SCOTTSDALE TRANSPORTATION COMMISSION
Notice and Agenda

Date: Thursday, November 18, 2021
Time: 5:15 P.M.
Location: Virtual
Live Stream: https://www.scottsdaleaz.gov/scottsdale-video-network/live-stream

Meeting will be held electronically and remotely
Until further notice, Transportation Commission meetings are being held electronically to virtually attend and listen/view the meeting in progress. Transportation Commission meetings are televised on Cox Cable Channel 11/streamed online at ScottsdaleAZ.gov (search "live stream") or will be available on Scottsdale's YouTube channel to allow the public to listen/view the meeting in progress.

Call To Order

Roll Call

Don Anderson, Vice-Chair	Mary Ann Miller, Commissioner
Pamela Iacovo, Chair	Kerry Wilcoxon, Commissioner
Karen Kowal, Commissioner	Andy Yates, Commissioner
B. Kent Lall, Commissioner	

Public Comment

Spoken comment is being accepted on both agendized and non-agendized items. To sign up to speak on these items, please click here. Request to speak forms must be submitted no later than 90 minutes before the start of the meeting.

Written comment is being accepted for both agendized and non-agendized items and should be submitted electronically at least 90 minutes before the meeting. These comments will be emailed to the Transportation Commission and posted online prior to the meeting. To submit a written public comment electronically, please click here.

1. **Approval of Meeting Minutes---------- Discussion and Action**
   Regular Meeting of the Transportation Commission – October 21, 2021

2. **Appointment of Paths and Trails Subcommittee Members ----------Discussion and Action**
   Discussion and appointment of members due to vacating positions of Kent B. Lall and Don Anderson Jr. whose terms end on November 19, 2021

3. **Clever Devices Application on Buses ----------Presentation and Discussion**

Discussion on the status of the Clever Devices application that will provide computer aided dispatch vehicle locator system – *Ratna Korepella, Transit Manager*

4. **Transportation Action Plan Review ---------- Presentation, Discussion and Possible Action**
   Discussion of public input received to date on the draft Transportation Action Plan– *David Meinhart*, *Transportation Planning Manager*

5. **Review of Fiscal Year 2023-2027 CIP Projects ----------Discussion**
   Discuss Fiscal Year 2023 through 2027 CIP Projects – *Dave Meinhart, Transportation Planning Manager*

6. **Commission Identification of Future Agenda Items---------- Discussion**
   Commission members identify items or topics of interest to staff for future Commission presentations

Adjournment

Persons with a disability may request a reasonable accommodation by contacting Kyle Lofgren at 480-312-7637. 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 Kyle Lofgren at 480-312-7637.

DRAFT SUMMARIZED MINUTES

CITY OF SCOTTSDALE
TRANSPORTATION COMMISSION
REGULAR MEETING

Thursday, October 21, 2021

Meeting Held Electronically and Remotely

CALL TO ORDER

Chair Iacovo called the regular meeting of the Scottsdale Transportation Commission to order at 5:49 p.m. Chair Iacovo invited Commissioner Wilcoxon to introduce himself. Commissioner Wilcoxon provide a brief bio and introduction. Chair congratulated Commissioner Lall for being appointed to his second term.

ROLL CALL

PRESENT: Pamela Iacovo, Chair
Don Anderson, Vice Chair
Karen Kowal
B. Kent Lall
Mary Ann Miller
Kerry Wilcoxon
Andy Yates

STAFF: David Smith, Traffic Engineer Senior
Shayne Lopez, Transportation & Streets Paving Manager
Phil Kercher, Traffic Engineering Manager
Mark Melnychenko, Transportation & Streets Director
Dan Worth, Executive Director Public Works

GUESTS: Brendan Russo Ph.D., P.E., Associate Professor, Department of Civil Engineering, NAU

PUBLIC COMMENT

There were no commissioner comments.

1. APPROVAL OF MINUTES

Typographical errors were identified.

COMMISSIONER LALL MOVED TO APPROVE THE REGULAR MEETING MINUTES OF THE TRANSPORTATION COMMISSION ON SEPTEMBER 16, 2021 AS AMENDED. VICE CHAIR ANDERSON SECONDED THE MOTION, WHICH CARRIED 7-0 WITH CHAIR IACOVO, VICE CHAIR ANDERSON, COMMISSIONERS KOWAL, LALL, MILLER, WILCOXON AND YATES VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

2. MEDIAN OPENING ANALYSIS

David Smith, Senior Traffic Engineer, and guest Brendan Russo Ph.D., P.E., Associate Professor, Department of Civil Engineering, NAU, presented this item. Mr. Smith discussed the comparison between the raised median left-in/left-out (LILO) treatment versus an untreated full access intersection. A LILO is typically applied on arterial roadways with medians and consisting of a channelizing island in the median, which helps direct vehicles turning left both onto and out of minor streets or driveways. There are at least 60 LILOs throughout the City.

