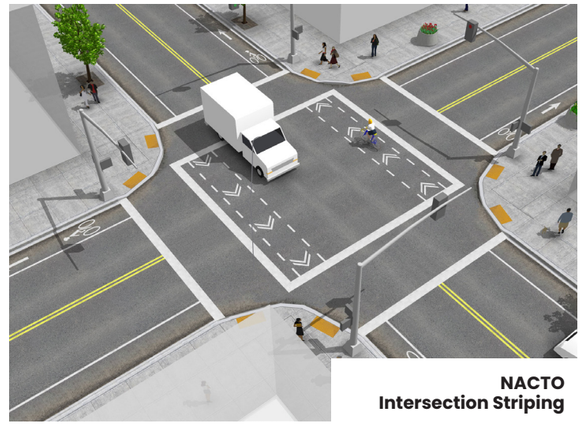
The Town's focus remains centered upon updating the Long Range Sidewalk Plan and Bike Plans. The emphasis on improving the bike lanes and bike routes will be focused on closing the gaps on Fountain Hills Blvd. and improving the consistency of bicycle lane and route signage and pavement markings throughout the Town. Such attention includes focusing on adding approved bike markings in streets with bike lanes and bike routes signage and lane markings at the major intersections within the Town.

The focus of the sidewalk improvements will be to radiate improvements out from the central core business district of downtown and the areas around Fountain Park. The Town would then shift the focus to areas around the existing schools and parks so that safe routes to schools are connected and developed and park access is improved. This approach will provide the Town with a level of focus that is concentrated in these specific areas ensuring that the highest levels of connectivity are being evaluated and met around each of these targeted areas. This focused approach will provide the Town the flexibility needed to pivot and address any other areas within the Town and how that refocus would connect into and become a part of the overall active transportation network.

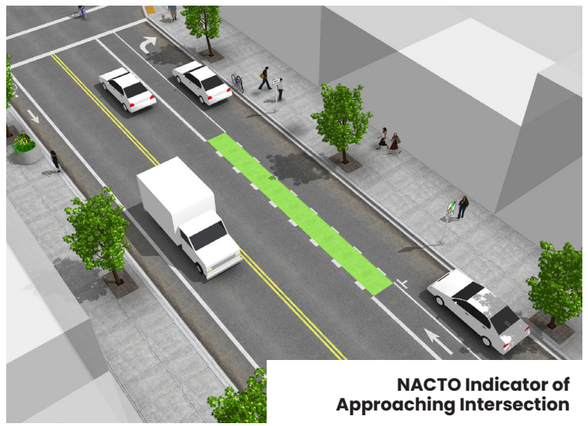
The areas of emphasis for sidewalks were developed with a focus on several key characteristics that include the following:

- Concentrate energies and budgets to close gaps in pedestrian connections surrounding Fountain Park.
- Focus within the Downtown Core area making the existing commercial district accessible and truly multimodal.
- Continue to look for connections to the existing schools and parks within the Town so that students and parents have connected routes for walking to and from school and the local parks.
- Examine how connectivity in areas of highest population density can be improved.
- Concentrate within each area on making connections within and to the surrounding minor arterials that serve as the backbone of the transportation infrastructure network of the Town.
- Radiate improvements and connectivity outwards from the Downtown Core area and school and park routes to other areas of the Town. Ensure that the Town's existing collector roadway system is improved to accommodate pedestrians and bicyclists. Focus first within the existing collector roadway pavement areas, where feasible, and transition outward beyond the existing pavement edges only where grading or impact to the surrounding development is minimized.

Examine connectivity to and around the Town's existing trail heads to improve access to those recreational activities by residents. (See figures 16a, 16b, 17a, and 17b on following pages.)

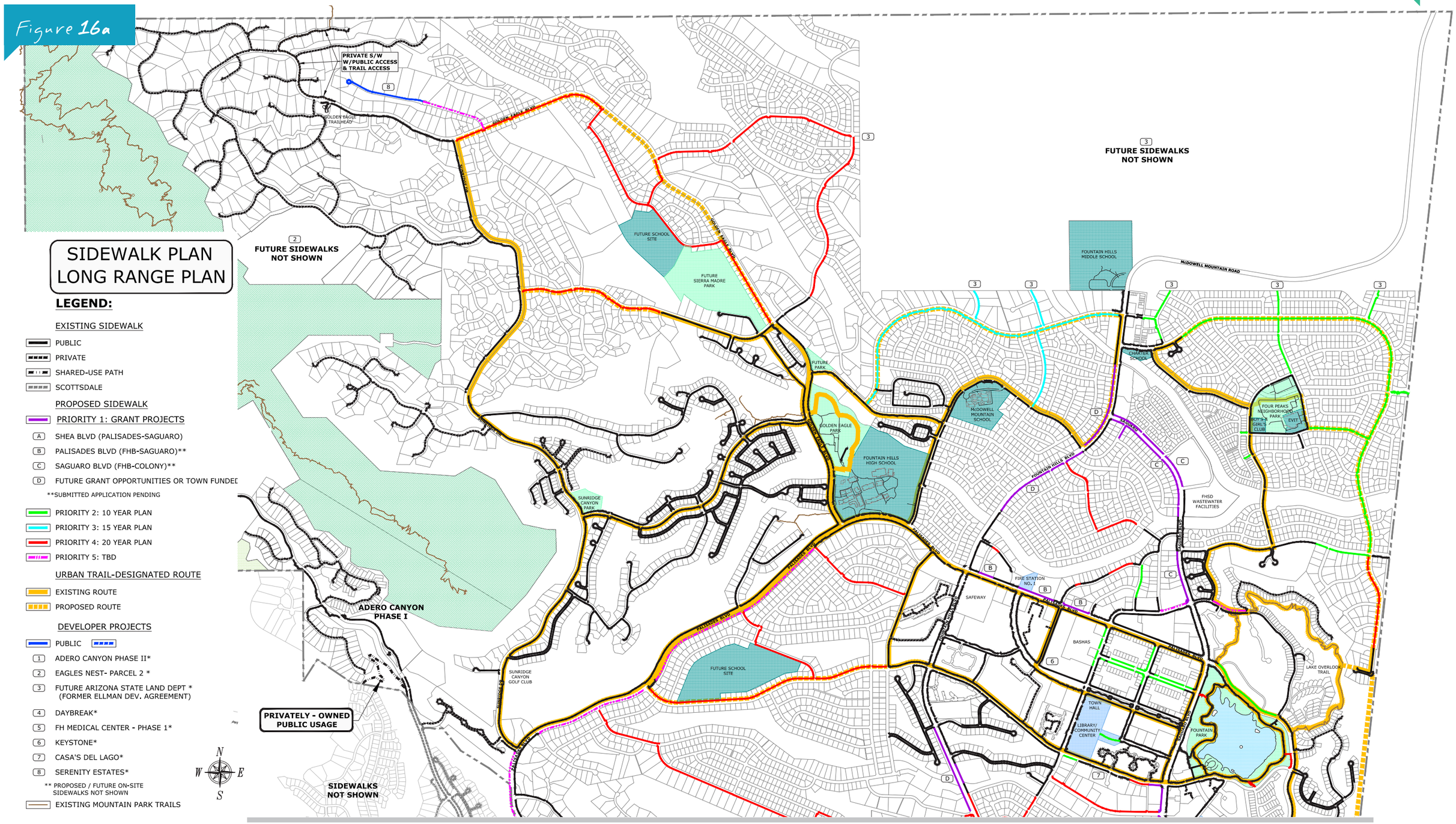


NACTO Intersection Striping



NACTO Indicator of Approaching Intersection

Figure 16a



Match Line - See Figure 16B

Figure 16b

Match Line - See Figure 16A

SIDEWALK PLAN LONG RANGE PLAN

LEGEND:

EXISTING SIDEWALK

- PUBLIC
- PRIVATE
- SHARED-USE PATH
- SCOTTSDALE

PROPOSED SIDEWALK

PRIORITY 1: GRANT PROJECTS

- A SHEA BLVD (PALISADES-SAGUARO)
- B PALISADES BLVD (FHB-SAGUARO)**
- C SAGUARO BLVD (FHB-COLONY)**
- D FUTURE GRANT OPPORTUNITIES OR TOWN FUNDED

**SUBMITTED APPLICATION PENDING

- PRIORITY 2: 10 YEAR PLAN
- PRIORITY 3: 15 YEAR PLAN
- PRIORITY 4: 20 YEAR PLAN
- PRIORITY 5: TBD

URBAN TRAIL-DESIGNATED ROUTE

- EXISTING ROUTE
- PROPOSED ROUTE

DEVELOPER PROJECTS

- PUBLIC
- 1 ADERO CANYON PHASE II*
- 2 EAGLES NEST- PARCEL 2 *
- 3 FUTURE ARIZONA STATE LAND DEPT * (FORMER ELLMAN DEV. AGREEMENT)
- 4 DAYBREAK*
- 5 FH MEDICAL CENTER - PHASE 1*
- 6 KEYSTONE*
- 7 CASA'S DEL LAGO*
- 8 SERENITY ESTATES*

