



**CITY OF SCOTTSDALE
TRANSPORTATION COMMISSION
PATHS & TRAILS SUBCOMMITTEE
Notice and Agenda**

Date: Tuesday, June 7, 2022
Time: 8:30 A.M.
Location: One Civic Center
Agave Conference Room
7447 E. Indian School Rd Suite 205
Scottsdale, AZ 85251

Call to Order

Roll Call

Don Anderson, Chair, Transportation Commission
Kyle Davis, Subcommittee Member
Teresa Kim Hayes-Quale - Commissioner, Parks and Recreation Commission
B. Kent Lall, Commissioner, Transportation Commission
William Levie, Subcommittee Member

One or more members of the Paths & Trails Subcommittee may be attending the meeting by telephone, video, or internet conferencing, pursuant to A.R.S. §38-431(4)

Public Comment

Only written comments submitted electronically are being accepted. To be considered, please submit your written Public Comment on an agenda item at least 90 minutes before the meeting's scheduled time to the following link:

<https://www.scottsdaleaz.gov/boards/transportation-commission/public-comment>

However, Arizona State Law prohibits the Path and Trails Subcommittee from discussing or taking action on an item that is not on the prepared agenda.

- Approval of Meeting Minutes.....Action**
Approval of the Regular Meeting minutes of April 5, 2022
- Trail Maintenance Public Outreach Program.....Information**
Review timeline and implementation approach for improving maintenance of unpaved trails located outside the McDowell Sonoran Preserve -Susan Conklu, Senior Transportation Planner

3. **Path Counters: First Year Data Review** **Information**
Discussion and analysis of the first full year of data collected using a network of Eco-Counters installed in April 2021 – Nathan Domme, Senior Transportation Planner
4. **Neighborhood Bikeways Prioritization Criteria** **Discussion and Action**
Review and approval of the criteria to be used for prioritizing future CIP investments in Neighborhood Bikeway Corridors – Nathan Domme, Senior Transportation Planner
5. **Subcommittee Identification of Future Agenda Items**..... **Discussion**
Subcommittee members may identify items or topics of interest for future Subcommittee meetings
6. **Adjournment**



Persons with a disability may request a reasonable accommodation by contacting Kyle Lofgren at 480-312-7839. Requests should be made 24 hours in advance, or as early as possible, to allow time to arrange the accommodation. For TYY users, the Arizona Relay Service (1-800-367-8939) may also contact Frances Cookson at 480-312-7637.



DRAFT SUMMARIZED MINUTES

CITY OF SCOTTSDALE TRANSPORTATION COMMISSION PATHS & TRAILS SUBCOMMITTEE

**ONE CIVIC CENTER
7447 E. INDIAN SCHOOL ROAD, SUITE 205
SCOTTSDALE, AZ 85251**

TUESDAY, APRIL 5, 2022

CALL TO ORDER

The meeting of the Paths & Trails Subcommittee was called to order at 8:30 a.m. A formal roll call confirmed the presence of Subcommittee members as noted below.

ROLL CALL

PRESENT: Donald Anderson, Chair – Transportation Commission
Kent Lall, Commissioner – Transportation Commission
William Levie, Subcommittee Member

ABSENT: Kyle Davis, Subcommittee Member
Teresa Kim Hayes-Quale, Commissioner – Parks and Recreation Commission

STAFF: Kyle Lofgren, Staff Coordinator
Kiran Guntupalli, Principal Traffic Engineer
Susan Conklu, Senior Transportation Planner
Dave Meinhart, Transportation Planning Manager
Greg Davies, Senior Transportation Planner
Cristina Lenko, Public Information Officer

PUBLIC COMMENT

There were no public comments.

1. APPROVAL OF MEETING MINUTES

Chair Anderson called for modifications and approval of the minutes. One correction was made.

SUBCOMMITTEE MEMBER LALL MOVED TO APPROVE THE MINUTES OF FEBRUARY 1, 2022 MEETING AS AMENDED. CHAIR ANDERSON SECONDED THE MOTION, WHICH CARRIED 3-0 WITH CHAIR ANDERSON, SUBCOMMITTEE MEMBERS LALL AND LEVIE VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

2. FEDERAL HIGHWAY ADMINISTRATION PROVEN SAFETY COUNTERMEASURES

Kiran Guntupalli, Principal Traffic Engineer, stated that the purpose of this presentation is to provide information from the Federal Highway Administration (FHWA) regarding proven safety countermeasures for bicycle and pedestrian activity for discussion and potential application in the City of Scottsdale. The FHWA has published 28 proven countermeasures, with eight of these specifically noted to improve safety for pedestrians and bicyclists.

Bicycle lanes have been included in the standard street cross sections for arterial and collector streets since 1991. The standard bicycle lane width has been widened from four to five feet. The City has been actively installing bicycle lanes via pavement overlay projects and small capital projects for the past ten years. This includes removal of travel lanes and installing buffered bike lanes. The FHWA data shows that installing bike lanes can reduce collisions by up to 49 percent on four-lane undivided collectors and 30 percent on two-lane undivided collectors and local roads.

Installing enhanced crosswalk components at intersections can improve pedestrian safety. Using high-visibility crosswalk markings can reduce pedestrian collisions by up to 40 percent. Intersection lighting can reduce pedestrian collisions by up to 42 percent. Adding advance yield or stop markings and signs can reduce pedestrian collisions by up to 25 percent. Traffic engineering staff utilize these applications for locations where enhanced pedestrian crossings are provided, such as Pedestrian Hybrid Beacons (PHB) and Reflective Rapid Flashing Beacons (RRFB).

Road diets refer to a reduction in the number of vehicle travel lanes, typically accomplished by removing travel lanes and adding a center turn lane, on-street parking, and/or bike lanes. Transportation staff have been actively removing center turn lanes and adding bicycle lanes or buffered bicycle lanes. This provides a better environment for bicycling and pedestrians and improves safety by providing separate bicycle facilities.

Chair Anderson asked about the percentage of roads for which the City has utilized a road diet approach, where one or two lanes are removed and bike lanes are added. Dave Meinhart, Transportation Planning Manager, stated that the City has a little over 1,000 lane miles of roadway classified as minor collector and above. It is estimated that fewer than 30 miles have seen removal of a travel lane or center turn lane. There are approximately 70 miles in the Action Plan.

Mr. Guntupalli stated that providing a raised median with a refuge area for pedestrian crossings can reduce pedestrian collisions 46 percent. Pedestrian refuge islands, which also provide a safe area between travel directions, can reduce pedestrian collisions by 56 percent. In Scottsdale, raised medians are included in the standard street cross sections for arterials and major collectors, and pedestrian refuge islands are used for pedestrian crossing enhancement.

RRFBs are signs with flashing beacons installed at midblock pedestrian crossings to increase driver awareness of pedestrian activity. The signs are activated by pedestrians when they want to cross a street. They are also used at pedestrian crossing locations on multi-lane roundabouts. Studies show that the RRFBs can reduce pedestrian collisions by up to 47 percent. The signs increase yielding rates by up to 98 percent. They are only recommended on streets with speed limits less than 40 miles per hour, however. Traffic engineering staff have been installing these signs at appropriate locations since they were approved for use by the Manual on Uniform Traffic Control Devices (MUTCD).

Chair Anderson asked whether RRFBs are typically installed in school areas. Mr. Guntupalli confirmed that they are used in school zones and residential areas.

Mr. Guntupalli stated that PHBs provide traffic control for midblock pedestrian crossings on higher volume and higher speed roadways where there is demonstrated pedestrian crossing demand. The City has actively been installing PHBs for pedestrian crossing locations since they were included in the MUTCD in 2009. There are currently nine active PHBs in Scottsdale, with two more under construction. The PHBs reduce pedestrian collisions by 55 percent, with a total collision reduction of 29 percent and a reduction of serious and fatal collisions by 15 percent.

Chair Anderson asked how long these have been being constructed, noting that he has only seen them at one location at 70th Street adjacent to Chapparral High School. Mr. Guntupalli stated that they are not installed at all available locations, as the more of them that are installed, the higher likelihood there is that people will ignore them. They are typically installed in high demand areas, such as Camelback and Scottsdale Road.

Mr. Guntupalli stated that providing sidewalk facilities for pedestrians to walk outside of vehicle lanes can reduce pedestrian collisions by 65 to 89 percent. Paved shoulders along streets without sidewalks can reduce pedestrian collisions by 71 percent. The City's sidewalks have evolved over time to require wider sidewalks and to emphasize separating sidewalk from the back of curb adjacent to higher volume and higher speed streets.

Visibility of pedestrians and bicycles at intersections is important for safe crossings during nighttime conditions with low visibility. Streetlights are typically provided at signalized intersections. This improves safety and reduces crashes by approximately 42 percent. The City provides streetlights along urban and suburban arterial and collector street corridors and at major intersections. There are limits to how much street lighting can be provided due to costs, maintenance, and a preference for dark skies in rural areas of the city.

Photo enforcement is utilized to address safety concerns associated with high travel speeds and red light running. There are eleven fixed camera locations, two mobile vans and two towers. The vans are often used along collector streets where there is higher pedestrian and bicycle activity. The two towers are primarily utilized near school crossings and park sites. One study showed a reduction of speeding in school zones up to 63 percent with photo enforcement.

There has been a great deal of research recently which documents that lowering the speed of a vehicle at impact with a pedestrian or bicyclist is directly proportional to injury severity. Studies show that approximately 90 percent of pedestrian survive a collision with a vehicle traveling at 20 miles per hour; 60 percent of pedestrian survive a collision with a vehicle traveling at 30 miles per hour and only 20 percent of pedestrian survive a collision with a vehicle traveling at 40 miles per hour. Variable speed limits are used in locations where there is an expectation that roadway

conditions will change drastically with activity levels. Some efforts to modify the criteria to determine speed limits are taking place on a national level, reducing the emphasis on the recorded 85th percentile speed. Traffic Engineering staff support this effort and consider the reduction of current speed limits during all speed limit studies.

Commissioner Lall asked if the City monitors actual reduction and if so, how often this occurs. Mr. Guntupalli stated a bicycle pedestrian collision summary is completed on annual basis. This is conjunction with analysis of locations and road safety assessments.

3. BICYCLE EDUCATION PROGRAM

Susan Conklu, Senior Transportation Planner, stated that education is included as one of the “5 Es” in measuring the City’s bicycle-friendly status with the League of American Cyclists.

The program evaluates a community by examining five categories (the “5 Es”):

- Engineering & Construction
- Education
- Encouragement & Events
- Enforcement
- Evaluation & Planning

Scottsdale provides education to its residents regarding path and road sharing via the City’s webpage as well as in printed materials and active transportation maps. A review of the webpage was provided. The Bicycle and Related Devices ordinance clarifies and regulates how these devices may be operated and parked. The update was adopted by City Council in November of 2018. In terms of additional education, signage and markings provide assistance for location identification for travelers. New wayfinding signage and other informational signage will be installed on Indian Bend Wash Path this summer. The plan for additional education, to include updated graphics and guidelines for maps, webpage and events was reviewed.

Chair Anderson asked about the possibility of placing kiosks at key locations with the brochures. Ms. Conklu stated that typically, there are two downtown ambassador carts during the high season. They did not go out this past year, however they are typically provided with brochures. Brochures are also placed in City building and atriums map cases.

Mr. Meinhart introduced new public information officer, Cristina Lenko, Public Information Officer, who is assisting with preparing new materials. He noted that the current focus is on education regarding expected behaviors, particularly on the path system.

Commissioner Lall asked whether a dividing line is used for paths of 10 to 12 feet. Mr. Meinhart stated that the goal is to always stripe primary paths. The Indian Bend Wash path system is striped all the way from Tempe to WestWorld. The Arizona Canal Path is striped the entire way. Pima Path is striped in all locations.

4. BIKE MONTH UPDATE

Ms. Conklu provided a brief history of Bike Month, which takes place annually in April. Valley Metro partners with Valley cities and promotes regional events through its webpage and printable materials. A Bike Month challenge is offered to various groups to compete for prizes. Valley Metro provides T-shirts for Bike Month. Scottsdale has organized its own events, including Cycle the Arts and Bike to Work Day. An overview of these City events was provided. In 2020, in-person events were cancelled. In 2021, in lieu of in-person events, the City offered a self-guided option. Over 90 people downloaded the self-guided map throughout the year and 15 people sent in bike selfies to request a free T-shirt.

Details for recent Cycle the Arts 2022 program event were reviewed:

- Promoted in Phoenix New Times and Scottsdale Independent
- Sunday April 3rd
- 8.6-miles long, 13 art stops
- 130 attendees registered, with 93 in attendance
- Volunteers from Scottsdale Transportation, Scottsdale Arts, Old Town Ambassadors and bicycling community
- Augmented Reality features
- Received T-shirts and breakfast snacks
- Promoted self-guided option

Ms. Conklu gave an overview of the route map.

Next steps in the process include:

- Bike Month debrief meeting
- Begin planning 2023 Bike Month this fall
- Cycle the Arts
- Bike to Work Day
- Bike to School Day
- Promote events widely to citizens and city employees
- Explore options for family friendly neighborhood rides

Chair Anderson asked how the participation rate this year compares to the last event prior to the pandemic. Ms. Conklu stated that attendance has varied from 40 to 85 participants.

Mr. Meinhart commented that he would like the City to explore the possibility of some shorter rides.

In response to a question from Chair Anderson, Ms. Conklu stated that the bike tour events typically last approximately 2.5 hours.

5. SUBCOMMITTEE IDENTIFICATION OF FUTURE AGENDA ITEMS

The following topics were identified for future agenda items:

- Update on bicycle counters

- Outreach for trail maintenance
- 124th Street and Shea underpass
- Access to Indian Bend Wash
- Upcoming meeting schedule
- Program and project updates

6. ADJOURNMENT

With no further business to discuss, being duly moved by Subcommittee Member Levie and seconded by Chair Anderson, the meeting adjourned at 9:51 a.m.

AYES: Chair Anderson, Commissioner Lall and Subcommittee Member Levie. NAYS: None

SUBMITTED BY:

eScribers, LLC

***NOTE: These are summary action meeting minutes only. A complete copy of the audio/video recording is available at <http://www.scottsdaleaz.gov/boards/Transp.asp>**

SCOTTSDALE PATHS & TRAILS SUBCOMMITTEE REPORT



To: Paths & Trails Subcommittee
From: Susan Conklu, Senior Transportation Planner
Subject: Trail Maintenance Outreach Plan
Meeting Date: June 7, 2022

ITEM IN BRIEF

Action: Presentation and discussion

Purpose:

Provide information on the trail maintenance outreach plan

Background:

The city currently has approximately 160 miles of unpaved trails outside the McDowell Sonoran Preserve. Trails exist in city right-of-way or on easements dedicated to the city on private property. In some locations, properties that hold public easements are owned by homeowners associations while others are owned by individual property owners.