Mr. Russo reviewed study objectives:

- Conduct a crash analysis of existing LILO sites in Scottsdale to assess the overall safety performance of the LILO treatment
- Analyze factors associated with crash frequency and/or severity at LILO sites to assess what conditions may be most conducive to LILO treatments

Crash Modification Factors (CMF) are used by agencies to estimate the expected change in crashes after specific treatment is applied. If the CMF is less than 1 for a specific treatment, the treatment is expected to reduce crashes. At greater than one, an increase in crashes would be expected. Currently no CMFs exist for LILO median treatments.

Mr. Russo stated that for this analysis, the City provided crash data from 2000 through 2019, including all crashes occurring within 300 feet from each site both on LILO treatment sites as well as the control sites. Data collection geometry and volume data collection methods were reviewed. Overall findings indicate that the LILO treatment seems promising in terms of safety performance. There were significant reductions in angle and left-turn crashes as well as differing levels of injury crashes. Future applications could be considered at generally similar sites. There were statistically significant results in terms of specific design features. It is anticipated that results from this report will be disseminated to the transportation community through publishing and presentation at conferences such as the annual meeting of the Transportation Research Board.

Commissioner commended the comprehensiveness of the research data. Publication of the CMF makes a funding stream available to municipalities. Commissioner inquired whether Scottsdale has warrants that govern installation or removal of CFMs. Mr. Smith stated that the City does not follow such warrants. They do have guidelines in terms of the number of through travel lanes being crossed. Arterial roadway functional classifications are typically a good consideration. The science and statistics from the study will assist the City in these decisions moving forward. Phil Kercher, Traffic Engineering Manager, added that while warrants are not governing factors, the City does endeavor to use the LILOs where possible. There are spacing requirements for access points, typically consisting of three-legged intersections.

Chair asked for clarification on the term "control site." Mr. Russo stated that a control site is identified to be as similar as possible to the treatment sites, with the only difference being the absence of the LILO.

3. FIVE YEAR PAVING PRIORITIZATION

Shayne Lopez, Transportation & Streets Paving Manager, provided an overview of pavement miles in the City. There are 907 centerline miles of payment consisting of over 20 million square yards overall and an estimated value of $1 billion. When streets are repaired in good condition, the maintenance costs less over the lifetime of the payment. If roadways are allowed to deteriorate to a poor condition, the overall cost of maintenance dramatically increases. The key to a successful pavement management program is to develop an accurate performance model of the roadway and then identify the optimal timing and rehabilitation strategy. PCI is a numerical rating of the pavement condition based on the type and severity of distresses observed/measured on the pavement surface. Values range from 100 to 0. Samples of various PCI road conditions and most suitable treatments were reviewed.

In terms of survey results, over 60 percent of the City's pavement is rated good or better and the backlog is rated at 1 percent. Backlog includes roads with a PCI between 0 and 40 that will require extensive rehabilitation. The City has an effective budget of $5.9 million for pavement maintenance. To reach a target PCI of 70 (rated very good), by 2026, a budget of $8.5 million annually is required. A graph of the five-year plan was reviewed, with the software having prioritized the plan based on the current PCI data and a concept of deferred maintenance savings. The next step in the program process is to submit a budget increase request of $2.6 million to achieve a PCI of 70 in five years.

Other ongoing projects include a parking lot pavement survey. The results will produce a similar treatment plan and budget recommendations. In 2025, another pavement survey is planned, which will calibrate the model and track maintenance and progress for reaching the 70 PCI.

Commissioner inquired as to how the City's PCI index compares to other cities. Mr. Lopez stated that Scottsdale's PCI is among the highest in the Valley and one of the lowest backlogs. The national PCI average is 65.

Mark Melnychenko, Transportation & Streets Director, commented that data from the five-year plan has assisted staff in providing answers to residents who contact the City regarding neighborhood street conditions in terms of scheduling and cost.

Commissioner referenced a fact in the presentation that stated that streets less than four inches deep cannot be resurfaced, but must be completely rebuilt. Commissioner inquired about the inventory of streets in the City that are less than four inches deep. Mr. Lopez stated that the consultant was told to make an assumption that all residential streets would require reconstruction. Based on the limited projects performed thus far, all streets were less than four inches. Vice Chair surmised that the majority of older residential streets in the City are likely no thicker than two to three inches.