** PROPOSED / FUTURE ON-SITE SIDEWALKS NOT SHOWN

- EXISTING MOUNTAIN PARK TRAILS

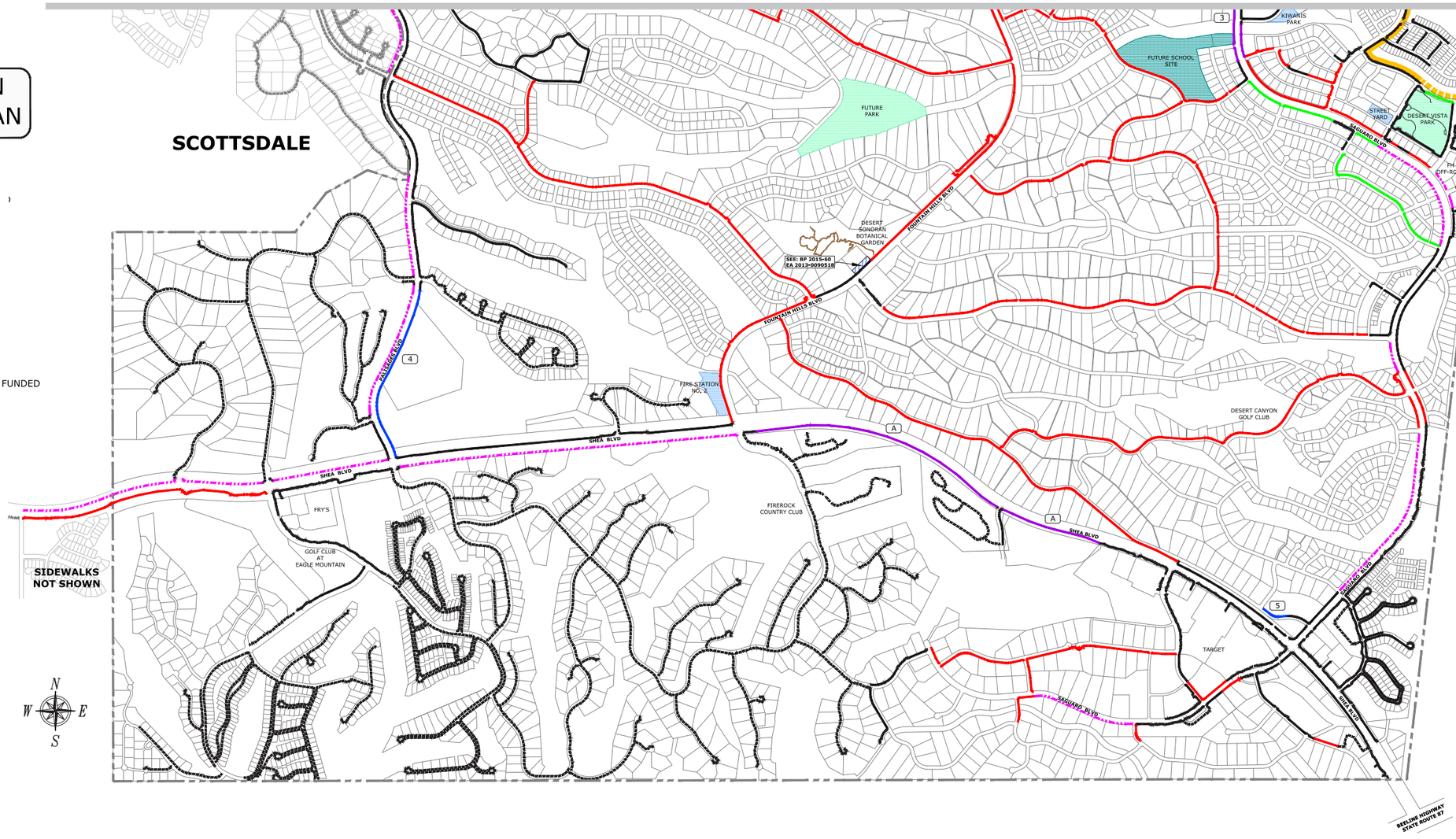
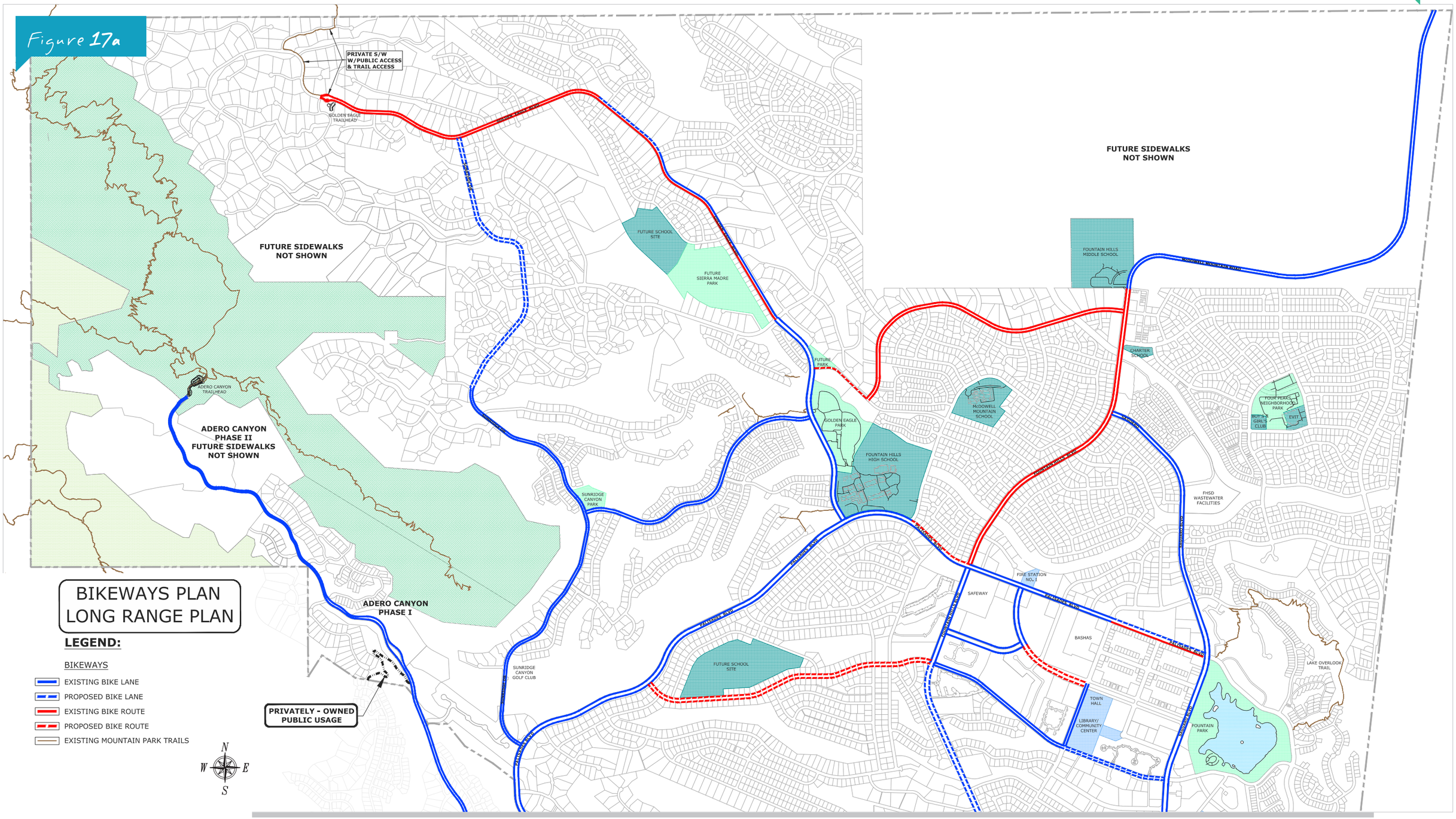


Figure 17a



Match Line - See Figure 17B

Figure 17b

BIKEWAYS PLAN
LONG RANGE PLAN

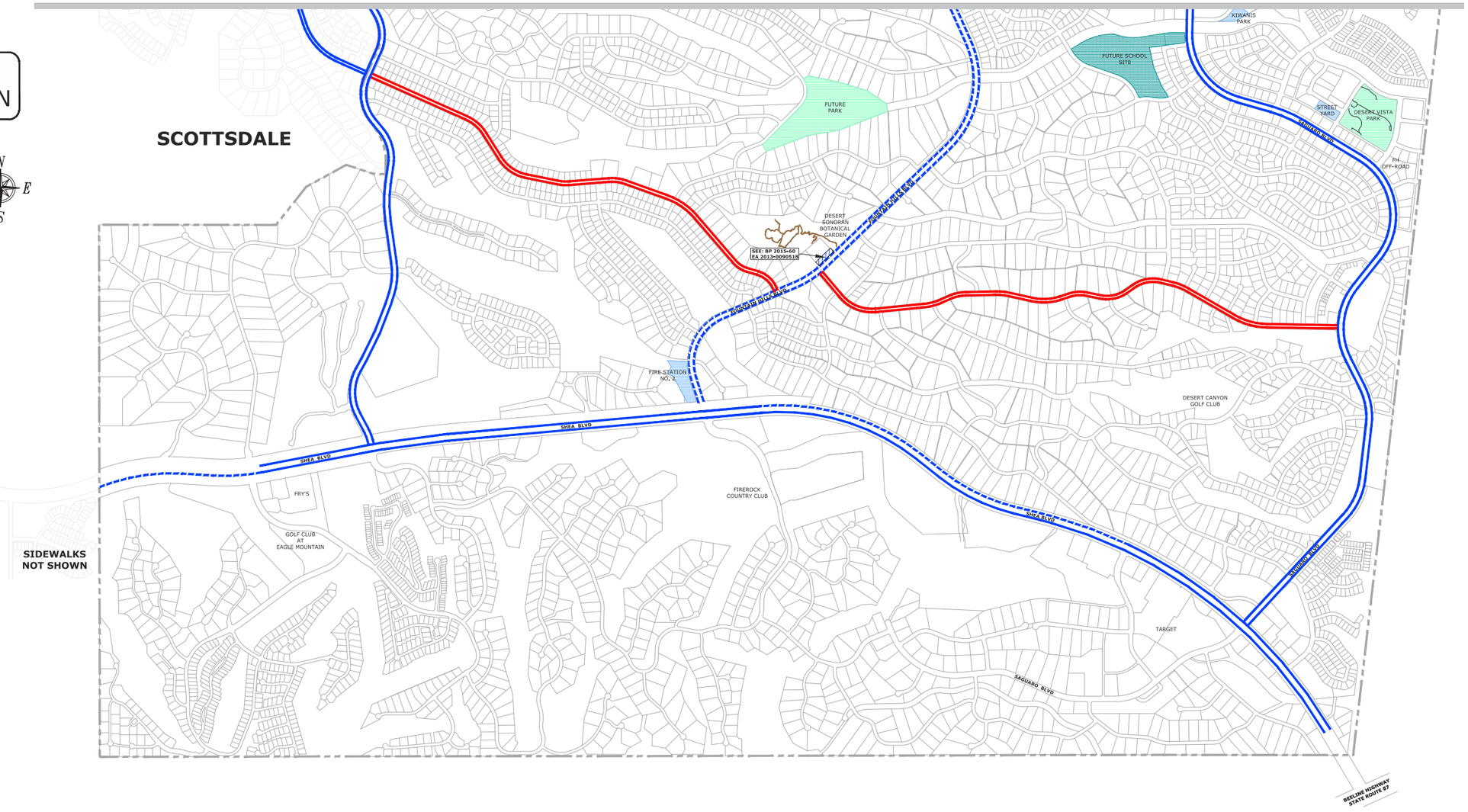
LEGEND:

BIKEWAYS

- EXISTING BIKE LANE
- PROPOSED BIKE LANE
- EXISTING BIKE ROUTE
- PROPOSED BIKE ROUTE
- EXISTING MOUNTAIN PARK TRAILS

N W E S

Match Line - See Figure 17A



TYPICAL COSTS EVALUATION

This plan has developed a series of templates for use by Town officials for estimating probable construction costs associated with installing sidewalks and signing and striping routes for bicyclists. The cost templates do not take into consideration any land acquisition costs or the costs associated with establishing any legal easements. These were not taken into consideration as all work is targeted to occur within the Town's existing right of way and existing street development envelopes. The templates have been established so that Town personnel can utilize these cost estimating templates to assist in establishing Capital Improvement Program (CIP) budgets for future sidewalk and bicycle lane and bicycle route improvements. The estimates include a Cost of Living Adjustment (COLA) that has been established at 3% per year. The estimates also include several design contingency percentages that provide cost for design, construction unknowns, as well as establishing and accommodating owner directed changes or modifications associated with each project.

There is a template for each of the following scenarios: (See figure 18)

- **Street Narrowing for Minor Arterials:** This applies to existing roadways with an established pavement width of between 72'-80' as measured between existing backs of curbs. The roadways for this possibility would not have any medians. These would allow for a roadway narrowing that would accommodate five (5) lanes of automobile traffic plus on street parking and/or bike lanes and new curb and gutter with a new, separated, concrete sidewalk. The space available within these existing parameters after narrowing would include a separated concrete sidewalk width of approximately eight (8) feet. (See figure 18)
- **Street Narrowing for Major Collectors:** This applies to existing roadways with an established pavement width of between 48'-64' as measured between existing backs of curbs. The roadways for this possibility would not have any medians. These would allow for a roadway narrowing that would accommodate three (3) lanes of automobile traffic plus on-street parking and/or bike lanes, new curb and gutter with a new, separated, concrete sidewalk. The space available within these existing parameters, after narrowing, would include an 8ft wide detached sidewalk with a landscape separation buffer (4-8ft in width) on either side of the sidewalk. (See figure 18)
- **Street Narrowing for Local Streets:** This applies to existing roadways with an established pavement width of between 28'-36' as measured between existing backs of curbs. The roadways for this possibility would not have any medians. These would allow for a roadway narrowing that would accommodate two (2) lanes of automobile traffic, a new curb and gutter with a new, separated, concrete sidewalk. The space available within these existing parameters after narrowing would include a separated concrete sidewalk width of approximately

Figure 18

Fill In All Yellow Highlighted Cells This Template Identified for very limited areas only where ...ls. This Template Identified for very limited areas only where ...d outside of the existing roadway pavement envelope