As is the case with sidewalks, maintenance of trails is the responsibility of the adjacent property owner, per Scottsdale Revised Code, Chapter 47. Section 47-47 (Attachment 1) states, "The owner of property adjacent to the right-of-way shall conduct routine property maintenance to keep the property and adjacent right-of-way in an orderly and safe condition." Section 47-47 also states, "The owner of property adjacent to the right-of-way shall maintain the property so that it does not interfere with public uses of the right-of-way."

Code Enforcement is the mechanism for enforcing removal of encroachments. ScottsdaleEZ is a common way for residents or city staff to report issues to Code Enforcement.

The Scottsdale Design Standards and Policies Manual (DS&PM) Chapter 8-3 covers Non-Paved Trails including maintenance information, which is provided in Section 8-3.6, pages 573, 590-592 (Attachment 2):

<https://www.scottsdaleaz.gov/Assets/ScottsdaleAZ/Design/DSPM/DSPM+2018.pdf>

In order to improve general maintenance of the trail system, staff began by drafting a communication plan to inform, educate, and facilitate property owners to fulfill their responsibility to maintain trail easements that run through or are adjacent to their property.

The most recent update to the Paths & Trails Subcommittee on the development of trails maintenance outreach program was presented on April 6, 2021.

Update:

On April 26, 2022, the Transportation Action Plan (TAP) was adopted by City Council. The Trail Element of the TAP includes goals, policies and performance measures related to trail maintenance.

Trail Element Goal (TR-05)

Educate the public about easements and maintenance responsibilities associated with the trail network

Trail Element Policy (TR-02)

Trail obstruction: Coordinate with landowners regarding obstruction removal and require trail realignment by landowner if necessary.

Trail Element Performance Measure (TR-02) Mileage of rehabilitated trails per year

Transportation staff have been refining the components and schedule for the trail maintenance communication plan. Meetings with Citizen Services, Code Enforcement, Communications and

Scottsdale Video Network staff were held. A detailed inventory of the trail network commenced in January to assess the condition of the trails. The inventory utilizes an iPad to collect field data and update the records in the database in real time. Data queries allow identification of specific locations for review and action. For example, trail obstructions or overgrown vegetation can be queried throughout the system and enable staff to take action to address the issues. The inventory is approximately 90% complete and is on target for completion in the next 30-45 days.

A recent analysis of parcels adjacent to trails identified the number of parcels and the percentage of trail mileage that is adjacent to home owners associations or commercial properties (63%), individual property owners (21%) or public agency/city-owned properties (16%). This will aid in targeted outreach to correct issues on the trails that were identified by the trail inventory or new reports from the public. The Trail Maintenance webpage was recently published with information on maintenance responsibilities and a link to the interactive Public Amenities Map so citizens can look up their property and view trail locations.

Next Steps:

Transportation staff will present an update to the Transportation Commission at the June 16, 2022 meeting. Staff are discussing options for creating a trail maintenance link in ScottsdaleEZ.

The new Trail Maintenance webpage will be publicized with a web article, social media posts, utility insert article, and a Scottsdale Update newsletter article over the summer. Targeted outreach to HOAs and commercial property owners will take place this summer, with individual property owner outreach occurring this fall. Staff will continue sending issues to Code Enforcement as needed. The information video will be created in the fall and posted on the Trail Maintenance webpage, Scottsdale Video Network and Scottsdale YouTube channel. Neighborhood trail cleanup opportunities will be coordinated with Citizen Services programs and events. These include Operation Fix It, a proposed Adopt-a-Trail program similar to Adopt a Road, October National Make a Difference Day and April Earth Day.

Transportation staff will evaluate the success of the outreach program and impacts on the improvements to the trail network.

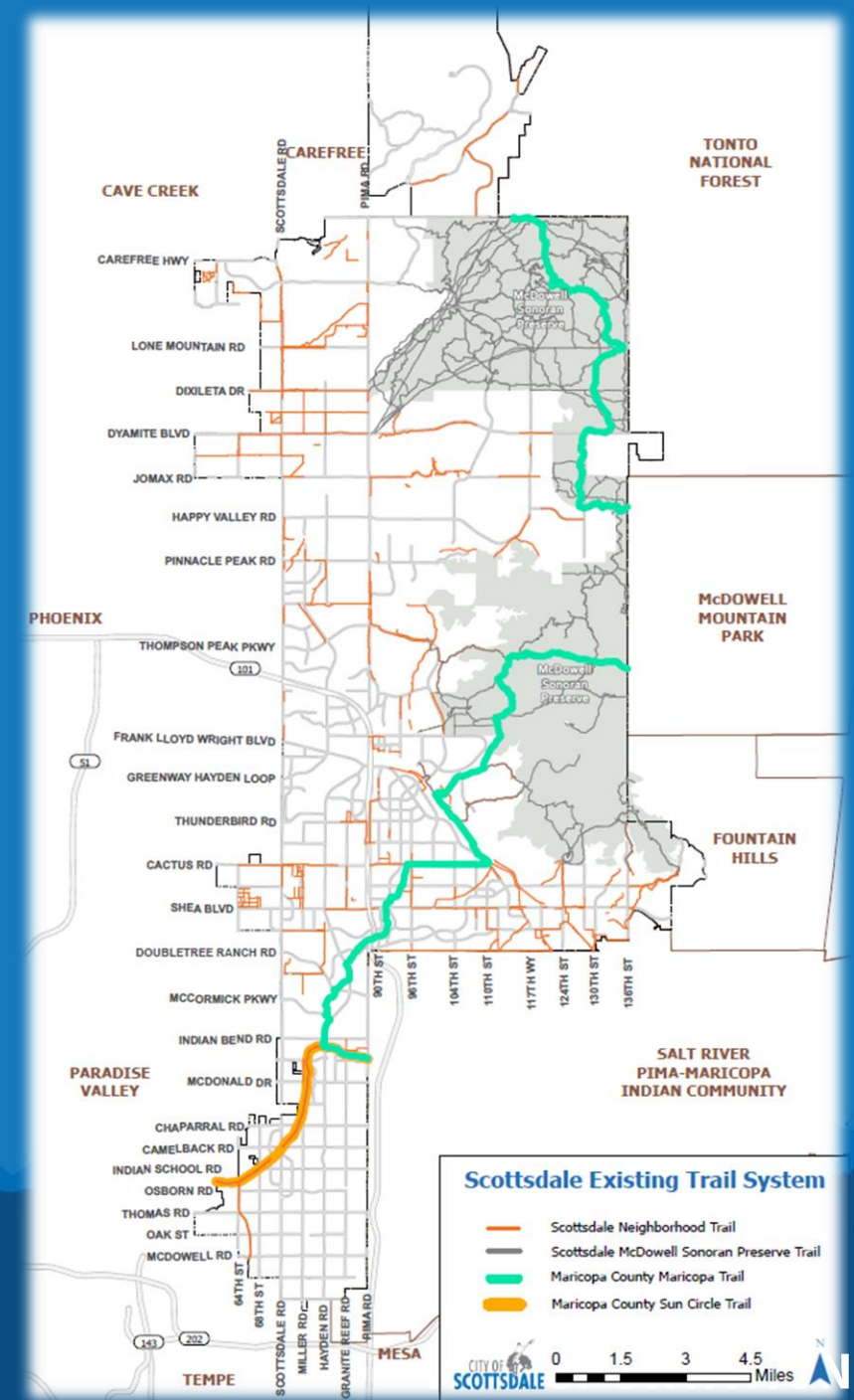
Staff Contact: Susan Conklu, 480-312-2308, sconklu@scottsdaleaz.gov

Trail Maintenance Outreach Plan

Transportation Commission
Paths & Trails Subcommittee
June 7, 2022

Background

- 160 miles of existing non-Preserve trails (based on recent parcel-level inventory)
 - City right-of-way and easements
- Trail maintenance communication plan in development
- Trail inventories
 - 2012 - previous inventory
 - 2022 - commenced in January

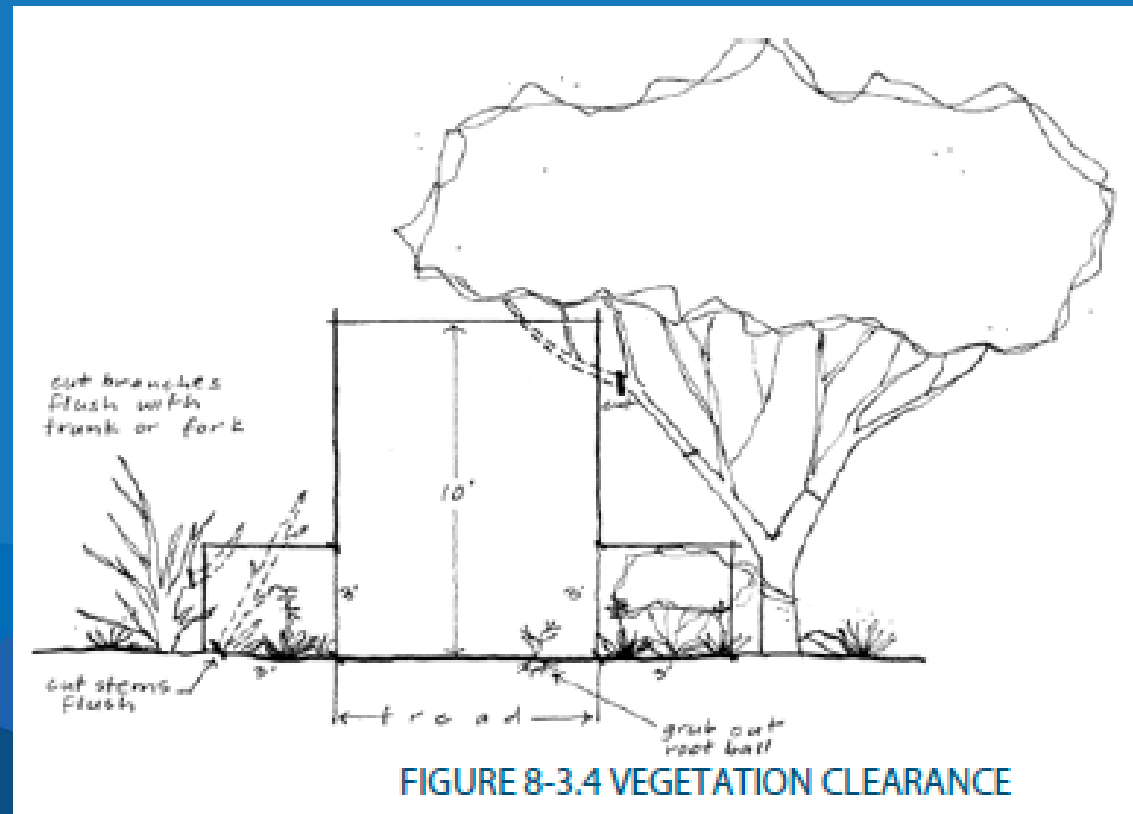


Maintenance Responsibility

- Scottsdale Revised Code, Chapter 47. Section 47-47:
- “The owner of property adjacent to the right-of-way shall conduct routine property maintenance to keep the property and adjacent right-of-way in an orderly and safe condition.”
- “The owner of property adjacent to the right-of-way shall maintain the property so that it does not interfere with public uses of the right-of-way.”
- Citizens and city staff may report issues through [ScottsdaleEZ](#)

Trail Maintenance Information

- Scottsdale Design Standards and Policies Manual:
 - <https://www.scottsdaleaz.gov/design/DSPM>
 - Chapter 8-3 Non-Paved Trails



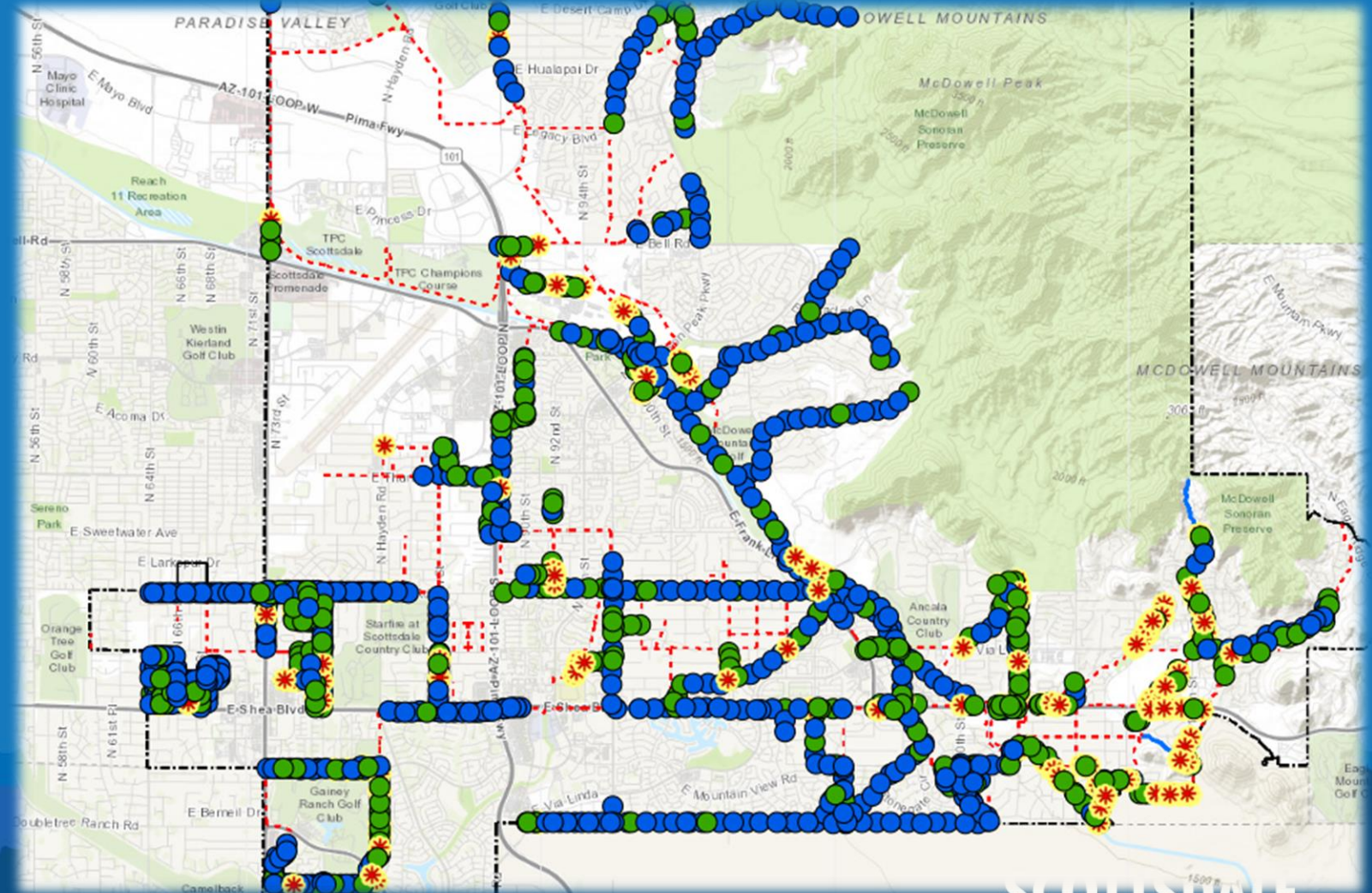
Update

- Transportation Action Plan Trail Element
- Refined components and schedule for the trail maintenance communication plan
- Met with Code Enforcement, Citizen Services, Communications and Scottsdale Video Network staff
- Inventory of trail maintenance conditions 90% complete