. COOL PAVING UPDATE

Mr. Lopez provided a brief background regarding the Phoenix Heat Island profile. The City of Phoenix Transportation Department partnered with ASU and presented to the Commission in June. Their study evaluated the effectiveness, performance and community perception of cool pavement. Data collection and analysis occurred across multiple neighborhoods between July 2020 and July 2021. This allowed the team to study the impacts of the surface treatment under various weather conditions. Methodologies for data gathering were reviewed.

Findings were as follows:

- Roads with Cool pavement (CP) were measured between 12 and 10.5 degrees lower on average than untreated asphalt
- CP had higher surface reflectivity which declined over time, decreasing after ten months from a range of 33 to 38 to 19 to 30 across eight neighborhoods
- CP treated roads on average had lower subsurface temperatures 4.8 degrees lower than untreated asphalt
- At 6 feet height above the road, air temperature was lower above CP treated streets by an average of 0.5 and 0.3 degrees in the evening and daytime respectively, compared to untreated asphalt
- Higher mean radiant temperature (total amount of heat exposure walking on the surface) increased by 5.5 degrees at noon and afternoon hours due to higher surface reflectivity

Based on the findings, the executive summary made recommendations:

- Recommend that CP be applied to newer pavements
- Additional studies should be performed to determine other impacts on the surrounding neighborhood
- More research is needed regarding long term maintenance

Commissioner asked about internal conversations regarding the City doing its own pilot. Mr. Lopez said there has been preliminary discussion on potential locations.

Commissioner inquired as to the square yard cost for treatment. Mr. Lopez said he did not have the figures on the exact unit rate. Staff has had conversations with the supplier and the cost is estimated to be twice the cost of a traditional slurry.

Commissioner commented that while the CP lowers surface temperature, there is a higher radiant temperature. Mr. Lopez concurred and added that it would be helpful to have survey data regarding the human experience and perception regarding the temperature effects.

In response to a comment from Chair, Mr. Lopez stated that further information should be gathered regarding the effects of reflectivity on surrounding building temperatures. Mr. Melnychenko stated his understanding from the data that regular asphalt will hold the heat. Cool paving will reflect the heat. In the evening hours, cool paving is considerably cooler, as it does not hold in the heat. He agreed that more information from Phoenix is needed.

5. COMMISSION IDENTIFICATION OF FUTURE AGENDA ITEMS

In response to a question from Chair, Mr. Melnychenko stated that the Transportation Action Plan agenda item intent is to discuss input received from the virtual public meeting. Other topics to be discussed include 128th Street.

It was discussed that Vice Chair will provide a quarterly presentation on the Paths & Trails Subcommittee.

Vice Chair requested an update on the Shea and 124th Street underpass. Dan Worth, Executive Director, Public Works, stated that the City has settled the dispute with the original builder. The City is currently designing a modification that will remove portions of the gabion wall, which is not built to specification. After design, the goal is to contract and for construction.

6. ADJOURNMENT

With no further business to discuss, being duly moved by Vice Chair Anderson and seconded by Commissioner Kowal, the meeting adjourned at 7:26 p.m.

AYES: Chair Iacovo, Vice Chair Anderson, Commissioners Kowal, Lall, Miller, Wilcoxon and Yates
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 TRANSPORTATION COMMISSION REPORT

To: **Transportation Commission**
From: **Ratna Korepella, Transit Manager**
Subject: **Clever Devices**
Meeting Date: **November 18, 2021**

Action: For Information and Discussion

Purpose: To present a high-level overview of the Clever Devices Computer Aided Dispatch (CAD) and Automated Vehicle Location (AVL) system.

Background:

Intelligent Transportation Systems (ITS) advance transportation safety and mobility by integrating communication technologies into transportation infrastructure and vehicles. Data plays a major role in providing safe, efficient and reliable public transit service. Transit field data improves transit planning and operations and also helps identify problems that need to be addressed. This results in cost-effective, data-driven solutions and an efficient use of public funds.

Prior to 2014, the trolley buses were not connected to the regional Vehicle Management System (VMS). Bus schedules were manually completed, schedule information was not included in the bus book and trolley materials were not part of Valley Metro regional customer service. Also, trolley buses did not have integrated Automatic Passenger Counters (APC) and ridership was counted manually. In 2014 the City of Scottsdale decided to be part of the regional Orbital ACS CAD/AVL system. City of Scottsdale signed an intergovernmental agreement with City of Phoenix and implemented the Orbital ACS system on the trolley fleet. However, in 2018 a regional decision was made to upgrade from a 16-year-old Orbital ACS structure to the Clever Devices system. All of Valley Metro and City of Phoenix operated service and the Scottsdale trolley migrated to the Clever Devices system.

