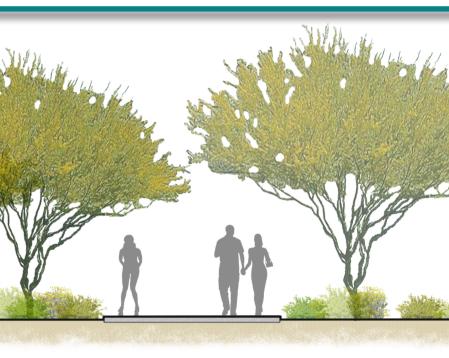
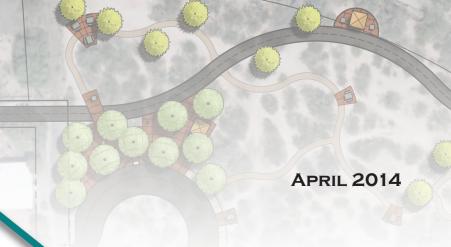
## Arcadia, Alamo, and Rose Hill Urban Greenways Concept Plans











### **City of Tucson Parks and Recreation Department**

Fred Gray, Director Julie Parizek and Jane Duarte, Staff

#### **City of Tucson Elected Officials**

Mayor Jonathan Rothschild City Manager Richard Miranda Council Member Regina Romero, Ward 1 Council Member Paul Cunningham, Ward 2 Council Member Karin Uhlich, Ward 3 Council Member Shirley Scott, Ward 4 Council Member Richard Fimbres, Ward 5 Council Member Steve Kozachik, Ward 6

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#### Overview

The City of Tucson, Parks and Recreation Department, has a goal of using inner-city waterways to connect city residents to the Regional Trail System being developed by Pima County to circle the city along the Pantano River, the Rillito River, the Santa Cruz River, the Julian Wash and Harrison Road — The Loop.

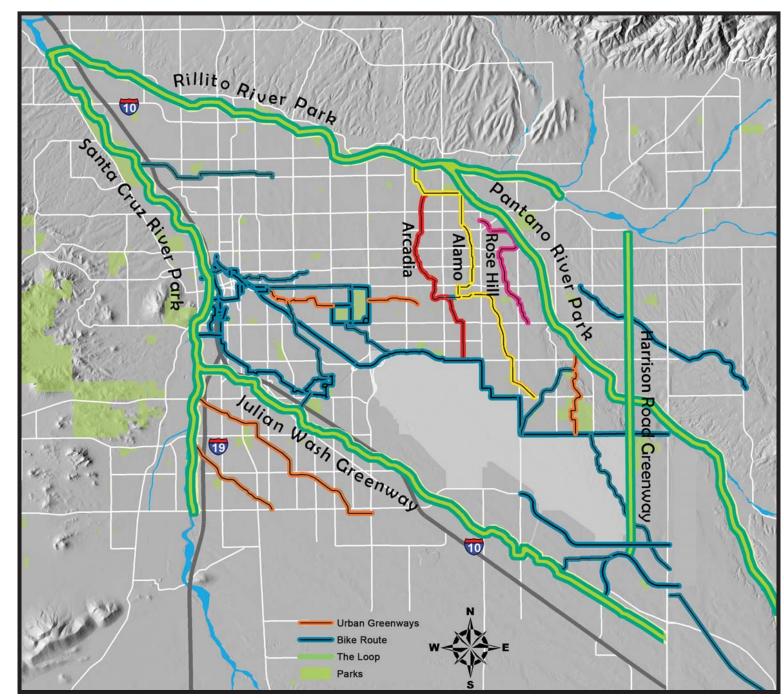
Inner-city waterways, alleys and street sides will be developed into urban greenways that connect to the perimeter trail system. An urban greenway is a corridor of protected open space in the heart of the city that is managed for alternative mode circulation and recreation as well as preserving and enhancing natural resources. Greenways will follow natural or man-made features such as watercourses, ridgelines, abandoned railways and boulevards. Almost all of the land for the urban greenway network, such as the banks of washes, drainage waterways and the shoulders of residential streets, is already owned. The Arroyo Chico Wash and the Arcadia Wash are examples. An inner-city urban greenway will provide pedestrian and bicycle linkages for the community between residential areas, parks, schools, commercial centers, other desired destinations and, of course, the Loop. The Tucson Urban Greenways will act as the spokes of the wheel connecting to the Regional Trail System and river parks.

#### The Loop

According to Pima County, the Loop is 55 miles of car-free paths around metropolitan Tucson, with links to Marana and Oro Valley, for Pima County residents and visitors on foot, bikes, skates and horses. If it doesn't have a motor, it's good to go on The Loop. The Loop connects the Rillito River Park, the Santa Cruz River Park, the Julian Wash Greenway, the Harrison Greenway and the Pantano River Park. The Loop will connect to parks, trails, bus and bike lanes, workplaces, schools, restaurants, hotels and motels, shopping areas, sports and entertainment venues. Over 38 percent of the metropolitan population lives within one mile of The Loop.

#### **Benefits of Urban Greenways**

Greenways have a positive effect on the community. They are primarily planned as off-street, family-oriented alternative-mode circulation corridors. They can serve as an economic generator by providing the reason to purchase bicycles, skateboards, dog leashes and a wide variety of items used for recreation, fitness and wellbeing. Families and individuals can use the paths to get to neighborhood restaurants or shopping. Greenways improve bicycle and pedestrian transportation options, increasing opportunities for safely commuting and recreating without automobiles. By developing urban greenways, the overall health of city residents may be increased, including cardiovascular health, diabetes prevention, and lessening obesity. Inner-city greenways can be a valuable social setting where neighbors can meet each other in all seasons, day or night. Plans typically will include lighting of the paths. The urban



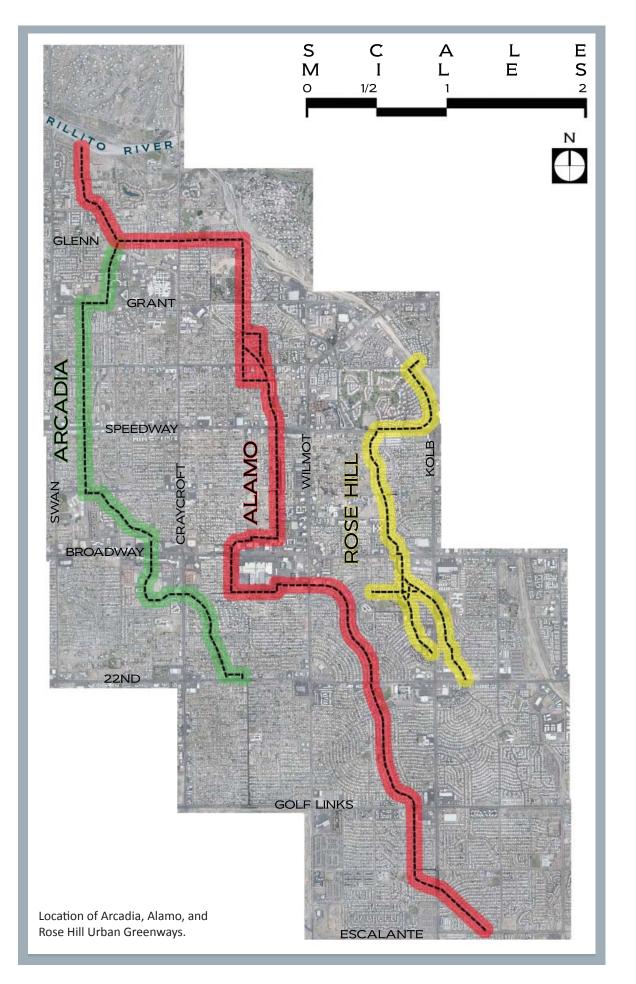
Tucson Urban Greenways Network and The Loop.

greenways will benefit wildlife by preserving and improving habitat along the riparian corridors. Because they will be carefully designed and maintained, greenways will enhance community identity, both on the regional scale, and in the individual neighborhoods in which the greenways are located. The urban greenways will be designed with a wide range of users in mind as possible, including bicyclists, skaters, boarders, joggers, walkers, bird watchers and dog walkers. The urban greenways are being developed to be family-friendly across all ages and fitness levels. They will frequently cross residential and arterial streets safely at grade and will be designed for lowerspeed travel creating a path conclusive to casual bicycle riding, commuting, recreation and family use. Fastmoving, experienced cyclists may continue to prefer roadside bike lanes.

The main urban greenways that the Tucson Parks and Recreation Department are focused on in this report are the Arcadia, the Alamo and the Rose Hill Urban Greenways. There are a number of other inner-city urban greenways and multi-use paths shown on the map of the Tucson Urban Greenway Network (left). Some of these greenways are already complete and in place including the Barraza-Aviation Multi-Use Path (see image below), the Golf Links Multi-use path, the David Bell Multi-use Path, and the Old Spanish Trail Multi-use Path. Other greenway routes that are in planning stages or partially complete include the El Paso Southwestern Greenway, Railroad Wash Greenway, the Rodeo Wash Greenway and the Arroyo Chico Urban Greenway.



Completed Urban Greenway with bike route on Barraza-Aviation Multi-Use Path.



#### Arcadia Urban Greenway

The Arcadia Urban Greenway provides inner-city connectivity north to the Rillito River Park and south to the Golf Links Bike Path in the very heart of the city. The edges of the Arcadia Wash are highly urbanized from south to north. For nearly its entire length, development has been pushed right up to the banks of the watercourse, and in some cases, the entire wash has been placed underground in culverts. The goal of this project is to create an amenity which takes advantage of the great benefits presented by the Arcadia Wash alignment, while avoiding wherever possible those areas where contiguous path location would not be financially or practically feasible.

The proposed alignment takes advantage of the wash Corbett, South Park, Colonia Del Valle, Wilshire Heights, itself, as well as wide street right-of-ways and bicycle Desert Aire/Loma Linda, Rosemont West, Rosemont East, boulevards to provide a recreational path through some Highland Vista Cinco Via, Stella Mann, Swan Way Park, of the most densely developed areas of central Tucson. Duffy, Avondale, St. Cyrils, and Old Fort Lowell It will provide pedestrian, bicycle and multi-modal Alamo Urban Greenway access to a number of neighborhood parks as well as a safe route for students to reach ten public schools. Connectivity with other urban paths includes the Golf The Alamo Urban Greenway provides a north to south Links Road Multi-use Path to the Barraza-Aviation Bicycle connection between the Rillito River Park and Escalante Path and the future Alamo Urban Greenway. Public-Road near the Escalante Bike Path and eastward to the service, commercial and retail centers can be accessed, Atterbury Urban Greenway. The proposed alignment such as the Tucson Medical Center, Crossroads Festival follows much of the open space directly along the wash. The Alamo Urban Greenway also makes its way across Shopping Center and the Williams Center. It will provide Tucson residents with the kind of recreation, connectivity some of the most densely developed areas of Tucson. It skirts around Park Place Mall and crosses busy Broadway and safety that is representative of the entire urban greenway system. Boulevard using the safe pedestrian lighted crossing at East Park Place Drive.

#### Distance: 4.5 miles

City Wards Served: Primarily Ward 6, Steve Kozachik, but also includes Ward 4, Shirley Scott, and Ward 2, Paul Cunningham



Segment of the Arcadia Urban Greenway north of Rosemont Blvd.



The Arcadia Wash Urban Greenway enters an underground culvert.

Adjacent City Neighborhood Associations Served: Rillito, Vista Del Monte, Glenn Heights, San Carlos,

The Alamo Wash presents a unique opportunity among the urban watercourses in Tucson, as it provides room along its banks for a path for about 3 miles of its sevenmile length. The current alignment will take users to a number of public parks, including Ft. Lowell Park, Sears Park and Vista del Prado Park. The path will also provide a safe route for students at a number of public schools including Palo Verde High School, Dodge Middle School and Rogers Elementary School if it is re-opened. The Alamo Urban Greenway intersects the Arcadia Urban Greenway at Glenn Street. The greenway also connects to major work places, commercial and retail centers, such as Park Place Mall, the Williams Center and Tucson Medical Center.

#### Distance: 7 miles

**City Wards Served**: Primarily Ward 6, Steve Kozachik, also includes Ward 4, Shirley Scott, and Ward 2, Paul Cunningham

Adjacent Neighborhood Associations Served: Dietz, Terra Del Sol, Thunderbird Heights/Wilmot Desert Esta, Sewell, Mitman, Wilshire Heights, Stella Mann, Harlan Heights, Colonia Del Valle, Old Fort Lowell and Las Vistas



Alamo Wash Urban Greenway between 22<sup>nd</sup> Street and Golf Links.

#### **Rose Hill Urban Greenway**

The Rose Hill Wash Urban Greenway begins at the Pantano Wash on the north across from Udall Park and continues south to 22<sup>nd</sup> Street near Kolb Road. It provides a good connection to the future Pantano River Park where it follows adjacent to Kolb Road. This greenway follows the actual watercourse for much of its length, taking advantage of the open space along the banks of the Rose Hill Wash to create a path connecting four public schools, the Carondelet Hospital campus, the Pantano River Park and Udall Park. At the southern end of the greenway, the path splits into three smaller fingers. South of Broadway three fingers of the multiuse path were identified for connections to:

- Langley Avenue to Palo Verde Park
- Langley Avenue branch to Fountain of Life Evangelical Lutheran Church and Kolb Road
- East branch, Booth-Fickett Magnet Elementary School and the tie into the 22<sup>nd</sup> Street bike lanes

This interconnected system creates opportunities for highly varied trips to engage a wide spectrum of path users.

Distance: 3.5 miles

City Wards Served: Ward 2, Paul Cunningham

Adjacent City Neighborhood Associations Served: Udall Park, Sewell, Mortimore, Broadway/Northeast

#### Funding the Tucson Urban Greenways

Planning and design for most of the urban greenways will be funded from development impact fees and other sources. A variety of other funding sources are being pursued to construct the greenways. These funding options include ADOT Transportation Enhancement (TE) grants, Back to Basics funds, safe-routes-to-school programs and both Pima County and City of Tucson bond elections.



Southern end of Rose Hill Interconnected System.



#### **Project Timetable**

The Concept Plans discussed in this report for these Urban Greenways are long-range planning documents. Although portions of the greenways may already be constructed, and others may be in design or construction, the Arcadia, Alamo and Rose Hill Greenway alignments could take decades to complete.



Photos of the Rose Hill Urban Greenway near its northern end.

# **ARCADIA URBAN GREENWAY**



#### Arcadia Urban Greenway

#### **Existing Conditions and Alignment Analysis**

In order to determine the final alignment of the path, a combination of digital and ground analysis were performed to create a complete picture of both the context of the project as well as the specific conditions that exist. Aerial photographs were combined with Geographic Information Systems (GIS) data to create composite maps which identified land ownership, existing easements, and special conditions, as well as providing the locations of schools, parks and other amenities that could be accessed along the greenway. These maps were taken into the field and the entire alignment was walked, in the case of some segments several times, to verify digital information as well as to collect additional information on the condition of the watercourse, how development had impacted the alignment of the wash and what additional options could be explored.

The initial result was not a single alignment, but a series of alignment alternatives, each with its own benefits and disadvantages. Each alternative was weighed considering factors such as user safety, accessibility, consistent connectivity and not least the quality of the user experience. The result is a hybrid alignment which utilizes not only the right of way provided along the edge of the watercourse, but also other connectivity elements such as streets, alleyways and existing parks. The planning effort focused on creating a path that would be usable to the widest spectrum of users and would provide the optimum benefit for the community as a whole.

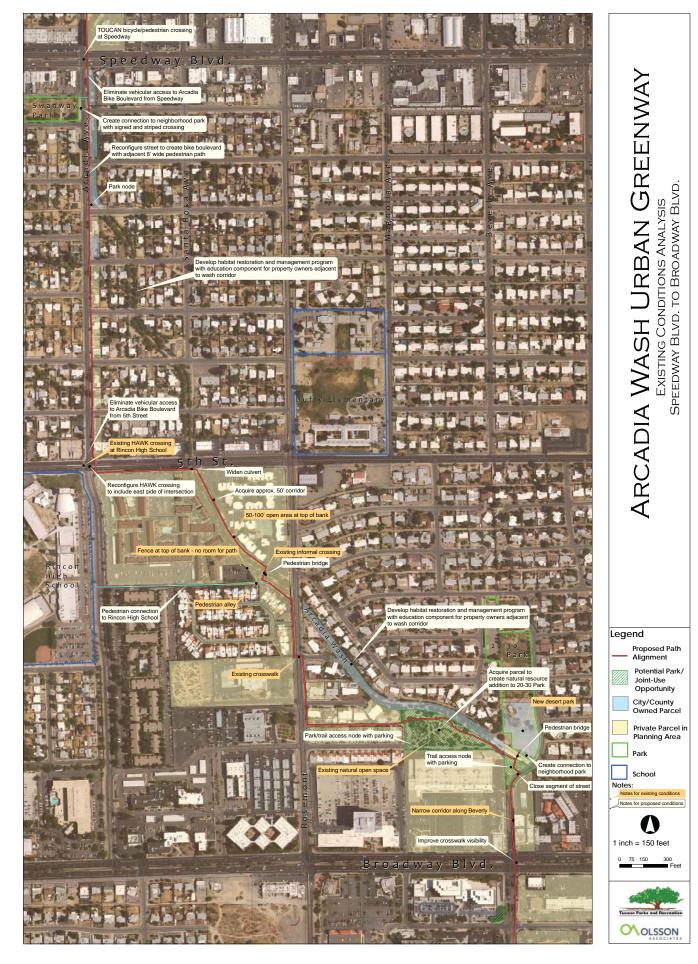
The existing conditions are show on the following aerial maps that were analyzed using geographical information systems (GIS) methods.



Arcadia Urban Greenway (red) starts south of Glenn Street, tying into the Alamo Urban Greenway north of Glenn Street.







Arcadia Urban Greenway Concept Plan





and the second REENWAY configure street to create bike I Ū RCADIA WASH URBAN EXISTING CONDITIONS ANALYSIS 22ND ST. TO GOLF LINKS The second s TEC Existing sidewalks ISA REAL PROPERTY 1. and an and a stand and a stand a s A S S S S S S S S Corbett Elementa The part of the party of the pa 山田、戸山田田市市 Existing traffic signal and crosswalks  $\overline{\mathbf{A}}$ Contract. Contract 2 - - -.eaend Proposed Path Alignment Potential Park/ Joint-Use Opportunity PARA PART PART City/County Owned Parce Private Parcel in a providencia providencia de la construir de la Planning Area Park Reconfigure street to create bike boulevard with adjacent 8' wid School Notes: Notes for existing otes for proposed co inch = 150 feet nway gateway park node 0 75 150 300 Water - House and a state تكرمن ا Tucson Parks and Recreation OLSSON

#### Arcadia Urban Greenway

#### Glenn St. to Grant Rd.

The greenway begins at the confluence of the Alamo Wash and the Arcadia wash just south of Glenn Street. The Alamo Urban Greenway will continue north, providing a seamless connection to the Rillito River Park. This confluence also occurs at the edge of the Tucson Medical Center (TMC) Campus, and installation of the path through this area will be a part of the TMC Expansion.

The path crosses to the east bank of the wash using the existing bridge on Wyatt Avenue, then continues south across Wyatt and through an existing open space adjacent to a TMC parking area. It passes south between a drainage swale and the wash bank, crossing



The layout of the Grant Rd. PELICAN crossing. This crossing suits the multiple lane and high volume nature of Grant Rd by providing users a respite area in the median of the crossing and halting one direction of traffic at a time, thus allowing for shorter stopping periods.



The confluence of the Alamo and Arcadia Washes. From this point the Arcadia Greenway connects to the Rillito River Park via the Alamo Greenway.

the edge of private property until it reaches Grant Rd. A split phase PELICAN (PEdestrian LIght Control ActivatioN) pedestrian crossing just west of the culvert establishes a safe crossing for path users on this high-volume arterial.

#### Arcadia Urban Greenway

#### Grant Rd. to Speedway Blvd.

South of Grant, the wash is lined with concrete and development is close to of the edge of the bank. Development of the greenway in this corridor would have meant considerable land acquisition and demolition of existing structures. One block to the west is Arcadia Avenue, which has been designated as a future "bike boulevard" by the City of Tucson Bicycle Advisory Committee. Locating the greenway along this lowflow residential street would not only reduce cost for greenway development, but would also reduce cost for the creation of the bike boulevard, as well as increasing potential users for both systems.

The fire station at the intersection of Pima Street and Arcadia Avenue already has a station alert signal. This is to be re-configured to also act as a HAWK crossing for the greenway pedestrians and bicycles.

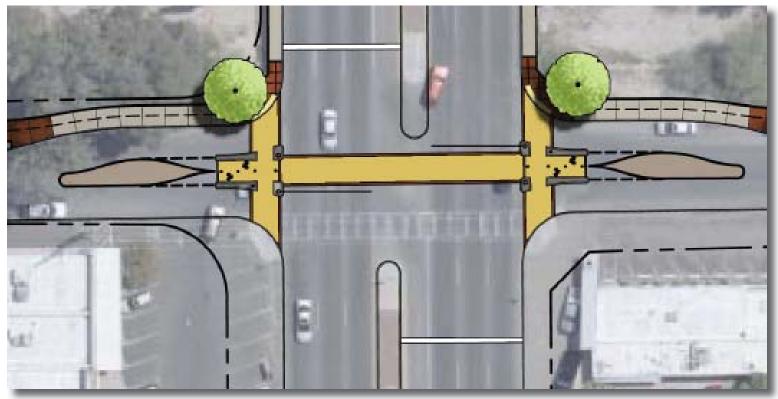
South of Pima Street, the greenway will continue to utilize the Arcadia Avenue bike boulevard. Although the wash course in this area is in a more natural condition and there are areas where land is available to locate the path and amenities, there are also a number of areas where the right of way or parcels do not allow for installation of the path without property acquisition and even demolition of existing structures. An additional benefit to utilizing the Arcadia Ave. alignment here is the connection provided with both Pinecrest Park and Swanway Park south of Speedway.

Some of the undeveloped and public parcels along the wash banks may be suitable for smaller parks and opportunities to partner with schools, churches and other organization to develop joint use facilities. Undeveloped space in this part of the city can be difficult to find particularly parcels large enough to support recreational use. Creative methods like joint use facilities and adjoining smaller urban parks using a greenway such as the Arcadia can help to provide important recreation amenities to an underserved area.

A TOUCAN (TwO GroUps CAN cross) bicycle/pedestrian crossing at Speedway will not only provide additional safety for users crossing the street, but will also reduce vehicular traffic on the bicycle boulevard. The high visibility of this crossing also makes it an excellent opportunity for signage and community awareness. Many of these greenway branding opportunities exist



The existing signal at Pima serves the Fire Station could be easily reconfigured to accommodate pedestrians and bicyclists.



The TOUCAN crossing at Speedway allows pedestrians and bicyclists to cross safely, but does not allow through automobile traffic. This will reduce the volume of vehicular traffic on the bicycle boulevard.

along the greenway alignment, and careful signage and theming will greatly contribute to the success of the amenity. This intersection is a particularly important opportunity due to the high volume of Speedway Boulevard, as well as the fact that the wash, the bike boulevard, the greenway and Arcadia Avenue all share the same alignment at this point.

Locating the greenway along the road side allows for maintaining the vegetation and natural feel of the existing watercourse. Additional care, awareness and maintenance guidelines have the potential to improve the wildlife value.

#### Arcadia Urban Greenway

#### Speedway Blvd. to Broadway Blvd.

The path alignment continues to follow Arcadia Ave. between Speedway and 5<sup>th</sup> Street. Automobile traffic on these portions of Bike Boulevard and Greenway combined will be reduced by limiting vehicular ingress at both Speedway and 5<sup>th</sup> Street. An opportunity exists to develop a small park node at the intersection of Arcadia Ave. and Hawthorne Street, where the wash joins the street alignment.