...IP - Cost Template Town of Fountain Hills
New MAG Concrete Sidewalk
(Identify Section/Location of TOFH Sidewalk)
OPINION OF PROBABLE CONSTRUCTION COST
Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 8 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	$0.00
2.00	Site Demolition Industry Standard Percentage of Total SF Typical Street Pavement	%	0.00	5.00%	$0.00
3.00	Complex Earthwork Due to Town of Fountain Hills Slope - Subgrade Prep for New Sidewalk Area	CY	0.00	$16.00	$0.00
4.00	Compacted Side Slopes, assume 1.5' depth, 4:1 side slope	CY	0.00	$16.00	$0.00
5.00	Landscape and Irrigation Restoration Along Edge of Sidewalk Restoration Extends Out 4 Feet from SW Edge	SF	0.00	$3.00	$0.00
	Determine Sidewalk Pathway Length in Miles	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	New Concrete Sidewalk 6' Width	FT	6	NA	NA
6.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	$0.00
7.00	Shared Use Signage & Wayfinding (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	$0.00
8.00	Retaining Wall (Concrete Footing, CMU Block Less Than 30" Height) (Field Verify Length)	LF		$110.00	$0.00
9.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	$0.00
10.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		$0.00
11.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		$0.00
12.00	Removes and Relocate Residential Obstructions Allowance (Mailbox, Lighting, Riprap, Etc.) (Field Verify Amount)	LS	1.00		$0.00
13.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	$0.00
				Sub-Total Direct Project Costs	$0.00
Indirect Costs					
14.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
15.00	Design Contingency	10.00%	NA	$0.00	$0.00
16.00	Construction Contingency	5.00%	NA	$0.00	$0.00
17.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
18.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
19.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	$0.00
20.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	$0.00
21.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	$0.00
22.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
23.00	Owner Contingency	10.00%	NA	$0.00	$0.00
				Sub-Total Indirect Project Costs	$0.00
				Sub-Total Potential Project Costs Direct and Indirect	$0.00
				Cost of Living Adjustment (COLA) applied at 3% per year	$0.00
				Total Potential Project Costs Direct, Indirect & COLA	$0.00

Note: Cost of Sidewalk System does not include any costs or fees associated with new curb and gutter, street improvements, land costs, easements or legal fees. This cost is for MAG Concrete sidewalk installation only and repair or replacement of adjacent driveways and landscape. Landscape Restoration includes reconnected/repair of existing drip irrigation if present, supply and placement of new granite, and minimal new plantings to replace plants that may be disturbed or disrupted due to construction.

4/26/2021 1 of 14 OPINION OF PROBABLE COS

Fill In All Yellow Highlighted Cells This Template Identified for Fountain Hills Blvd., for most of the length north of Palisades; Saguaro, north of La Montana and others that meet dimensions & Town requirements

Establishing A CIP - Cost Template Town of Fountain Hills
Street Narrowing for Minor Arterials
± 72' - 80' Wide Corridors to Back of Existing Curb No Median
Provide for Five (5) Lanes of Automobile Traffic Plus Parking and/or Bike Lanes and New Curb Separated Sidewalk
(Identify Section/Location of TOFH Minor Arterial Street Narrowing)
OPINION OF PROBABLE CONSTRUCTION COST
Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 8 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	$0.00
	Determine Street Narrowing Project Length in Miles or Decimals of a Mile	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	Pedestrian Area Narrow Existing Roadway Width	FT	8	NA	NA
2.00	Sawcut and Remove Existing Asphalt for Eight (8) Foot Sidewalk Addition	SY	0.00	$16.00	$0.00
3.00	Sawcut and Remove Existing Curb and Gutter	LF	0.00	$8.00	$0.00
4.00	Earthwork Grading Raising Existing Grade of Removal Area for Sidewalk by 4" Depth	CY	0.00	$16.00	$0.00
5.00	New Concrete Curb and Gutter Per MAG Standard Vertical Curb and Gutter (Detail #220-1 Type A)	LF	0.00	$30.00	$0.00
6.00	Replace Two (2) Feet of Adjacent Asphalt Paving Including ABC	SY	0.00	$40.00	$0.00
7.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	$0.00
8.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	$0.00
9.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		$0.00
10.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		$0.00
11.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	$0.00
12.00	Signage (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	$0.00
13.00	Pavement Markings and Striping	LF	0.00	$0.50	$0.00
14.00	Landscape Enhancement Disturbed R/W - New Strip of Decomposed Granite and Native Seeding If Appropriate	SF	0.00	$1.25	$0.00
				Sub-Total Direct Project Costs	$0.00
Indirect Costs					
15.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
16.00	Design Contingency	10.00%	NA	$0.00	$0.00
17.00	Construction Contingency	5.00%	NA	$0.00	$0.00
18.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
19.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
20.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	$0.00
21.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	$0.00
22.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	$0.00
23.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
24.00	Owner Contingency	10.00%	NA	$0.00	$0.00
				Sub-Total Indirect Project Costs	$0.00
				Sub-Total Potential Project Costs Direct and Indirect	$0.00
				Cost of Living Adjustment (COLA) applied at 3% per year	$0.00
				Total Potential Project Costs Direct, Indirect & COLA	$0.00

Note: Cost of Roadway Reduction Design does not include any costs or fees associated with land costs, easements or legal fees. All work is intended to occur within existing street pavement widths. Landscape cost is only for a four foot (4') strip of new standard size granite along pavement edge and if needed native seeding as appropriate.

4/26/2021 2 of 14 OPINION OF PROBABLE COST

Fill In All Yellow Highlighted Cells This Template Identified for Kingstree, Palomino, El Lago, Verde River, Parkview, Glenbrook, El Pueblo; Golden Eagle (northwest of Sierra Madre/Boulder) and others that meet the dimensions & Town requirements

Establishing A CIP - Cost Template Town of Fountain Hills
Street Narrowing for Major Collectors
± 48'- 64' Wide Corridors to Back of Existing Curb No Median
Provide for Three (3) Lanes of Automobile Traffic Plus Parking and/or Bike Lanes and New Curb Separated Sidewalk
(Identify Section/Location of TOFH Major Collector Street Narrowing)
OPINION OF PROBABLE CONSTRUCTION COST
Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 16 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	$0.00
	Determine Street Narrowing Project Length in Miles or Decimals of a Mile	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	Pedestrian Area Narrow Existing Roadway Width	FT	16	NA	NA
2.00	Sawcut and Remove Existing Asphalt for Eight (16) Foot Sidewalk Addition	SY	0.00	$16.00	$0.00
3.00	Sawcut and Remove Existing Curb and Gutter	LF	0.00	$8.00	$0.00
4.00	Earthwork Grading Raising Existing Grade of Removal Area for Sidewalk by 4" Depth	CY	0.00	$16.00	$0.00
5.00	New Concrete Curb and Gutter Per MAG Standard Vertical Curb and Gutter (Detail #220-1 Type A)	LF	0.00	$30.00	$0.00
6.00	Replace Two (2) Feet of Adjacent Asphalt Paving Including ABC	SY	0.00	$40.00	$0.00
7.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	$0.00
8.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	$0.00
9.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		$0.00
10.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		$0.00
11.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	$0.00
12.00	Signage (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	$0.00
13.00	Pavement Markings and Striping	LF	0.00	$0.50	$0.00
14.00	Landscape Enhancement Disturbed R/W - New Strip of Decomposed Granite and Native Seeding If Appropriate	SF	0.00	$1.25	$0.00
				Sub-Total Direct Project Costs	$0.00
Indirect Costs					
15.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
16.00	Design Contingency	10.00%	NA	$0.00	$0.00
17.00	Construction Contingency	5.00%	NA	$0.00	$0.00
18.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
19.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
20.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	$0.00
21.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	$0.00
22.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	$0.00
23.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
24.00	Owner Contingency	10.00%	NA	$0.00	$0.00
				Sub-Total Indirect Project Costs	$0.00
				Sub-Total Potential Project Costs Direct and Indirect	$0.00
				Cost of Living Adjustment (COLA) applied at 3% per year	$0.00
				Total Potential Project Costs Direct, Indirect & COLA	$0.00

Note: Cost of Roadway Reduction Design does not include any costs or fees associated with land costs, easements or legal fees. All work is intended to occur within existing street pavement widths. Landscape cost is only for a four foot (4') strip of new standard size granite along pavement edge and if needed native seeding as appropriate.

4/26/2021 3 of 14 OPINION OF PROBABLE COST

Fill In All Yellow Highlighted Cells This Template Identified for multiple streets that meet the dimensions & Town requirements

Establishing A CIP - Cost Template Town of Fountain Hills
Street Narrowing for Local Streets
± 28' - 36' Wide Corridors to Back of Existing Curb No Median
Provide for Two (2) Lanes of Automobile Traffic and New Curb Separated Sidewalk
(Identify Section/Location of TOFH Local Street Narrowing)
OPINION OF PROBABLE CONSTRUCTION COST
Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 8 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	$0.00
	Determine Street Narrowing Project Length in Miles or Decimals of a Mile	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	Pedestrian Area Narrow Existing Roadway Width	FT	8	NA	NA
2.00	Sawcut and Remove Existing Asphalt for Eight (8) Foot Sidewalk Addition	SY	0.00	$16.00	$0.00
3.00	Sawcut and Remove Existing Curb and Gutter	LF	0.00	$8.00	$0.00
4.00	Earthwork Grading Raising Existing Grade of Removal Area for Sidewalk by 4" Depth	CY	0.00	$16.00	$0.00
5.00	New Concrete Curb and Gutter Per MAG Standard Vertical Curb and Gutter (Detail #220-1 Type A)	LF	0.00	$30.00	$0.00
6.00	Replace Two (2) Feet of Adjacent Asphalt Paving Including ABC	SY	0.00	$40.00	$0.00
7.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	$0.00
8.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	$0.00
9.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		$0.00
10.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		$0.00
11.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	$0.00
12.00	Signage (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	$0.00
13.00	Pavement Markings and Striping	LF	0.00	$0.50	$0.00
14.00	Landscape Enhancement Disturbed R/W - New Strip of Decomposed Granite and Native Seeding If Appropriate	SF	0.00	$1.25	$0.00
				Sub-Total Direct Project Costs	$0.00
Indirect Costs					
15.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
16.00	Design Contingency	10.00%	NA	$0.00	$0.00
17.00	Construction Contingency	5.00%	NA	$0.00	$0.00
18.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
19.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	$0.00
20.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	$0.00
21.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	$0.00
22.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	$0.00
23.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	$0.00
24.00	Owner Contingency	10.00%	NA	$0.00	$0.00
				Sub-Total Indirect Project Costs	$0.00
				Sub-Total Potential Project Costs Direct and Indirect	$0.00
				Cost of Living Adjustment (COLA) applied at 3% per year	$0.00
				Total Potential Project Costs Direct, Indirect & COLA	$0.00

Note: Cost of Roadway Reduction Design does not include any costs or fees associated with land costs, easements or legal fees. All work is intended to occur within existing street pavement widths. Landscape cost is only for a four foot (4') strip of new standard size granite along pavement edge and if needed native seeding as appropriate.

4/26/2021 4 of 14 OPINION OF PROBABLE COST

eight (8) feet. (See figure 18)

- **Sidewalk addition outside of Roadway Envelope:** This template provides a cost comparison relative to developing a new sidewalk within the Town right-of-way, but outside of the existing roadway pavement. The cost to develop these sidewalks will be higher relative to the narrowing scenarios presented in the other templates. The reason for the potential higher cost is directly related to the removal and relocation of residential obstructions that have been erected within the right-of-way (mailboxes, landscape, irrigation systems, etc.) and includes costs associated with possible retaining walls, utility relocations (water meters, gas meters, etc.) and drainage improvements outside of the existing pavement envelope. The inclusion of these costs and their potential impacts will increase the cost associated with adding sidewalks in areas outside of the street pavement. The template for this effort would include a separated concrete sidewalk width of approximately six (6) feet (See figure 18).

The templates have been established to function as described below.

The idea is that the Town and or a Town hired Consultant would have to fill in the cells with yellow highlights. These cells would include the following information:

- Identifying the location where the sidewalk or bicycle facility addition is to occur.
- Determining the length of the sidewalk or bicycle facility addition in decimals of a mile based upon measuring from the Town GIS data base, Google Earth images or field measurements.
- Determining the Concrete Driveway impacts (if needed) as measured based upon measuring from the Town GIS data base, Google Earth images or field measurements.
- Creating an allowance for Utility Relocations based upon Town GIS data base, Google Earth images or field observations (note no potholing included).
- Creating an allowance for Drainage Improvements based upon Town GIS data base, Google Earth images or field observations.
- Creating an allowance for updating or adding ADA Ramps at Corner or Mid-Block crossings based upon Town GIS data base, Google Earth images or field observations.