Clever Devices is an Intelligent Transportation System (ITS) for public transport. It provides benefits to transit riders, aids in transit planning and operations and is instrumental in helping to meet the federal reporting and compliance requirements. The Clever Devices system has the capability to poll data every 20 seconds which is significantly better than the Orbital ACS system that used to poll data every 2 to 3 minutes. This gives the customer the ability to track the real time arrival of a bus at any given stop. The buses have integrated APCs with the Clever Devices system. This provides the ability to count passengers boarding and de-boardings (alighting's) at the stop level and determine the load on the bus on any given segment. Buses also have cameras on the interior and exterior integrated into the system. This information is very useful in evaluating customer complaints including any ADA compliance or violation issues.

Figure 1 shows the Clever Devices system architecture through a simple diagram linking the controller to the technology on the bus. Bus communicates with the Clever Devices server via cellular and WIFI networks. CAD client is a workstation that is located at the City of Scottsdale bus yard and is used for dispatch and monitoring of operations. Below are some features of the Clever Devices System:

- Communication capabilities
    - Real time fleet information with location and status of every vehicle in service.
    - Dispatch can directly communicate with the driver via voice and text communication.

- Real time monitoring of data from vehicles.

- Business Intelligence
  - Clever Reports give us the ability to compare planned versus actual. This will help us with addressing issues and efficiencies which improves customer experience.

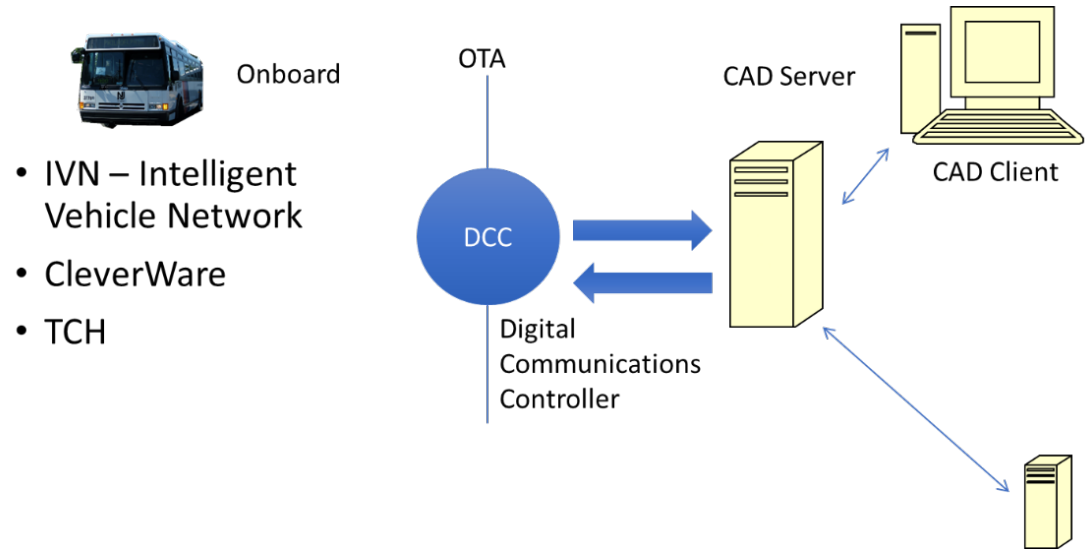
- The buses can count passengers boarding and de-boardings(alighting's) at the stop level. This information will help in understanding the performance of the route at a segment level.

- Planning and Scheduling
  - Clever has the capability to import HASTUS scheduling data. HASTUS is a robust scheduling software that is used at the regional level.
  - Timetables for bus book, operator assignments and resource optimization are all done in Clever Devices. This eliminates manual efforts and gives us the flexibility to run scenarios.

- Rider Experience
  - Real time communication with riders via web and mobile app.
  - Automated bus stop announcements for people with disabilities.

National Transit Database
  - Federal Reporting requirement.
  - City of Scottsdale grant apportionment is based on National Transit Database data which reports information on all aspects on transit including revenue miles, revenue hours, passenger miles traveled etc.

Figure 1: Clever Devices System Architecture



Clever Devices also has some additional features such as disruption, vehicle maintenance and transit signal priority modules that we are not currently using. However, we plan to use those features in the near future as staff gets more acclimated to the Clever Devices system.