There is an existing HAWK (High Intensity Activated Cross WalK) crossing at 5<sup>th</sup> Street which serves Rincon High School on the southwest corner of the intersection. Because the current striping and signage only includes the west side of the intersection, additional striping will need to be added on the east side to accommodate the greenway users. Access to the high school will be easiest for south bound users here, and a second connection will be possible to the south for users approaching the high school from the north.

Between 5<sup>th</sup> Street and Broadway Blvd. the path follows a winding course, using the wash banks, existing roadways, alleys and vacant parcels. This section provides a link between the 20-30 Neighborhood Park and Rincon High School. There is an opportunity to create additional natural open space in the unused private parcel immediately behind the Target center on Broadway and Beverly.

On portions of the wash where the greenway has not been located, it remains important to improve where practical the quality of the riparian habitat found in these channels. A management program aimed at encouraging native plant species and providing forage for native birds and other wildlife will ensure that even though these sections of wash are not protected by the presence of the greenway, they still will provide important natural connectivity for Tucson's wildlife.



Bridge linking 20-30 Neighborhood Park and Rincon High School.



The existing HAWK crossing at 5th Street and Arcadia Ave. will be reconfigured to serve both sides of the street, which will accommodate the needs of the school and the greenway users.



The crosswalk at Speedway will be upgraded to prevent additional vehicular traffic from using the Arcadia Bike Blvd.



An opportunity for a park recreation node is created where the wash alignment enters the intersection of Arcadia Avenue and Hawthorne Streets.

#### Arcadia Urban Greenway

#### Broadway Blvd. to 22<sup>nd</sup> St.

South of 22<sup>nd</sup> Street, the Arcadia Wash channel once The greenway utilizes the existing crossing signal at again disappears underground. There are no significant Broadway Blvd. and Beverly Avenue. Arcadia Wash traces of the watercourse beyond this point. Just is routed underground beneath Broadway Blvd. and two blocks east, however, is another planned bicycle the commercial development at Williams Center. The boulevard along Sahaura Avenue, which eventually greenway follows Williams Blvd. as it heads south, then connects to the Barraza–Aviation Bike path at Golf Links curves east to intersect Cravcroft Road. A HAWK crossing Road. To reach Sahaura Avenue, the greenway turns east at Craycroft will not only serve the greenway users, but just before it reaches 22<sup>nd</sup> St. into a small alleyway. will also be an important traffic control feature for St. Joseph's School, which currently operates a manned crossing guard a block to the north.

East of Craycroft Road, the greenway turns south once again into Wilshire Park. The Arcadia Wash has reemerged here, now more of a shallow, grassy swale than the steep-sided wooded wash found farther to the north. The greenway path follows the wash alignment through Wilshire Park, then south to another small neighborhood park (Mesa Village Park). There is an opportunity to expand the usable space of this park by designing the wash area to the south as more natural open space with park amenities. Farther south, there is another joint-use park opportunity on the vacant property currently owned by the Craycroft Baptist Church. This underutilized parcel would be an excellent active play and staging area which would benefit the neighborhood and be a valuable asset to the church's educational programs.



Mesa Village Park could potentially be expanded into this area through the use of native plantings and additional greenway amenities.



The wash enters Wilshire Park as a broad, grassy swale that is incorporated into the boundary of the park.

#### Arcadia Urban Greenway

#### 22<sup>nd</sup> St. to Golf Links Rd.

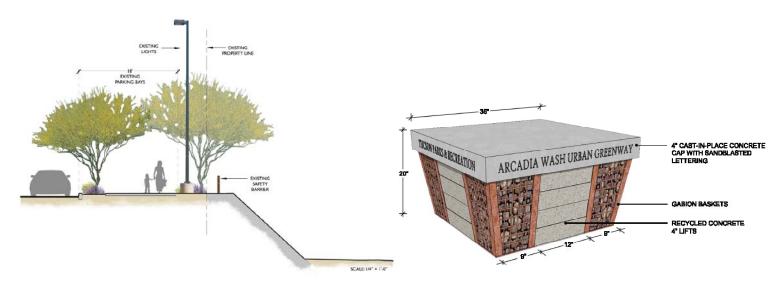
This portion of the greenway follows the Sahaura Ave. bike boulevard. Blocking vehicular access at the intersection of Sahuara Ave. at both 22<sup>nd</sup> St. and Golf Links Rd. will help to alleviate some of the automobile competition for space on this street. A PELICAN crossing has already been installed at 22<sup>nd</sup> Street, which makes this an ideal location for the greenway to cross. The greenway will connect to Corbett Elementary School, and has potential to become an important Safe Route to School for this campus.

This neighborhood will be well served by the Urban Greenways System. The landscaping and other improvements that would accompany the greenway would have a positive effect on community image and increase opportunities for local recreation. A small gateway park node and a PELICAN crossing at Golf Links marks the southern terminus of the path. This is an excellent opportunity to create a highly visible face for the greenway on one of the city's heaviest-use roadways. Here the greenway will also connect with the Barraza-Aviation-Golf Links Bicycle Path, which connects eastwest across the city from Downtown to Kolb Road. With this connection, uses will be able to continue on to access the Houghton Road Greenway (via the planned Irvington Road Greenway) and the Santa Cruz River Park (via the Downtown Links).

#### Arcadia Urban Greenway

#### **Amenities**

Once the alternatives had been evaluated and reviewed, master design began for the entire greenway length. Certain detailed problems, such as stream crossings, pedestrian-vehicular conflicts and dramatic grade changes needed to be addressed to further access the viability of the chosen alignment option. The alignment was divided into 29 segments, and a series of proposed cross-sections and details were developed to respond to the changing conditions the greenway would encounter as it traveled through urban development and to create a unique and recognizable look for the Arcadia Urban Greenway.

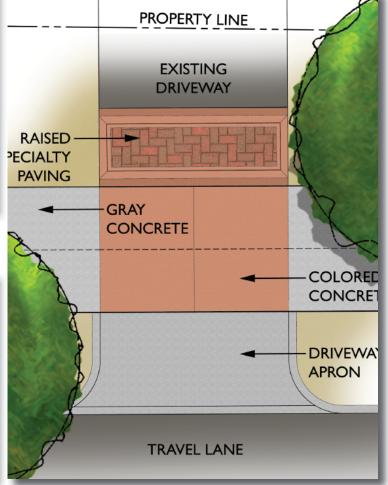




The existing PELICAN crossing at Golf Links will link the Arcadia Urban Greenway to the Barraza-Aviation-Golf Links Bike Path.



Barraza-Aviation-Golf Links Bike Path heads west to connect to the Santa Cruz River and east to connect to the Houghton Road Greenway.



Solutions were developed to address pedestrian and vehicular conflicts, such as at residential driveways along the bicycle boulevards.

Cross Sections such as this one have been developed for the many different conditions found along the proposed alignment.

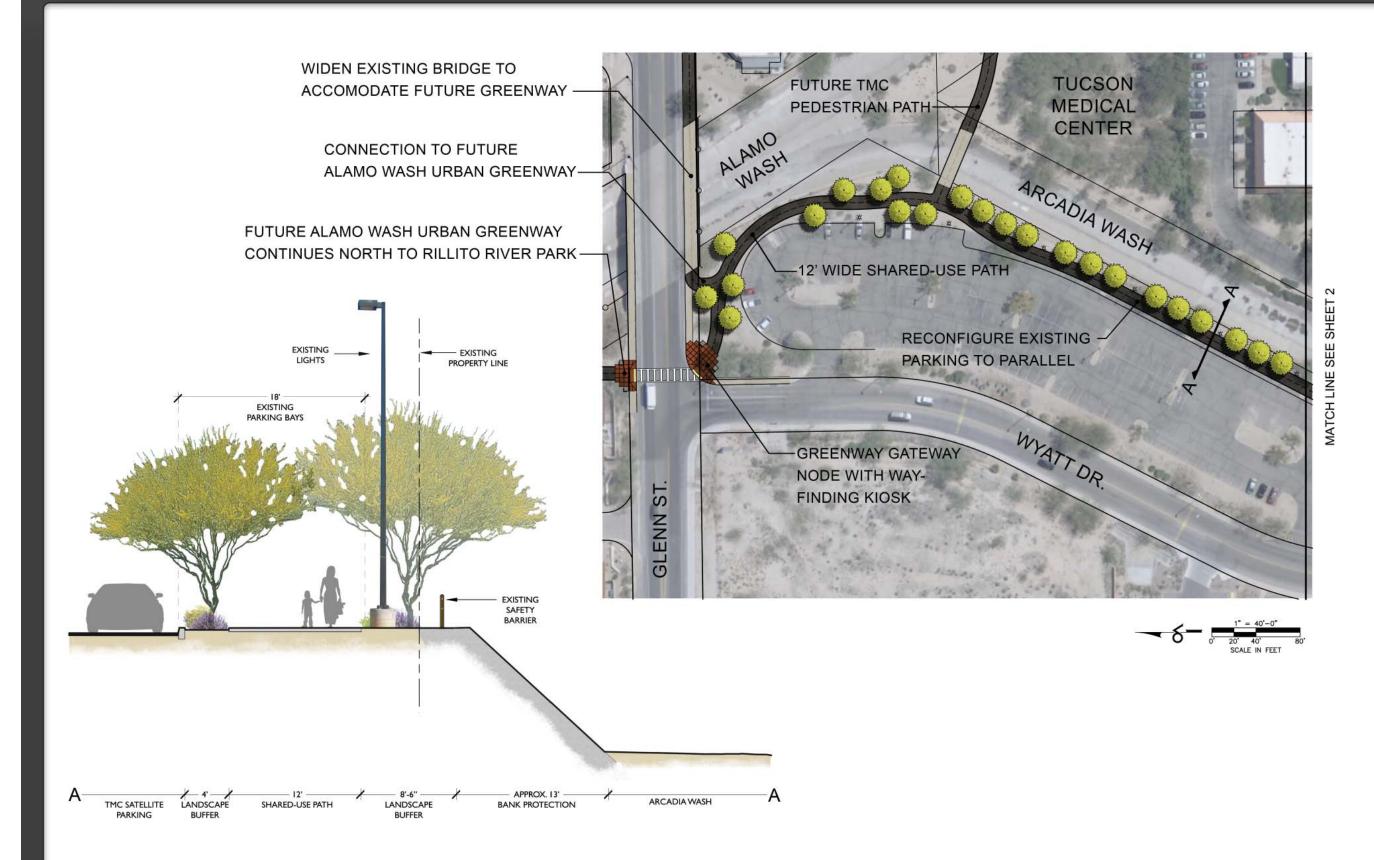


Design for signage which can double as seating along the greenway.

A series of park-like nodes were located along the alignment which not only provide a resting point for greenway users, but also additional recreation space for the larger community.

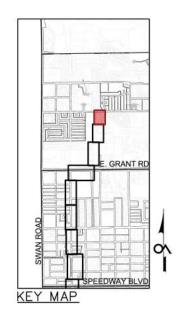
## **ARCADIA URBAN GREENWAY**

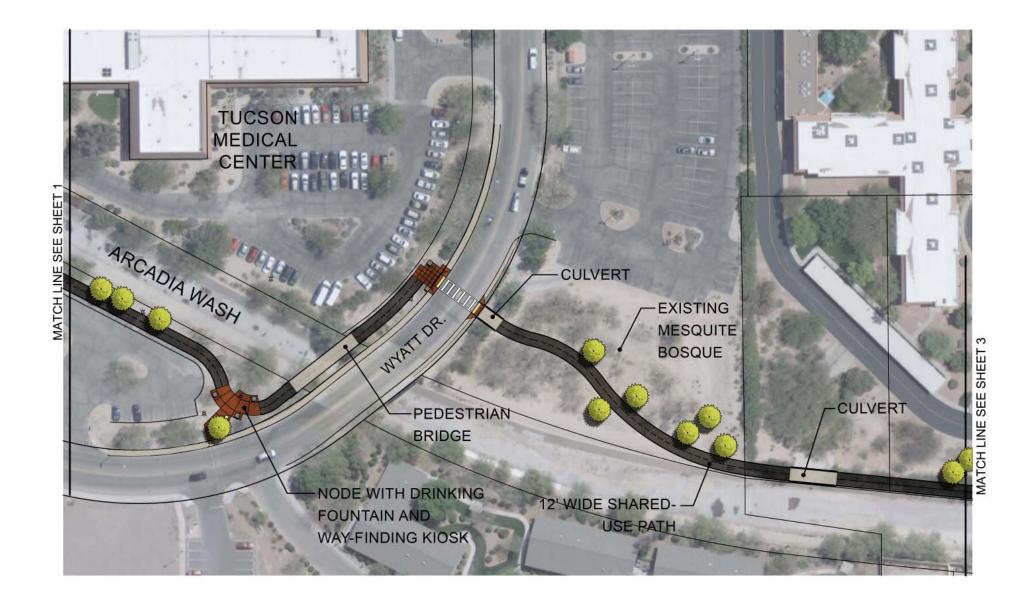


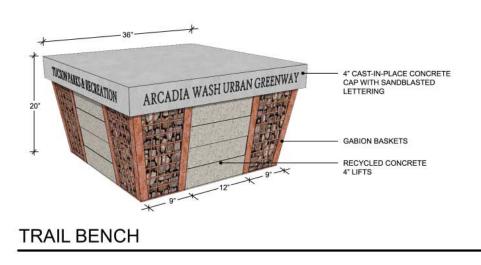




**SEGMENT 1** 



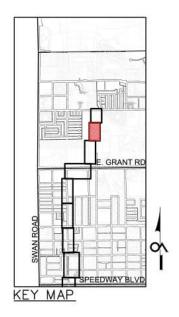




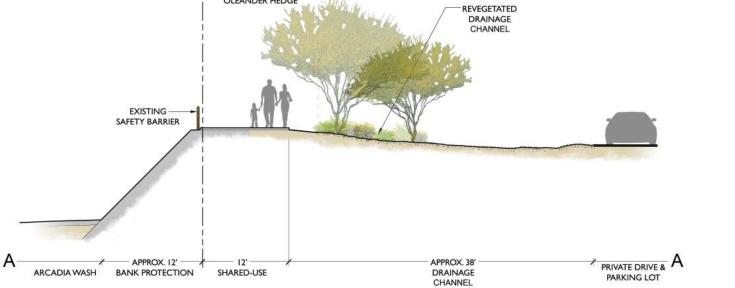


SEGMENT 2

SCALE IN FEET

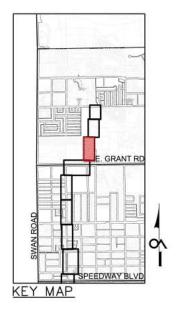




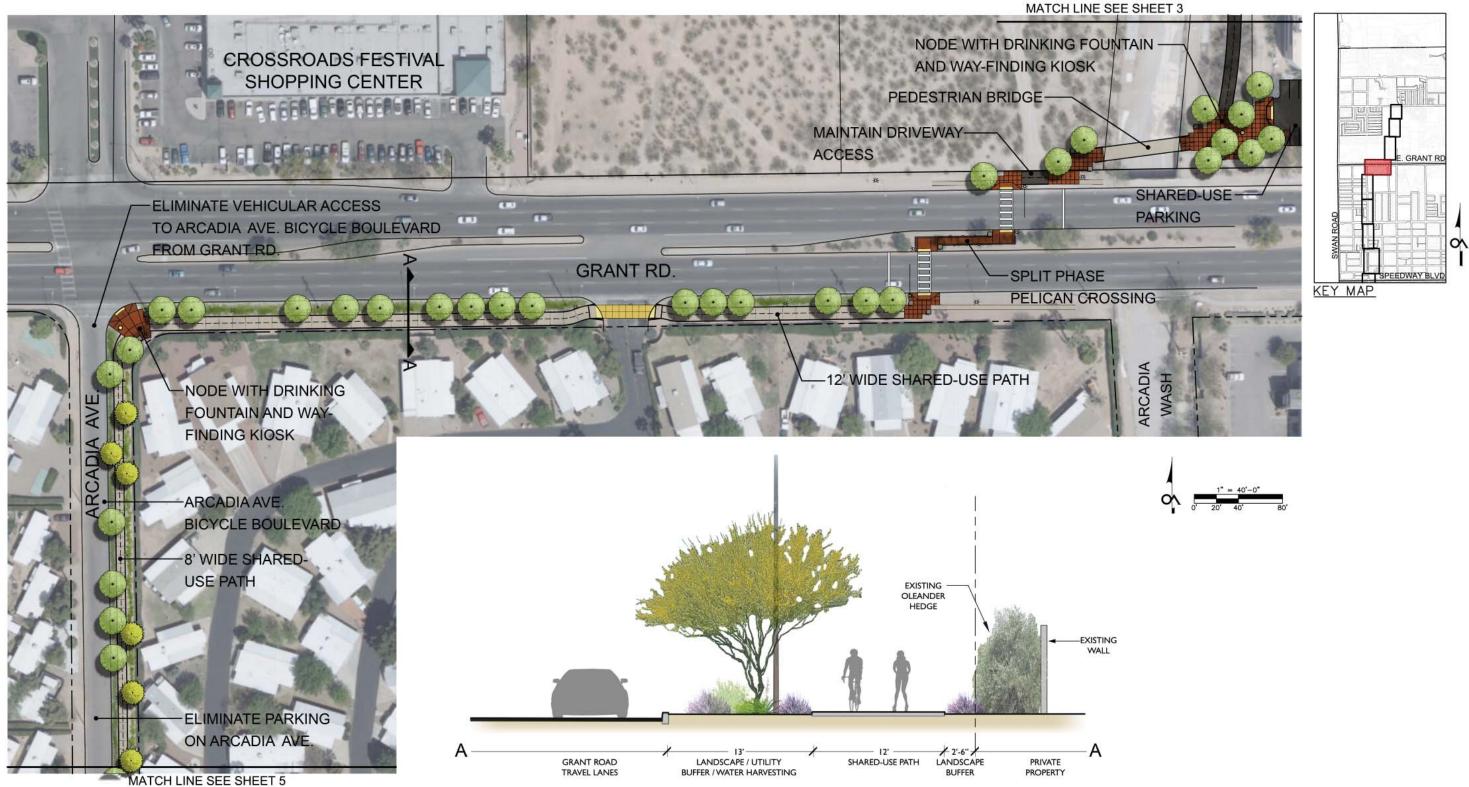




SEGMENT 3



**Tucson Parks and Recreation** 

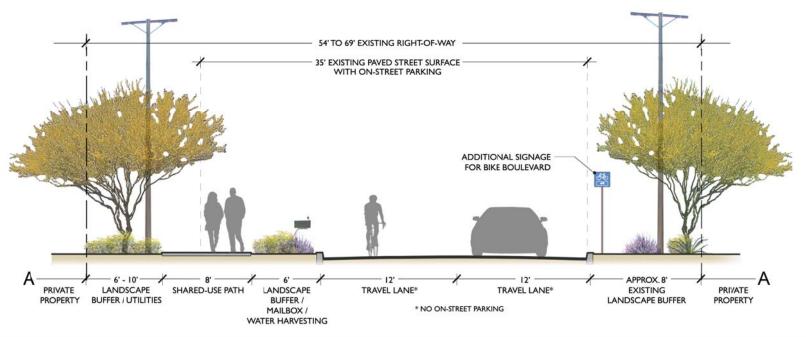




SEGMENT 4

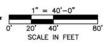


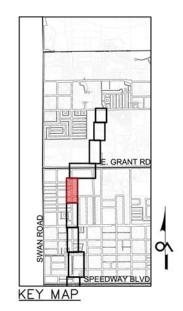






ARCADIA WASH URBAN GREENWAY SEGMENT 5



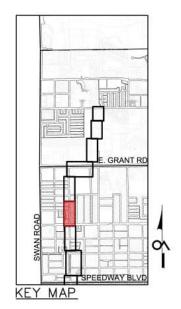


**Tucson Parks and Recreation** 





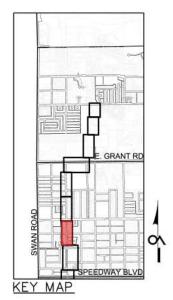
SEGMENT 6







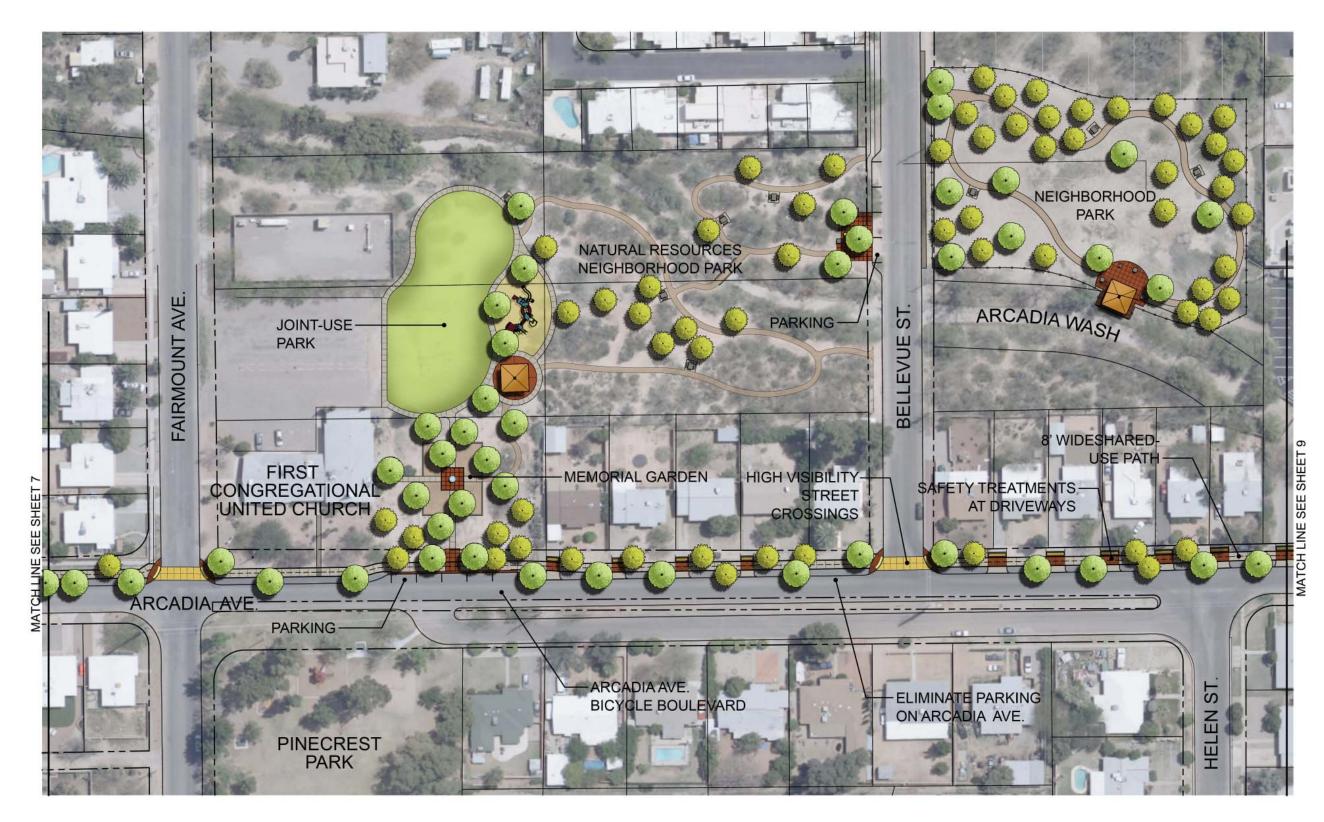
SEGMENT 7





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**Tucson Parks and Recreation** 