Trail Maintenance – Inventory Overview

- Used Latest Technology
- Specific Attribute Data
- Collected Data in Field - iPad
- Data Collection - Real Time



Trail Maintenance – Data Review

- Data Queries Allow Identification of Specific Data for Review & Action

Legend

Trail_Inspections

- ★ IMMEDIATE
- MONITOR
- NONE

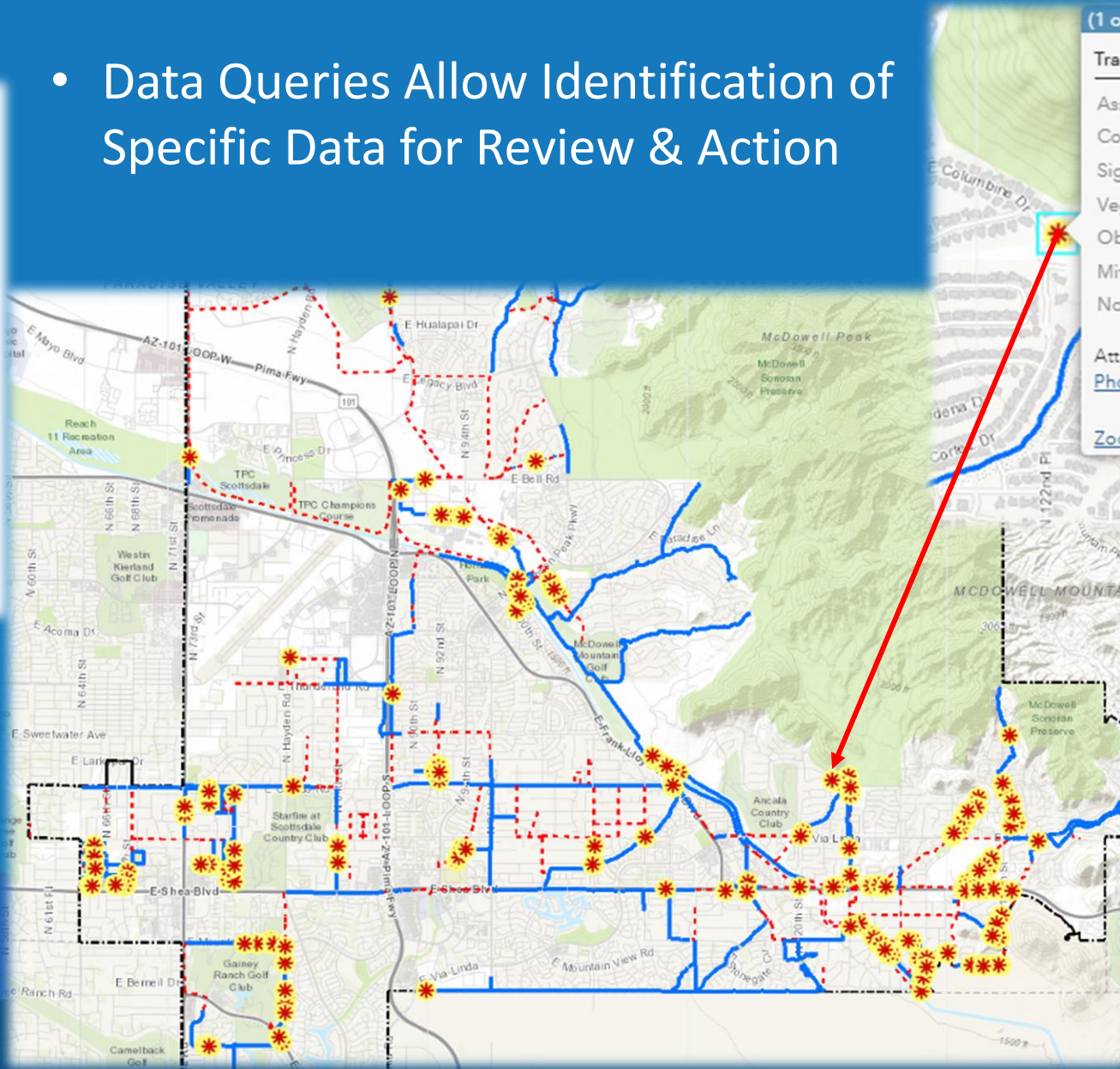
Trails_Outside_Preserve

Trails Outside Preserve

- Existing
- - - Planned

City Boundary

- - -

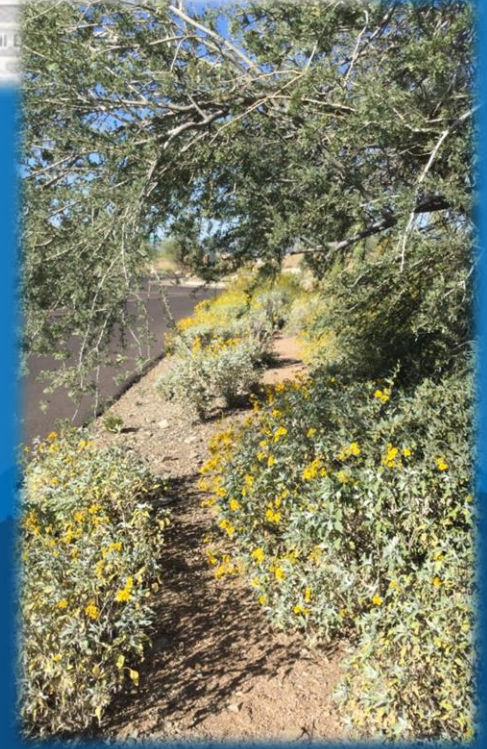


(1 of 2)

Trail Inspections:

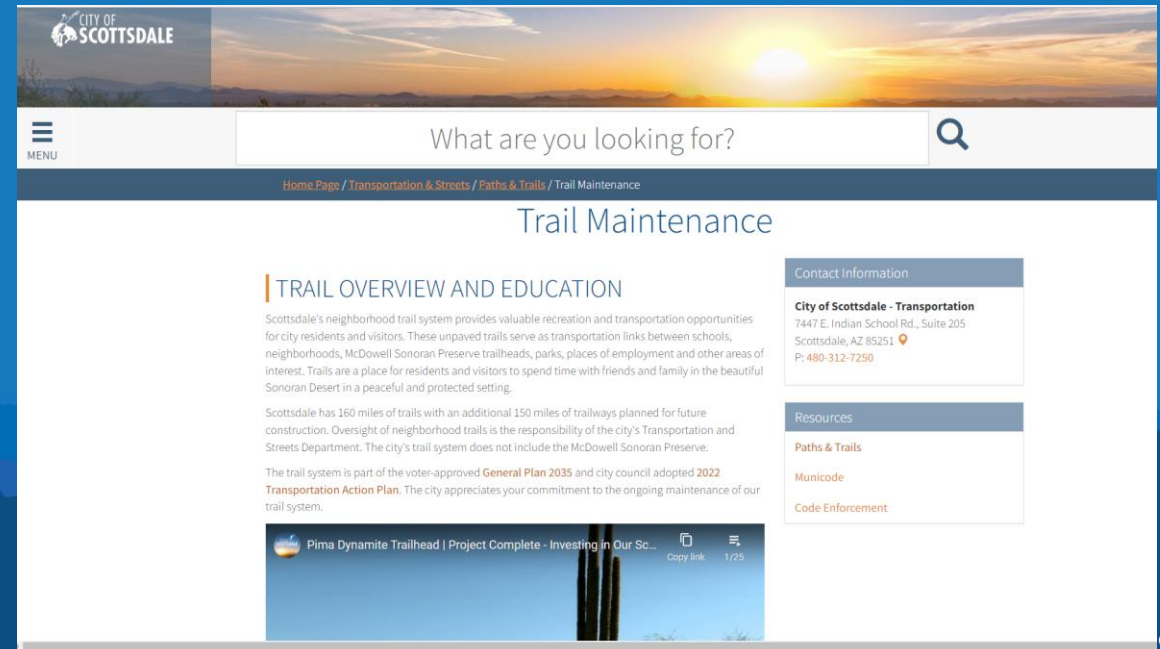
Asset ID	
Condition	GOOD
Signage	ACCEPTABLE
Vegetation	PRUNE OVERHEAD
Obstruction	NONE
Mitigation	IMMEDIATE
Notes	
Attachments:	Photo_1.jpg

[Zoom to](#) [Edit](#) [Get Directions](#)



Update

- Analysis of parcels adjacent to trails (number and mileage)
 - HOAs and commercial properties – 2800 parcels/63% of mileage
 - Individual property owners – 425 parcels/21% of mileage
 - City-owned or public agency properties – 175 parcels/16% of mileage
- Trail Maintenance Webpage
 - Responsibilities
 - Link to interactive map with trails



Next Steps

- June 16, 2022 Transportation Commission
- ScottsdaleEZ (web site) – trail maintenance link
- Publicize
 - Web article, social media, utility insert, Scottsdale Update
- Targeted outreach from Transportation
 - HOAs and Commercial properties – summer
 - Individual property owners - fall



Next Steps

- Send issues to Code Enforcement as needed
- Video in fall 2022 – webpage, Scottsdale Video Network and YouTube
- Coordination with Citizen Services programs and events
 - Operation Fix It
 - Create Adopt-a-Trail program
 - October National Make a Difference Day
 - April Earth Day



Trail Maintenance Outreach Plan

Transportation Commission
Paths & Trails Subcommittee
June 7, 2022

SCOTTSDALE PATHS AND TRAILS SUBCOMMITTEE REPORT



To: Paths and Trails Subcommittee
From: Nathan Domme, Senior Transportation Planner
Subject: Path Counter: First Year Data Review
Meeting Date: June 7, 2022

ITEM IN BRIEF

Action: Presentation and discussion

Purpose:

Provide a review of pedestrian and bicycle counts taken at nine permanent counter locations over a one-year period between May 1, 2021, and April 30, 2022.

Background:

In late 2018, Scottsdale added an EcoCounter with the Crosscut Canal Bridge and Path south of McDowell Road. This device counts bicyclists and pedestrians and includes the direction of travel. The data is automatically uploaded to the EcoCounter website, where Transportation staff can access the data and run reports.

In April 2021, Scottsdale added eight additional permanent bike and pedestrian counters throughout the non-motorist network. Four were added to the Indian Bend Wash Greenbelt between McKellips Road and McCormick Parkway, and four were added around key locations off the greenbelt (see Attachment 1).

Now that all 9 counters have been deployed in the field for a year, we are able to complete analysis of usage by mode, month, day of the week and time of day. Due to the locations of the counters, we are also able to compare usage along the Indian Bend Wash Greenbelt to usage at non-Greenbelt sites.

Information:

Whole Network Numbers

The activity along the paths totaled 1.42 million users in the year's span and is detailed in Figures 1 and 2. Usage was weighted more towards cyclists, with 839,500 trips making up 59% of the total. The remaining 584,000 trips were taken by pedestrians. These numbers show a strong interest in and use of our path system. The Greenbelt counter sites have significantly more activity than the non-Greenbelt sites, with 68% of the usage. Ranking of individual sites shows Indian School as the number 1 site, followed by Chaparral Park and Vista Del Camino Park as the top 3.

Figure 1
Total Counts from April 2021 to April 2022

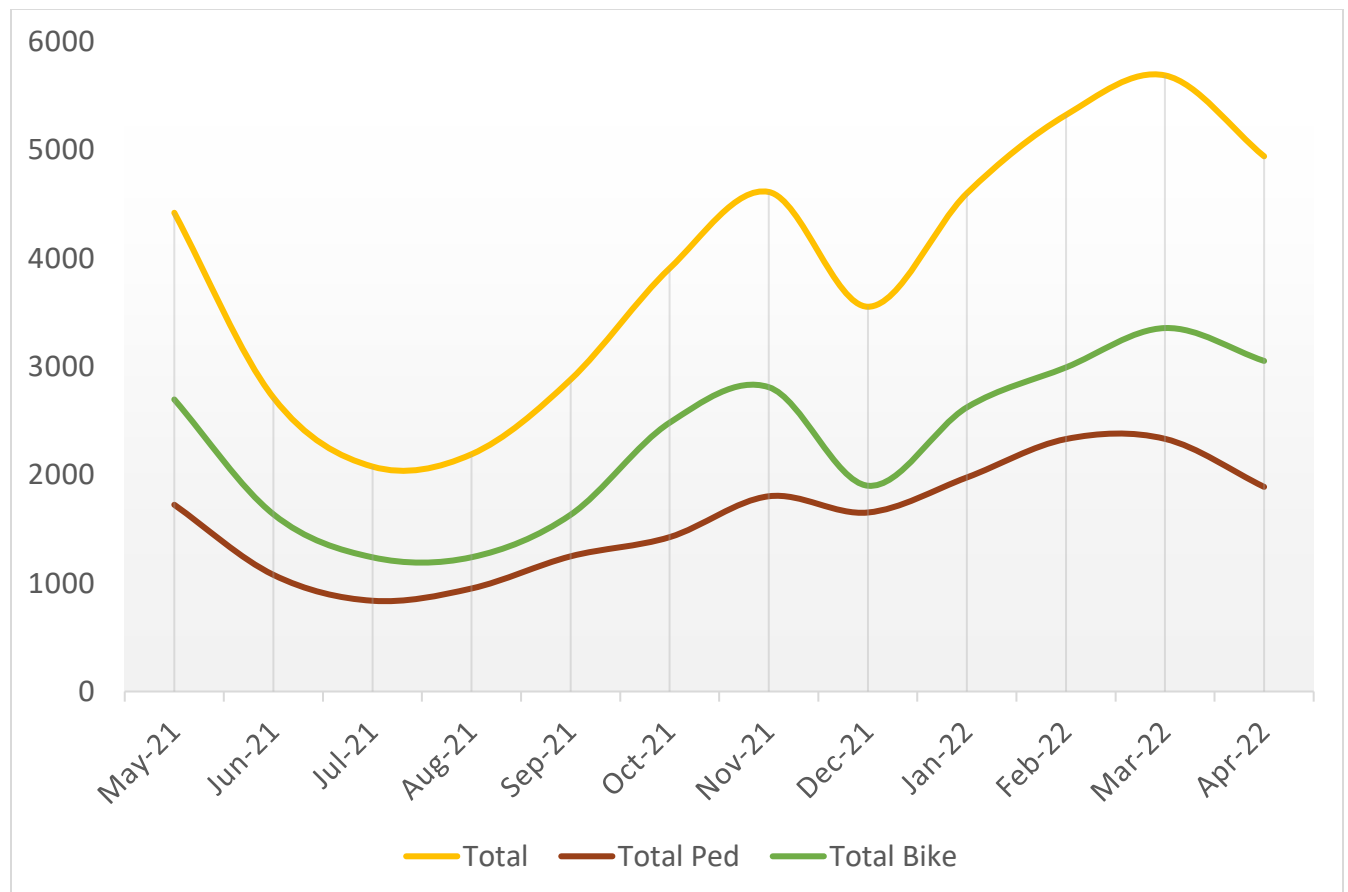
	Total Counts	Percentage of Total
All Activity	1,423,171	100%
Total Bike	839,429	59%
Total Ped	583,742	41%

Figure 2
Total Counts by Counter Location

Site	Total	Bikes	Ped
Green Belt Sites	970,766	522,672	508,094
Vista Del Camino Park	217,567	149,838	67,729
Indian School	316,414	208,818	177,596
Chaparral Park	263,970	63,425	200,545
McCormick	162,815	100,591	62,224
Non-Greenbelt Sites	452,405	316,757	135,648
Crosscut Canal Bridge	28,568	19,879	8,689
Arizona Canal/84 th	116,027	85,464	30,563
Pima Path south of Indian Bend	77,992	66,954	11,038
Upper Camelback Wash	145,970	102,831	43,139
Sweetwater Avenue	83,848	41,629	42,219

The graph below in Figure 3 tracks total network monthly activity for the year. There is high activity nine months of the year, with a peak in the middle of Spring. As expected, a sharp decrease occurs in the summer. The outlier was an unexpected and rather sharp decrease in activity for December related to a drop-in bike activity at all locations during the holiday season.