Additional information as part of the templates:

The template for sidewalk addition, outside of existing roadway improvements, includes allowances that would have to be estimated for potential retaining walls, utility relocations, drainage improvements and the removal and relocation of existing residential obstructions that have been erected within the Town's right-of-way. Establishing the anticipated year targeted for construction so the correct COLA can be applied to the construction must be entered into the templates. And finally, the sales tax percentage must be determined for each year. The current template includes the 2020 sales tax percentage.

Each spreadsheet template calculation includes a conservative projected construction cost and provides the Town with cost estimates that can be used to establish a current or future CIP budget.

Based on priorities of the Town for implementation of improvements the following seven (7) projects have been identified:

(1) Saguaro Blvd: (See figure 1 page vi)

Desert Vista to El Lago

La Montana Dr to Fountain Hills Blvd

(2) Palisades Blvd: (See figure 2 page vi)

Almont Dr to Ave of the Fountains

(3)Downtown Improvements (See figure 3 page vi)

(4) El Pueblo Blvd: (See figure 4 page vii)

Ivory Dr to Grande Blvd - including:

Grande Blvd:

Arrowweed Dr to EL Pueblo Blvd

Calaveras Ave:

Council Ct to El Pueblo Blvd

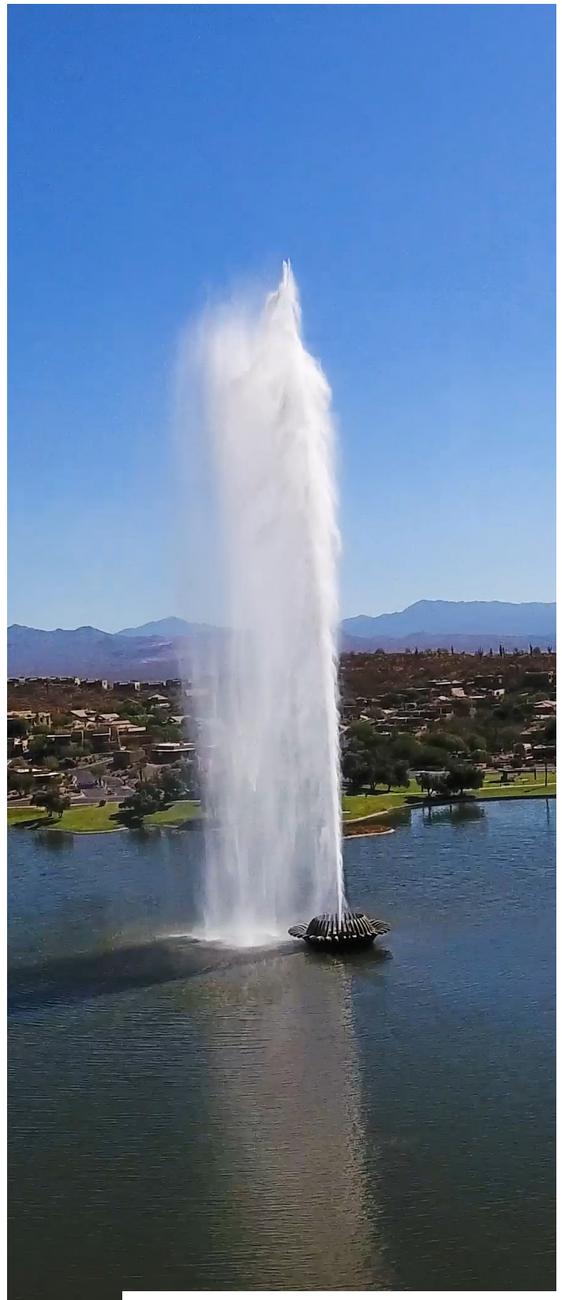
(5) Glenbrook Blvd: (See figure 5 page vii)

Bainbridge Ave to Fountain Hills Blvd

(6)El Lago: (See figure 6 page viii)

Palisades Blvd to Mountainside Dr

(7) Kingstree Blvd: (See figure 7 page viii)



Fountain Park Signature Feature

Section 4

Appendix

Fountain Hills *On The Move*

Active Transportation Town of Fountain Hills

Preliminary Thornless Plant Lists Recommended for Town Right-of-Way Areas Adjacent to Public Sidewalks

Plant selections within this list is not meant to be all inclusive or exhaustive but it meant to offer a surprisingly diverse selection of thornless low-water-use landscape plants that are adapted to the Town of Fountain Hills environments. Blending this distinctive palette of colors, forms, and textures can create plant combinations that can suit any landscape situation. Care should be taken in plant selection based on exposure, available space (height and width), availability or need for supplemental irrigation, visibility and sight distance considerations, maintenance requirements and other site specific considerations. There are many other plant lists and opportunities to explore the wide diversity of plants available in the Sonoran Desert that can provide the diversity of color, form, texture, safety and maintainability for landscape areas adjacent to public sidewalks within the Town of Fountain Hills.

Thornless Trees

Botanical Name	Common Name
Acacia aneura	Mulga
Acacia salicina	Willow Acacia
Acacia stenophylla	Shoestring Acacia
Acacia willardiana	Palo Blanco
Caesalpinia cacalaco Smoothie	Thornless Cascalote
Cercidium hybrid	Thornless Palo Verde Species
Chilopsis linearis (varieties available)	Desert Willow
Dalbergia sissoo	Rosewood
Olea europaea (fruitless)	Olive Tree Fruitless
Pistacia chinensis	Chinese Pistache
Prosopis hybrid	Thornless Mesquite Species
Prosopis glandulosa thornless variety	Thornless Texas Honey Mesquite
Quercus species	Oak Tree Species
Sophora secundiflora	Texas Mountain Laural
Vitex angus-castus	Chaste Tree

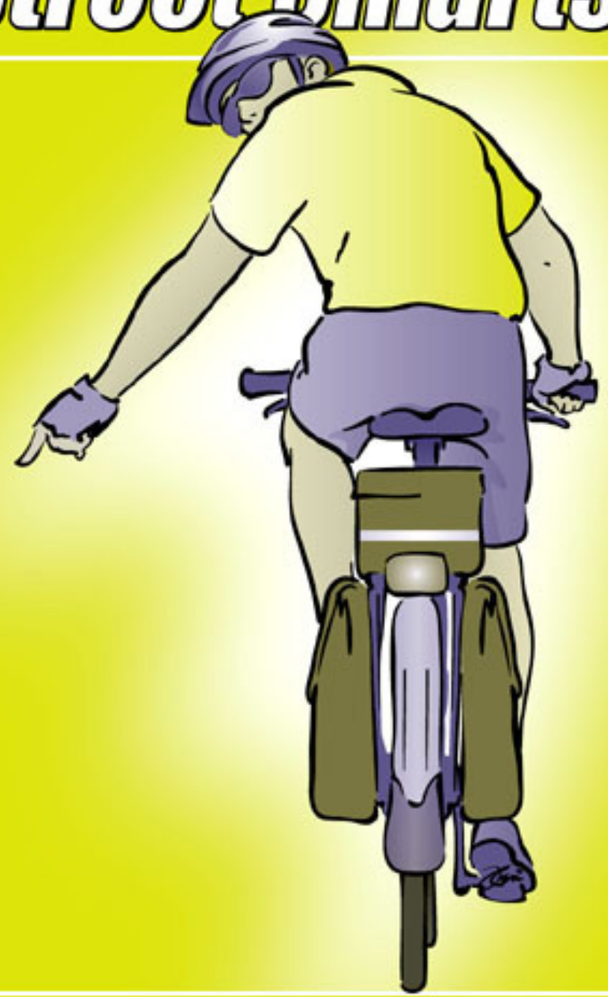
Thornless Accents/Shrubs/Ground Covers

Botanical Name	Common Name
Abutilon palmeri	Indian Mallow
Aloe varieties	Aloe species
Ambrosia deltoidea	Triangleleaf Bursage
Ambrosia dumosa	White Bursage
Asclepias subulata	Desert Milkweed
Caesalpinia pulcherrima	Red Bird of Paradise
Cordia parvifolia	Little Leaf Cordia
Dalea varieties	Dalea species
Dasylirion varieties	Desert Spoon species
Dodonaea viscosa	Hop Bush
Encelia farinosa	Brittlebush
Eremophila varieties	Eremophila species
Euphorbia varieties	Euphoribia species
Hesperaloe varieties	Hesperaloe species
Justicia varieties	Chuparosa species
Lantana varieties	Lantana species
Leucophyllum varieties	Sage species
Maytenus phyllanthoides	Mangle Dulce
Muhlenbergia varieties	Muhly species
Nolina varieties	Nolina species
Pedilanthus varieties	Lady slipper species
Ruellia varieties	Ruellia species
Russelia equisetiformis	Firecracker Bush
Salvia varieties	Salvia species
Senna varieties	Senna species
Simmondsia varieties	Jojoba species
Tecoma varieties	Tecoma species
Verbena rigida	Sandpaper verbina

ADOT education documents available to public agencies
Additional information at http://www.azbikeped.org/bicycling-street-smarts.asp

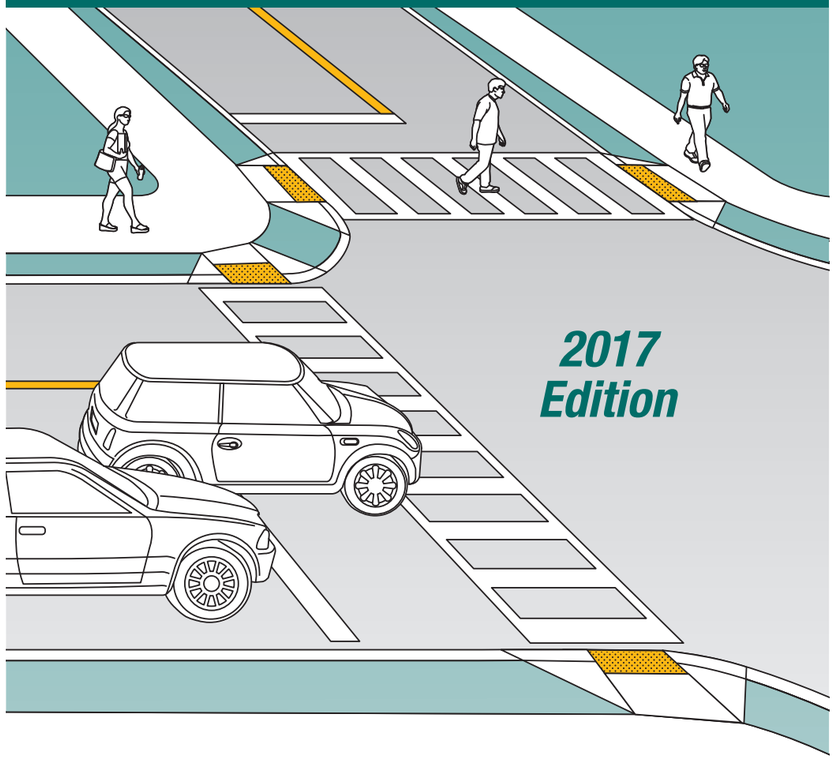
Arizona Bicycling

Street Smarts



Riding Confidently, Legally, and Safely

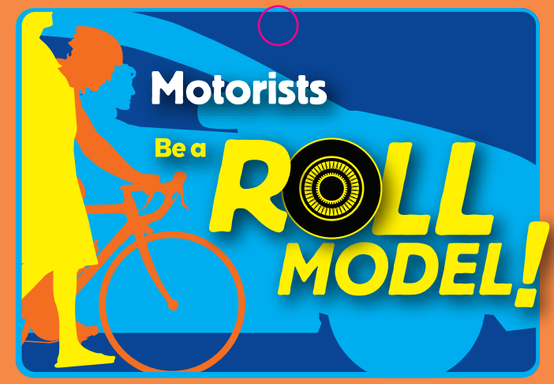
Sharing the Road with Pedestrians



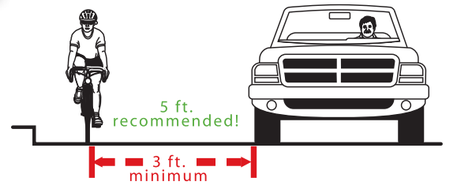
2017 Edition

ADOT

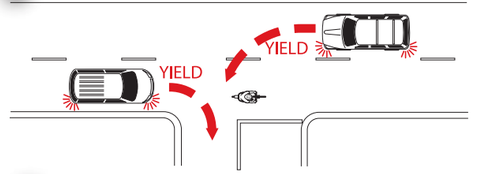
A guide for drivers and pedestrians published by the Arizona Department of Transportation



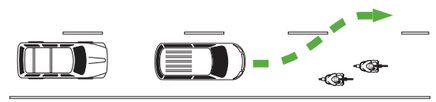
It's the law! Give bicycles at least 3 feet when you pass. When possible, give 5 feet of clearance. Slow down and don't pass until it's safe to do so.