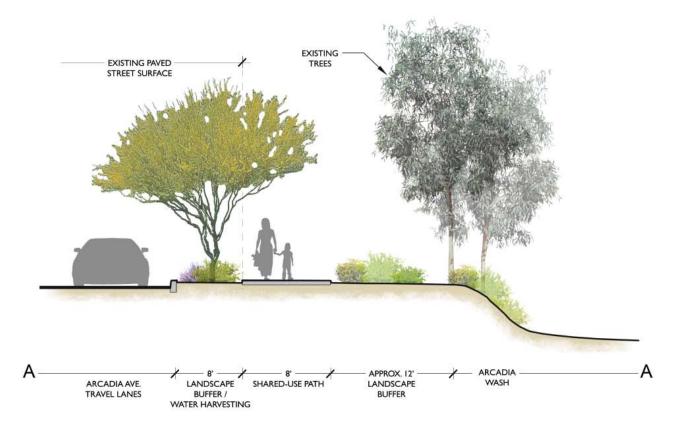


SEGMENT 8

GRANT R 0 KEY MAP

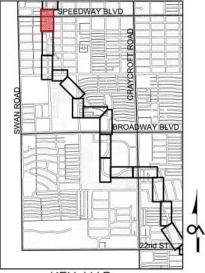








SEGMENT 9



KEY MAP

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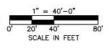
SCALE IN FEE



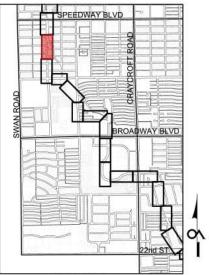




SEGMENT 10



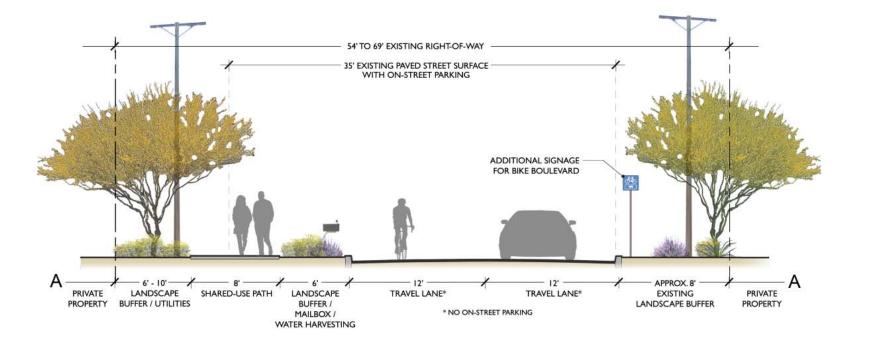
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KEY MAP

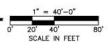
MATCH LINE SEE SHEET 12





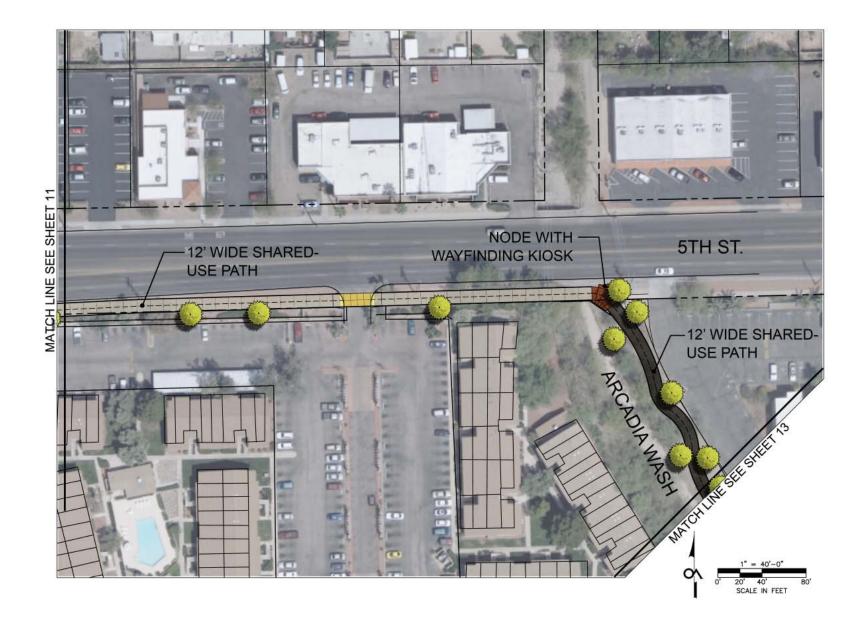


**SEGMENT 11** 



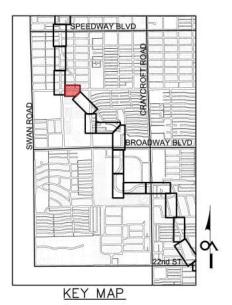


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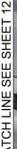




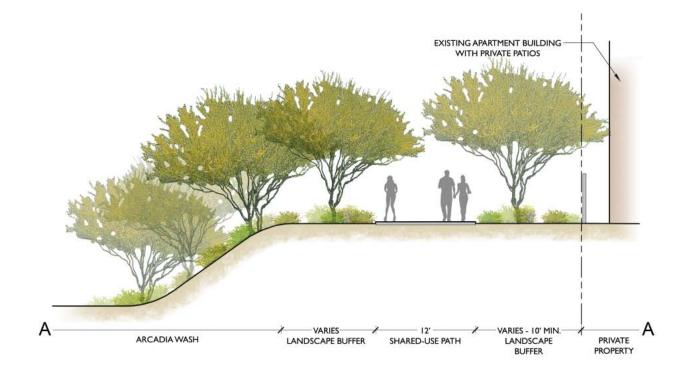
SEGMENT 12



**Tucson Parks and Recreation** 

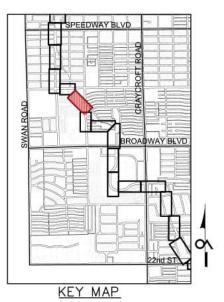






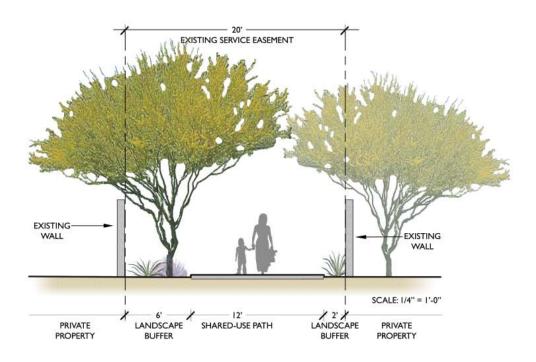


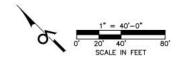
SEGMENT 13



MATCH LINE SEE SHEET 15



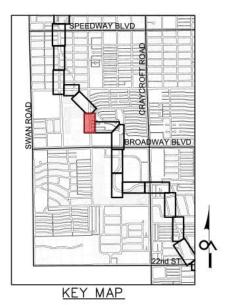




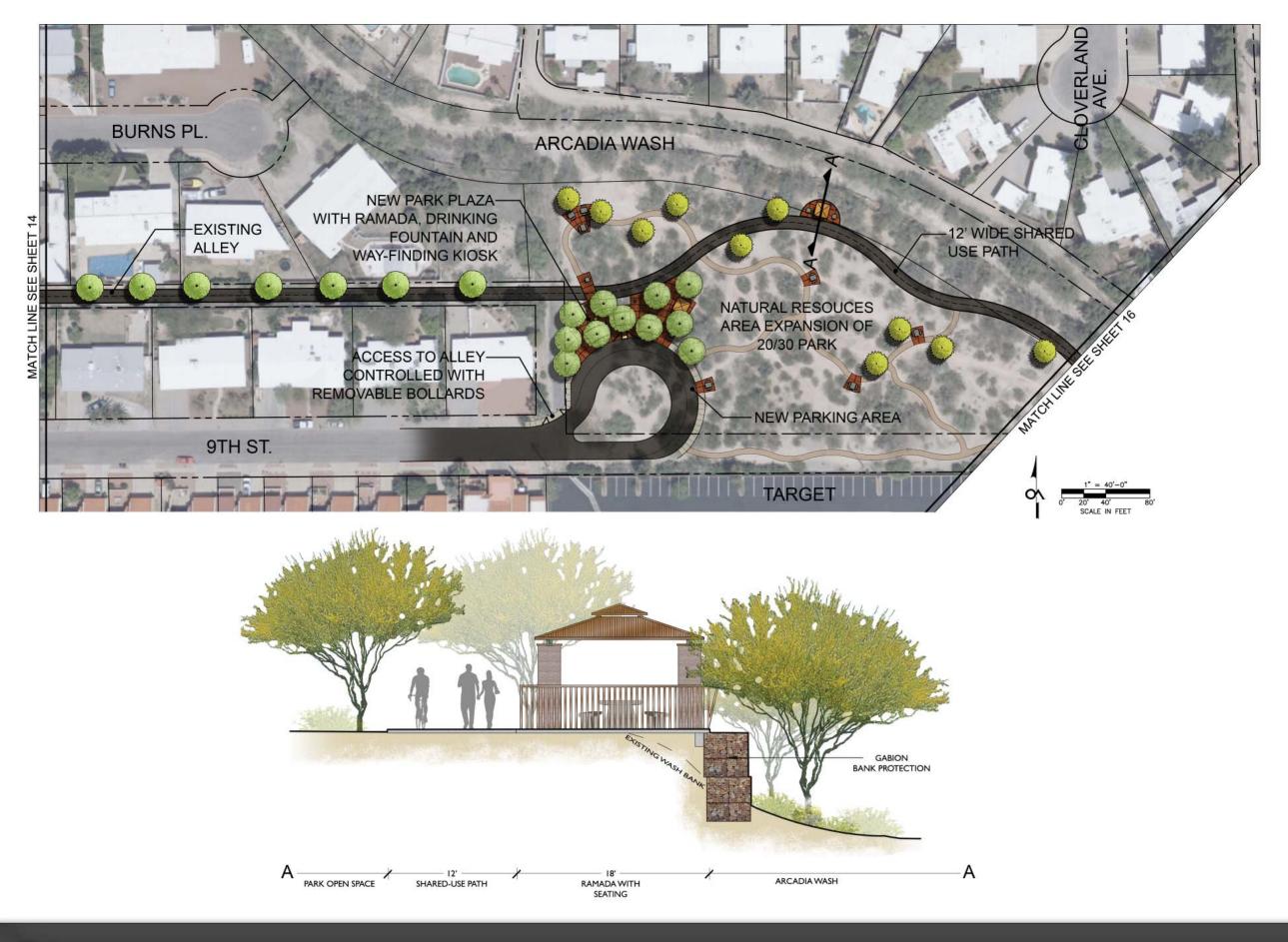


ARCADIA WASH URBAN GREENWAY

SEGMENT 14



**Tucson Parks and Recreation** 

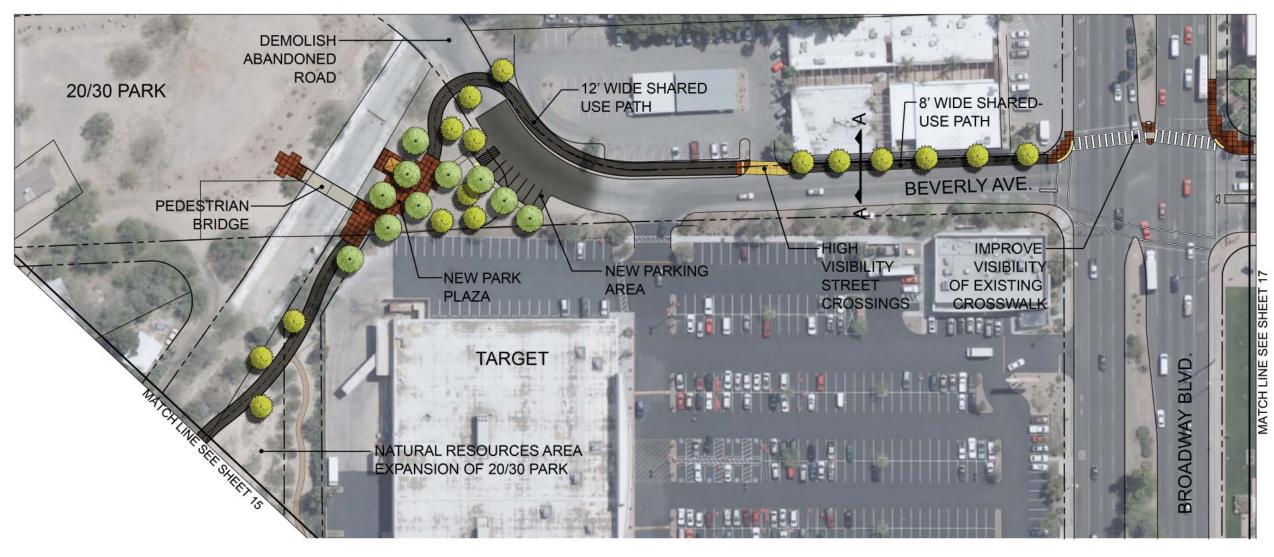


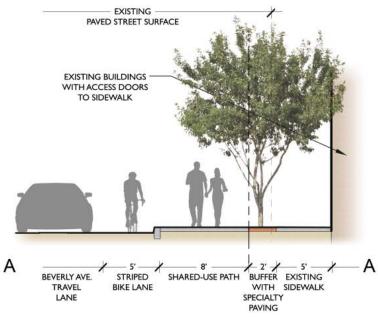


SEGMENT 15



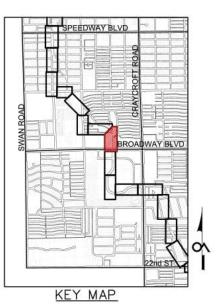
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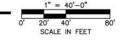


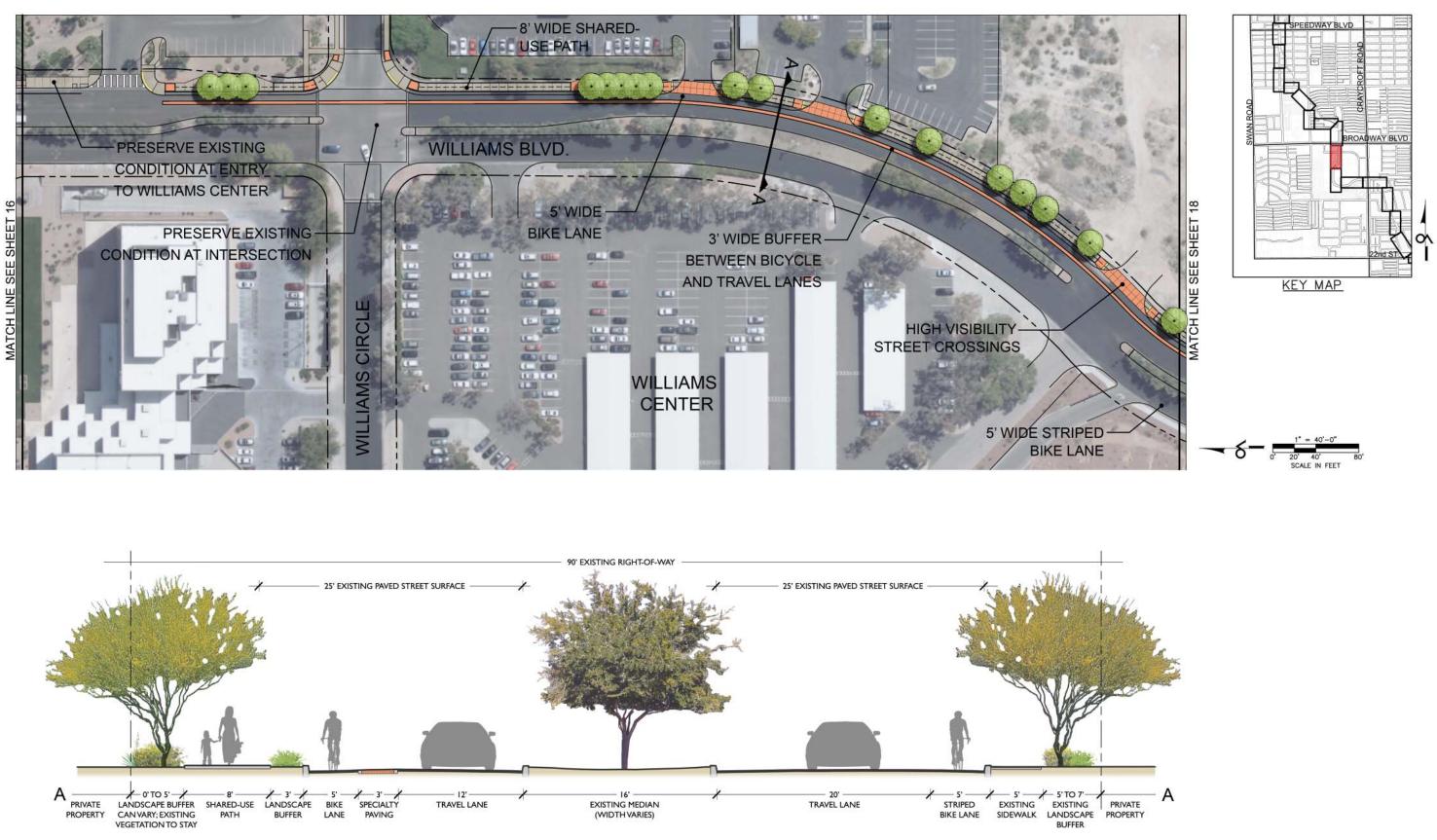


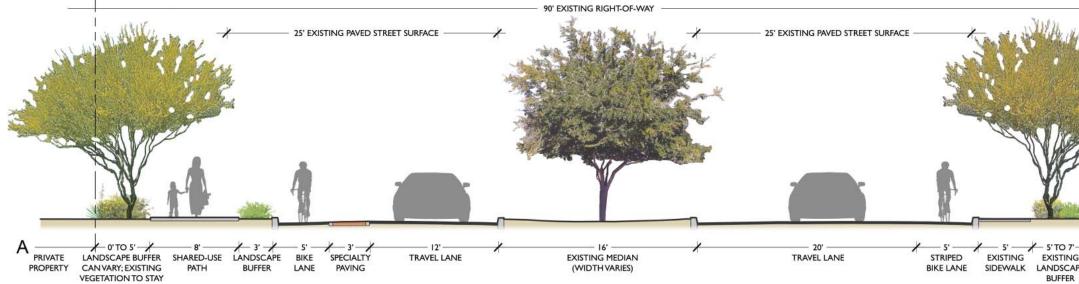


SEGMENT 16











**SEGMENT 17** 

MATCH LINE SEE SHEET 19



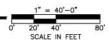


## ARCADIA WASH URBAN GREENWAY

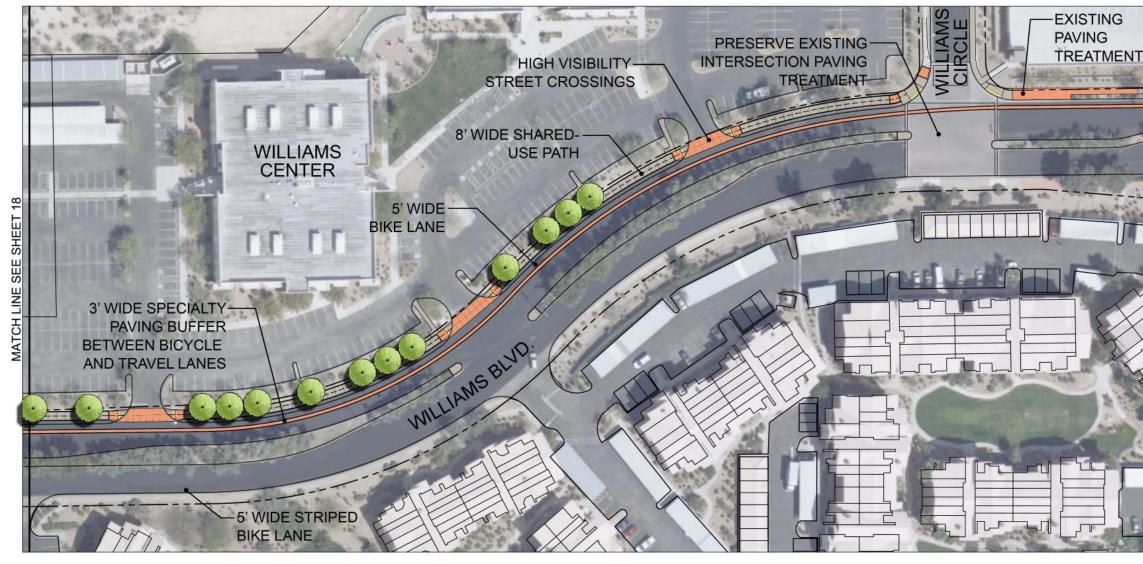
SEGMENT 18



KEY MAP







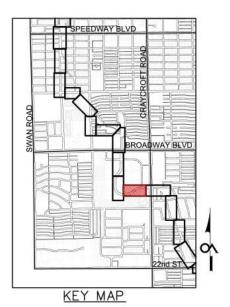
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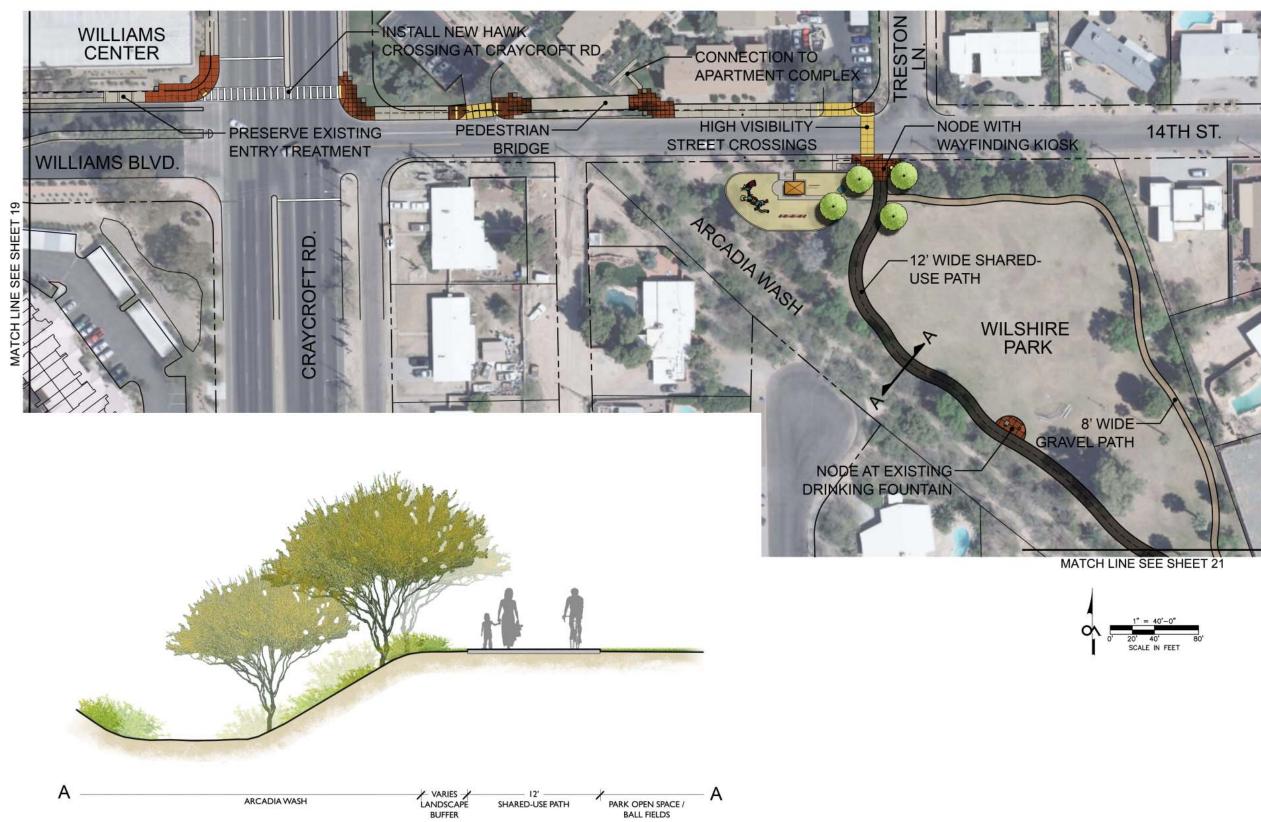