Contact: Ratna Korepella, 480-312-7630, rkorepella@scottsdaleaz.gov

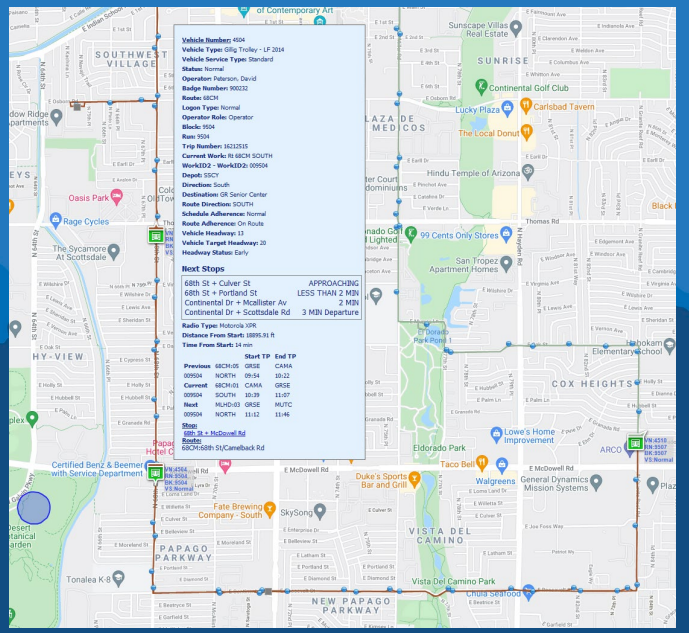
CITY OF SCOTTSDALE

Trolley CAD/AVL
Clever Devices

Transportation Commission Meeting – November 18, 2021

What is Clever Devices?

- Intelligent Transportation System (ITS) for public transit.
  - Several benefits related to transit planning and transit operations
  - Real time bus information to the end user via web and mobile app



Background

Prior to 2014

- No CAD/AVL (Computer Aided Dispatch/Automatic Vehicle Location) system on Trolley fleet
  - Route schedules and operator assignments -manual
  - Passenger counts – manual
  - Schedules - not part of bus book
  - Trolleys not part of Valley Metro customer service

- Valley Metro and City of Phoenix operated service had CAD/AVL system

CITY OF SCOTTSDALE

Background (contd.)

2014

- City of Scottsdale decided to be part of the regional CAD/AVL system for Trolley
  - Route schedules and operator assignments
    - HASTUS scheduling software
  - Schedules - part of bus book
  - Valley Metro customer service
  - Installed APC's on buses and continued with manual counts

2018

- Regional decision to upgrade from 16-year-old Orbital ACS system to Clever Devices system

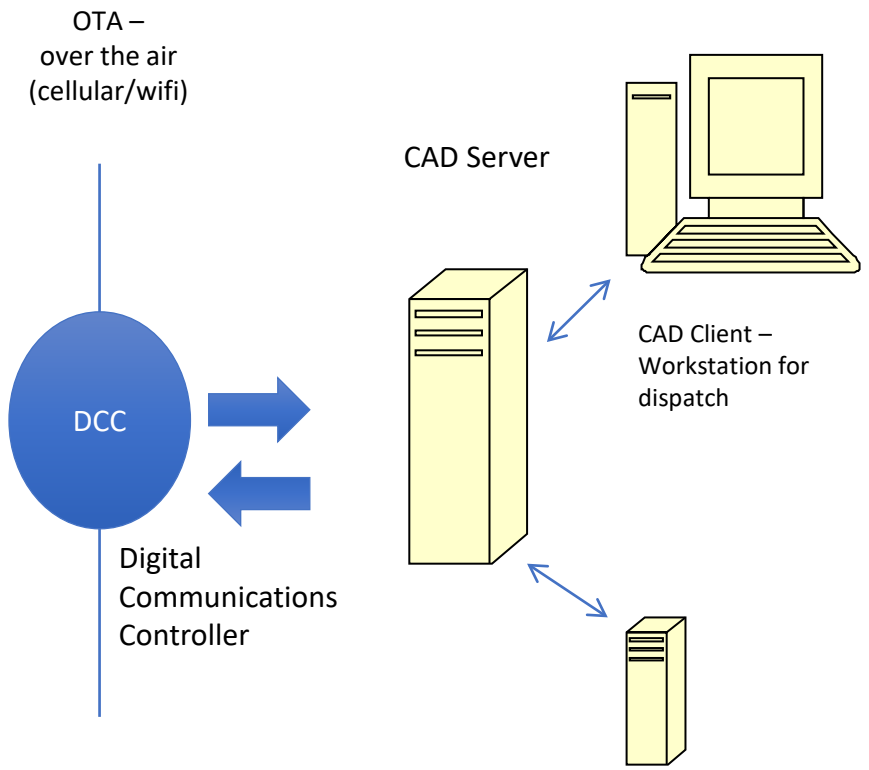
CITY OF SCOTTSDALE

Clever Devices Architecture

- Technology on bus
- Clever Devices Server
- CAD Workstation
  - COS South Yard
- Communications – Cellular and WIFI