Be watchful at intersections. Cyclists may be traveling faster than you expect. Yield to bicycles as you would with any other moving vehicle.



Be aware of bikes. Cyclists have the same legal rights to use the road as motorists. Cyclists can legally ride two abreast on the roadway as long as they do not unnecessarily slow traffic. In several circumstances, cyclists can use the entire travel lane.



This information does not constitute a legal standard. Refer to Arizona Revised Statutes and to local traffic ordinances.

Fill In All Yellow Highlighted Cells. This Template Identified for very limited areas only where sidewalk is being added outside of the existing roadway pavement envelope

Establishing A CIP - Cost Template Town of Fountain Hills
New MAG Concrete Sidewalk
(Identify Section/Location of TOFH Sidewalk)

OPINION OF PROBABLE CONSTRUCTION COST

Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 6 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	**$0.00**
2.00	Site Demolition Industry Standard Percentage of Total SF Typical Street Pavement	%	0.00	5.00%	**$0.00**
3.00	Complex Earthwork Due to Town of Fountain Hills Slope - Subgrade Prep for New Sidewalk Area	CY	0.00	$16.00	**$0.00**
4.00	Compacted Side Slopes, assume 1.5' depth, 4:1 side slope	CY	0.00	$16.00	**$0.00**
5.00	Landscape and Irrigation Restoration Along Edge of Sidewalk Restoration Extends Out 4 Feet from SW Edge	SF	0.00	$3.00	**$0.00**
	Determine Sidewalk Pathway Length in Miles	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	New Concrete Sidewalk 6' Width	FT	6	NA	NA
6.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	**$0.00**
7.00	Shared Use Signage & Wayfinding (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	**$0.00**
8.00	Retaining Wall (Concrete Footing, CMU Block Less Than 30" Height) (Field Verify Length)	LF		$110.00	**$0.00**
9.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	**$0.00**
10.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		**$0.00**
11.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		**$0.00**
12.00	Remove and Relocate Residential Obstructions Allowance (Mailbox, Lighting, Riprap, Etc.) (Field Verify Amount)	LS	1.00		**$0.00**
13.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	**$0.00**
				Sub-Total Direct Project Costs	**$0.00**
Indirect Costs					
14.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
15.00	Design Contingency	10.00%	NA	$0.00	**$0.00**
16.00	Construction Contingency	5.00%	NA	$0.00	**$0.00**
17.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
18.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
19.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	**$0.00**
20.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	**$0.00**
21.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	**$0.00**
22.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
23.00	Owner Contingency	10.00%	NA	$0.00	**$0.00**
				Sub-Total Indirect Project Costs	**$0.00**
				Sub-Total Potential Project Costs Direct and Indirect	**$0.00**
				Cost of Living Adjustment (COLA) applied at 3% per year	**$0.00**
				Total Potential Project Costs Direct, Indirect & COLA	**$0.00**

Note: Cost of Sidewalk System does not include any costs or fees associated with new curb and gutter, street improvements, land costs, easements or legal fees. This cost is for MAG Concrete sidewalk installation only and repair or replacement of adjacent driveways and landscape. Landscape Restoration includes reconnected/repair of existing drip irrigation if present, supply and placement of new granite, and minimal new plantings to replace plants that may be disturbed or disrupted due to construction.

Fill In All Yellow Highlighted Cells This Template Identified for Fountain Hills Blvd., for most of the length north of Palisades; Saguaro, north of La Montana and others that meet dimensions & Town requirements

Establishing A CIP - Cost Template Town of Fountain Hills
Street Narrowing for Minor Arterials
± 72' - 80' Wide Corridors to Back of Existing Curb No Median

Provide for Five (5) Lanes of Automobile Traffic Plus Parking and/or Bike Lanes and New Curb Separated Sidewalk

(Identify Section/Location of TOFH Minor Arterial Street Narrowing)

OPINION OF PROBABLE CONSTRUCTION COST

Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 8 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	**$0.00**
	Determine Street Narrowing Project Length in Miles or Decimals of a Mile	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	Pedestrian Area Narrow Existing Roadway Width	FT	8	NA	NA
2.00	Sawcut and Remove Existing Asphalt for Eight (8) Foot Sidewalk Addition	SY	0.00	$16.00	**$0.00**
3.00	Sawcut and Remove Existing Curb and Gutter	LF	0.00	$8.00	**$0.00**
4.00	Earthwork Grading Raising Existing Grade of Removal Area for Sidewalk by 4" Depth	CY	0.00	$16.00	**$0.00**
5.00	New Concrete Curb and Gutter Per MAG Standard Vertical Curb and Gutter (Detail #220-1 Type A)	LF	0.00	$30.00	**$0.00**
6.00	Replace Two (2) Feet of Adjacent Asphalt Paving Including ABC	SY	0.00	$40.00	**$0.00**
7.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	**$0.00**
8.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	**$0.00**
9.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		**$0.00**
10.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		**$0.00**
11.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	**$0.00**
12.00	Signage (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	**$0.00**
13.00	Pavement Markings and Striping	LF	0.00	$0.50	**$0.00**
14.00	Landscape Enhancement Disturbed R/W - New Strip of Decomposed Granite and Native Seeding If Appropriate	SF	0.00	$1.25	**$0.00**
				Sub-Total Direct Project Costs	**$0.00**
Indirect Costs					
15.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
16.00	Design Contingency	10.00%	NA	$0.00	**$0.00**
17.00	Construction Contingency	5.00%	NA	$0.00	**$0.00**
18.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
19.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
20.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	**$0.00**
21.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	**$0.00**
22.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	**$0.00**
23.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
24.00	Owner Contingency	10.00%	NA	$0.00	**$0.00**
				Sub-Total Indirect Project Costs	**$0.00**
				Sub-Total Potential Project Costs Direct and Indirect	**$0.00**
				Cost of Living Adjustment (COLA) applied at 3% per year	**$0.00**
				Total Potential Project Costs Direct, Indirect & COLA	**$0.00**

Note: Cost of Roadway Reduction Design does not include any costs or fees associated with land costs, easements or legal fees. All work is intended to occur within existing street pavement widths Landscape cost is only for a four foot (4') strip of new standard size granite along pavement edge and if needed native seeding as appropriate.

Fill In All Yellow Highlighted Cells This Template Identified for Kingstree, Palomino, El Lago, Verde River, Parkview, Glenbrook, El Pueblo; Golden Eagle (northwest of Sierra Madre/Boulder) and others that meet the dimensions & Town requirements

Establishing A CIP - Cost Template Town of Fountain Hills
Street Narrowing for Major Collectors
± 48'- 64' Wide Corridors to Back of Existing Curb No Median

Provide for Three (3) Lanes of Automobile Traffic Plus Parking and/or Bike Lanes and New Curb Separated Sidewalk

(Identify Section/Location of TOFH Major Collector Street Narrowing)

OPINION OF PROBABLE CONSTRUCTION COST

Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 16 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	**$0.00**
	Determine Street Narrowing Project Length in Miles or Decimals of a Mile	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	Pedestrian Area Narrow Existing Roadway Width	FT	16	NA	NA
2.00	Sawcut and Remove Existing Asphalt for Eight (16) Foot Sidewalk Addition	SY	0.00	$16.00	**$0.00**
3.00	Sawcut and Remove Existing Curb and Gutter	LF	0.00	$8.00	**$0.00**
4.00	Earthwork Grading Raising Existing Grade of Removal Area for Sidewalk by 4" Depth	CY	0.00	$16.00	**$0.00**
5.00	New Concrete Curb and Gutter Per MAG Standard Vertical Curb and Gutter (Detail #220-1 Type A)	LF	0.00	$30.00	**$0.00**
6.00	Replace Two (2) Feet of Adjacent Asphalt Paving Including ABC	SY	0.00	$40.00	**$0.00**
7.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	**$0.00**
8.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	**$0.00**
9.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		**$0.00**
10.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		**$0.00**
11.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	**$0.00**
12.00	Signage (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	**$0.00**
13.00	Pavement Markings and Striping	LF	0.00	$0.50	**$0.00**
14.00	Landscape Enhancement Disturbed R/W - New Strip of Decomposed Granite and Native Seeding If Appropriate	SF	0.00	$1.25	**$0.00**
				Sub-Total Direct Project Costs	**$0.00**
Indirect Costs					
15.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
16.00	Design Contingency	10.00%	NA	$0.00	**$0.00**
17.00	Construction Contingency	5.00%	NA	$0.00	**$0.00**
18.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
19.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
20.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	**$0.00**
21.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	**$0.00**
22.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	**$0.00**
23.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
24.00	Owner Contingency	10.00%	NA	$0.00	**$0.00**
				Sub-Total Indirect Project Costs	**$0.00**
				Sub-Total Potential Project Costs Direct and Indirect	**$0.00**
				Cost of Living Adjustment (COLA) applied at 3% per year	**$0.00**
				Total Potential Project Costs Direct, Indirect & COLA	**$0.00**

Note: Cost of Roadway Reduction Design does not include any costs or fees associated with land costs, easements or legal fees. All work is intended to occur within existing street pavement widths Landscape cost is only for a four foot (4') strip of new standard size granite along pavement edge and if needed native seeding as appropriate.