**ARCADIA WASH URBAN GREENWAY** 

SEGMENT 19

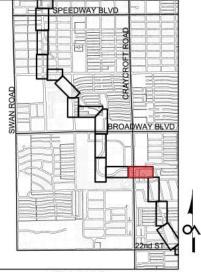




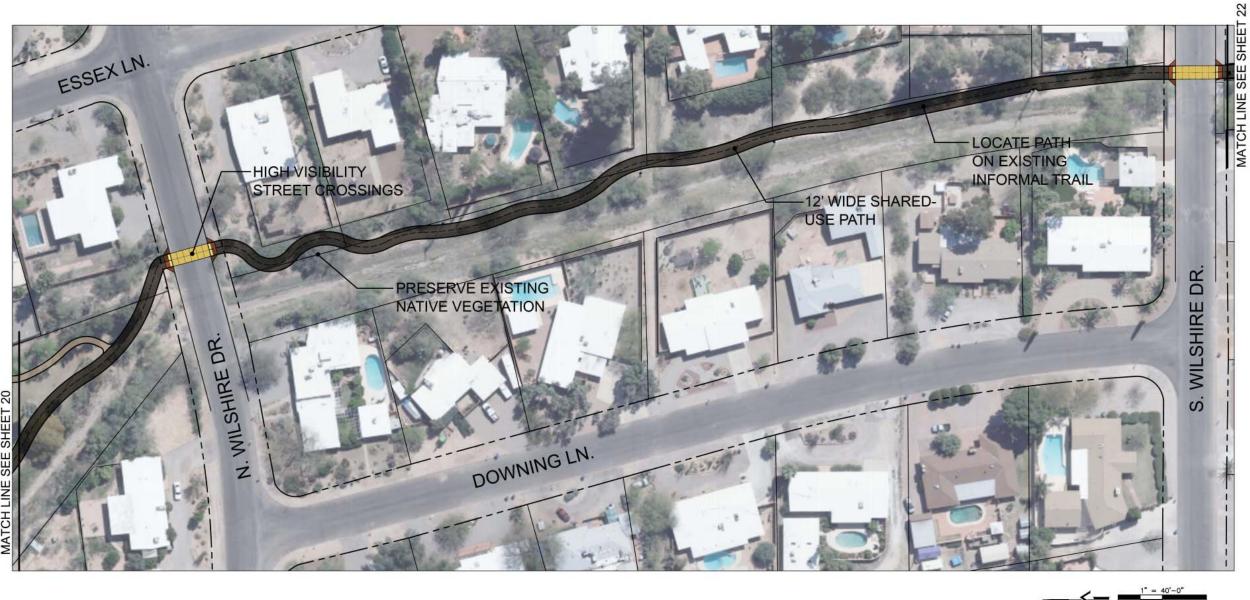




**SEGMENT 20** 

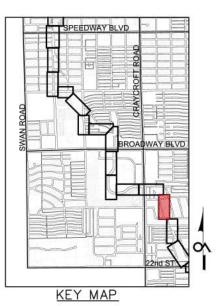


KEY MAP





**SEGMENT 21** 



1" = 40'-0" 0' 20' 40' 80' SCALE IN FEET

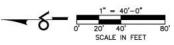


MATCH LINE SEE SHEET 21



ARCADIA WASH URBAN GREENWAY

SEGMENT 22



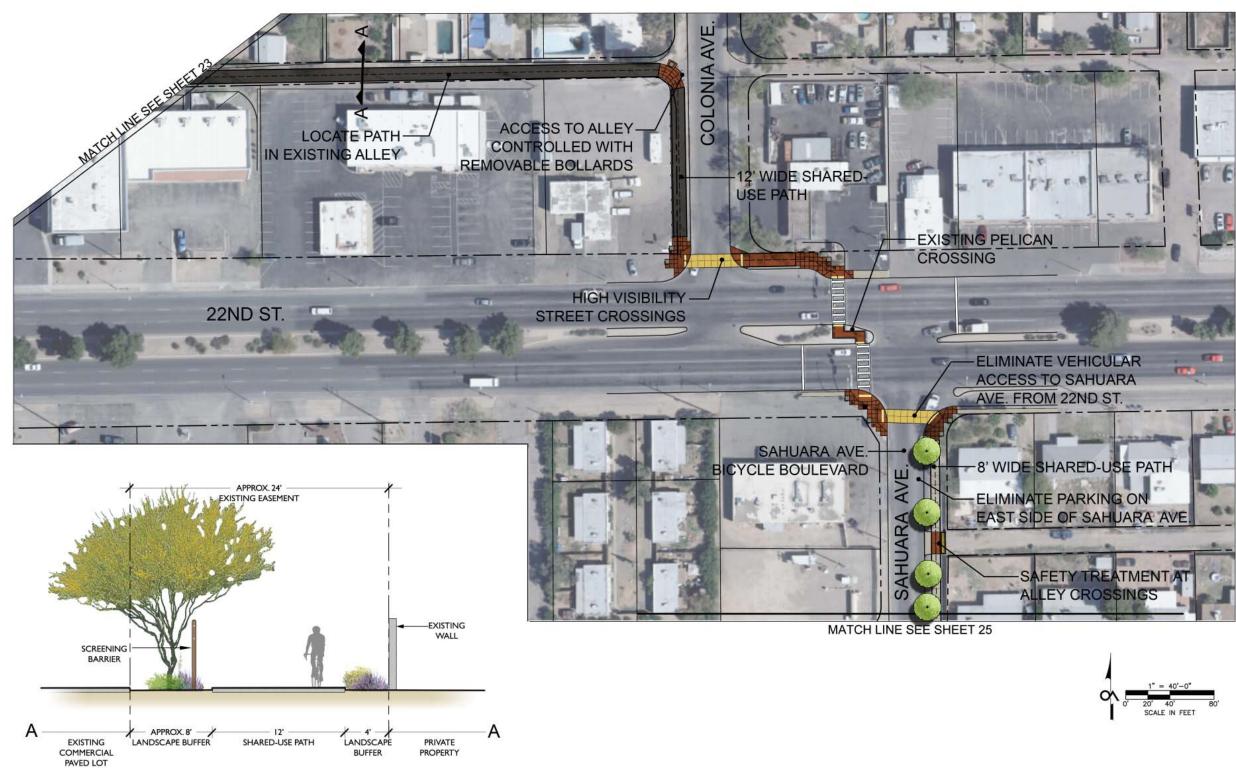


KEY MAP



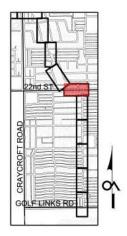


**SEGMENT 23** 



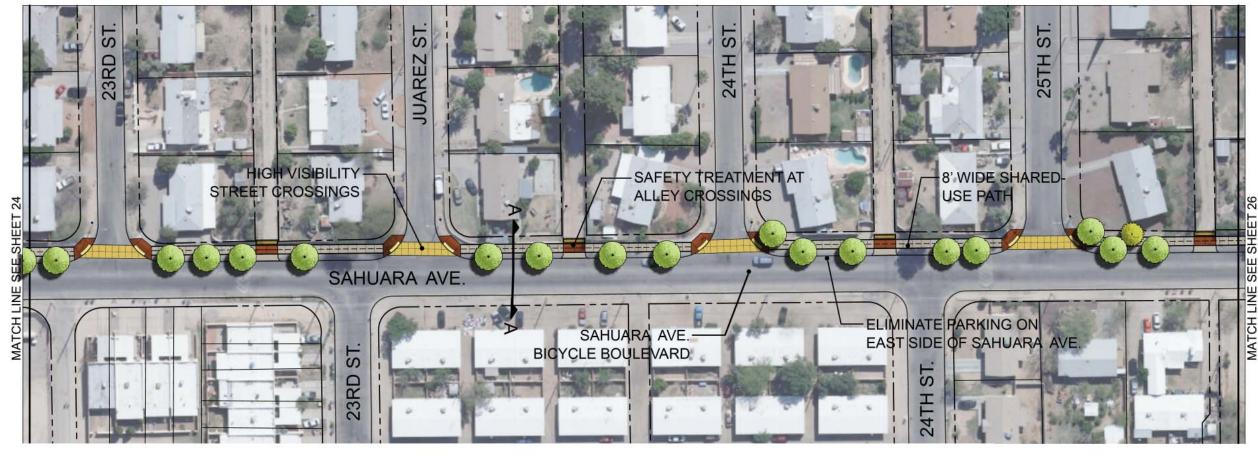


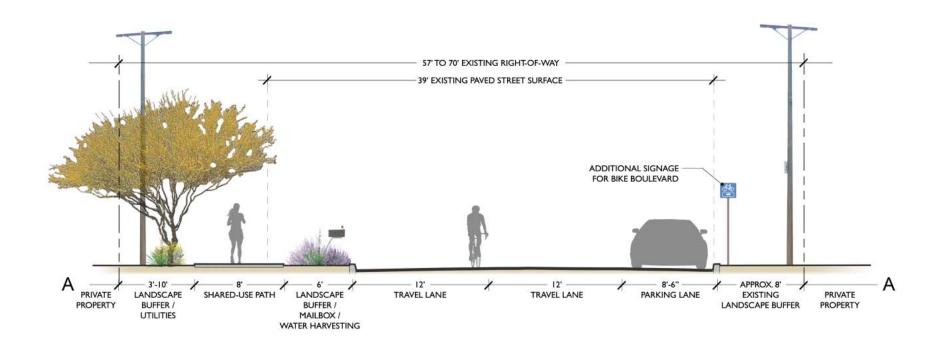
SEGMENT 24



KEY MAP

**Tucson Parks and Recreation** 





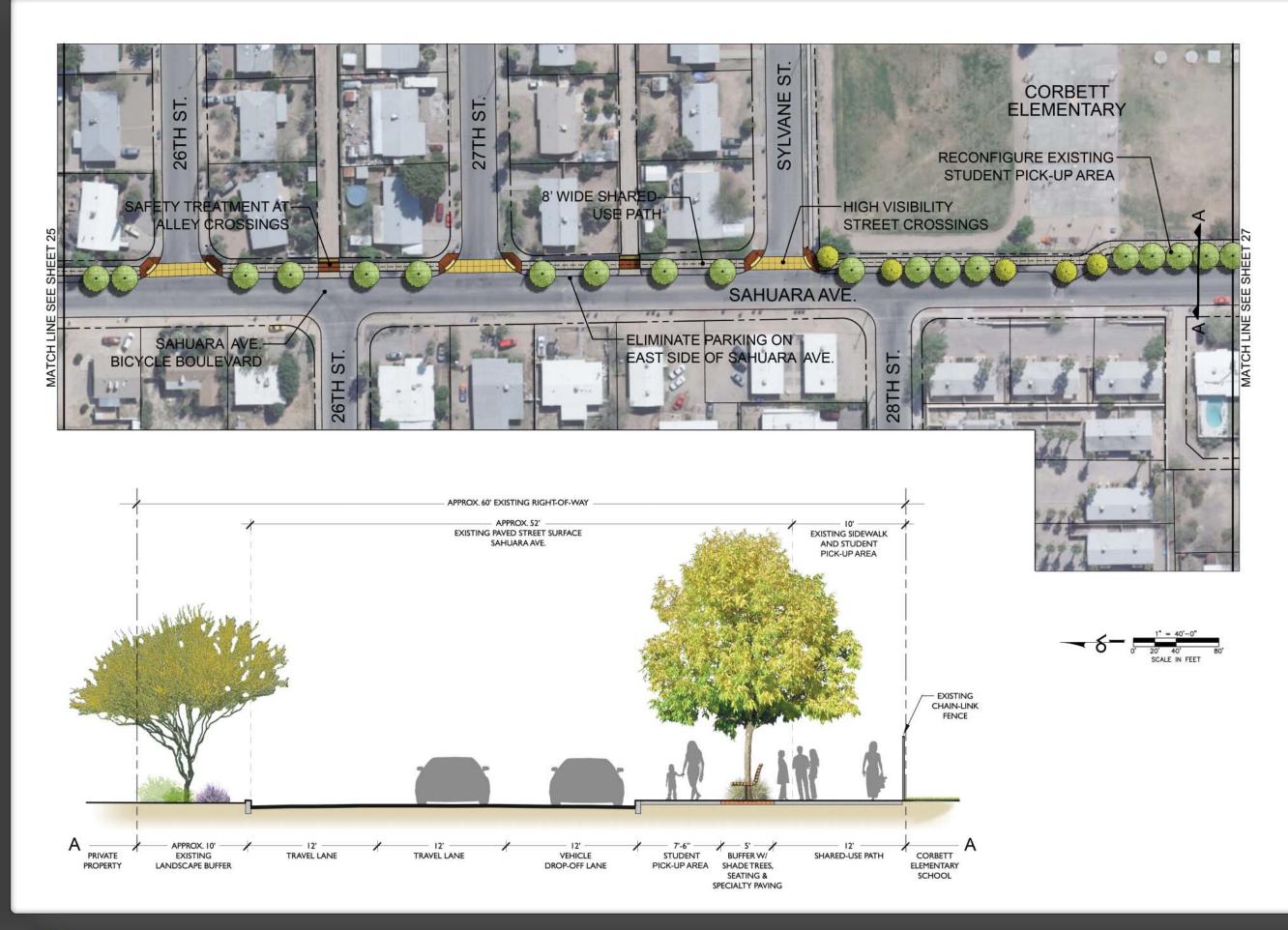


0' 20' 40' SCALE IN FEET



KEY MAP







SEGMENT 26



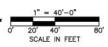
KEY MAP

**Tucson Parks and Recreation** 





SEGMENT 27



- 6



KEY MAP

**Tucson Parks and Recreation** 

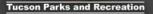






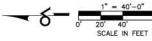


KEY MAP





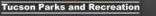








KEY MAP





#### Alamo Urban Greenway

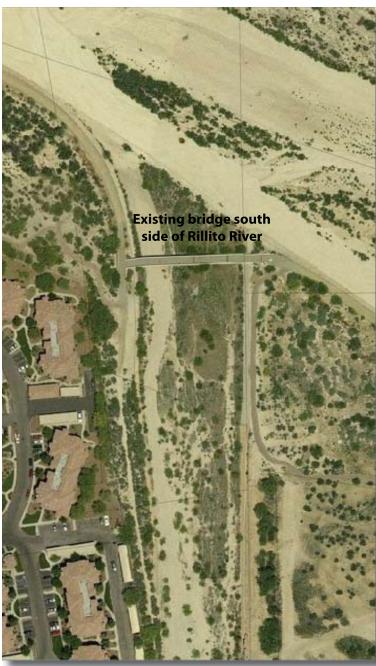
#### **Existing Conditions and Alignment Analysis**

The alignment of the Alamo Urban Greenway was also determined by a combination of digital analysis and ground analysis of the context of the route and the specific conditions that exist along the route. Aerial photographs and Geographic Information Systems (GIS) data were used to identify land ownership, existing easements, and special conditions, as well as locations of schools, parks and other amenities along the greenway. Maps were taken into the field and the entire alignment was "ground truthed" to verify the efficacy of digital information. Visual observation was the basis of understanding firsthand the condition of the watercourse, how adjacent development had impacted the alignment of the wash and what additional options could be explored for completing a safe and contiguous alignment of the Alamo Urban Greenway. The 8-mile Alamo Urban Greenway is the longest of the three urban greenways in this study. The 5-mile Arcadia Urban Greenway dovetails into the Alamo at Fort Lowell Road and Alamo Wash.

The result of the analysis and on-site visual observation is a hybrid alignment which utilizes not only the edge of the waterway, but also other connectivity elements such as streets shoulders and extended rights-of-way, alleyways and existing parks. Almost all of the Alamo Urban Greenway is located adjacent to the waterway south of Wilmot Road, providing opportunities for enhancing trees and bird habitat.



The greenway asphalt path (east side) and the granite path (west side) meet at the bridge in the Parade Grounds and cross the street to open space that connects to Fort Lowell Road.



The Alamo Urban Greenway begins at the Rillito River where a bridge exists that connects the east and west sides of the Rillito River Park.

#### Alamo Urban Greenway

#### **Rillito River to Fort Lowell Road**

The greenway begins on the north by connecting to the multi-use path on the south side of the Rillito River Park where an existing bridge spans the Alamo Wash. The 12-foot wide asphalt multi-use trail follows the east side of Alamo Wash and an 8-foot wide granite trail follows the west side of the wash. The eastside asphalt path crosses the wash via a new bridge on the north side of an existing vehicle bridge at North Valley Ranch Drive and connects with the granite path on the west side of the wash. There the paths meld together and the asphalt path follows an alignment along the east side of the entrance to The Garrison & The Parade Grounds at Valley Ranch gated community until it crosses Fort Lowell Road.

#### Alamo Urban Greenway

#### Fort Lowell Road to East Glenn Street

At Fort Lowell Road, the greenway path follows the extended right-of-way on the south side for two blocks where it hooks up to the Alamo Wash channel again. At the wash a small trailhead parking area will be developed on Pima County land on the east side of the wash at Fort Lowell Road and a naturalistic fitness course will be introduced. There the greenway multi-use path heads south along the line of an existing Pima County nature path and connects to East Glenn Street.



The Alamo Wash looking north from the bridge on East Glenn Street.



The multi-use path crosses Fort Lowell Road on the east side of The Garrison & The Parade Grounds at Valley Ranch gated community.



The Alamo Urban Greenway follows the alignment of an existing Pima County nature path on the east side between Fort Lowell Road and East Glenn Street.

#### Alamo Urban Greenway

#### Glenn Street east to Fort Lowell Park

At the intersection of the Alamo Wash with East Glenn Street, the urban greenway follows the right-of-way of East Glenn Street and North Sahuara Avenue until it hooks up again with the waterway channel between Grant Road and Pima Street. This routing occurs for three primary reasons: 1. To circumvent Tucson Medical Center's sprawling campus; 2. To link up with Fort Lowell Park; and 3. To provide a connecting link to the Rillito River Park at the corner of East Glenn Street and North Sahuara Avenue.



Where the path emerges from the Alamo Wash at Glenn, it follows a 20-foot wide extended right-of-way on the north side near a bus stop.

Where the path emerges from the Alamo Wash at Glenn, it follows the extended right-of-way on the north side of Glenn for 5 1/2 blocks. There is about 20 feet of extended right-of-way to locate the path and other amenities including a bus stop right at the point where the path emerges from the wash to the East Glenn right-of-way. The path continues eastward crossing Glenn on the east side of N. Beverly Avenue at an existing crosswalk to W. V. Whitmore Elementary School. Crossing to Whitmore Elementary School provided good connectivity and avoids a narrow right-of-way on the north side where power poles are located in the middle of the right of way. The path continues on the north side of the school dovetailing with the school bus drop off.

After the path traverses the school, it follows the north edge of an undeveloped parcel, replacing the existing sidewalk with the multi-use path. The parcel, owned by Tucson Medical Center (TMC), is undeveloped and provides an opportunity for the Tucson Parks and Recreation Department to work with TMC when the parcel is planned. The multi-use path proceeds to cross Craycroft Road following the at-grade lighted crosswalk and then turns north across East Glenn Street to hook up with Fort Lowell Park.



The multi-use path crosses East Glenn Street at an existing crosswalk connecting to W. V. Whitmore Elementary School.



The multi-use path continues on the north side of the W. V. Whitmore Elementary School dovetailing with the school bus drop off.



East side of the W. V. Whitmore Elementary School, the multi-use path replaces the existing sidewalk and connects to the corner of Craycroft Road along the north edge of a parcel owned by TMC.

#### Alamo Urban Greenway

#### Fort Lowell Park to Grant Road

At Fort Lowell Park, the multi-use trail follows a line approximately 55 feet north of the existing street curb line to the east edge of the park. The entrance to the southwest parking area will be closed and moved to the north coming into the parking area from the central park drive. This location of the path allows for parallel parking inset from the existing curb edge along East Glenn Street. Thirty-seven spaces are located along this edge of the park. The location of the path follows about five feet south of the poles of the existing lighting and also along the north side of a number of large shade trees. The area between the street curb and the path can be converted to a granite ground cover, thus saving the cost of water in this area.

At the southeast corner of Fort Lowell Park, the urban greenway path turns closer to the street and crosses the front of the Orchard River townhome project for 1,200 feet. There is about 20 feet of right-of-way to work with in this stretch. Several low retaining walls will be needed and four driveway crosswalks will be introduced. Shade trees will be introduced to enhance the greenway path and to provide additional buffering and screening for the residences.

The right-of-way on the north side of East Glenn Street from Craycroft to W. V. Whitmore Elementary School is only about 11-feet wide with power poles in the center of the right-of-way, precluding the location of the multi-use path on the north side.



The urban greenway path parallels the existing lights in Fort Lowell Park.

A speed table will be introduce here to cross North Sahuara locating the multi-use path on the west side all the way south to Grant Road, about 1,600 feet along Tucson Memorial East Lawn Cemetery.



The multi-use path crosses the SE corner entrance at Fort Lowell Park and make a turn to the east along the Orchard River townhomes.



The frontage area along the Orchard River townhome project has a 20-foot right-of-way where the greenway path will be located. Low retaining walls may be incorporated to transition from street grade to mounded earth along the way.

At the end of East Glenn Street, the greenway path turns south to follow the east side of the right-of-way on North Sahuara Avenue for 1,000 feet to the entrance of Barrio De Sonora townhomes. At the corner of East Glenn Street and North Sahuara, the Alamo Urban Greenway intersects with the Pantano River and it will tie into the Pantano River park multi-use path when it is completed through this area. This location offers a perfect site for a trailhead parking area for the Alamo Urban Greenway and the Pantano River Park.

At the entrance to Barrio De Sonora townhomes, a speed-table crosswalk takes the greenway user

across North Sahuara to follow the east side of Tucson Memorial East Lawn Cemetery. The plan for this 1,600foot section is to curb the edge of Sahuara all the way to Grant. A retaining wall will be needed for about 600 feet. The width of Sahuara will be reduced to the standard City of Tucson 24-foot cross section south of the north entrance into Sahuara Village townhomes.

A curbed edge will continue south to grant with the path falling in the right-of-way. At Grant Road, a new signalized HAWK crossing will be introduce in order to get across this busy thoroughfare to North Sahuara Avenue south of Grant.

#### Alamo Urban Greenway

is purchased form the owner of the former Catalina Heights Nursery. This 15-foot area will allow the path Grant Road to Speedway Boulevard to get above the wash and the large Native Mesquite South of Grant Road the Alamo Urban Greenway trees onto the higher elevation by introducing a retaining proceeds for 1,150 feet on the west side right-of-way wall on the east side. East Lee Street is crossed at of North Sahuara Street to cross at Seneca Street. The grade and the path continues on the east side of the west side right-of-way is about 22 feet wide and provides Alamo waterway to East Fairmount Street. Attention to ample room for the multi-use path and shade trees. The grading, gradients and safety is paramount at the Lee path continues south from Seneca for one-half block to Street crossing area. The retaining wall on the north side utilize an alley for a short distance of one quarter mile in of E. Lee Street will be matched by a retaining wall on order to connect to Villa Serena Park, which is a pleasant south side of the street so that the multi-use path can little neighborhood park tucked into the Villa Serena transition to an at-grade street crossing and then back up subdivision. to the upper level of the drainage channel on the south side of the street. The retaining wall on the south side is The multi-use path follows the east side of Villa Serena about 270 feet in length. The retaining wall on the south Park and turns east at Calle Serena to a crosswalk at side is shorter at about 165 feet in length.

North Ridgeway Road. A wide right-of-way on the east side of North Ridgeway Road provides the setting for the multi-use path to reach Pima Street where a signalized HAWK crossing will be installed for safe at-grade crossing of this busy street. On the south side of Pima Street, the urban greenway is located in a parcel owned by the City of Tucson which allows the multi-use path to meander through a natural open space lot to get back to the bank of the Alamo Wash again.