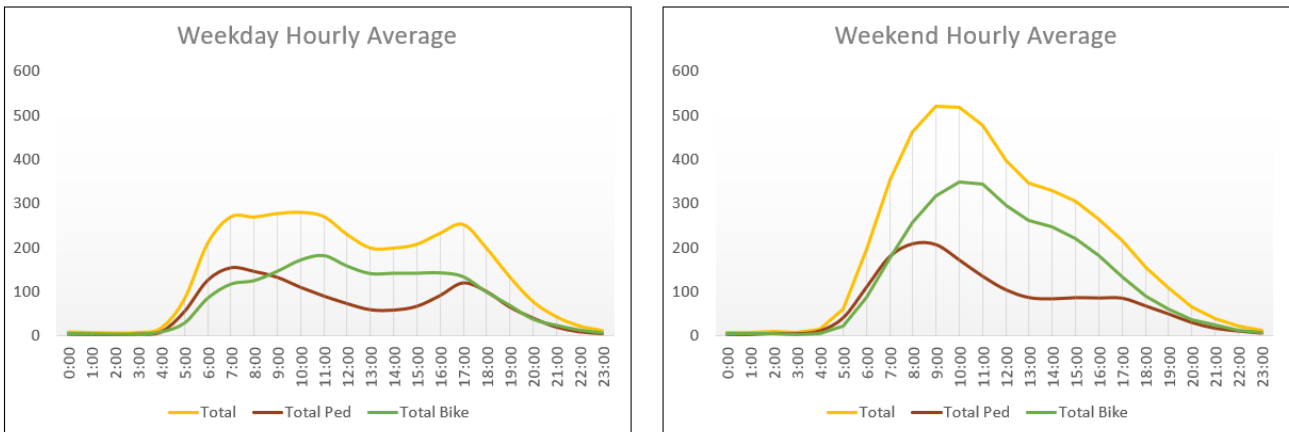
Figure 3
Total Network Monthly Activity from April 2021 to April 2022



Average Weekday Weekend Numbers

The graphs below in Figure 4 display the average weekday and weekend activity. By averaging all the days in the year, we can see the general pattern of use throughout the day. There is an increase in activity in the peak morning and peak afternoon period for the weekdays that likely reflects commuting and activities before and after work. Activity on the weekends sees a large morning rush followed by tapering off throughout the day. Weekends have much higher volumes in both types of users, but there is a larger change in bike ridership between weekdays and weekends. Bike ridership increases by 60% on weekends compared to weekdays. Pedestrian activity only increases by 13% on weekends. The yearly average weekday and weekend totals show that we would expect to have 3,499 users throughout the day on any given weekday and 4,876 users on any given weekend day.

Figure 4
Average Total Weekday and Weekend Hourly Activity



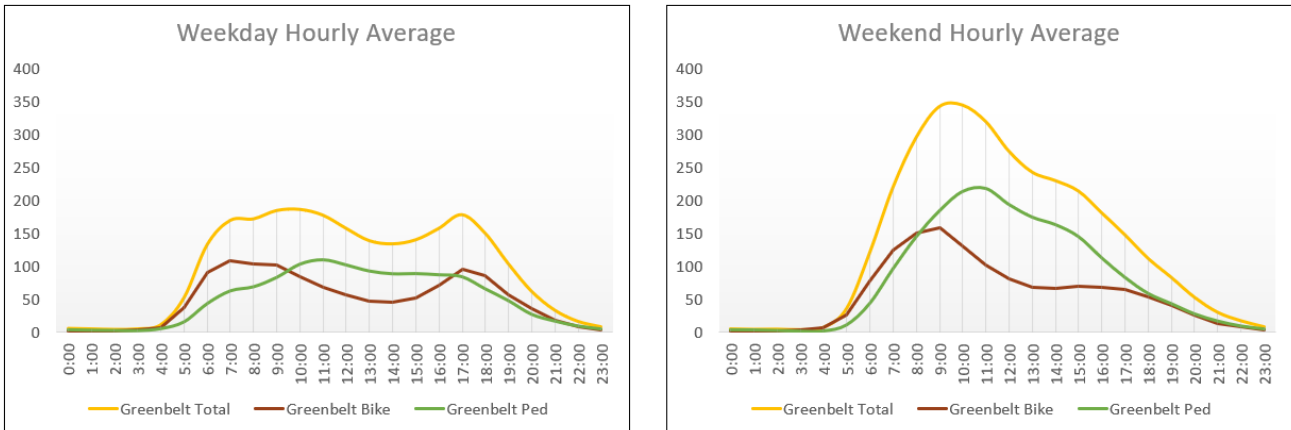
	Average Weekday Activity	Average Weekend Activity
All Activity	3,499 users	4,876 users
Total Bike	1,963 users	3,114 users
Total Ped	1,536 users	1,762 users

Greenbelt Sites (Vista Del Camino Park, Indian School Park, Chaparral Park, McCormick Parkway)

The Greenbelt sites consist of the four busiest counters. On weekdays, these counters average 2,405 users with an increase to 3,308 users on a weekend day. The hourly activity graphs show consistency with the overall daily activity for the entire network: a commuting pattern in the weekdays and a recreational pattern on the weekends (Figure 5). Also, there is strong early morning walking activity on the weekday, followed by a strong bike activity later in the morning. Looking at modes, the weekdays were a much closer split with 51% cycling to 49% pedestrian. On weekends, the demand for cycling increases with splits of 59% for cycling and 41% pedestrian.

The McCormick Parkway counter (4th busiest site we monitor) has a unique user pattern. Instead of peak morning and afternoon periods on the weekday representing regular commuting patterns, it has a morning peak with a tapering that is more consistent with weekend recreational activity. This site still shows higher demand for bike activity than pedestrian activity, and its patterns are consistent with the whole network for monthly activity. This site also has the largest percent increase between weekday bike ridership and weekend bike ridership, with a 96% increase.

Figure 5
Average Greenbelt Weekday and Weekend Hourly Activity



	Average Weekday Activity	Average Weekend Activity
All Activity	2,405 users	3,308 users
Total Bike	1,219 users	1,960 users
Total Ped	1,186 users	1,348 users

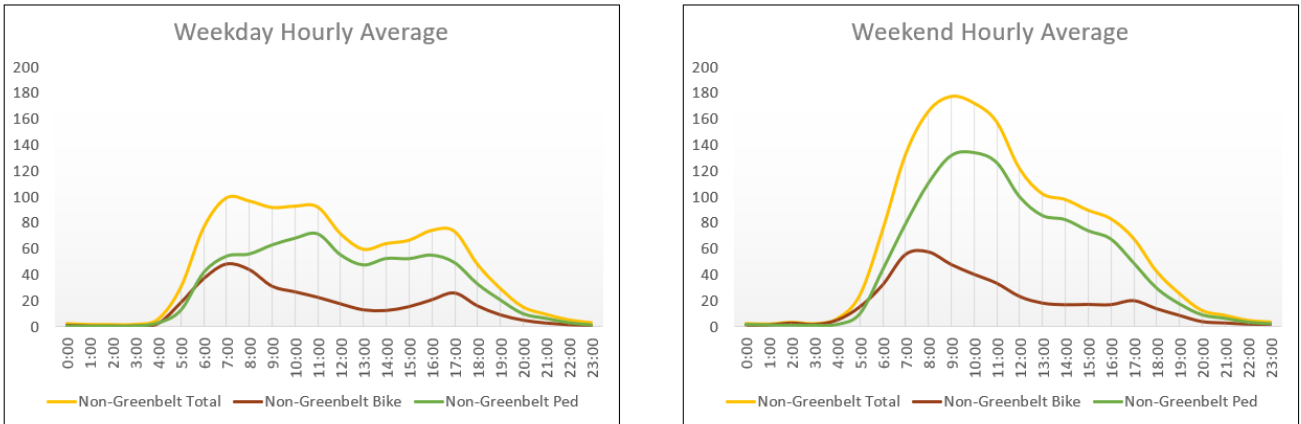
The Chaparral Effect

The Chaparral Park counter is the 2nd busiest site we monitor, but unlike all the other sites, Chaparral has a stronger pedestrian demand instead of bikes. If the Chaparral site is removed from the Greenbelt averages, the mode split percentages change from 51% cycling and 49% pedestrian to 62% cycling and 38% pedestrian on weekdays. It stretches even further on the weekends with the split being 70% cycling and 30% pedestrian.

Non-Greenbelt Sites (Crosscut Canal Bridge, Arizona Canal, Pima Path, Upper Camelback Wash/Cholla Street, Sweetwater Ave)

The Non-Greenbelt site activity was not as strong as the Greenbelt activity. On the weekday these sites average 1,099 users and 1,585 users on weekend days. These sites overall are still consistent with the whole network activity graphs detailed in Figure 6. However, hourly activity graphs show higher demand for bikes than the greenbelt locations with an activity split of 68% cycling to 32% pedestrian on weekdays and 73% cycling to 27% pedestrian on weekends. Like the Greenbelt, there is a regular contingency of people going out walking or running at 4 to 5 in the morning that outpaces bike activity.

Figure 6
 Average Non-Greenbelt Weekday and Weekend Hourly Activity



	Average Weekday Activity	Average Weekend Activity
All Activity	1,099 users	1,585 users
Total Bike	755 users	1,159 users
Total Ped	345 users	426 users

Neighborhood Bikeway Comparison

A comparison of usage at the Upper Camelback Wash counter was made to the nearby Neighborhood Bikeway corridor on Cholla Street. Average vehicle usage per day along Cholla Street between 92nd Street and 96th Street for 2020 was 1,200. The number of bike and pedestrian users on the weekday at the counter location just south of Cholla Street is 361 per day. This shows bike and pedestrian activity at this location is 30% of vehicle activity, which suggests that, on smaller collector roads, Bikeways can generate bike and pedestrian activity that begins to compare favorably with vehicular use.

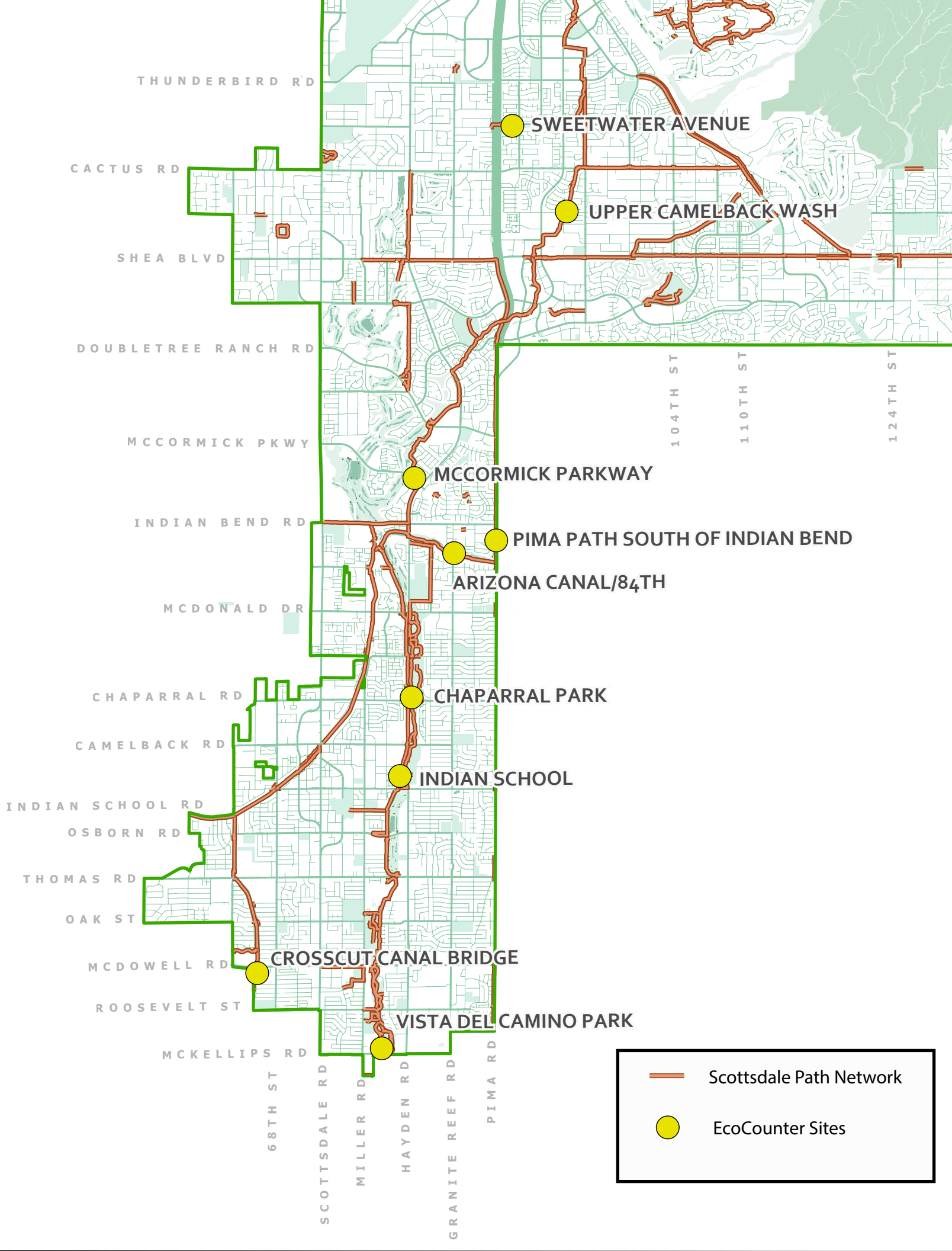
Continuing Steps:

Staff will continue to study the counts regularly and manually upload the data at each location monthly. Staff will use the data in the 2023 bicycle friendly community application and to help prioritize future path renovations.