Fill In All Yellow Highlighted Cells This Template Identified for multiple streets that meet the dimensions & Town requirements

Establishing A CIP - Cost Template Town of Fountain Hills
Street Narrowing for Local Streets
± 28' - 36' Wide Corridors to Back of Existing Curb No Median

Provide for Two (2) Lanes of Automobile Traffic and New Curb Separated Sidewalk

(Identify Section/Location of TOFH Local Street Narrowing)

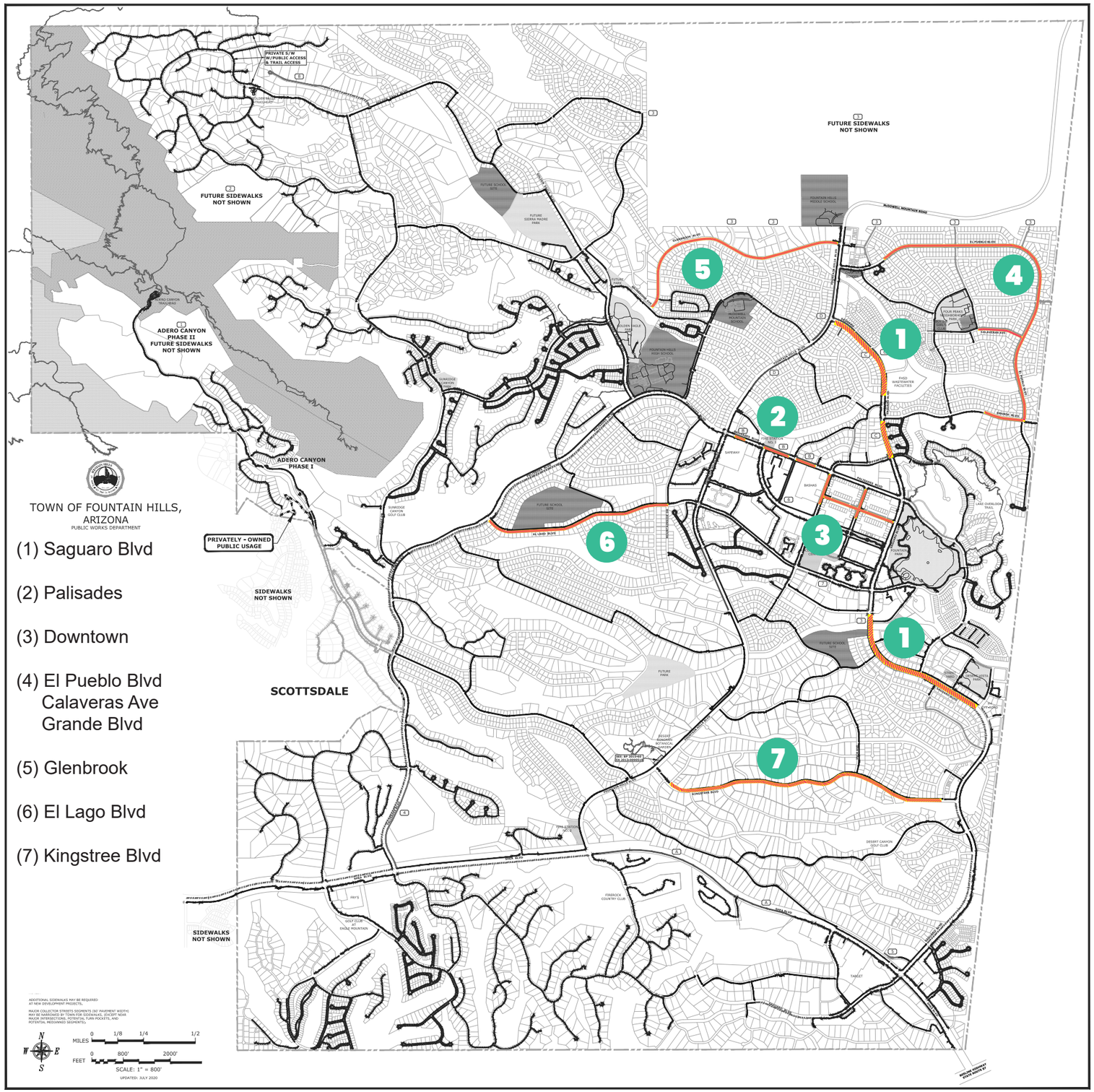
OPINION OF PROBABLE CONSTRUCTION COST

Prepared by J2 Engineering and Environmental Design, LLC

ITEM NO.	DESCRIPTION	UNIT	QUANTITY	UNIT PRICE	TOTAL
Direct Costs					
	Spreadsheet Determines Base Project Area in Acres Based On 8 Feet of Area for New Sidewalk	Acres	0.00	NA	NA
	Spreadsheet will Calculate Known Base Project Area in Square Foot	SF	0.00	NA	NA
1.00	General Requirements (Mobilization, Demobilization, Fences, Gates, Quality Control Testing, Special Inspections, Etc.) Industry Standard Percentage of Total SF	%	0.00	20.00%	**$0.00**
	Determine Street Narrowing Project Length in Miles or Decimals of a Mile	**Miles**		NA	NA
	Spreadsheet will Calculate Sidewalk Length in LF	LF	0	NA	NA
	Pedestrian Area Narrow Existing Roadway Width	FT	8	NA	NA
2.00	Sawcut and Remove Existing Asphalt for Eight (8) Foot Sidewalk Addition	SY	0.00	$16.00	**$0.00**
3.00	Sawcut and Remove Existing Curb and Gutter	LF	0.00	$8.00	**$0.00**
4.00	Earthwork Grading Raising Existing Grade of Removal Area for Sidewalk by 4" Depth	CY	0.00	$16.00	**$0.00**
5.00	New Concrete Curb and Gutter Per MAG Standard Vertical Curb and Gutter (Detail #220-1 Type A)	LF	0.00	$30.00	**$0.00**
6.00	Replace Two (2) Feet of Adjacent Asphalt Paving Including ABC	SY	0.00	$40.00	**$0.00**
7.00	New Concrete Sidewalk Per MAG Standard (Detail #230)	SF	0.00	$10.00	**$0.00**
8.00	Concrete Driveway Improvements (Field Verify Driveway Measurements)	SF		$15.00	**$0.00**
9.00	Utility Relocations Allowance (Lump Sum Placeholder Field Verify Amount)	LS	1.00		**$0.00**
10.00	Drainage Improvements Allowance (Field Verify Drainage Needs)	LS	1.00		**$0.00**
11.00	ADA Ramps at Corners/Street Intersections	EA		$3,500.00	**$0.00**
12.00	Signage (Signage Every 1/2 Mile Footing, Post and Sign)	EA	0.00	$2,500.00	**$0.00**
13.00	Pavement Markings and Striping	LF	0.00	$0.50	**$0.00**
14.00	Landscape Enhancement Disturbed R/W - New Strip of Decomposed Granite and Native Seeding If Appropriate	SF	0.00	$1.25	**$0.00**
				Sub-Total Direct Project Costs	**$0.00**
Indirect Costs					
15.00	General Conditions Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
16.00	Design Contingency	10.00%	NA	$0.00	**$0.00**
17.00	Construction Contingency	5.00%	NA	$0.00	**$0.00**
18.00	Insurance Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
19.00	Bonds Industry Standard Percentage of Total Construction	1.00%	NA	$0.00	**$0.00**
20.00	Contractors Fee with Corporate Overhead Industry Standard Percentage of Total Construction	6.00%	NA	$0.00	**$0.00**
21.00	Sales Tax (2020) Town of Fountain Hills for Construction	9.20%	NA	$0.00	**$0.00**
22.00	Design Fees (No Post Design Efforts)	7.00%	NA	$0.00	**$0.00**
23.00	Permit Fees Industry Standard Percentage of Total Construction	3.00%	NA	$0.00	**$0.00**
24.00	Owner Contingency	10.00%	NA	$0.00	**$0.00**
				Sub-Total Indirect Project Costs	**$0.00**
				Sub-Total Potential Project Costs Direct and Indirect	**$0.00**
				Cost of Living Adjustment (COLA) applied at 3% per year	**$0.00**
				Total Potential Project Costs Direct, Indirect & COLA	**$0.00**

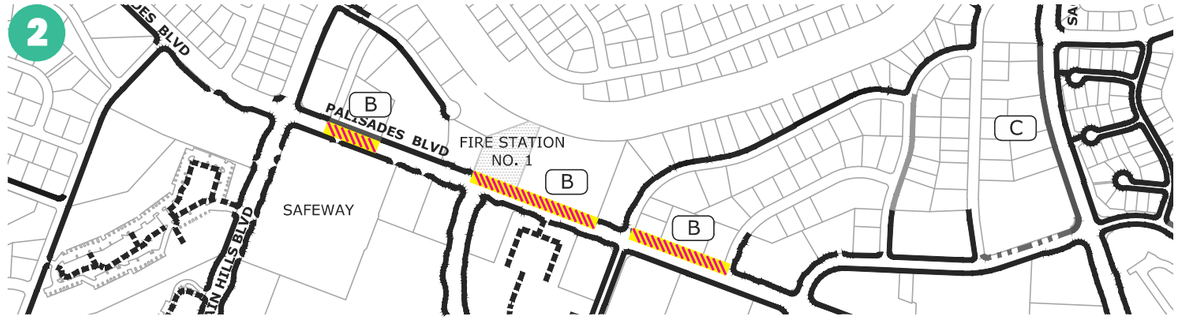
Note: Cost of Roadway Reduction Design does not include any costs or fees associated with land costs, easements or legal fees. All work is intended to occur within existing street pavement widths. Landscape cost is only for a four foot (4') strip of new standard size granite along pavement edge and if needed native seeding as appropriate.

Priority Projects
Opinions of Probable Cost



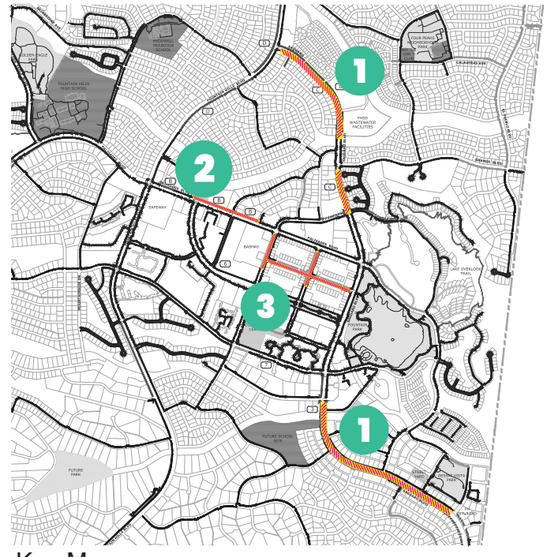
Priority Projects: Opinion of Probable Cost