South of the city-owned parcel the path runs into a topographical challenge and heavy native vegetation existing on the east bank of the drainageway. Here, it is recommended that 15 feet of land parallel to the channel



An alley is used to move greenway users from North Sahuara Avenue to Villa Serena Park. The alley will be enhanced with new walls, fences, lighting, specialty paving and landscaping.



South of the city-owned parcel on Pima Street, the greenway path runs into a topographical challenge and vegetation

Retaining walls on the north and south sides of E. Lee Street allow that path to cross E. Lee with an at-grade street crossing with transition grades and curb ramps on the north and south sides.



The section of the urban greenway from E. Lee Street to Fairmount Street passes through dense vegetation.



A drainage channel exists at the end of Fairmount Street where artificial rock was introduced to minimize erosion where a bridge is recommended. A second bridge is also recommended connecting the Alamo Urban Greenway to the Harlan Heights Neighborhood. As the greenway continues southward, the multi-use path runs for 600-feet adjacent to the back garden walls of homes in the Monterey Villa Townhouses. This section follows a nicely vegetated are of the urban wash. At the south end of the Monterey Villa Townhouses, the path crosses an area where Fairmount Street ends in a cul-de-sac and a considerable amount of storm water drains down the street into the drainageway. Here, a bridge is recommended to cross the drainage area which has been improved with artificial rock to minimize serious erosion problems that might otherwise occur here. Crossing the bridge to the south side of Fairmount Street, the greenway uses a 9,000 SF lot owned by the City to locate a shady gathering spot and landing area for the bridge from the north as well as a landing area for a bridge to the west across the drainage channel connecting to the Harlan Heights Neighborhood.

Moving to the south the urban greenway's multi-use path stays on the east side of the waterway until just south of Bellevue Street where it crosses to the west side. Two small parcels exist on the east side of the path. They front on the drainage channel and on Alamo Avenue. If purchased, these lots offer a great opportunity to develop a neighborhood park.

From Bellevue Street, the multi-use path follows the west side of the Alamo Wash until it reaches Speedway Boulevard. The path crosses Speedway on the center of the wash alignment using a new signalized HAWK crossing for safely negotiating this busy arterial street.



The Alamo Urban Greenway will cross Speedway Boulevard on the alignment of an existing crosswalk

#### Alamo Urban Greenway

#### Speedway Boulevard to 5th Street

South of Speedway Boulevard, the Alamo Wash drainageway runs adjacent to North Alamo Avenue. A wide area adjacent to the drainage channel combined with reducing the width of the street pavement to 24 feet provides an excellent setting for the urban greenway and the multi-use path for ¼ mile to the intersection of to North Alamo Avenue and East Rosewood Street. At the NE corner of the intersection a small existing sitting area will be enhanced. The multi-use path crosses East Rosewood Street via a crosswalk and then continues south for a quarter mile along the right-of-way in front of 12 single family homes. The street right-of way also will be limited to 24 feet in this section, adding width to the right-of-way and providing a comfortable setting of up to 28 feet for the multi-use path and other greenway improvements. A 3-foot wide safety zone where mail boxes also can be located falls immediately east of a new wedge curb. A 12 to 16-foot wide planting area in front of the homes will allow shade trees and other landscaping to be installed. A driveway crossing pavement detail also will be used to improve safety for both the path users and the homeowners in this section of the Alamo Urban Greenway. A signalized HAWK will be introduced for safe greenway passage across 5<sup>th</sup> St.

#### Alamo Urban Greenway

#### 5<sup>th</sup> Street to Broadway Boulevard

South of 5<sup>th</sup> Street, the Alamo Urban Greenway takes advantage of a small triangular-shaped lot which is the site of a Tucson Water well to provide additional development to a park-like setting that exists on the site. In the 1990's, Tucson Water developed the site into a trailhead for public-use access to a waterline easement. The Alamo Urban Greenway will follow this easement south for about 1,500 feet to tie into an alley that runs along the east side of the Kane Estates subdivision. The greenway follows the alley that turns to the west along the south side of the Kane Estates subdivision. Where the alley reaches 9<sup>th</sup> Street, it curves south again and then continues west to daylight at the east side of North Chantilly Drive. The multi-use path follows the east side of North Chantilly Drive along the edge of Pyramid Credit Union. Because there are topography issues with the

driveway entrances to the credit union, the paved cross section of North Chantilly Drive needs to be reduced to 24 feet and the horizontal curve moved westward in order to provide additional space for the multi-use path to transition the grade change on the west side of the credit union. A textured concrete safety strip of 2 feet will separate the multi-use path from North Chantilly Drive all the way to the crossing point of Broadway Blvd.



Start of the Alley behind the Kane Estates subdivision behind 6057 E. Wendrew Lane.



This photo of Chantilly Drive at the Pyramid Credit Union shows the topography challenge for the driveways into the credit union (left side of photo) and the room available to narrow the street paving and push the horizontal curve to the west (right side of photo) in order to transition the grade change at the credit union.



The safest and most practical way to cross Broadway Blvd. at Park Place is to use the existing lighted crosswalk to the island on the south side (1). Then use the existing crosswalk to the right-of-way (2). The multi-use path continues south in the right-of-way for 150 feet to align with an existing curb ramp (3) where a new crosswalk will take users across East Park Place Drive to a city park. The wall will be removed as needed for a graceful transition to the open space that provides a pleasant transit around the west and south sides of Park Place.



The multi-use path will pass along the top of the Alamo Wash south of Park Place and utilize some of the overflow parking area to make a gracious urban greenway experience in a highly urban setting.



An existing signalized PELICAN will be utilized at Wilmot Road for greenway users to safely cross this north/south arterial.

#### Alamo Urban Greenway

#### **Broadway Boulevard to Wilmot Road around Park Mall**

At Broadway Boulevard, the safest way to cross the busy arterial is at the existing crosswalk on the east side of the intersection of Broadway with Chantilly Drive on the north and East Park Place Drive on the south. By introducing wide paved gathering areas at the corner of Broadway and Chantilly on the north side and in the triangular curbed island on the south side. Appropriate signage can be placed at these two points to provide safety measures and warnings for the signalized at-grade crossing. Once across Broadway to the south island, another crosswalk sits on a speed table that allows safe signalized crossing to the east side of the east bound traffic ramp onto Broadway. The path then connects southward to another speed table crossing of East Park Place Drive to get to the safe open space park that borders Park Place on the west and south. This city park offers safe transit for the urban greenway users around Park Place Mall.

The Alamo Urban Greenway follows the open space corridor around Park Mall where it connects with and existing playground, a small ball field in the SW corner



and another ball field in the SE corner where the path turns north to align with the north side of an overflow parking area that is owned by the Park Mall, LLC. The path crosses the entrance into the overflow parking lot with curb ramps and specialty pavement that announces the path to possible parking lot users. The multi-use path proceeds across the north edge of a now-defunct commercial property that fronts on Wilmot Road. The property required for passage through this area will need to be purchased from various owners. Passage through the parking areas returns the multi-use path to the south edge of the re-aligned Alamo drainageway.

At Wilmot Road the alignment of the urban greenway takes advantage of an existing PELICAN crosswalk to transition to the east side of the busy Wilmot arterial.

#### Alamo Urban Greenway

#### Wilmot Road to 22<sup>nd</sup> Street

Once on the east side of busy Wilmot Road, the multiuse path returns to follow the alignment of the Alamo waterway again. From Wilmot to 22<sup>nd</sup> Street, the urban greenway makes at-grade crossings of three neighborhood streets: East Koralee Drive, East

A new PELICAN crosswalk at Alamo wash and 22<sup>nd</sup> Street will allow safe crossing for greenway users and Palo Verde HS students.

Malvern Street and South Yale Drive. Along the way the urban greenway passes first through the Manana Vista subdivision and then through the Yale Estates subdivision, providing connectivity to Annie Kellond Elementary School one block away on East Malvern Street. Prior to reaching 22<sup>nd</sup> Street, an existing triangular lot that could be purchased affords a terrific opportunity for a neighborhood park. The park also provides a landing area for the multi-use path to cross the Alamo drainageway from the west side to the east side.

At 22<sup>nd</sup> Street, a new PELICAN signalized crossing will be introduced that not only connects the multi-use path to the Alamo waterway heading south but also to Palo Verde High Magnet School.

#### Alamo Urban Greenway

#### 22<sup>nd</sup> Street to Stella Road

From 22<sup>nd</sup> Street the multi-use path returns to follow the west side of the Alamo waterway along the edge of a wide channel that can be planted with additional native vegetation to enhance wildlife values. The multiuse path crosses Calle Betelgeux on the SW side of Palo Verde High Magnet School via an at-grade crosswalk and continues traversing the Terra Del Sol neighborhood. The next at grade street crossing occurs at East Calle Marte. An existing foot bridge crosses a side drainage channel from the east and connects the neighborhood to the Alamo Urban Greenway with another existing footbridge over the Alamo drainageway NE of the intersection of East Calle Marte and South Avenida Planeta. Wheeler Elementary School is one block to the west.

The urban greenway continues south taking advantage of space in Terra Del Sol Park to bend the multi-use path away from the drainage channel and connect to this well-used neighborhood park. This section of the urban greenway also can benefit from enhancing native vegetation to increase wildlife value. In fact, there is ample opportunity to enhance vegetation and wildlife values all the way along the urban greenway from 22<sup>nd</sup> Street south to Escalante Road. At East Calle Luna the multi-use path crosses at grade and continues southeastward. It curves first toward the east and then to the south as it approaches Golf Links Road. There is sidewalk access to the commercial centers one block to the east at the intersection of Golf Links and Kolb Roads.

A signalized HAWK crossing is planned at Golf Links Road to get users safely across this busy arterial. A shaded sitting area and greenway wayfinding node will be located in a wide right-of-way area west of the drainageway along Golf Links Road. Once across Golf Links, the greenway follows the vegetation-enhanced waterway to Stella Road. Alamo Urban Greenway, Stella Road to Escalante Road At Stella Road the Urban greenway is diverted from the waterway first along the north side of Stella and then south on Kolb Road until it crosses Kolb and ties into the drainageway again. This divergence from the waterway occurs because there are two homes on the north and south sides of the drainage channel at Kolb Road and the multi-use path cannot get by without acquisition of one of the houses. If the residence on the south side were acquired, for example, the greenway could stay along the alignment of the drainage channel.

The location of the multi-use path as shown on the plans follows the north-side right-of-way of Stella Road crossing South Birch Avenue in a crosswalk before reaching the NW corner of Stella and Kolb Road. An alley also needs to be crossed with a crosswalk.

At the NW corner of Stella and Kolb Road the multi-use path crosses Stella via a crosswalk and proceeds south for one block in the wide eastside right-of-way of Kolb Road and crosses East Vernice Street, a low-volume residential street. Thereafter the greenway shares a very low-volume paved frontage road with six residences. The concept here is to use a specialty paver in the frontage road and significantly improve the roadway for residents and greenway users. At the end of the frontage road, the path crosses Kolb Road on a signalized speed table and then uses a short distance of the Kolb Road right-of-way to return to the Alamo Wash again.

From Kolb Road, the Alamo Urban Greenway continues SE for one-half mile through the Stella Mann Neighborhood to intersect with Escalante Road. This section of the greenway will be enhanced with shade trees to provide comfort for the users and enhance the wildlife value, primarily for birds. At Escalante, the greenway intersects with the bike lanes on Escalante.

Neighborhood connection NE of the intersection of East Calle Marte and South Avenida Planeta.





South of Golf Links Road to Escalante Road the wildlife value can be significantly enhanced by adding native trees and other food plants primarily for birds.



The path will cross E. Calle Marte and curve into Terra Del Sol Park.

# **ALAMO URBAN GREENWAY**



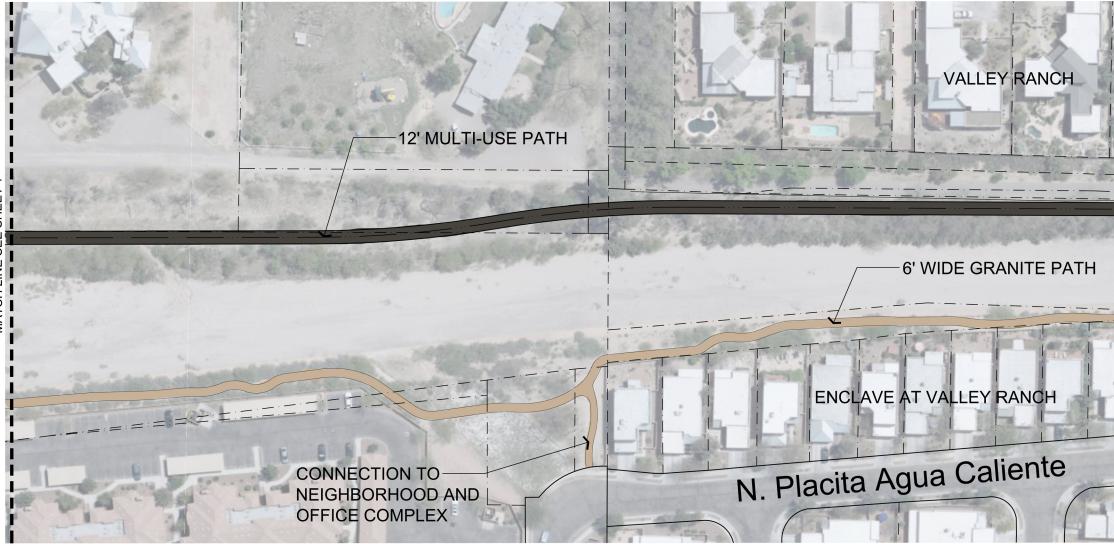




### ALAMO URBAN GREENWAY

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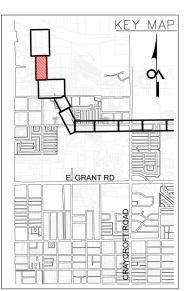
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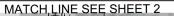


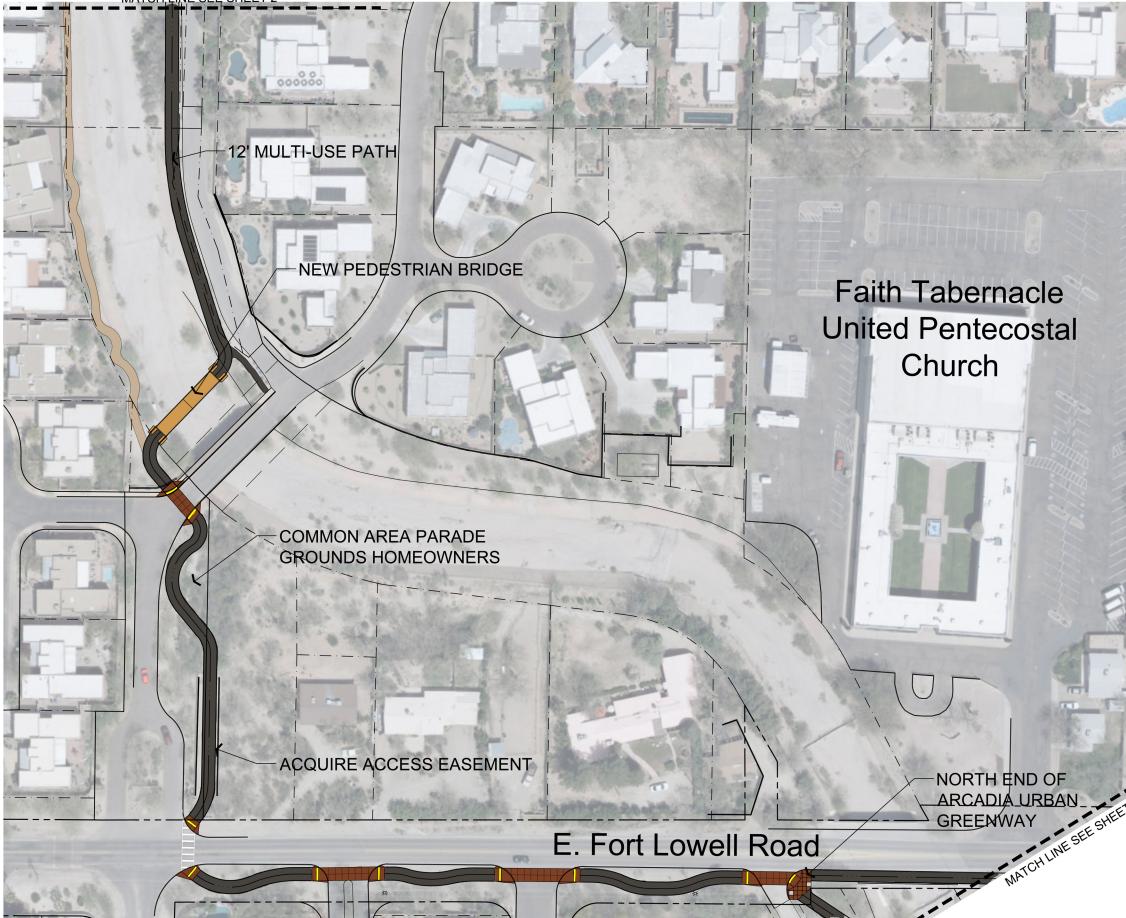










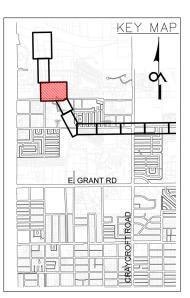


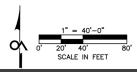
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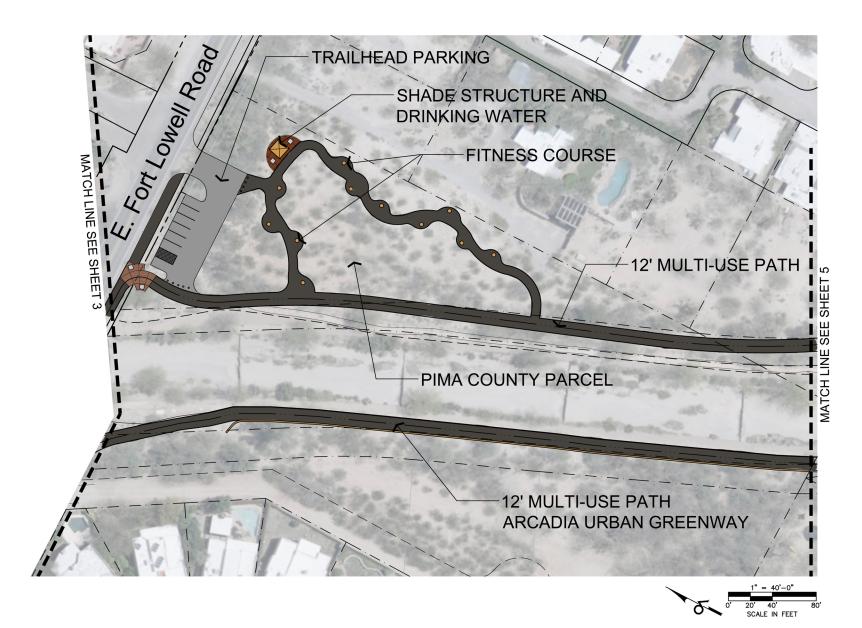


SEGMENT 3



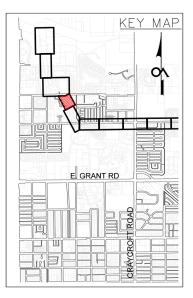






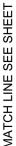






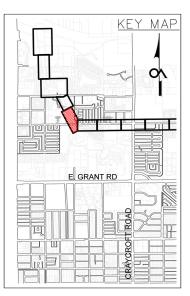
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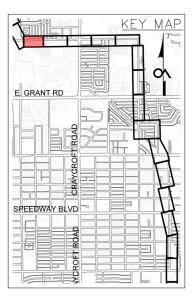




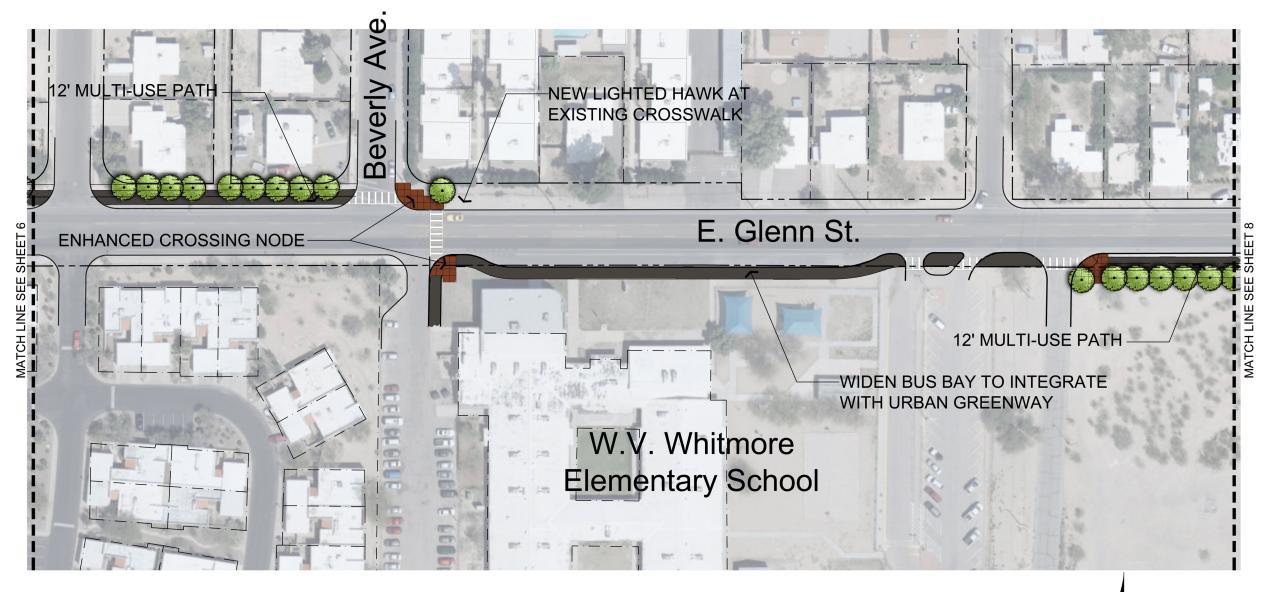








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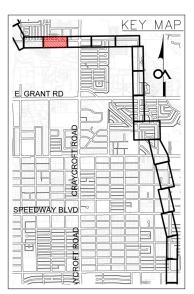


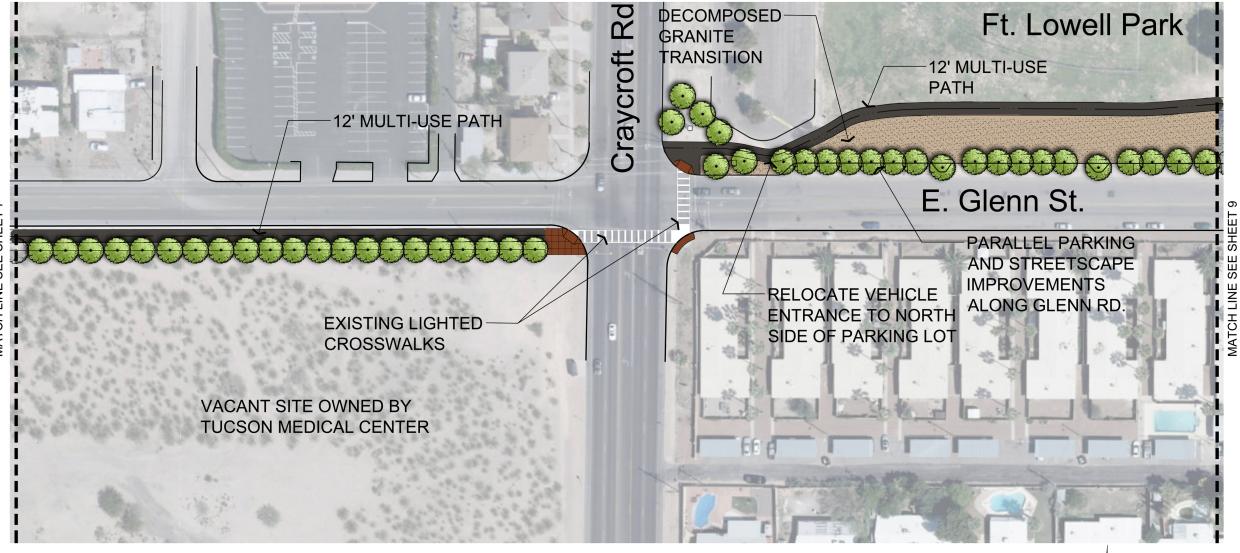






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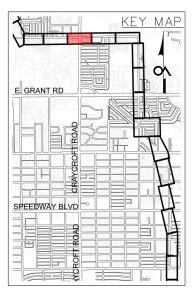