Attachments:

[Attachment 1](#): Map: EcoCounter Sites

Staff Contact: Nathan Domme, 480-312-2732, ndomme@scottsdaleaz.gov



THUNDERBIRD RD

SWEETWATER AVENUE

CACTUS RD

UPPER CAMELBACK WASH

SHEA BLVD

DOUBLETREE RANCH RD

MCCORMICK PKWY

MCCORMICK PARKWAY

INDIAN BEND RD

PIMA PATH SOUTH OF INDIAN BEND

ARIZONA CANAL/84TH

MCDONALD DR

CHAPARRAL RD

CHAPARRAL PARK

CAMELBACK RD

INDIAN SCHOOL

INDIAN SCHOOL RD

OSBORN RD

THOMAS RD

OAK ST

CROSSCUT CANAL BRIDGE

MCDOWELL RD

ROOSEVELT ST

VISTA DEL CAMINO PARK

MCKELLIPS RD

68TH ST

SCOTTSDALE RD

MILLER RD

HAYDEN RD

GRANITE REEF RD

PIMA RD

Scottsdale Path Network

EcoCounter Sites

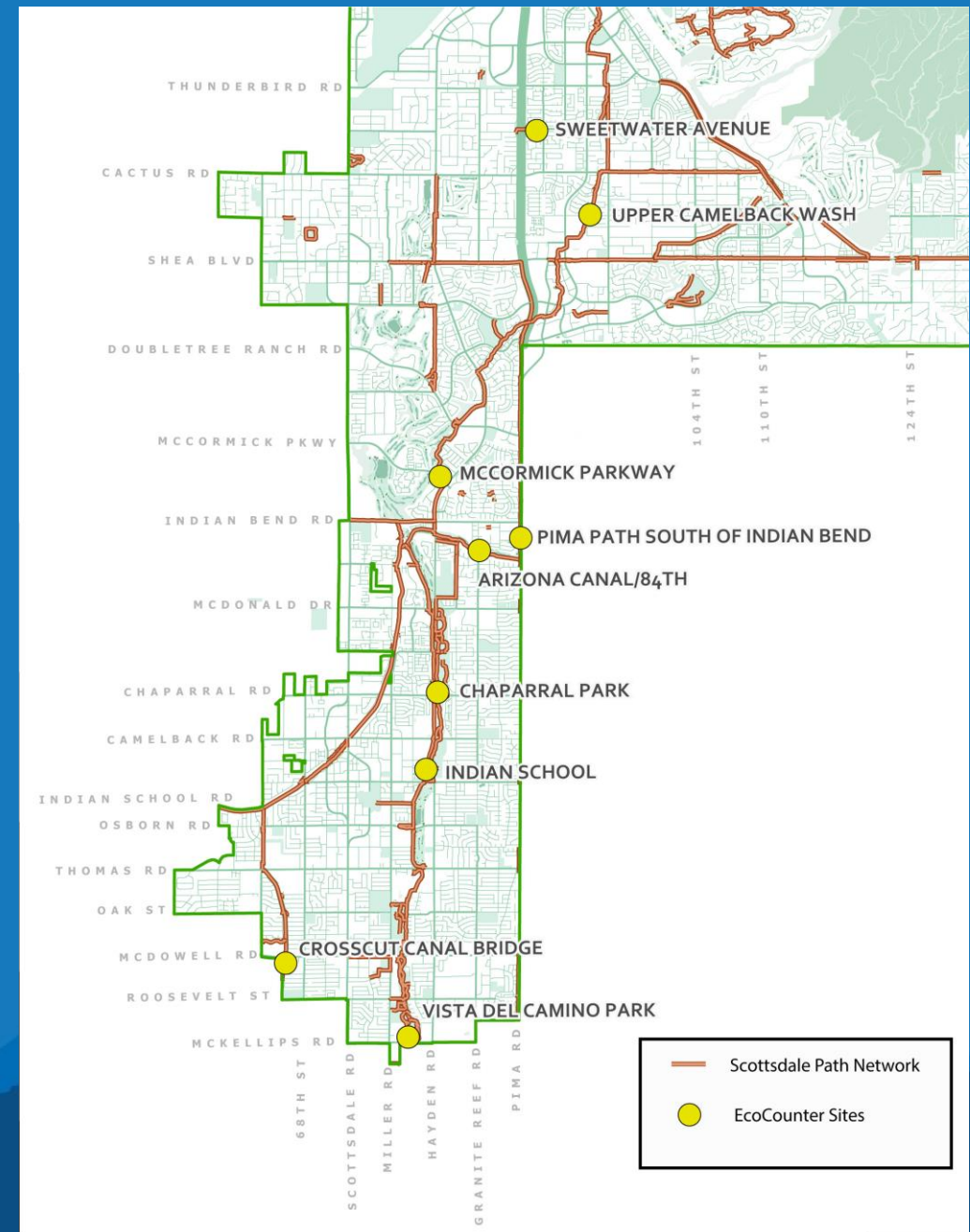
Bicycle and Pedestrian Counts

May 1, 2021-April 30, 2022

Paths & Trails Subcommittee
June 7, 2022

Permanent Counter Locations

- Nine sites
 - Greenbelt
 1. Vista del Camino Park
 2. Indian School Park
 3. Chaparral Park
 4. McCormick Parkway
 - Non-Greenbelt
 5. Crosscut Canal Bridge
 6. Arizona Canal/84th Street alignment
 7. Pima Path south of Indian Bend Road
 8. Upper Camelback Wash/Cholla Street
 9. Sweetwater Avenue east of Loop 101

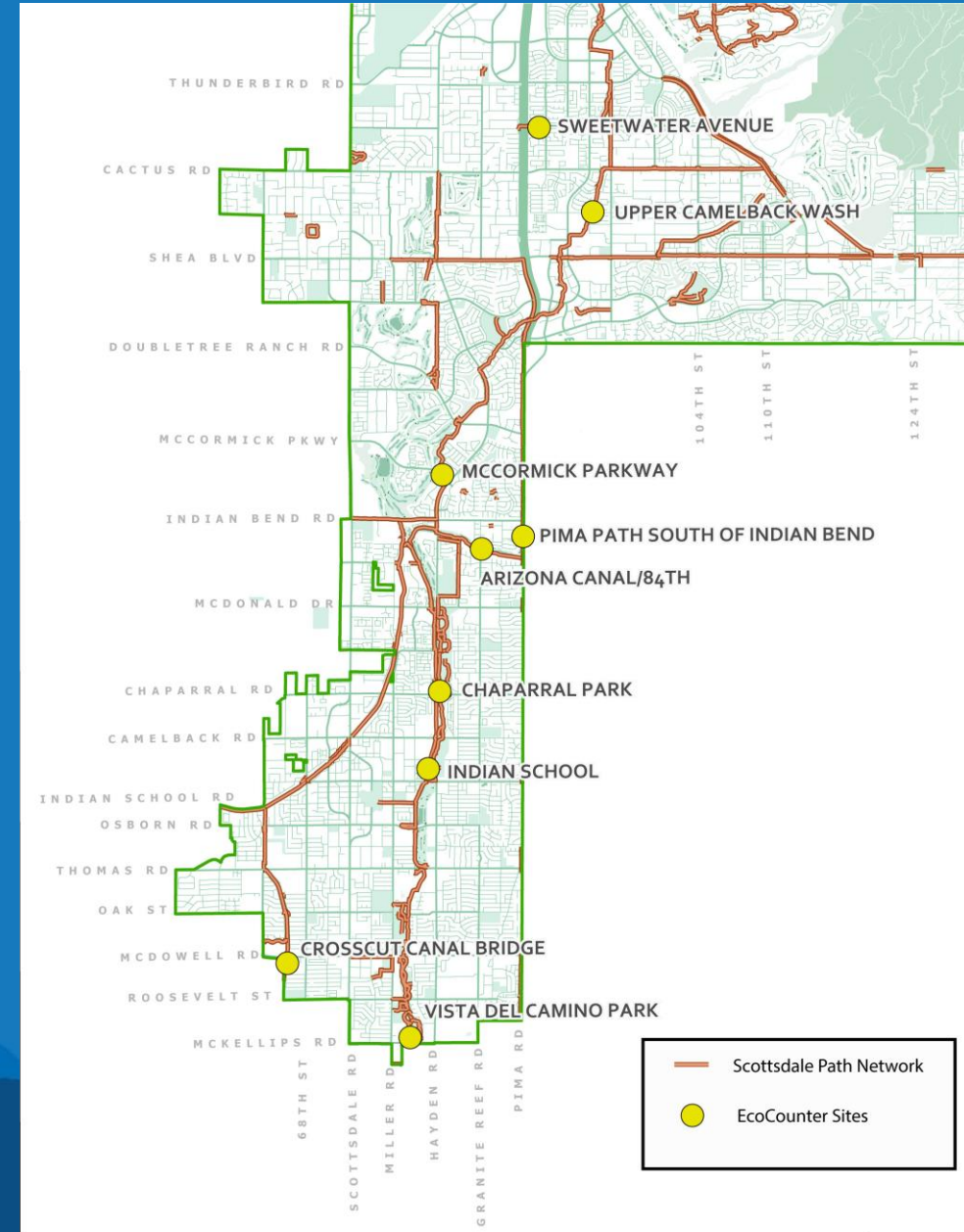
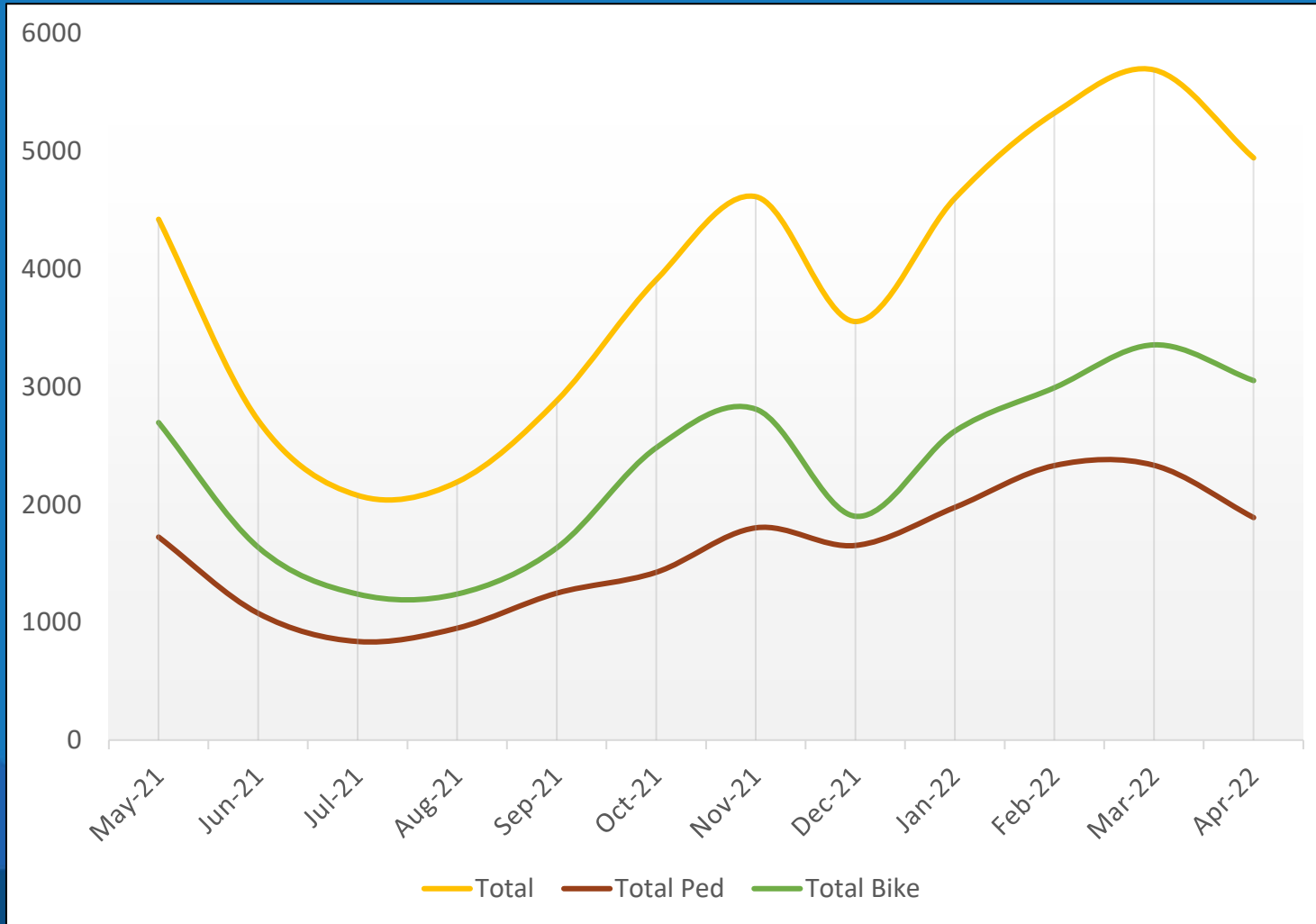


Overall Network Count Details – May 2021 to April 2022

	Total Counts	Percentage of Total
All Activity	1,423,171	100%
Total Bike	839,429	59%
Total Ped	583,742	41%