Saguaro Blvd Cost Estimate: $3,700,000



Palisades Cost Estimate: $710,000

Downtown Cost Estimate: $1,100,000



Key Map

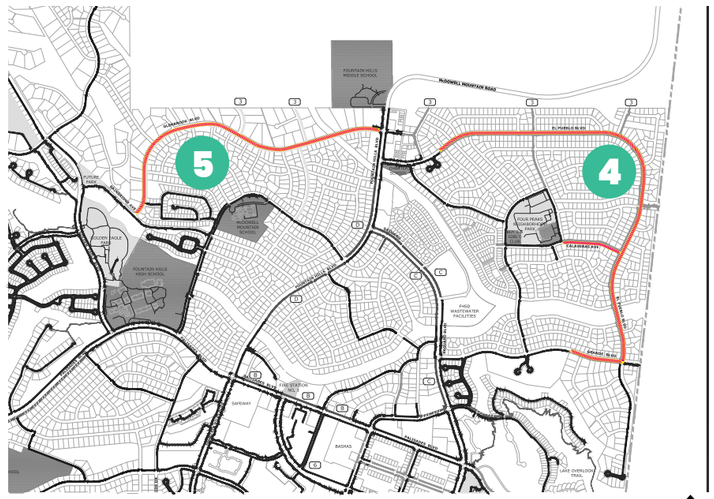
N

Glenbrook Cost Estimate: $3,200,000

El Pueblo Blvd Cost Estimate: $4,700,000

Calaveras Ave Cost Estimate: $710,000

Grande Blvd Cost Estimate: $575,000



Key Map

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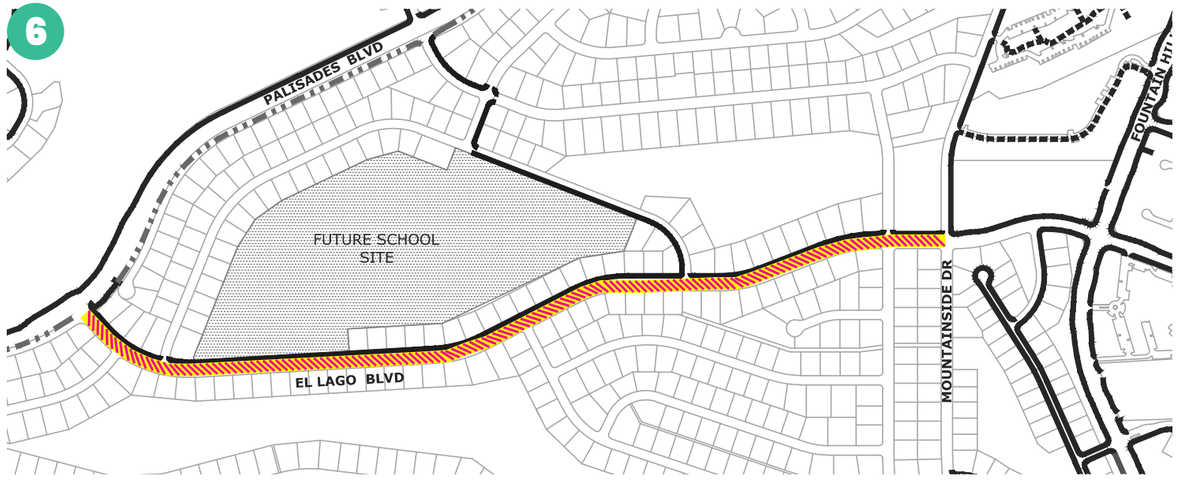
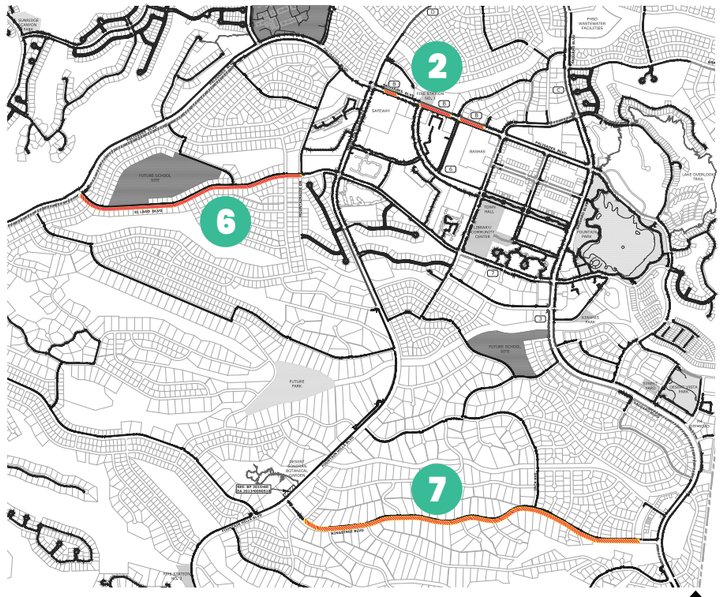


El Lago Blvd Cost Estimate: $2,200,000

Kingstree Blvd Cost Estimate: $4,100,000



Key Map

N

Town of Fountain Hills I Active Transportation Plan

What is Active Transportation?

Active transportation is any form of human-powered or non-combustion motorized transportation this includes: walking, bicycling.

How you can participate.

The following survey is one of the methods for you to participate in the Town of Fountain Hills Active Transportation Planning process. In addition public outreach will occur at upcoming community events. Please see https://www.fh.az.gov/activetransportation for an event list.

Your voice in the plan is important! The plan will be based upon the Town's unique community needs and setting. Enjoy and thank you!

1. Are you a full time resident of the Town of Fountain Hills?

- Yes
- No

2. (Optional) What age range do you fall within?

- Under 18
- 19-35
- 36-50
- 51 +

Pedestrian

3. What areas of the Town of Fountain Hills do you walk most frequently?

Location
Location
Location
Location
Location

4. Are there areas of Town you would like to walk, but you do not because there are no sidewalks?

Location
Location
Location
Location
Location

5. Are you aware of any gaps in sidewalk connectivity within the Town or your neighborhood?

Location
Location
Location
Location
Location

6. Would you prefer to walk on a dedicated sidewalk or are you okay walking on the street if the street had dedicated walking zones or areas?

- Dedicated Sidewalk
- Okay with dedicated on street walking zones

7. Would you support restriping or modifying the existing roadway pavement to accommodate and designate wider pedestrian sidewalks or designated on-street walking areas?

- Yes
- No

8. What is your top destination when walking?

- Downtown
- Fountain Park
- Mountain Trails (Please specify below)
- School (Please specify below)
- Library (Please specify below)
- Shopping (Please specify area or specific location below)
- Dining (Please specify area or specific location below)
- Just out for a walk returning home
- Other (Please specify below)

Please specify

9. Do you ever feel unsafe when walking? If yes, please specify below

- Yes
- No

Please specify

Bicyclist

10. What areas of the Town of Fountain Hills do you bicycle most frequently?

Location
Location
Location
Location
Location

11. Are there areas of Town you would like to bicycle, but you do not because there are no bike lanes?

Location
Location
Location
Location
Location

12. If you bicycle would you prefer to bicycle in a dedicated bicycle lane or share a wider sidewalk with pedestrians?

- Dedicated bicycle lane
- Share a wider sidewalk with pedestrians

13. Would you support restriping or modifying the existing roadway pavement to accommodate and designate dedicated bicycle lanes?

- Yes
- No

14. What is your top destination when bicycling?

- Downtown
- Fountain Park
- Mountain Trails (Please specify below)
- School (Please specify below)
- Library (Please specify below)
- Shopping (Please specify area or specific location below)
- Dining (Please specify area or specific location below)
- Just out for a ride returning home
- Other (Please specify below)

Please specify

15. Do you ever feel unsafe when biking? If yes, please specify below

- Yes
- No

Please specify

16. Additional comments about active transportation around the Town of Fountain Hills?

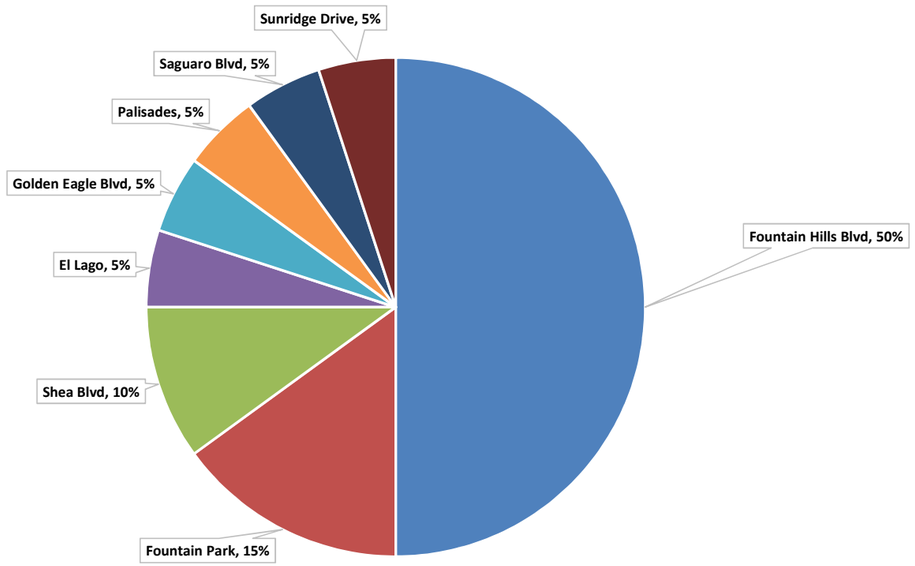
17. Please enter your contact information if you'd like to stay up-to-date.

Name

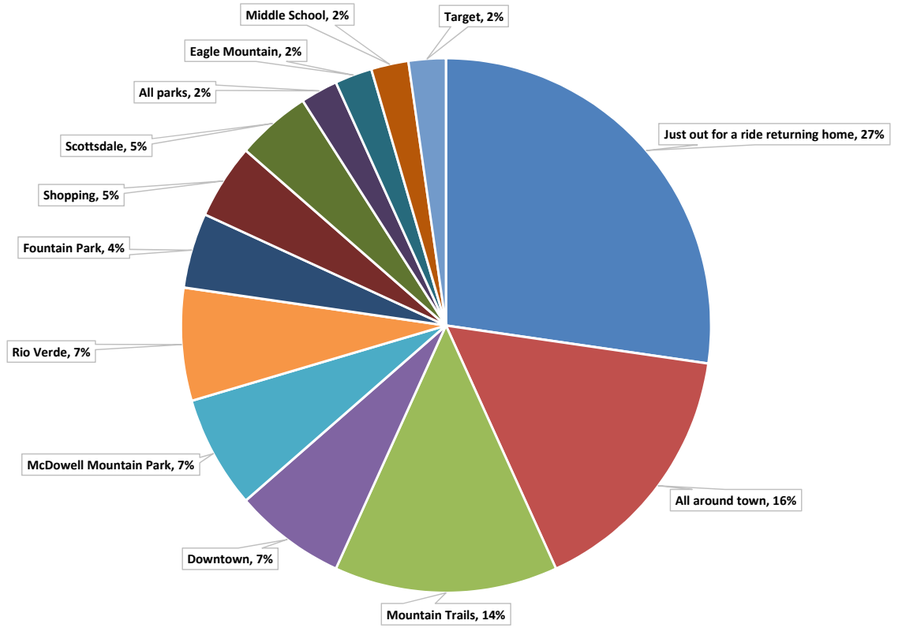
Email

5

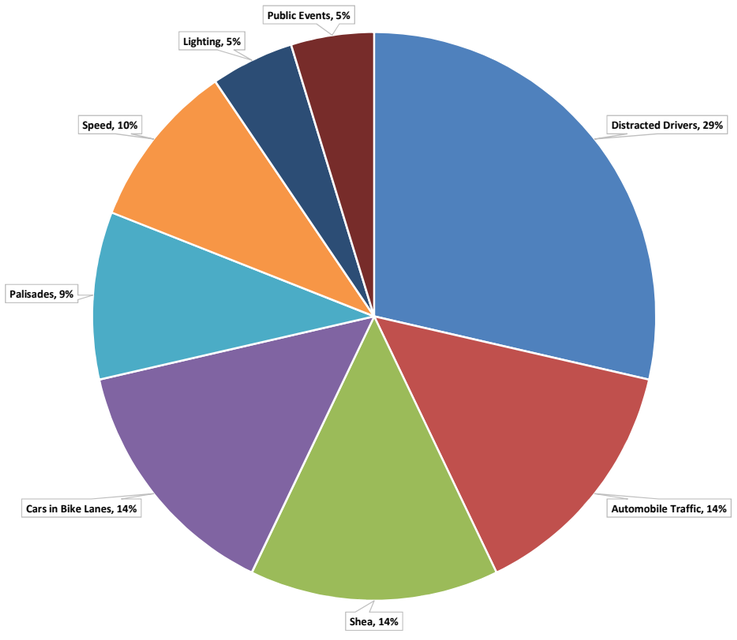
Citizen Identified Bicycle Routes to Improve