MATCH LINE SEE SHEET





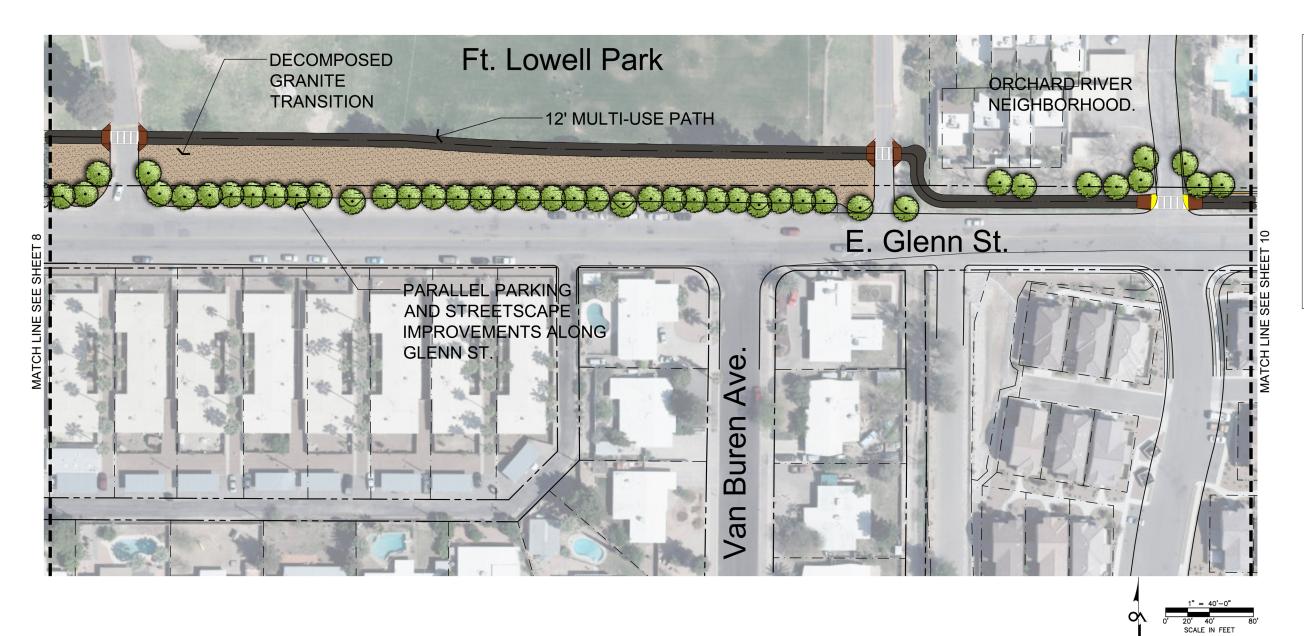
SEGMENT 8



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SCALE IN FEET

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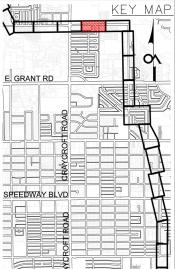




ASSOCIATES



SEGMENT 9





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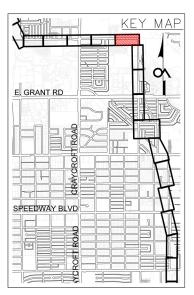


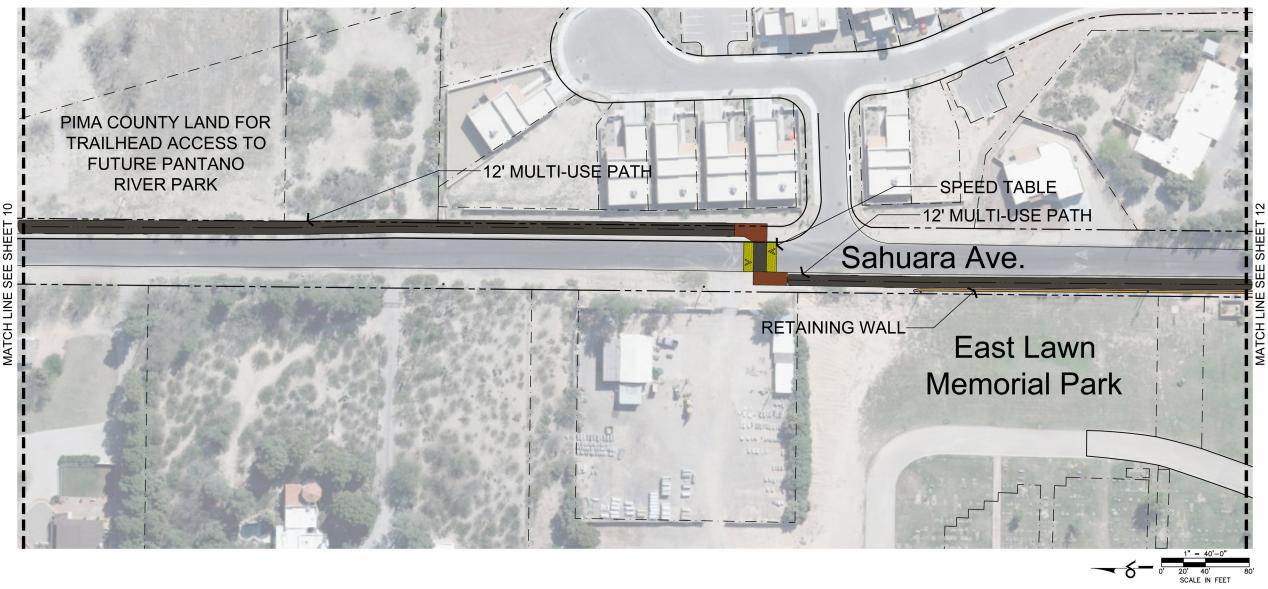


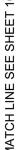
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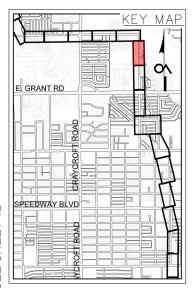












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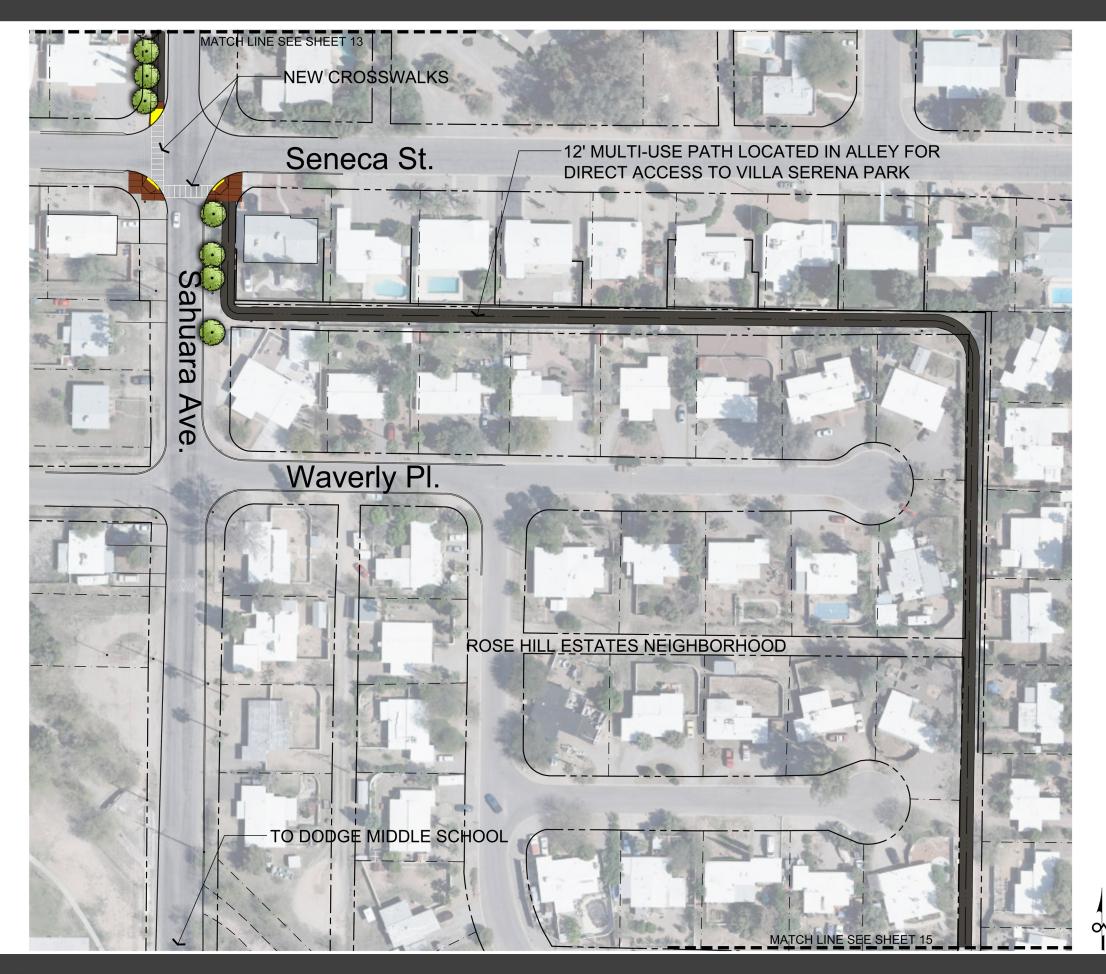
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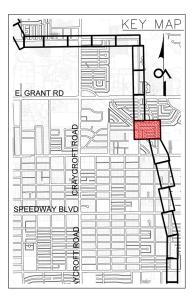
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### OLSSON ASSOCIATES

## ALAMO URBAN GREENWAY

SEGMENT 14



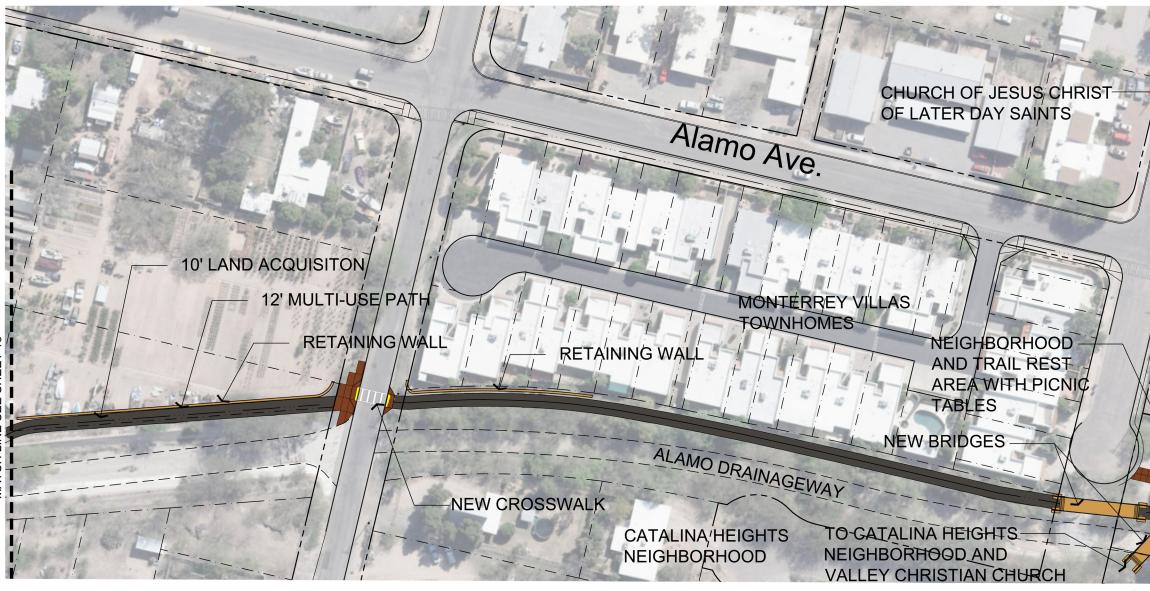








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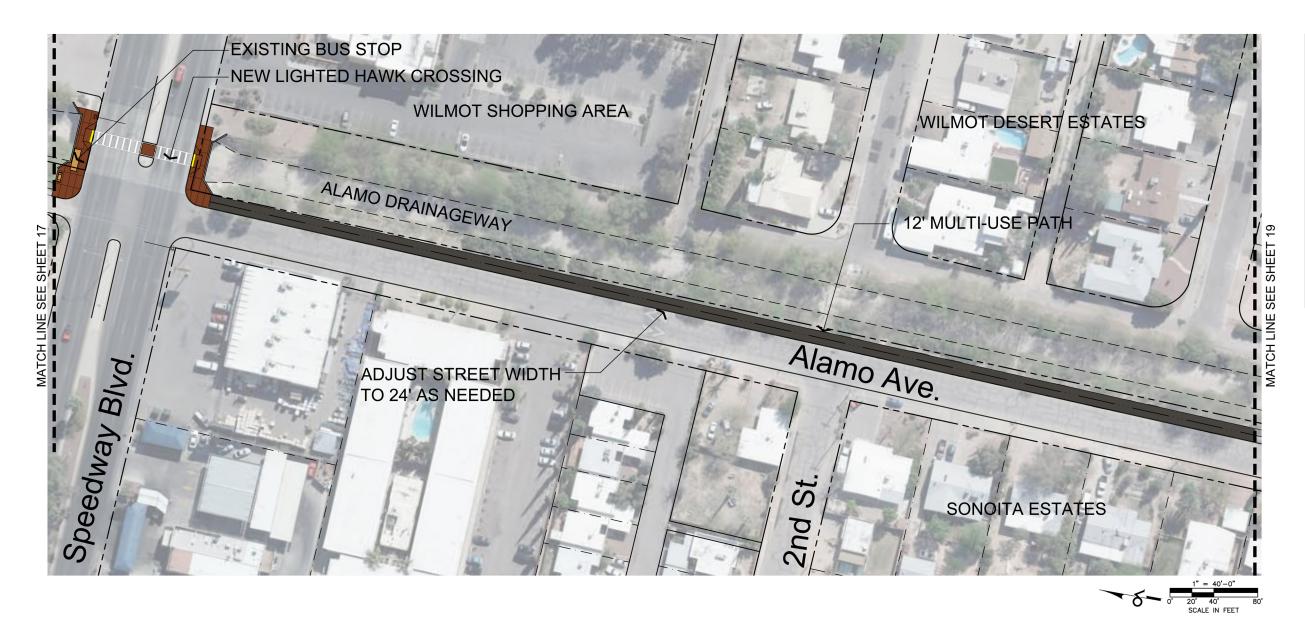














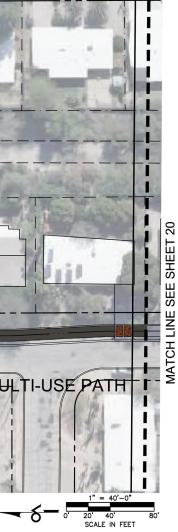


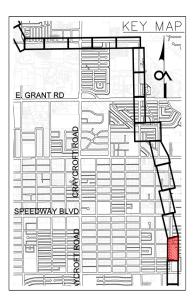


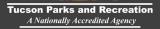










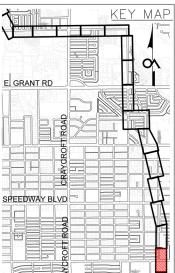




OLSSON A S S O C I A T E S



SEGMENT 20

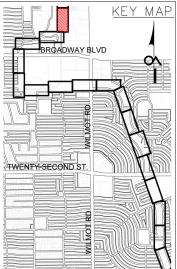


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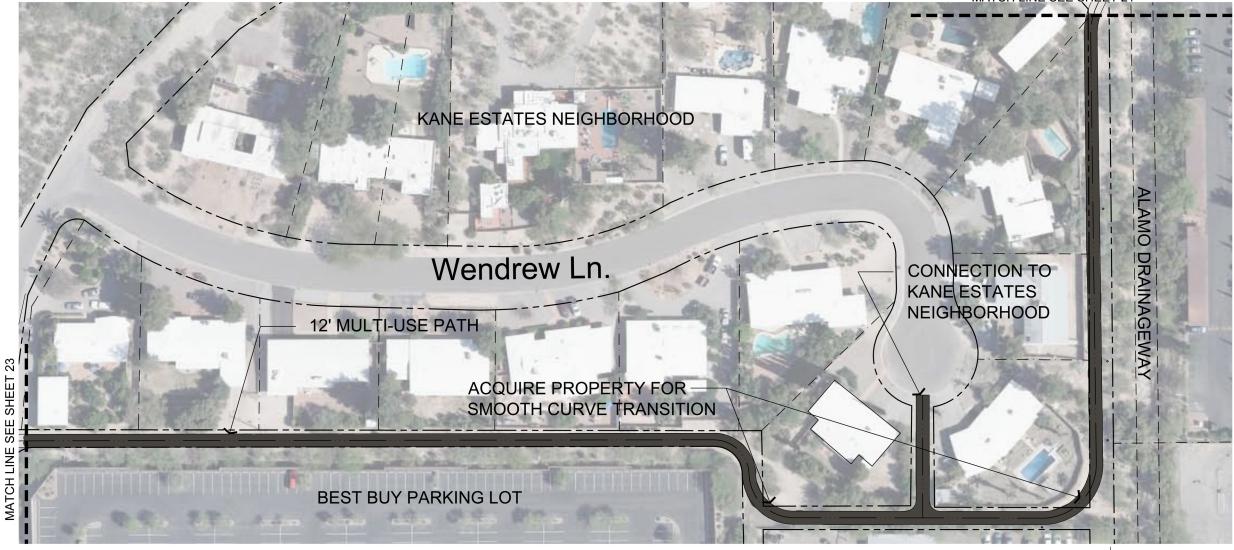






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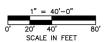
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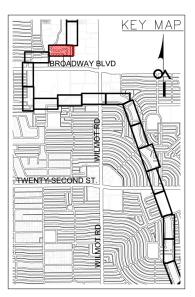




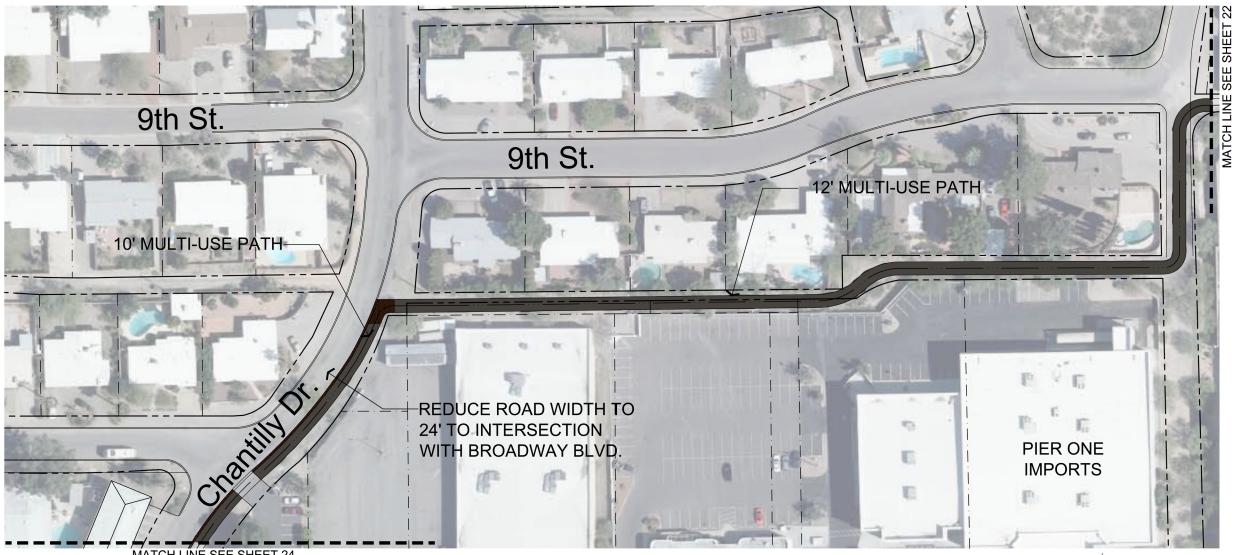
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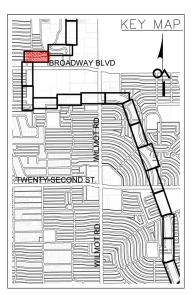




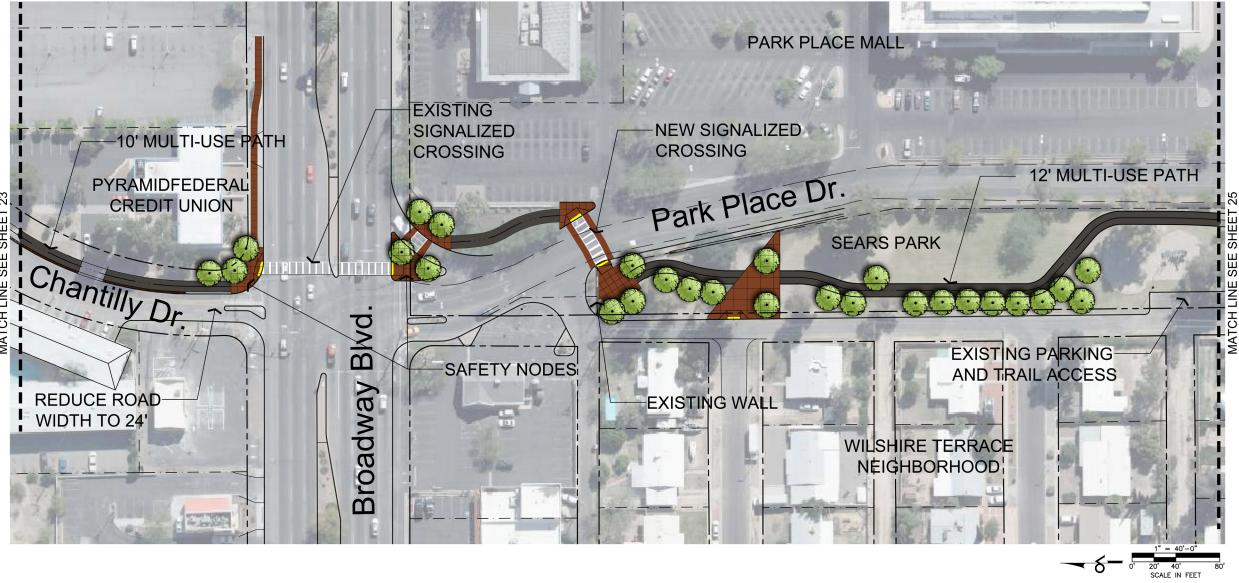
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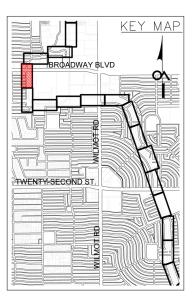
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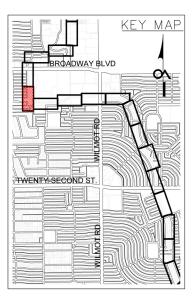


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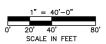