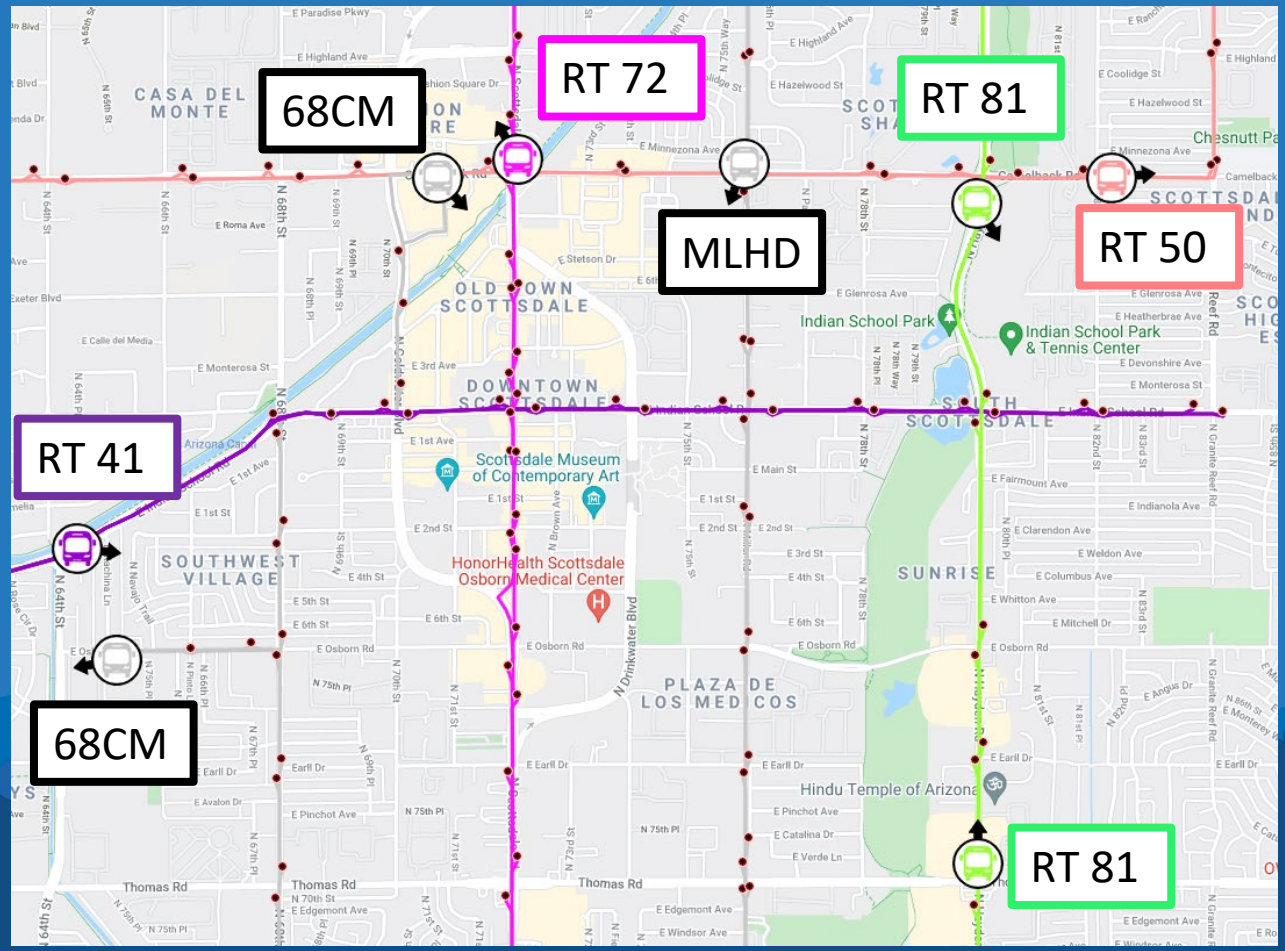
Onboard

- IVN – Intelligent Vehicle Network
- CleverWare – onboard software
- TCH – driver information screen



Clever Devices

- Ability to see Trolley routes with all other bus routes (real time)
- Valley Metro customer service system
- Bus Stop ID for Next Ride includes trolley and regional routes
- Uniformity for transit users



How does Clever Devices help?