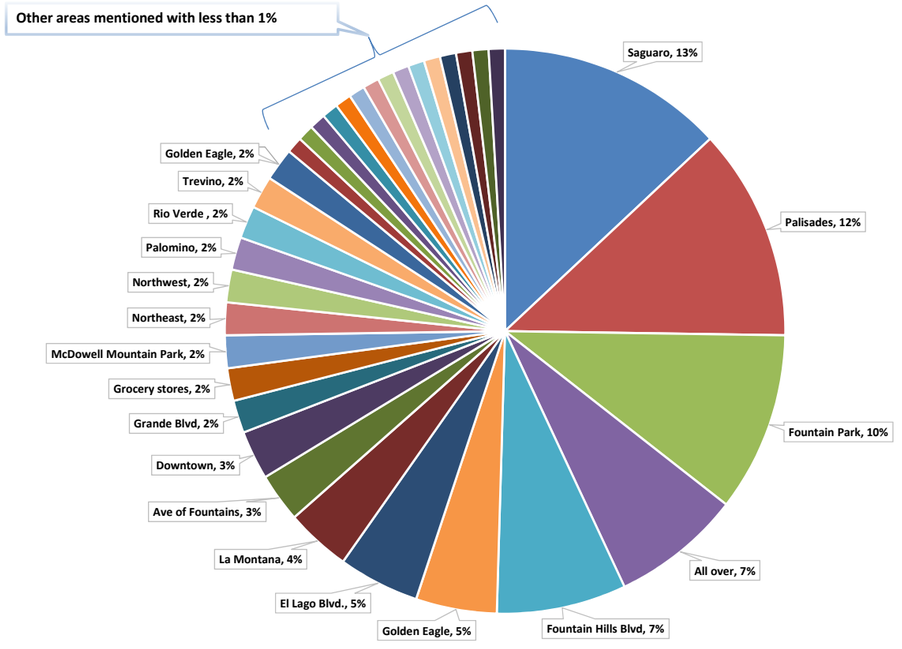
Bicyclists Favorite Destinations



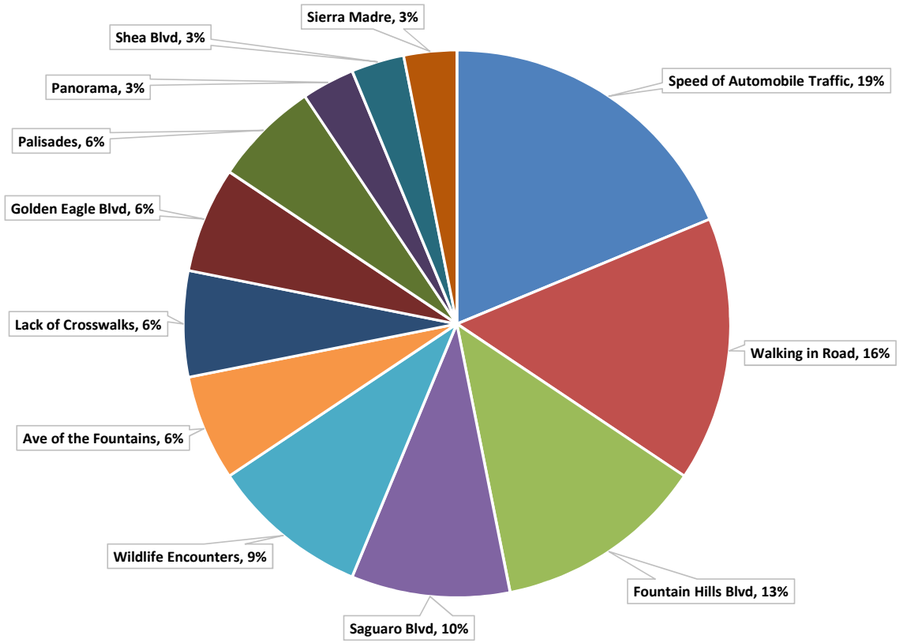
Identified Bicycle Safety Issues



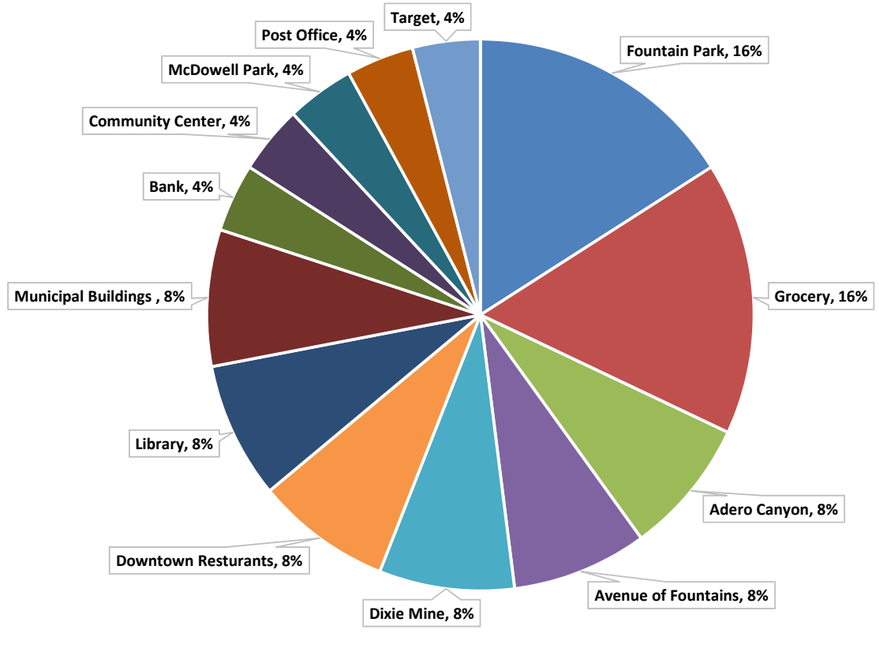
Citizen Identified Most Popular Bicycle Areas or Roadways



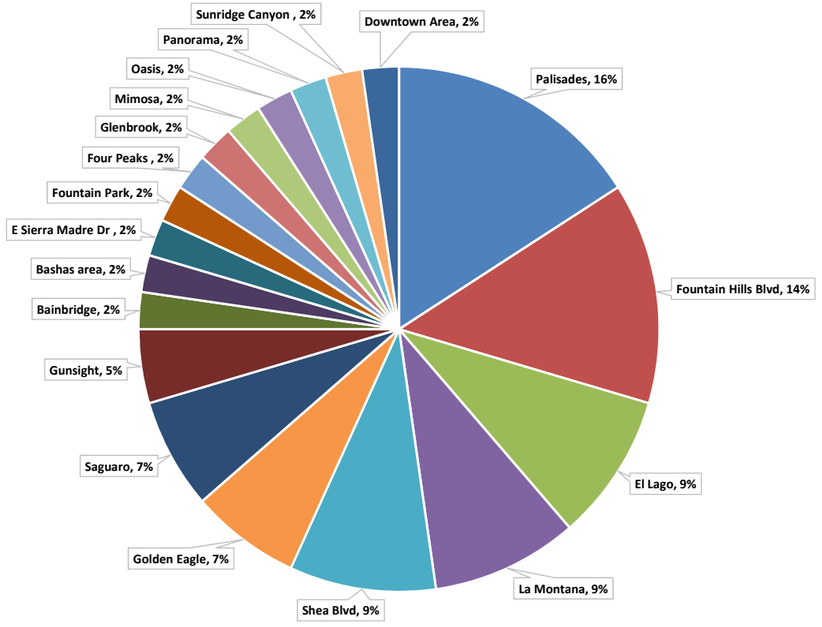
Public Identified Safety Issues Relative to Walking



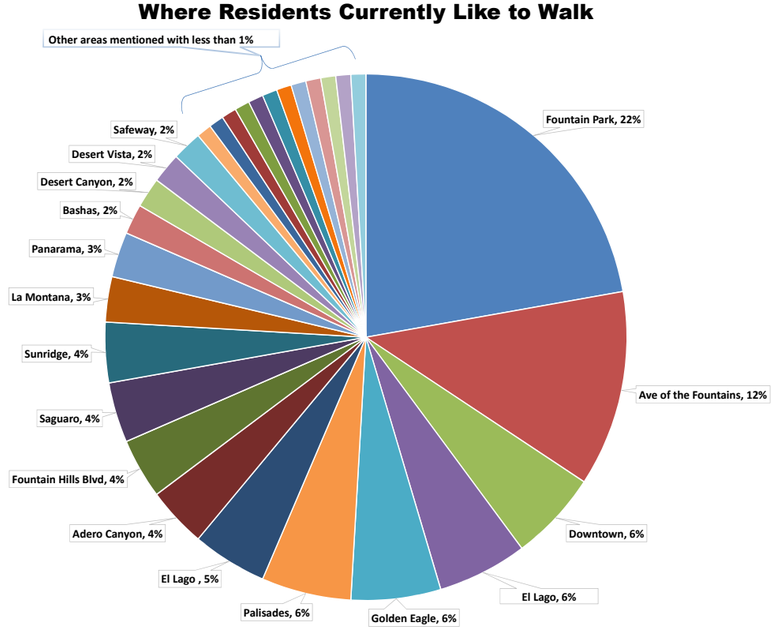
Public Identified Walking Destinations



Roadways with most notable Sidewalk Gaps as identified by Public



Where Residents Currently Like to Walk



Additional Public Comments 09-08-2020

1	I am a homeowner in Fountain Hills Part time resident - use property 6 months per year Thank you for requesting our input
2	Enjoy bus stop at El Lago and La Montana
3	We need more designated cross walks in places along major arterials in major business/residential corridors, aggressively marked and using Hawk lights or other warning systems for pedestrians.
4	Educate bikers, walkers, drivers about the rules of the road. I love that FH is so biker/walker friendly. If we had more shade along the routes, it would be even better. The route I take/side of the street I walk on is often based on where the shade is. I actually prefer walking in the road on bike lanes to walking on sidewalks.
5	Love urban trails. Walkable, connected community that accommodates wheelchairs and other special needs.
6	It would be nice to have more complete off-road options for getting to McDowell Mountain Park on a mountain bike. The trail that parallels the Thompson Peak jeep road and connects to the Dixie Mine Trail is a nice start, but with all of the washes between the bottom of that trail and various places in town, it should be possible to provide better connections. In case you have any contacts in Scottsdale, by far my biggest concern about biking in the area is the mile or so section of Rio Verde/Dynamite Road that has minimal shoulder (from about 136th St. east). It makes me wonder if they are waiting for someone to get killed there so they can justify putting in a decent shoulder.
7	Henderson, Nevada has a pretty good system for bicycle lanes and lightning system - Bend, Oregon is another great place - it would be nice to have a trail around park for runners like Hayden park in Scottsdale
8	Riding bikes with kids can be nervy, larger bike lanes or shared sidewalks would be feel safer
9	on road parking and bike lanes need for additional paint marking on streets public education like using Street Smarts lack of bike racks near businesses! no bike corral check in/check out for events
10	Need better pedestrian connectivity when crossing streets near Bashas' and Safeway.
11	Dedicated cycling/walking lanes should not be accessible for parking vehicles. That defeats to purpose.
12	Will there be any additional education or mailers about cyclists on roads
13	More sidewalks and crosswalks on Saguaro
14	I don't think anyone should be biking around the lake, but the signage only refers to biking at the amphitheatre. I think the signage should address biking all around the lake.
15	More sidewalks will be great! Lower speed limits and more enforcement might also help.
16	More connectivity please
17	Use the washes as trails/paths for better connectivity
18	There needs to be a ped crossing from parking lot to Overlook trail. The lack of a complete sidewalk down Palisades to Shea makes walking to Fry's suicidal. The inability to bike into Scottsdale from Palisades is a shame. It would connect Scottsdale with FT Hills so other recreationists could more easily visit Ft Hills
19	Need better neighborhood walking access to trail heads, such as Adero Canyon. We live very close, but unable to walk to the trail head, must drive - not preferable.
20	The most immediate problem is the growth of flora over sidewalks that force pedestrians to walk on the road, while the roads are also blocked by flora causing vehicles to swerve around them
21	As a relatively new resident in town, I am not yet familiar with all the options available, so my knowledge of gaps or where I would like to walk or bike is still limited. Enhanced bike lanes will encourage me to bike more than I have in recent years.
22	Measures are needed to slotsw traffic in and around Fountain Hills. Drivers have no respect for the posted lim
23	Let's paint the bike/run/walk lanes!
24	Pedestrians and runners need to stay out of dedicated bicycle lanes especially facing oncoming traffic and NOT clearing the pathway for traffic flowing cyclysts.
25	For the most part it's great
26	better integration with our neighbors in Scottsdale
27	The street debris seems to pile up along the shoulders and intersections of our roads. I've ridden behind the street sweeper and noticed debris falling out of the sweeper wheel back onto the road. This forces a cyclist to make the decision to ride through the debris and risk a tire puncture or other bike damage; or to move into the travel lane and compete with cars. Other communities have signal options which allow the cyclist to remain in the bike lane while the traffic light system recognizes their presence - sort of like how our "smart" lights work to pick up cars stopped at a light.
28	With all due respect, I do not believe pedestrians should be able to walk in bicycle lanes when there are sidewalks. Further, a list of safe walking practices should be printed in the paper, and posted at town hall and the community center, I.e., unlawful to walk two abreast in bike lanes. All bikes should be required to have a bike permit; perhaps $2-5.00. Can be handled in community permit dept.

Town of Fountain Hills

Active Transportation Plan 2020

a. 16705 E. Avenue of the Fountains
Fountain Hills, AZ 85268

p. 480-816-5100

engineering and
environmental design