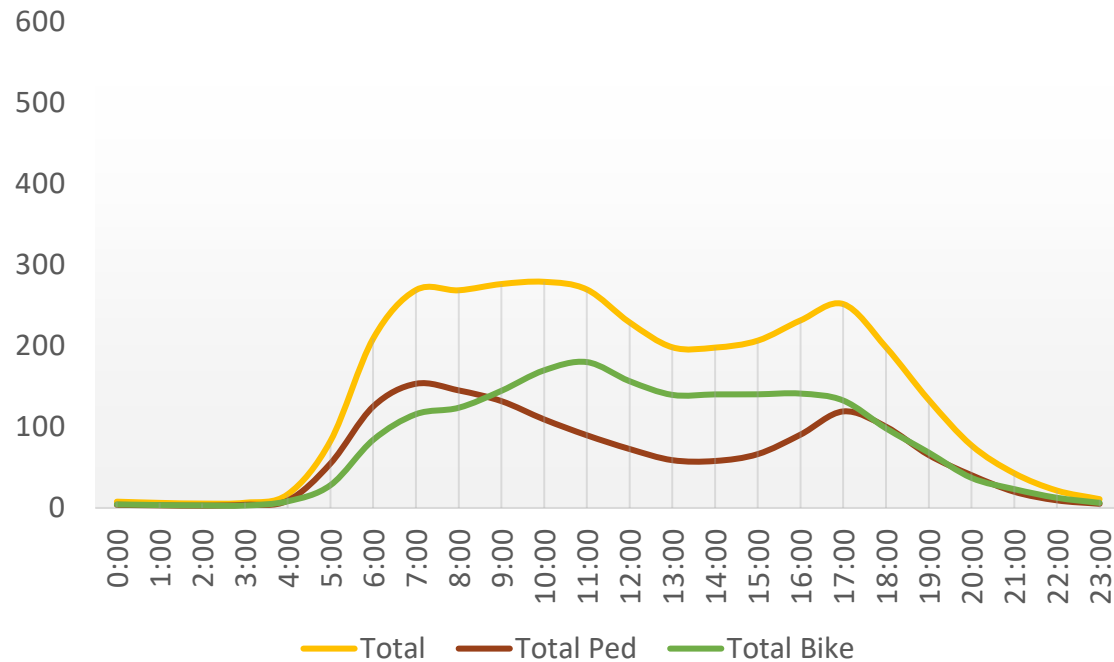
Site	Total	Bikes	Ped
Green Belt Sites	970,766	522,672	508,094
Vista Del Camino Park	217,567	149,838	67,729
Indian School	326,414	208,818	177,596
Chaparral Park	263,970	63,425	200,545
McCormick Parkway	162,815	100,591	62,224
Non-Greenbelt Sites	452,405	316,757	135,648
Crosscut Canal Bridge	28,568	19,879	8,689
Arizona Canal/84 th	116,027	85,464	30,563
Pima Path south of Indian Bend	77,992	66,954	11,038
Upper Camelback Wash	145,970	102,831	43,139
Sweetwater Avenue	83,848	41,629	42,219

Overall Network activity May 2021 to April 2022

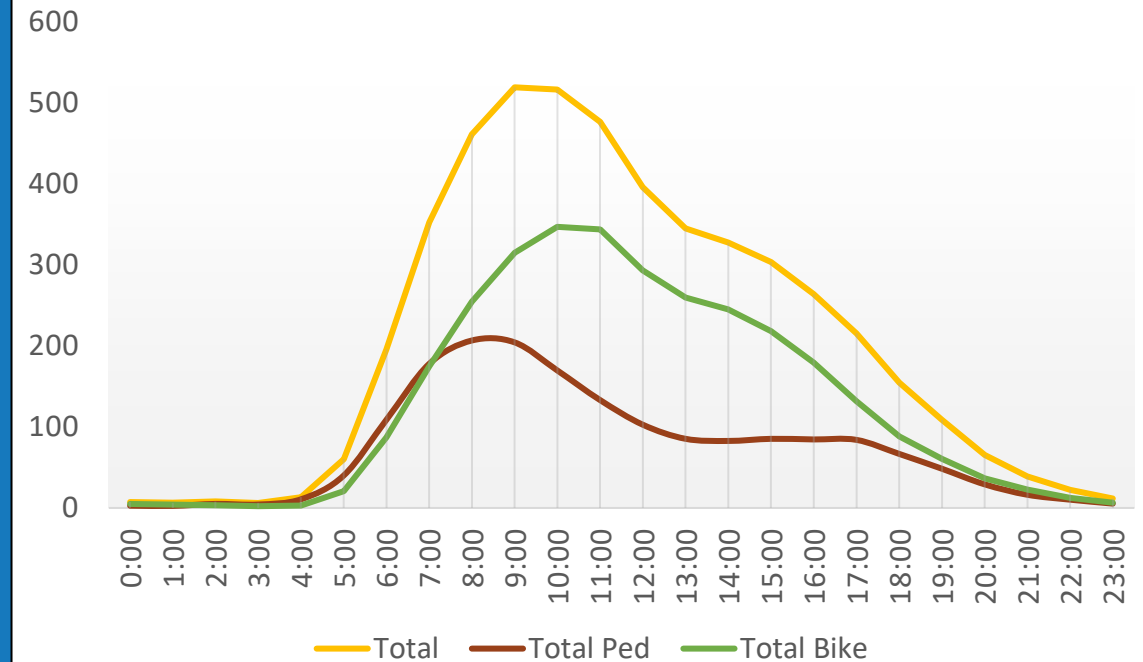


Weekday and Weekend Daily Total Averages

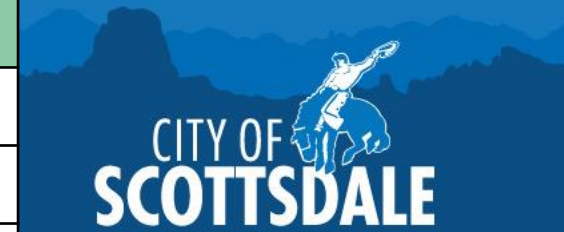
Weekday Hourly Average



Weekend Hourly Average

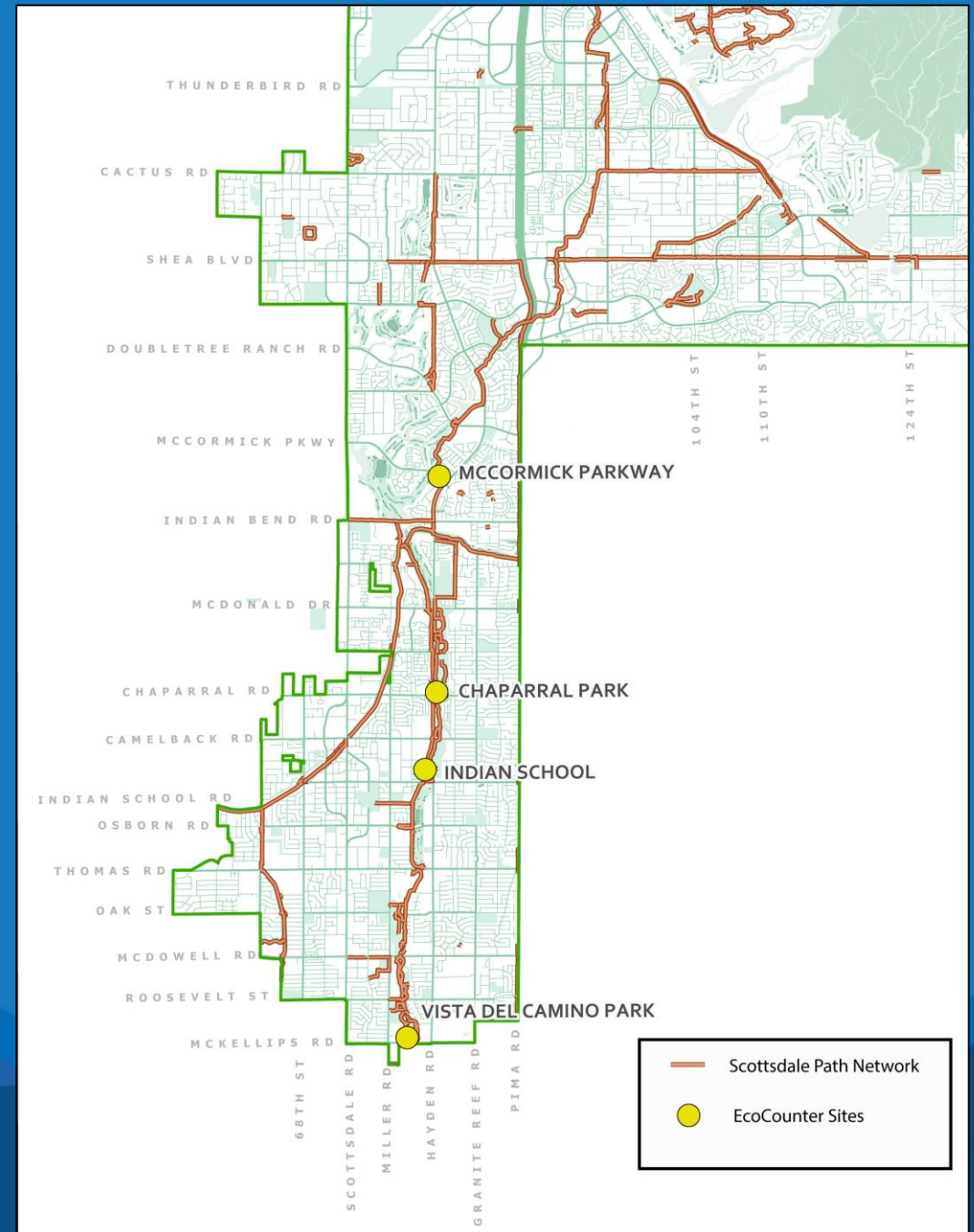


	Average Weekday Activity	Average Weekend Activity
All Activity	3,499 users	4,876 users
Total Bike	1,963 users	3,114 users
Total Ped	1,536 users	1,762 users



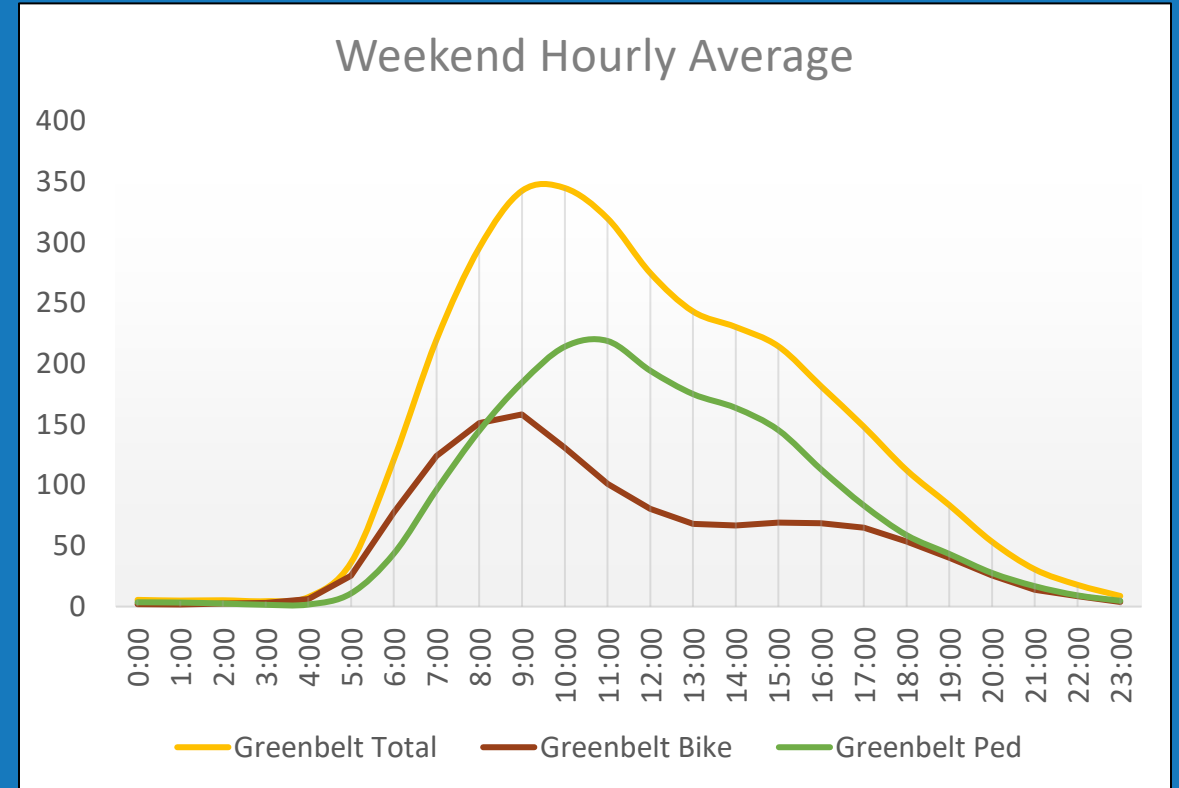
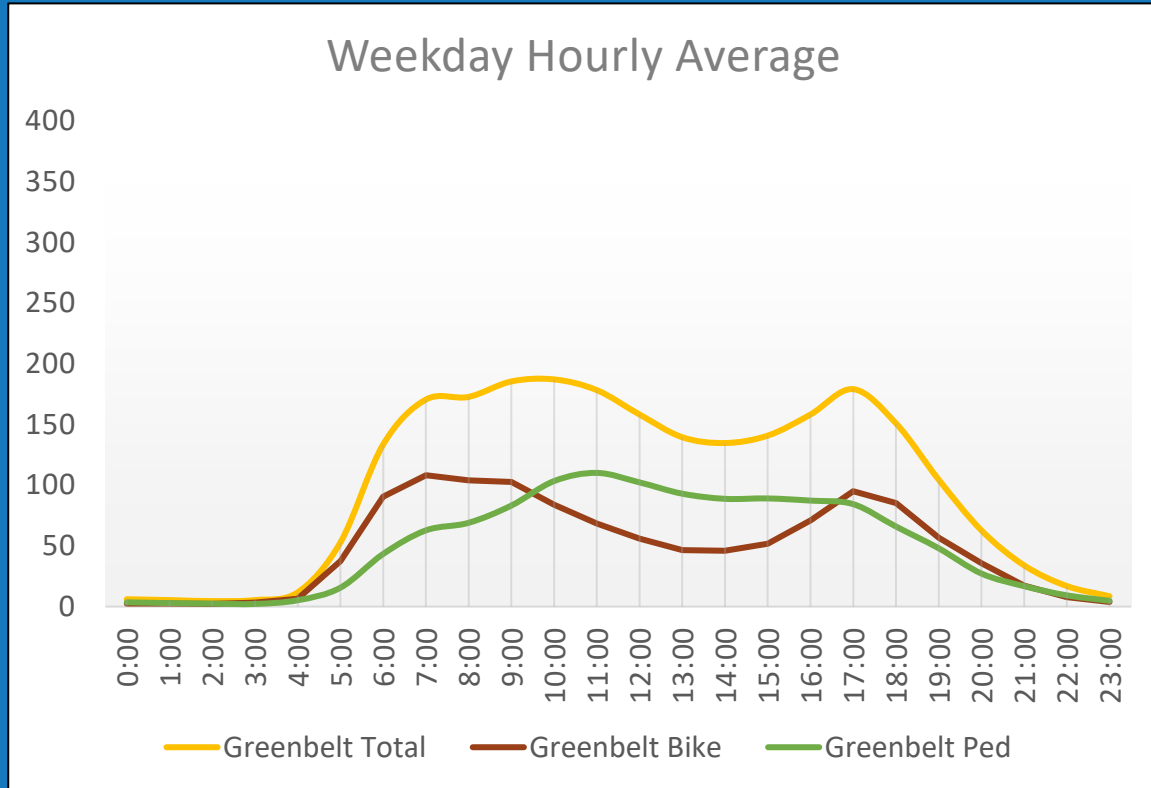
Greenbelt Sites