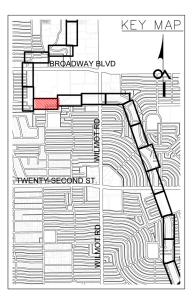




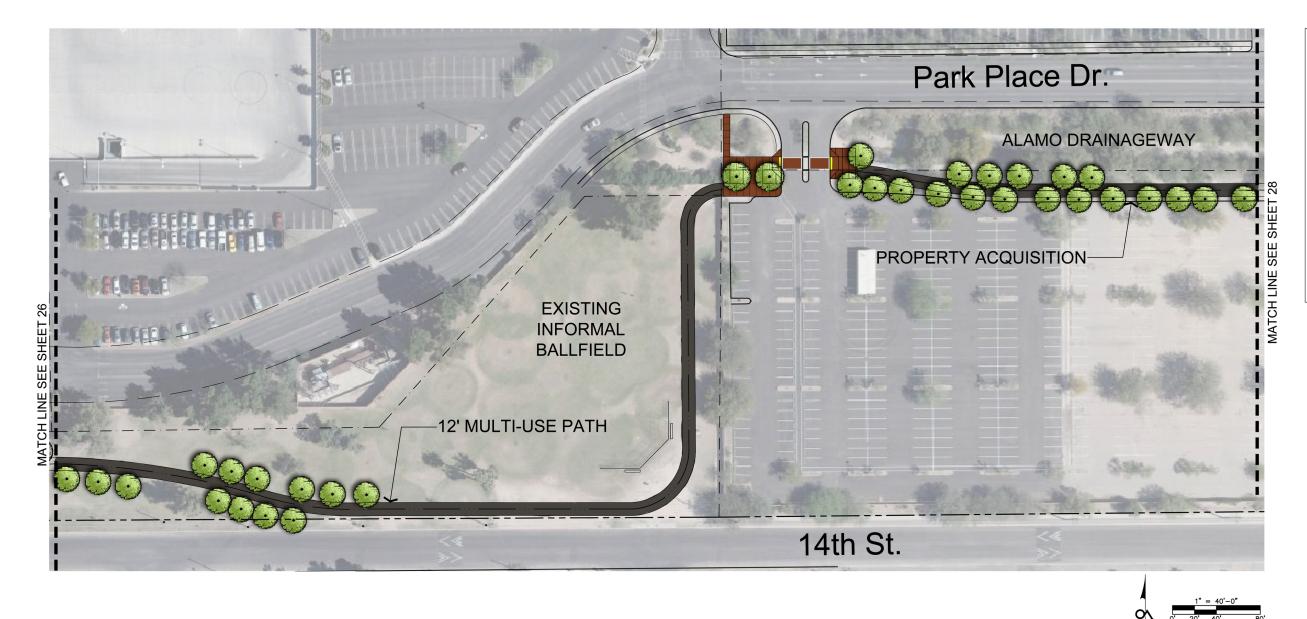




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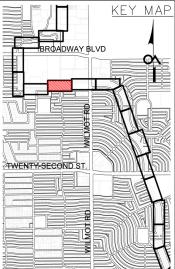


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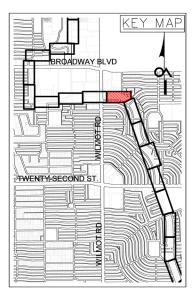




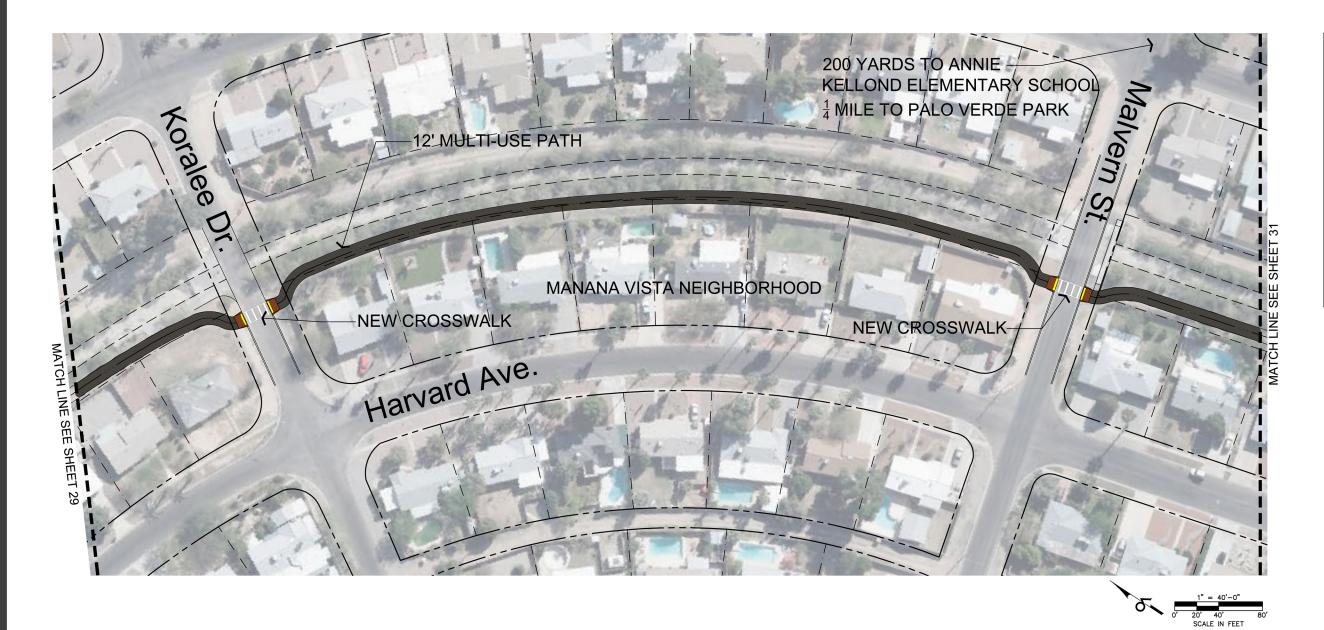






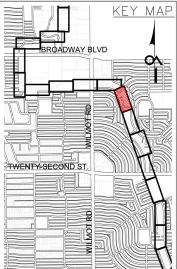


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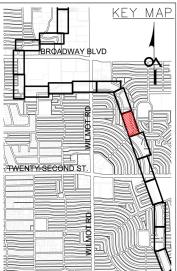










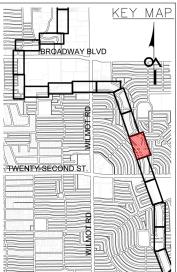


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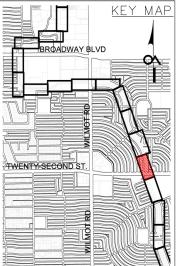


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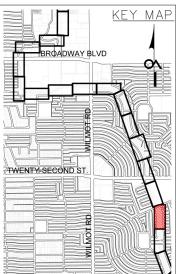












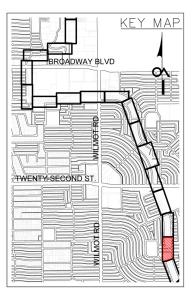








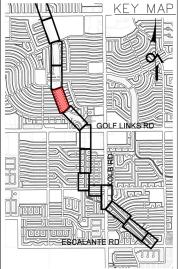
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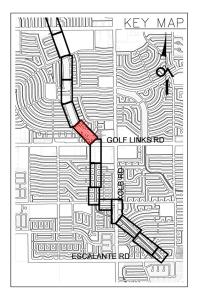




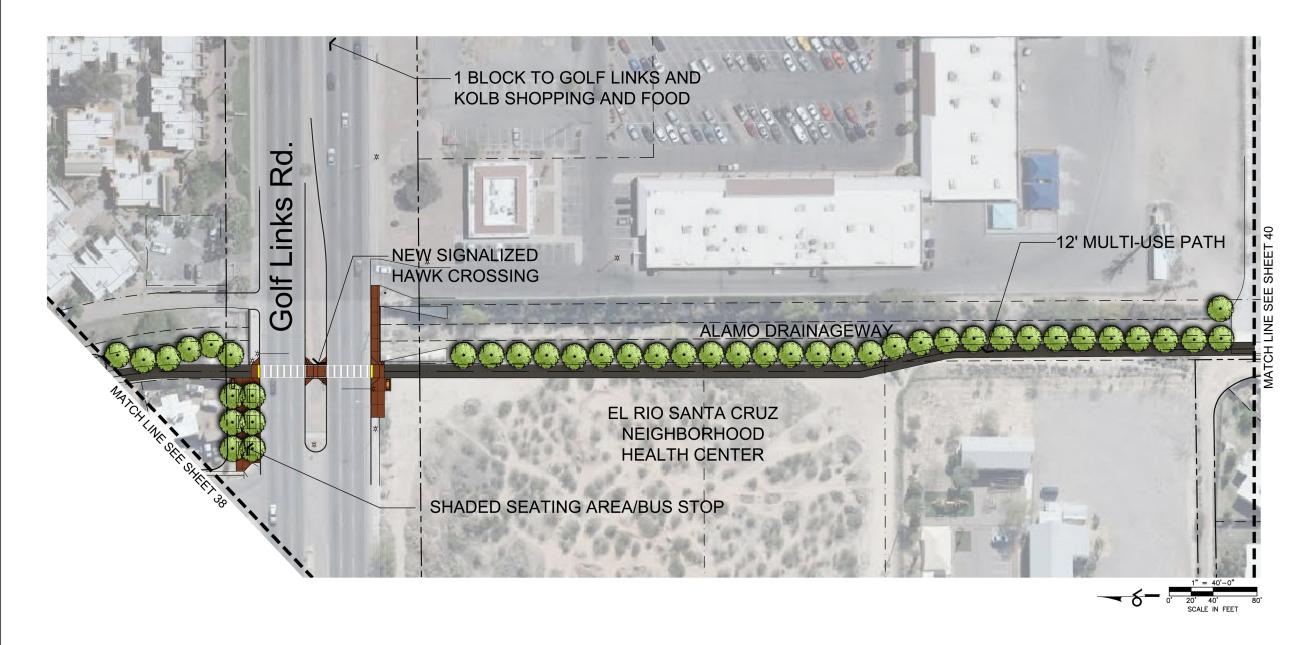




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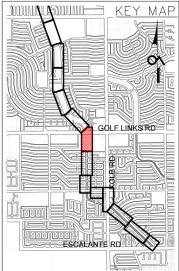


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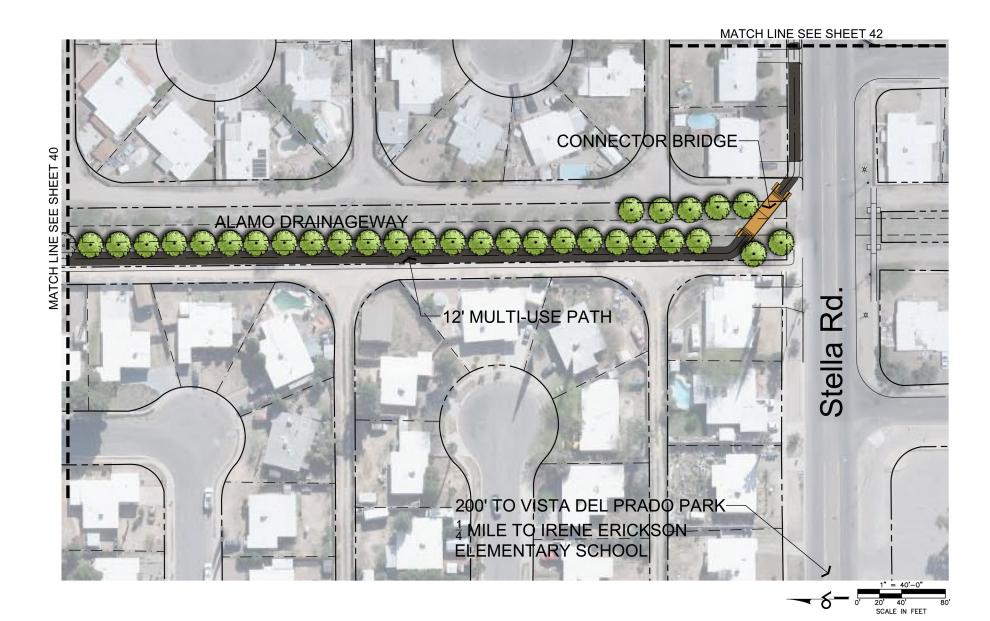






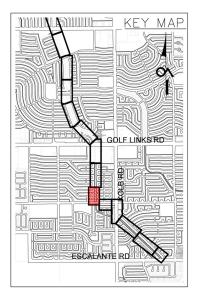










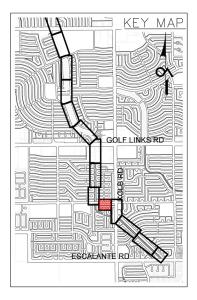


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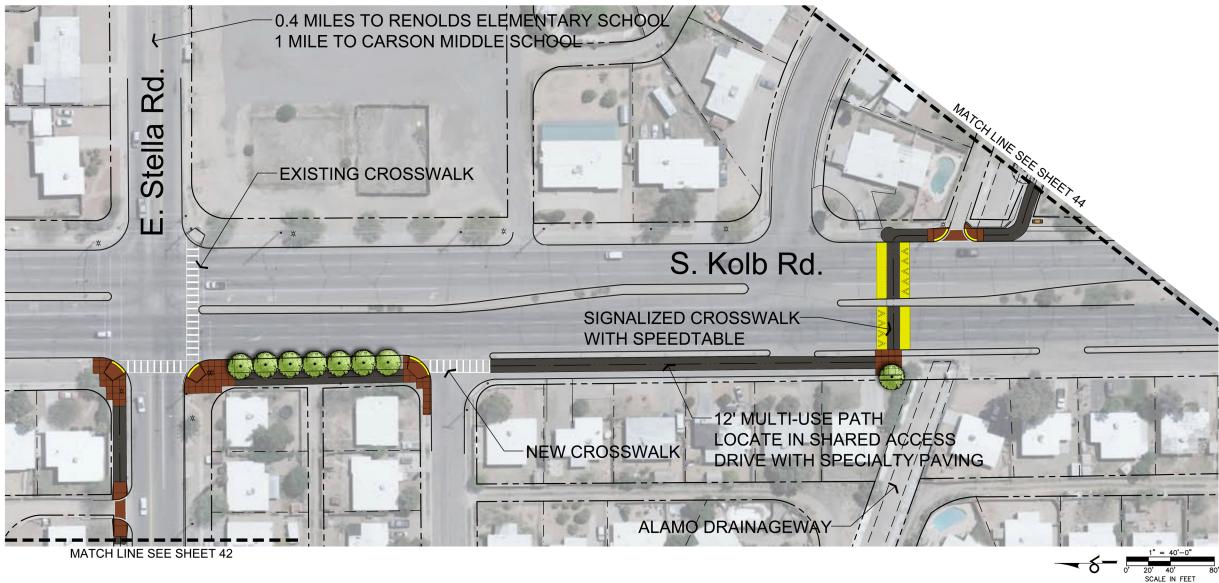






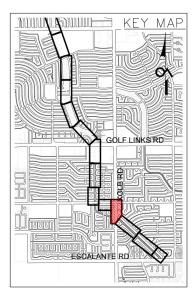


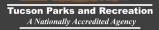
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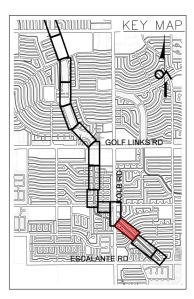












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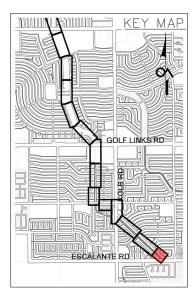












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### Rose Hill Wash Urban Greenway

#### **Existing Conditions and Alignment Analysis**

The alignment of the Rose Hill Urban Greenway was determined by a combination of digital and ground analysis of the context of the route and the specific conditions that exist along the route. Aerial photographs and Geographic Information Systems (GIS) data have been used to identify land ownership, existing easements, and special conditions, as well as providing the locations of schools, parks and other amenities along the greenway. Maps were taken into the field and the entire alignment was "ground truthed" to verify the efficacy of digital information. Visual observation was the basis of understanding firsthand the condition of the watercourse, how adjacent development had impacted the alignment of the wash and what additional options could be explored for completing a safe and contiguous alignment of the Rose Hill Urban Greenway. South of Broadway, for example, three fingers of the multi-use path were identified for connections to:

- Palo Verde Park
- Fountain of Life Evangelical Lutheran Church
- Booth-Fickett Magnet Elementary School and the tie into the 22<sup>nd</sup> Street bike lanes

The result of the digital analysis and the on-site visual observation is a hybrid alignment which utilizes not only the edge of the waterway, but also other connectivity elements such as streets shoulders and extended rightsof-way, alleyways and existing parks. The planning effort focused on creating a path that would be usable to the widest spectrum of users and would provide the optimum benefit for the neighborhoods along the way.

#### **Rose Hill Urban Greenway**

#### Kolb Road at Pima to Speedway Boulevard

The greenway begins on the north one half mile southeast of the intersection of Tanque Verde Road and Kolb Road just north of the Kolb Executive Park Condominiums. The multi-use path will intersect with the Pantano River Park and a bridge across the Pantano will allow access to Udall Park some 900 feet to the northeast.

The multi-use path crosses Kolb Road with a proposed HAWK (High Intensity Activated Cross Walk) crossing and then proceeds to the south located in the east ROW of Kolb Road outside the wall of Dorado Country Club. The path enters a drainage channel swale about 1,000 feet north of Speedway and bends around to the west to follow along an area of open space on the south side of Dorado Country Club. The drainage channel will be culverted for about 650 feet to provide an at-grade path with the opportunity to plant shade trees creating a shady glen and providing a better buffer for Dorado Country Club. A wall, fence or plantings also can be utilized to screen the back side of Dorado Plaza from the users of the greenway. The area of open space on the south side of Dorado Country Club allows the path to swing away from busy Speedway Boulevard.

After crossing El Dorado Boulevard at the entrance to Dorado Country Club, the path stays in the Speedway Boulevard right-of-way until it reaches the Rose Hill Drainageway where the path crosses Speedway using a split-phase PELICAN (PEdestrian Light Control ActivatioN) crossing so that the south exit of the PELICAN lines up with the east bank of the waterway.



The multi-use path follows the west side of Kolb Road and is located in the wide right-of-way.



Drainage Channel to be culverted behind Dorado Plaza.

#### Rose Hill Urban Greenway

#### Speedway Boulevard to Broadway Boulevard

Having crossed Speedway, the multi-use path follows the east side of the drainage channel passing through the El Dorado Townhomes neighborhood. This segment benefits from a curving alignment through the project with ample open space across the width of the waterway. A vacant lot southwest of East Rosewood Circle provides an opportunity for a small neighborhood park with a play structure. The west end of the East 5<sup>th</sup> Street alignment, which is unpaved, allows for a



Area of open space south of Dorado Country Club that allows the path to curve away from busy Speedway Boulevard.



North starting point for Rose Hill Urban Greenway at Kolb Road. The Greenway path ties into the Pantano River Park at this point. The field lights for Udall Regional Park can be seen in the background.

connection to the El Dorado Hills neighborhood with a shady bosque area and a water harvesting opportunity at the greenway. It is a good connectivity opportunity.

The greenway path continues south passing the west edge of Kingston Knolls Terrace subdivision on the east side of the waterway. Further south an abandoned well site near East Kingston Place offers an opportunity for a shady overlook incorporating a seat wall planter and a drinking fountain. An alley connects the rest areas to East Kingston Drive providing an opportunity for neighborhood connectivity.

The west end of East 5<sup>th</sup> Street connects to the greenway.

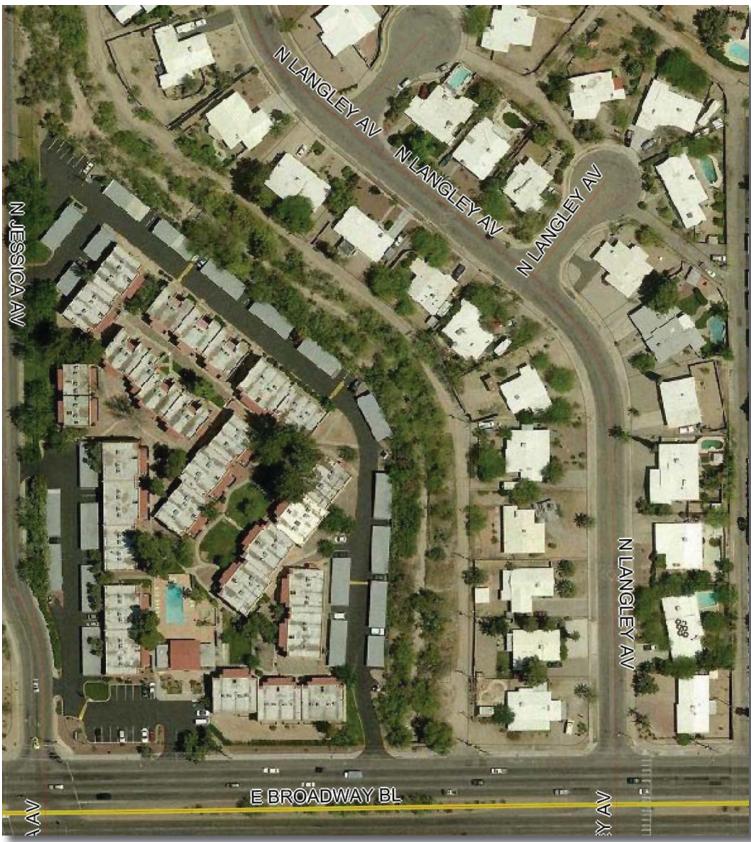
The multi-use path continues south through a sweeping S-curve just before Broadway Boulevard. As the path approaches Broadway, one of the few recommended property purchases at 6899 East Broadway Boulevard will provide for a good transition of the multi-use path to the corner of North Langley Avenue crossing Broadway to South Langley Avenue. The purchased property also provides a good mid-city trailhead access point to the Rose Hill Urban Greenway with seven parking spaces. The multi-use path follows the Broadway right-of-way to the corner of Langley and a crosswalk to the south side.



Abandoned well site offers an opportunity for a rest area and overlook.



Purchase home at 6899 East Broadway Boulevard for trailhead access and parking.



S-curve as Rose Hill Drainageway approaches Broadway Boulevard.

#### **Rose Hill Urban Greenway**

#### South of Broadway Boulevard

South of Broadway, the multi-use path proceeds on the west side of Langley Avenue for 700 feet before crossing the street to rejoin the west bank of the Rose Hill waterway. At this location the urban greenway splits into three branches.

The multi-use path is located in the right-of-way for the section directly east of the Sonoran Science Academy building which allows for on-street parking while bringing the curb line out to a 24-foot street width. Just south of the parking lot entrance, however, the street width of Langley Avenue continues at the city standard of 24 feet so that a comfortable right-of-way is created on the west side of the street for the multi-use path to head directly south on one of three branches of the greenway toward Palo Verde Park. Another branch of the greenway starts where the path crosses Langley and proceeds along the west side of the drainage channel until it ties back into the east side of Langley Avenue east of Palo Verde Park. The third branch of the greenway heads further east to cross Kolb Road and eventually tie into 22<sup>nd</sup> Street following the alignment of the drainage channel.



Langley Avenue looking south where the street width will be sized at 24 feet for a comfortable path width all the way south to Palo Verde Park, about 3 blocks to Palo Verde Park.





The middle branch ties into the Rose Hill drainageway about 700 feet south of Broadway.

The Langley Avenue branch heads south to Palo Verde Park and turns to the west along the north side of the parking area located along the entire north edge of the park. The path connects westward to the Annie Kellond Elementary School (TUSD) and the neighborhoods of Old Pueblo Estates and Manana Vista subdivisions. Introducing the multi-use path along the north edge of Palo Verde Park provides an opportunity to design the parking area to current standards and carve out a nice open space corridor for the path. The path alignment also allows additional vegetation and a fence or wall to be introduced providing an enhanced buffer for the Old Pueblo Estates subdivision to the north.

A foot bridge will connect the multi-use path to the Glen Heather Estates neighborhood subdivision.

The middle branch of the Rose Hill Urban Greenway starts 700 feet south of Broadway Boulevard and follows the drainage channel for about 600 feet where it turns south into a natural open space area, a part of the larger city-owned parcel that includes Palo Verde Park. Here the path snakes through the open space with a second connector to Palo Verde Park and then proceeds on the east side of Langley until it reaches Kolb Road. The second connector to Palo Verde Park also lines up with a foot bridge across the drainage channel connecting to the Glen Heather Estates subdivision. As this branch of the Rose Hill Urban Greenway continues south it traverses the east side of Langley Avenue which will be re-sized to 24-foot width creating additional room for the path along the top of the drainage channel. The path connects to the Fountain of Life Evangelical Lutheran Church and School before terminating at Kolb Road.

The east branch of the Rose Hill Urban Greenway also begins at Langley Avenue 700 feet south of Broadway but veers to the east where the middle branch turns south to follow Langley. It follows the main channel of the Rose Hill Wash until it reaches Kolb Road where it crosses using an existing crosswalk to Booth-Fickett Math/Science Magnet School. From the east side of Kolb Road at Booth-Fickett the multi-use path and urban greenway first crosses Kenyon Drive and then falls within the alignment of the Rose Hill waterway until it ties into 22<sup>nd</sup> Street. After crossing Kenyon Drive, two more at-grade minor residential streets, Marvin Avenue and 19<sup>th</sup> Street, are crossed before 22<sup>nd</sup> Street. Between 19<sup>th</sup> Street and 22<sup>nd</sup> Street, the path crosses from the east side of the waterway to the west side. Riparian trees will be planted in the segment from Kenyon to 22<sup>nd</sup> Street to enhance the value for birds. The path connects to the Young Explorers School at 22<sup>nd</sup> Street.



The multi-use path will be located in a buffer zone on the north side of the Palo Verde Park parking area, to the right in the photo.



An existing signalized crossing to Booth-Fickett Math/Science magnet School will also be used by Rose Hill Greenway users.

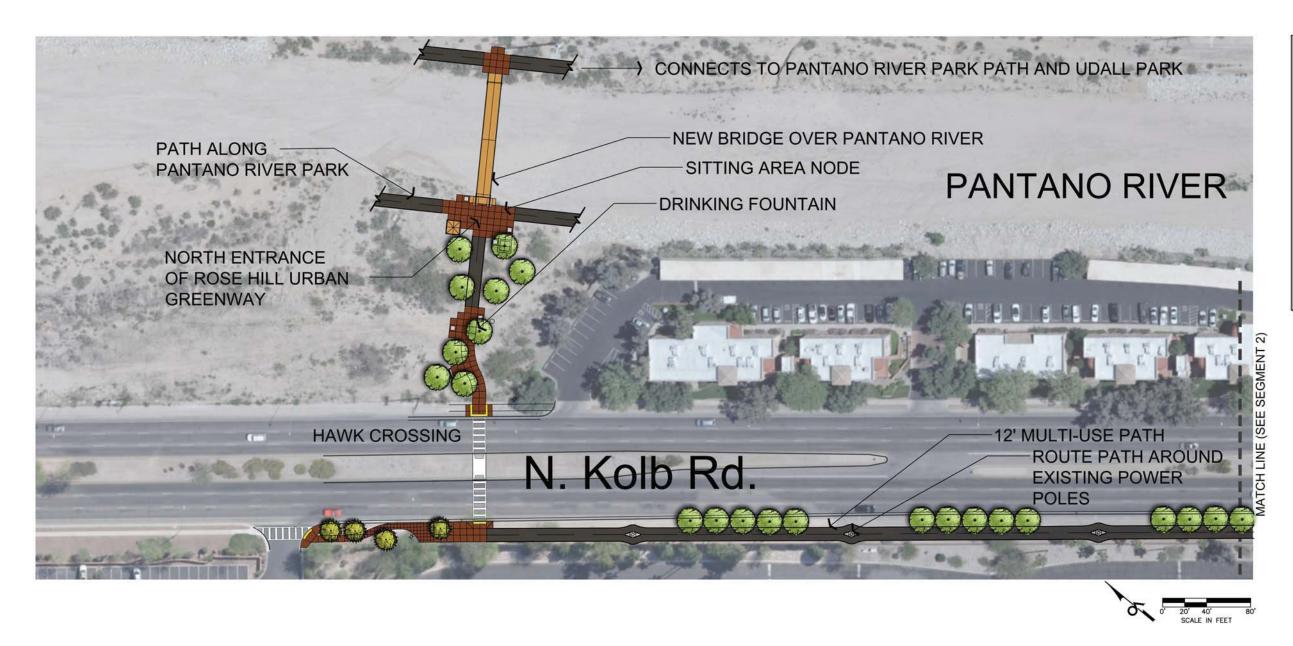


The Rose Hill Urban Greenway crosses Kenyon Drive south of Booth-Fickett Math/Science magnet School and continues on the east side of the waterway.

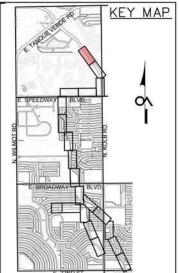


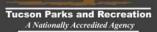
The multi-use path continues on the east side of the drainageway as it crosses S. Marvin Avenue and then continues 1,500 feet to 22<sup>nd</sup> Street. Ample opportunity exists to upgrade the habitat value of the greenway from Broadway to 22<sup>nd</sup> Street.







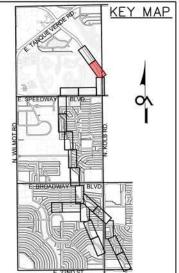








SEGMENT 2

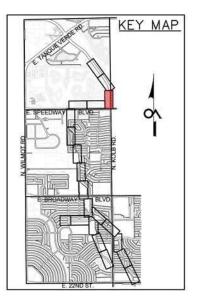






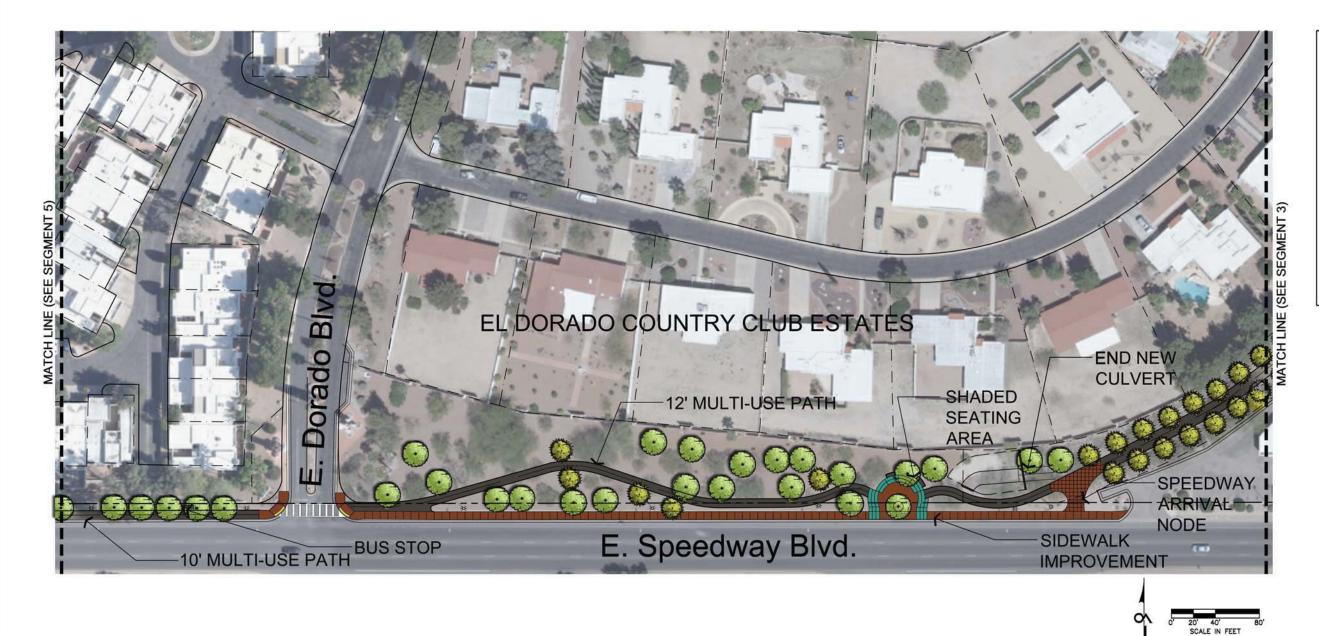








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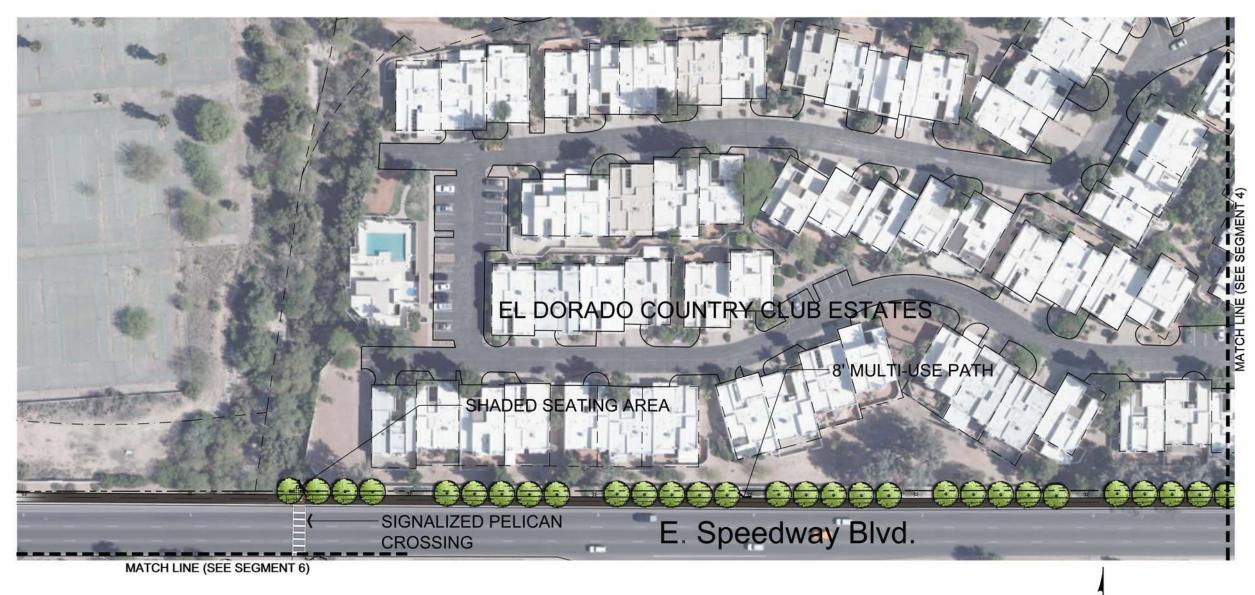






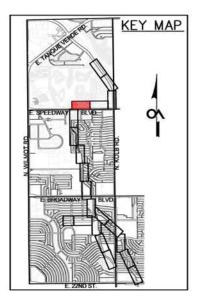
KEY MAP 0







SEGMENT 5



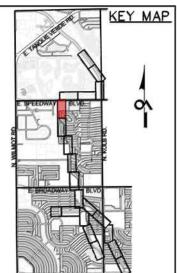




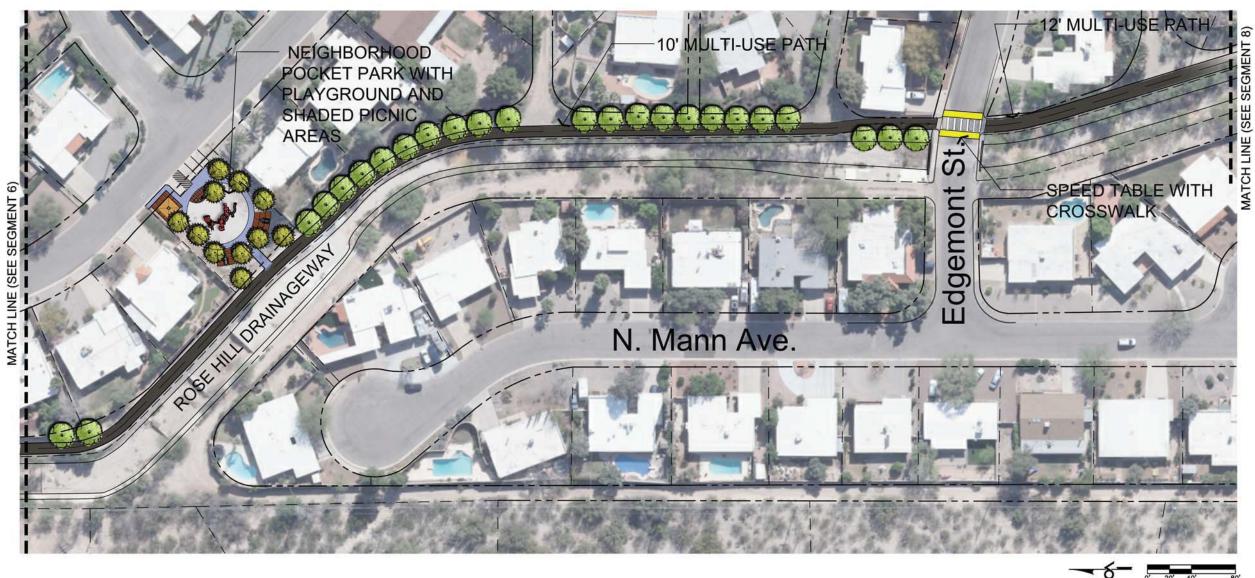




SEGMENT 6



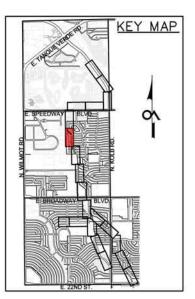








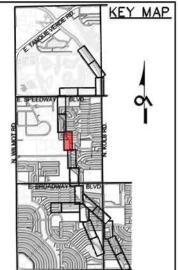
Ŀ. 20' 40' SCALE IN FEET











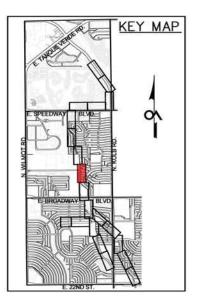


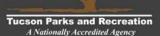


EGM ш LINE **IATCH** 





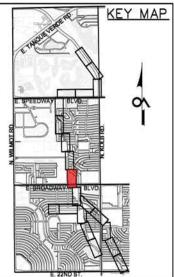








# TRAILHEAD PARKING AREA

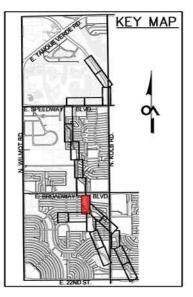




**Tucson Parks and Recreation** A Natio



SEGMENT 11



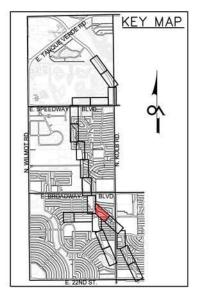


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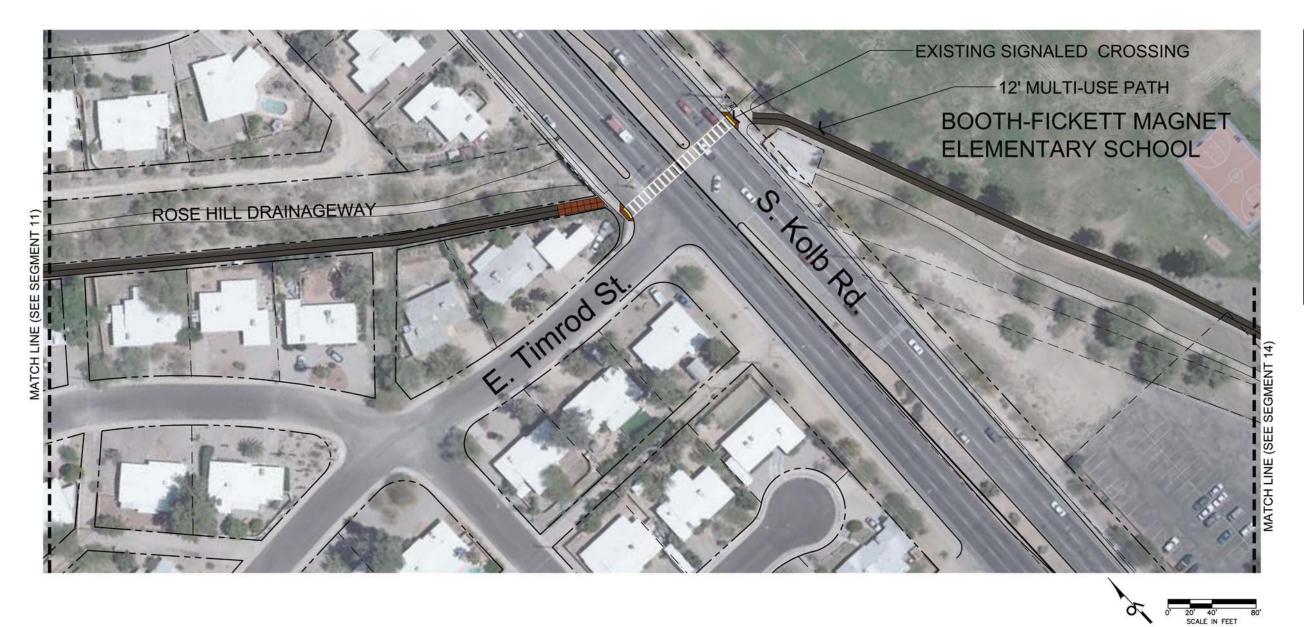
SEGMENT 12

20' 40' SCALE IN FEET

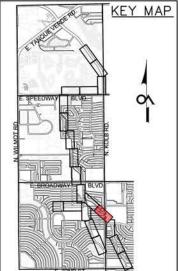




**Tucson Parks and Recreation** 



SEGMENT 13

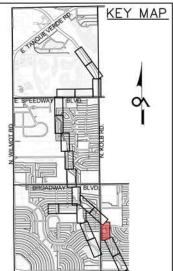




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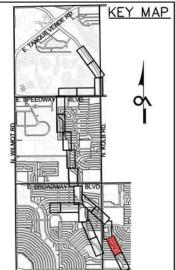




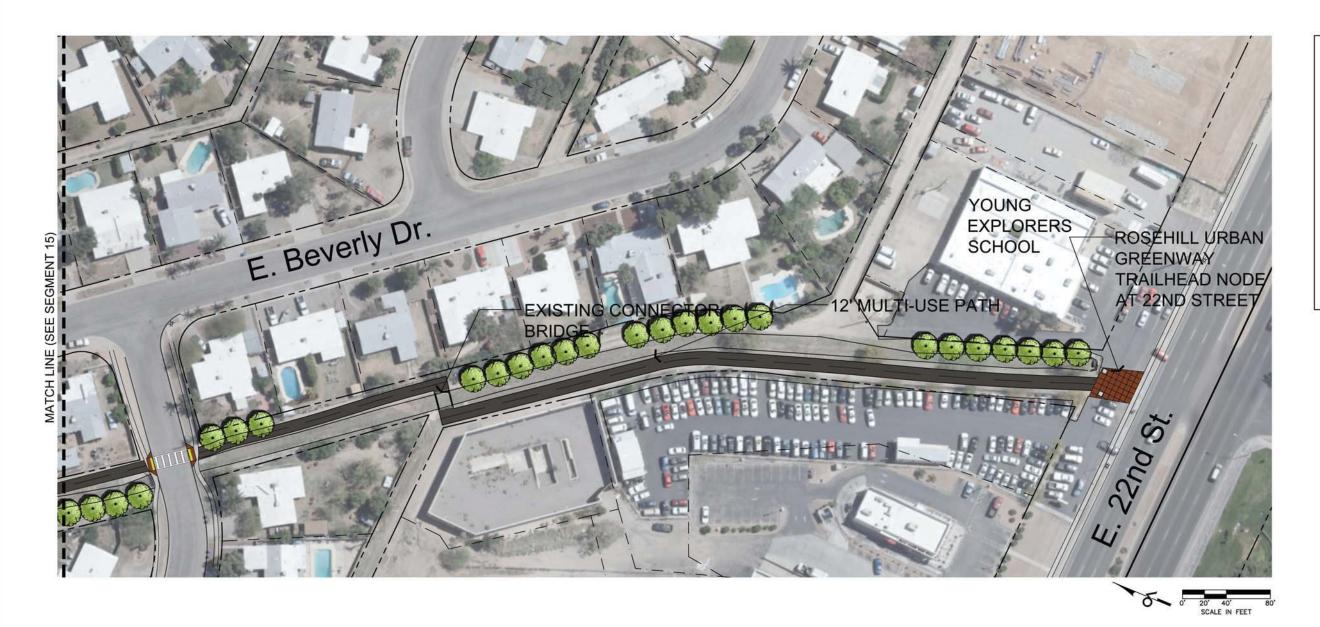




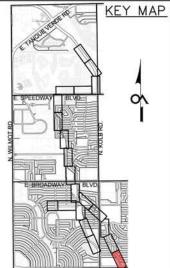




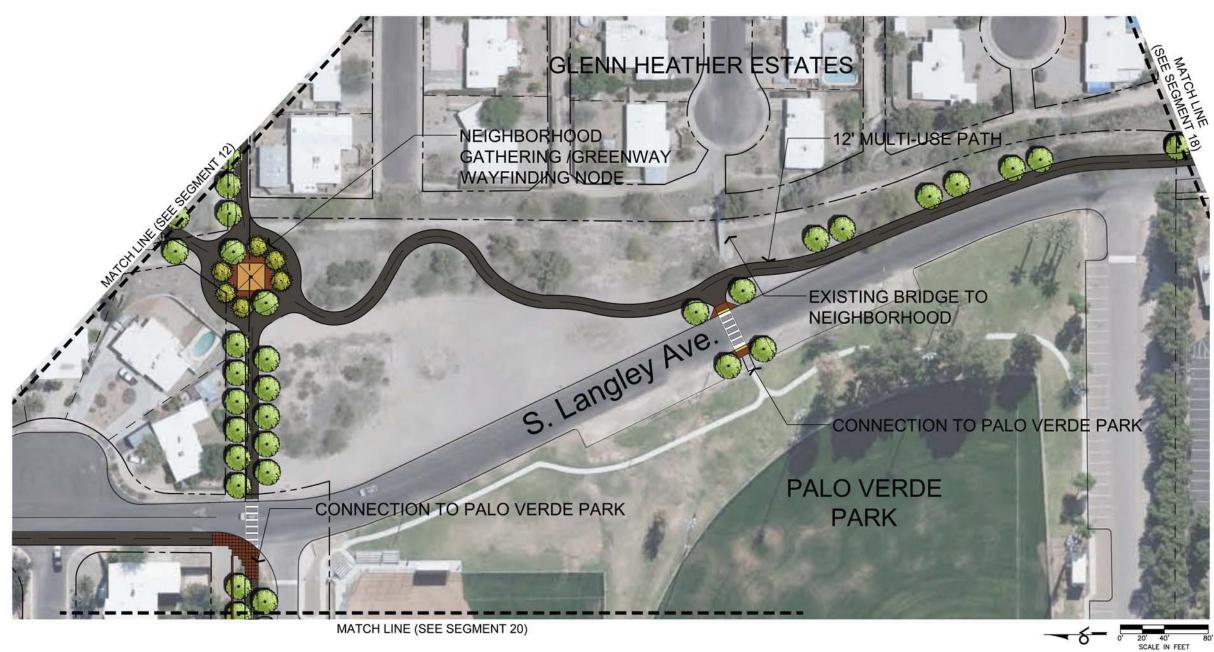




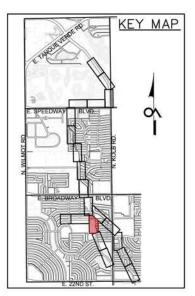








SEGMENT 17

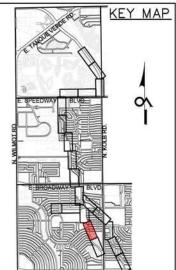




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SEGMENT 18





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