- Vista del Camino Park
- Indian School Park
- Chaparral Park
- McCormick Parkway



Weekday and Weekend Daily Total Averages

Greenbelt Sites

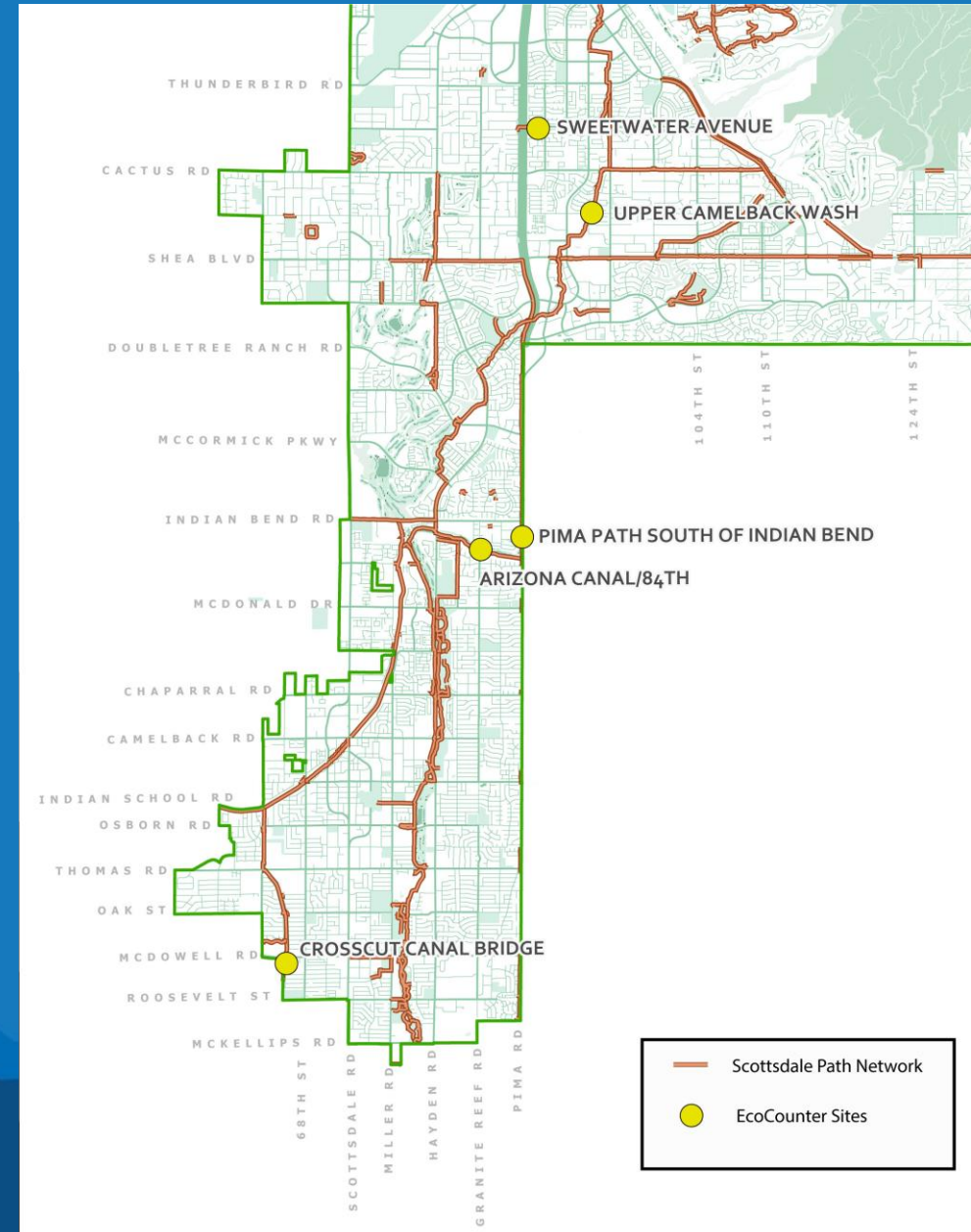


	Average Weekday Activity	Average Weekend Activity
All Activity	2,405 users	3,308 users
Total Bike	1,219 users	1,960 users
Total Ped	1,186 users	1,348 users



Non-Greenbelt Sites

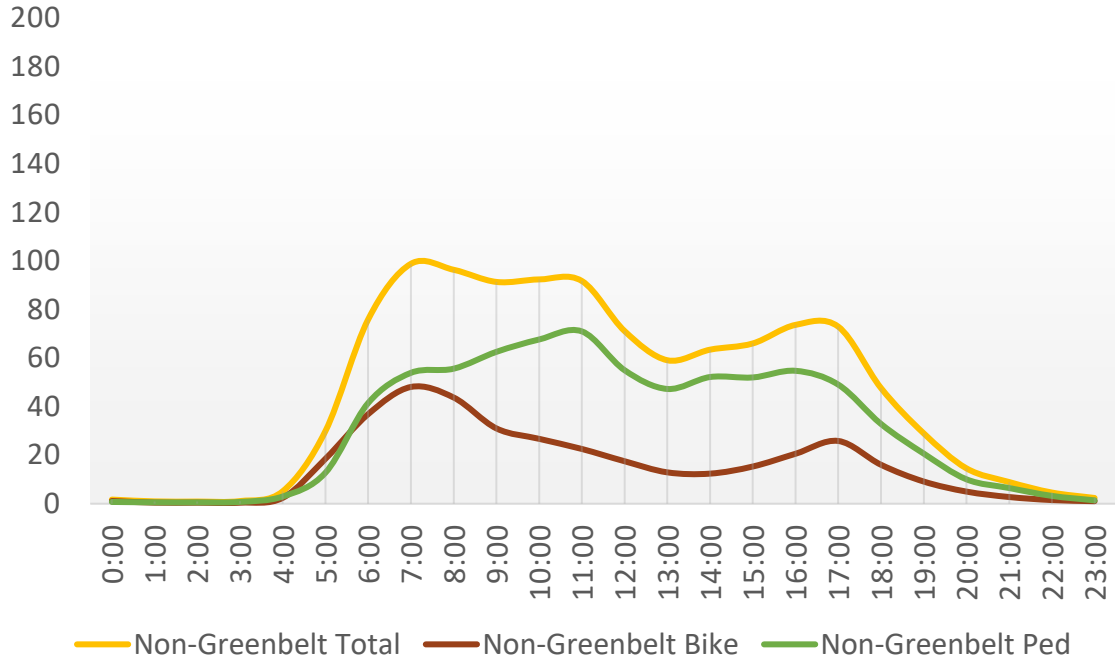
- Crosscut Canal Bridge
- Arizona Canal/84th Street alignment
- Pima Path south of Indian Bend Road
- Upper Camelback Wash/Cholla Street
- Sweetwater Avenue east of Loop 101



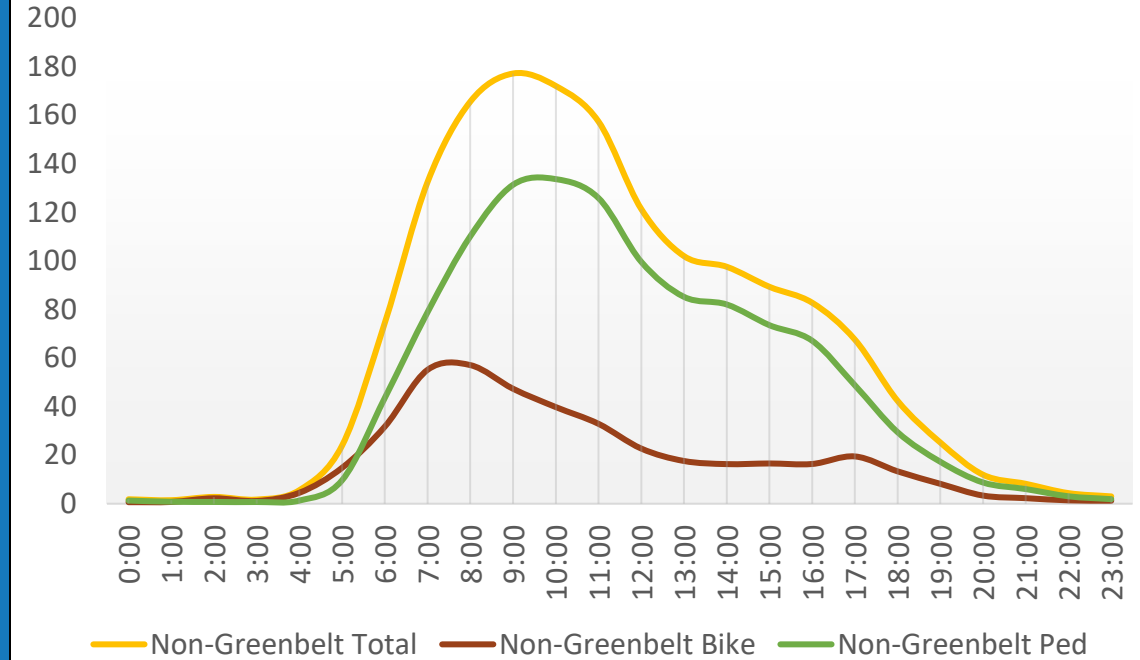
Weekday and Weekend Daily Total Averages

Non-Greenbelt Sites

Weekday Hourly Average



Weekend Hourly Average



	Average Weekday Activity	Average Weekend Activity
All Activity	1,099 users	1,585 users
Total Bike	755 users	1,159 users
Total Ped	345 users	426 users



Neighborhood Bikeway Comparison

- On smaller collector roads, Bikeways can generate bike and pedestrian activity that begins to compare favorably with vehicular use

Average Daily Activity	
Cholla: 92 nd to 96 th	1,200 Vehicles Per Day
Upper Camelback Counter	348 bikes and pedestrians a day
Bike and Pedestrian activity is 29% of vehicle activity	

Continuing Steps

- Continue to collect and study counts
- Data to be used in 2023 Bicycle Friendly Community application and to help prioritize future path renovations

SCOTTSDALE PATHS AND TRAILS SUBCOMMITTEE REPORT



To: Paths and Trails Subcommittee
From: Nathan Domme, Senior Transportation Planner
Subject: Neighborhood Bikeways Prioritization
Meeting Date: June 7, 2022

ITEM IN BRIEF

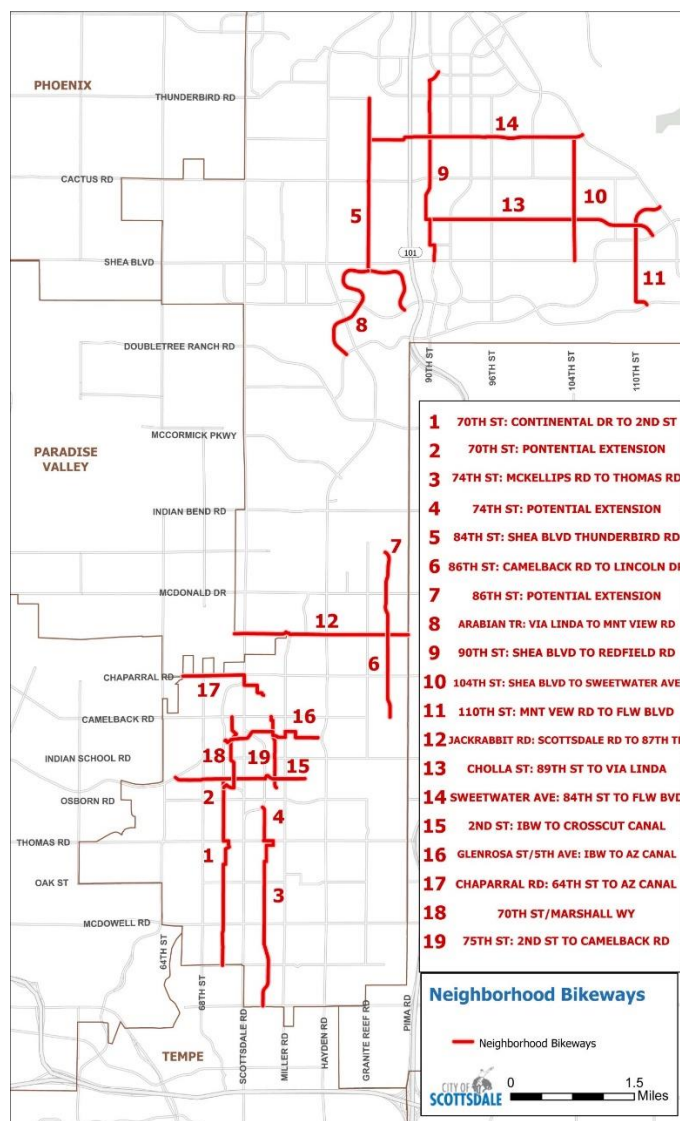
Action: Discussion, comment, proposed action

Purpose:

Review and discuss the draft Neighborhood Bikeway Prioritization Scoresheet. A formal recommendation to the Transportation Commission will be requested.

Background:

City Council approved and adopted the 2022 Transportation Action Plan (TAP) on April 26, 2022. The Bikeway element of the TAP identifies nineteen Neighborhood Bikeways for future implementation throughout the city (see map below). Neighborhood Bikeways are typically found on streets with traffic volumes under 2,000 vehicles per day (VPD) and residential speeds (25 miles per hour or less). They often contain connections that can only be made by cyclists or pedestrians.



Information:

To assist in the implementation of the Neighborhood Bikeway Network, a proposed list of prioritization criteria, based on five key factors, have been developed by staff. Each of the criterion is weighted based on its importance for determining benefits to the corridor. The draft scoresheet is provided as Attachment 1, and a summary of five key factors is provided below.

Engineering Considerations:

- Focus on existing conditions that can influence how easily bikeway improvements can be installed. Criteria include pavement width and condition, on-street parking, and existing ADA compliance along the corridor.

Safety Considerations

- Focus on existing conditions that contribute towards a comfortable ride for the users. Criteria include existing traffic calming measures, posted speed limit, nonmotorized connections, and major intersection crossings.

Connectivity Considerations

- Focus on the bikeway's ability to expand the user's access to key locations throughout Scottsdale. Important destinations include schools (public or private), parks, community and neighborhood centers, libraries, sports complexes, churches, commercial areas, government buildings, medical facilities, and retirement homes. Proximity to high-importance corridors and connections to existing bike facilities and transit routes are also considered.

Equity Considerations

- Focus on ensuring key groups of our community are given special consideration. The criteria in this category include poverty levels and population percentages of residents under 18 and over 65 years of age.

Demand Considerations

- Focus on the potential for user access to three high activity areas in Scottsdale: The Old Town area, the Scottsdale Airpark, and the Shea Boulevard/Loop 101 vicinity. These areas are all unique resources that create great employment demand and activity.

Using these criteria contained with the five factors, staff will be able to develop a list ranking the approved bikeway corridors. Staff will then factor in cost estimates and determine implementation scenarios.

Recommendation:

Recommend that the Neighborhood Bikeway Prioritization scoresheet be approved by the Transportation Commission.

Continuing Steps:

- Incorporate changes recommended by the Paths and Trails Subcommittee
- Present in front of the Transportation Commission
- Conduct the prioritization and develop the rankings list of the Bikeways.

Attachments:

[Attachment 1](#): Neighborhood Bikeway Prioritization Scoresheet

Bikeway prioritization:

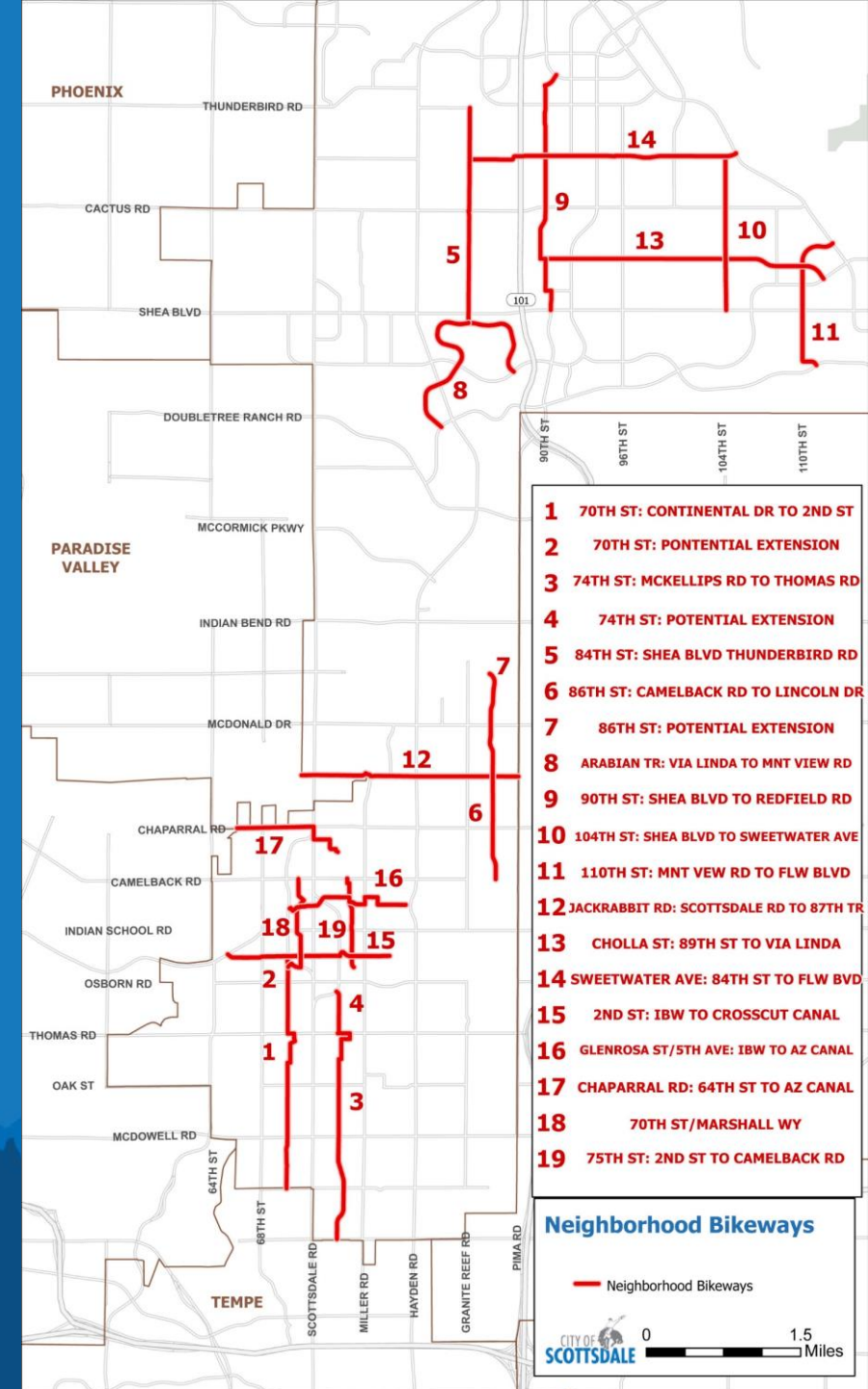
Engineering Considerations	
• Pavement Width ≥ 34'	1
• On the 5-year pavement plan	3
• No Current on-street parking	1
• Increased ADA Compliance (add at least 5 new ramps)	1
Safety Considerations	
• Traffic calming control measures (1 point per each device)	1 +
• Posted Speed Limit	
○ 25 mph	1
○ 30 mph	0
• Number of Major Crossings (4 lanes roads) (2 points per each location)	2 +
• Nonmotorized connections – ability to travel by foot or bike only	5 +
Connectivity Considerations	
• Connection to existing bicycle facilities and trails	3
• Connection to Regional Bike Network	3
• Connection to Key Destinations Including:	
○ Tier 1: Schools, Parks, Community and Rec Centers	5
○ Tier 2: Libraries, Sports Complexes, churches	1
○ Tier 3: Commercial Areas, Government Buildings, Medical Facilities, Retirement Homes	1
• Connection to a Transit Route (2 points for each connection)	2 +
• Parallel to high importance Corridor (.25 miles)	1
Equity Considerations	
• Percent below Poverty Level	
○ Above average	3
○ Below average	0
• Percentage of People under 18	
○ Above average	3
○ Below average	0
• Percentage of People over 65	
○ Above average	3
○ Below average	0
Demand Considerations	
• Access to Employment Centers	
○ Old Town	3
○ Airpark	3
○ Shea/101	3

Neighborhood Bikeways Prioritization Criteria

Paths & Trails Subcommittee
June 7, 2022

Neighborhood Bikeway Locations and Key Factors

- 19 different Neighborhood Bikeways that need to be prioritized
- Look to differentiate them based on 5 key goals:
 - Engineering Considerations
 - Safety
 - Connectivity
 - Equity
 - Demand



Key Factors and Criteria with Potential Points

Engineering Considerations

• Pavement Width \geq 34'	1
• On the 5-year pavement plan	3
• No Current on-street parking	1
• Increased ADA Compliance (add at least 5 new ramps)	1

Safety Considerations

• Traffic calming control measures (1 point per each device)	1 +
• Posted Speed Limit	
○ 25 mph	1
○ 30 mph	0
• Number of Major Crossings (4 lanes roads) (2 points per each location)	2 +
• Nonmotorized connections – ability to travel by foot or bike only	5 +

Connectivity Considerations

• Connection to existing bicycle facilities and trails	3
• Connection to Regional Bike Network	3
• Connection to Key Destinations Including:	
○ Tier 1: Schools, Parks, Community and Rec Centers	5
○ Tier 2: Libraries, Sports Complexes, churches	1
○ Tier 3: Commercial Areas, Government Buildings, Medical Facilities, Retirement Homes	1
• Connection to a Transit Route (2 points for each connection)	2 +
• Parallel to high importance Corridor (.25 miles)	1

Equity Considerations

● Percent below Poverty Level	
○ Above average	3
○ Below average	0
● Percentage of People under 18 and over 65	
○ Above average	3
○ Below average	0
● Percentage of People over 65	
○ Above average	3
○ Below average	0

Demand Considerations

• Adjacent to Employment Centers	
○ Old Town	3
○ Airpark	3
○ Shea/101	3

Continuing Steps

- Incorporate changes the Paths and Trails Sub-community sees fit
- Present with changes to the Transportation Commission
- After Transportation Commission Recommendation
 - Collect the Necessary Data
 - Analyze Bikeway Averages on the Equity Considerations
 - Create a list of the rankings
 - Determine the Estimated cost of implementing the Bikeways
 - Determine the order of implementation

TENTATIVE FUTURE AGENDA ITEMS

Rev.05-12-2022

All Items Subject to Change

TRANSPORTATION COMMISSION

MEETING DATE: June 16, 2022

REPORTS/PRESENTATIONS DUE June 9

- **Approval of Meeting Minutes** **Action**
Approval of Regular meeting minutes May 19, 2022
- **Paths and Trails Subcommittee Update**.....**Information**
Information on items the Paths and Trails Subcommittee has covered– Don Anderson, Chair Paths and Trails Subcommittee
- **Path Counters: First Year Data Review**.....**Information**
Discussion and analysis of the first full year of data collected using a network of Eco-Counters installed in April 2021– Nathan Domme, Senior Transportation Planner
- **Trail Maintenance Public Outreach Program**.....**Information**
Review timeline and implementation approach for improving maintenance of unpaved trails located outside the McDowell Sonoran Preserve– Susan Conklu, Senior Transportation Planner
- **Commission Identification of Future Agenda Items**.....**Discussion**
Commissioners may identify items or topics of interest for future Commission meetings

MEETING DATE: July 21, 2022

Cancelled

FUTURE ITEMS:

INFORMATION ITEMS

- **Urban Air Mobility****Information**
Information on Urban Air Mobility as Mode of Transportation
- **Electric Car Movement**.....**Information**
Information on the electric car movement – Hong Huo, Traffic Engineer Principal
- **Shea and 124th Street Underpass****Information**
Update on underpass – Susan Conklu, Senior Transportation Planner
- **Utilities Causing Project Delays**.....**Information**
Update on the delay’s utility projects and how they are holding up project schedules and budgets- Mark Melnychenko, Transportation & Streets Director
- **Federal Highway Administration’s Safety Countermeasures**.....**Information**
Update on the FHWA’s new safety countermeasures for pedestrians and bicycles – Dave Meinhart, Transportation Planning Manager
- **Review of Travel Demand Patterns**.....**Information**
Information on how travel demand patterns effects roadway improvements – Kiran Guntupalli, Principal Traffic Engineer
- **Loop 101 Princess Drive to Shea Boulevard Project****Information**
Information on Loop 101 roadway improvements – John Tucker, Project Team AZDOT
- **Update on Traffic Safety****Information**
Information on traffic safety as it relates to pedestrian and automobiles in the city of Scottsdale – Kiran Guntupalli, Principal Traffic Engineer
- **Sustainability Director Introduction****Information**
Introduction and information from the new Sustainability Director – Lisa McNeilly, Sustainability Director
- **Update from Valley Metro’s New CEO****Information**
Introduction and information from the new CEO of Valley Metro – Jessica Mefford-Miller, Valley Metro

TRANSPORTATION & STREETS DEPARTMENT ACTIVITIES

- **Loop 101 Mobility Project.....Presentation and Discussion**
Discuss USA’s Transportation Research Department regarding connected vehicle technology -Kristin Darr, consultant and Mark Melnychenko, Transportation & Streets Director
- **Impact on Parking.....Presentation and Discussion**
Latest parking study, Walter Brodzinski, Right-Way Supervisor
- **Smart City.....Presentation and Discussion**
Discussion on the City’s participation in Smart City applications as well as ITS strategic plan and ITS vehicle detection – Hong Huo, Traffic Engineer Principal
- **Alternate Modes of Transportation.....Presentation and Discussion**
Discuss alternative modes of transportation including electric bicycles, scooters, and pedestrian improvements – Susan Conklu, Senior Transportation Planner
- **Bus Stop Lighting.....Discussion**
Discuss future plans to light bus stop shelters – Ratna Korepella, Transit Manager
- **Expanding Maintenance Needs.....Presentation and Discussion**
Maintenance of current infrastructure – Mark Melnychenko, Transportation & Streets Director
- **Noise Walls.....Presentation, Discussion and Possible Action**
Discuss noise wall locations, including FHWA DBE levels – Mark Melnychenko, Transportation & Streets Director
- **Linking the Five-Year Paving Plan to Restriping Efforts.....Presentation and Discussion**
Discussion around linking the five-year paving plan and restriping along with the Transportation Action Plan (TAP) – Shayne Lopez, Paving Manager
- **2020 Traffic Volume and Collision Manual..... Presentation and Discussion**
Summarize the information in the recently published 2020 Traffic Volume and Collision Manual – Kiran Guntupalli, Traffic Engineer Principal and Parker Murphy, Traffic Engineer
- **No Engine Braking Ordinance Update.....Presentation and Discussion**
Discuss the recently approved no engine braking ordinance and its application -Phil Kercher, Traffic Engineering and Ops Manager and Walt Brodzinski, Right-of-Way Manager
- **Sensagrate Pilot Project.....Presentation and Discussion**
Discuss Sensagrate Pilot Project in Scottsdale and how the results can be utilized – Darryl Keeton, Sensagrate
- **Leading Pedestrian Interval Policy.....Presentation and Discussion**
Discuss Leading Pedestrian Interval Policy and how the city applies it – Hong Huo, Traffic Engineer Principal
- **Roundabout Education.....Presentation and Discussion**
Discuss benefits of Roundabouts and how success is evaluated – Phil Kercher, Traffic Engineer & Ops Manager
- **Speed Limit Study Update Project.....Presentation and Discussion**
Present Traffic Engineering’s recent effort to update speed limit studies in Scottsdale- Phil Kercher, Traffic Engineering and Ops Manager and Kiran Guntupalli, Traffic Engineer Principal

PATHS & TRAILS SUBCOMMITTEE

MEETING DATE: August 2, 2022

REPORTS/PRESENTATIONS DUE July 26

- **Approval of Meeting Minutes Action**
Approval of Regular meeting minutes of June 7, 2022

- **Subcommittee Identification of Future Agenda Items.....Discussion**
Subcommittee members may identify items or topics of interest for future Subcommittee meetings

FUTURE ITEMS:

INFORMATION ITEMS

- **Vision Zero.....Information**
Information on Vision Zero (Tempe) – Susan Conklu, Senior Transportation Planner

TRANSPORTATION & STREETS DEPARTMENT ACTIVITIES

- **Access to Indian Bend WashPresentation and Discussion**
Better access and how the Parks Dept. can assist. – Susan Conklu, Senior Transportation Planner
- **Path and Trail Gap AnalysisPresentation and Discussion**
Information on gaps in the citywide path and trails network – Greg Davies, Senior Transportation Planner
- **Equestrian ConnectivityPresentation and Discussion**
Panel – Susan Conklu, Senior Transportation Planner
- **Pavement RestripingPresentation and Discussion**
Information on the coordination of re-paving and re-striping – Dave Meinhart, Transportation Planning Manager