- Transit Riders
- Transit Planning
- Transit Operations
- National Transit Database

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Transit Riders

- Onboard annunciators call out each stop
  - ADA compliance
- Announce other important messages
- Dispatch can instantly communicate incidents and detours to bus
- Ability to view buses on map in real time through website or mobile app

Transit Planning

- Run Scenarios during planning phase based on public input
  - Less manual effort
  - Helps with clarity on vehicles needed prior to field implementation
- Timetables, rosters and schedules generated
- Helps plan connectivity with other regional routes

Transit Operations

- Automatic Passenger Counters provide boarding/alighting data at each stop.
- Ability to analyze busiest stops along each route
  - Direct funding to most needed locations
- On time performance reports
- Video on the bus interior and exterior

National Transit Database (NTD)

Federal Reporting

- Federal grant funding for trolley service apportioned based on NTD data
  - Annual Revenue Miles
  - Annual Revenue Hours
  - Missed Miles
- Trip Length computation for Passenger Miles Traveled (PMT) estimate
  - Boarding and Alighting Data

CITY OF SCOTTSDALE

Automatic Passenger Counters

City of Scottsdale

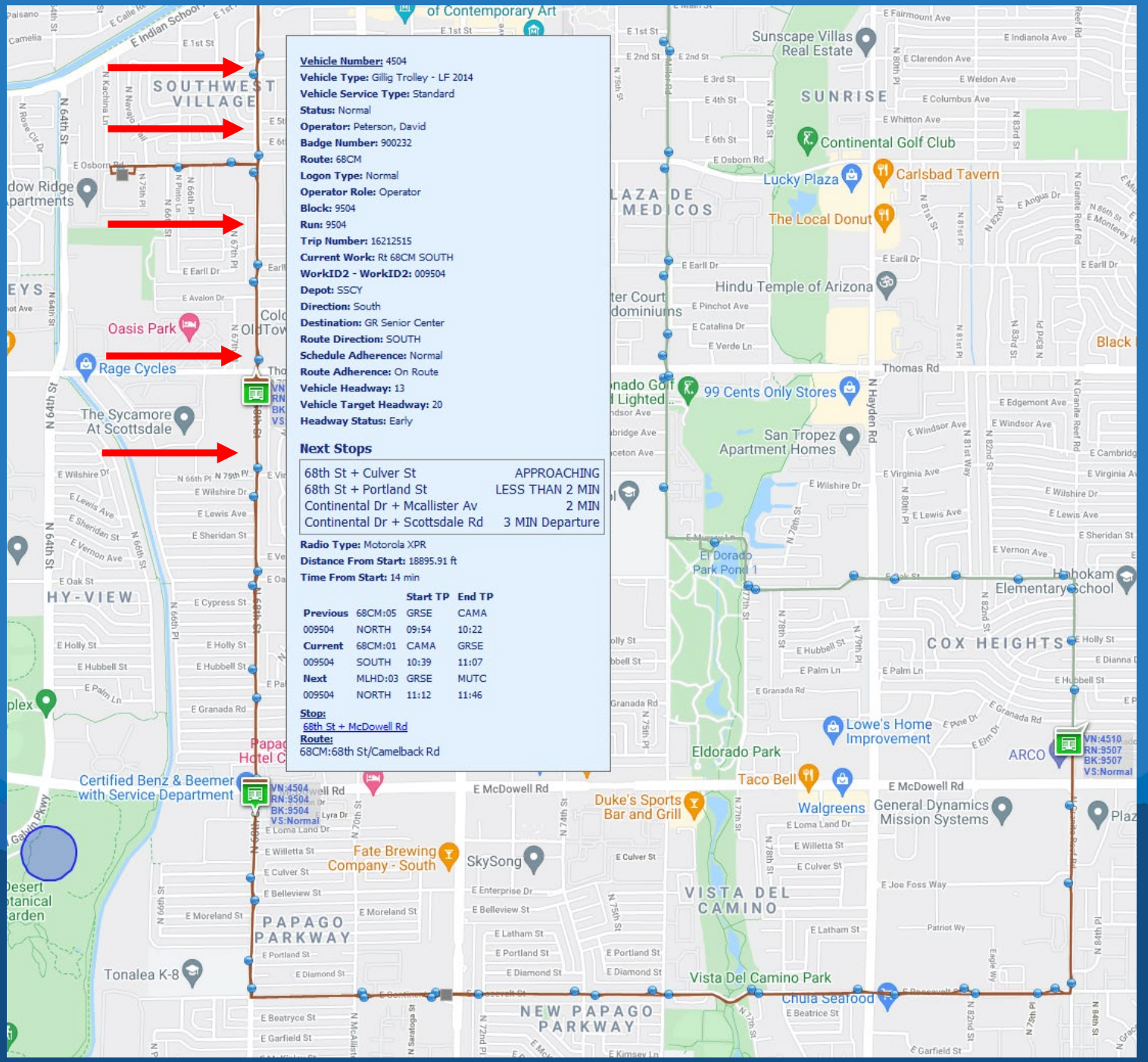
Ridecheck Plus

Survey Summary

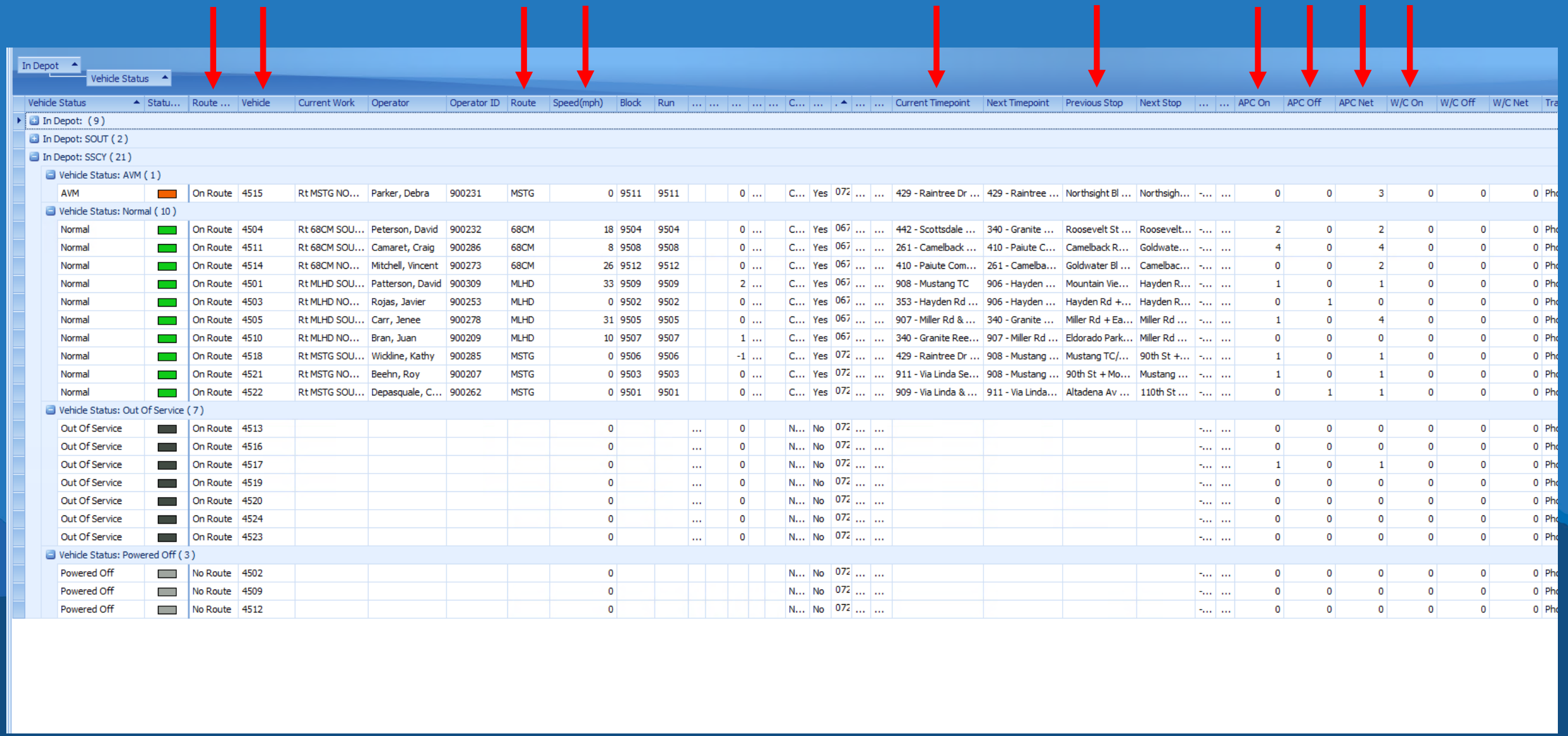
NEW FILTER

Serial Number	Date	Service Period	Atypical	Trip Time	Time Period	Route	Directio	Trip Numb	On	Off	Load Sta	Load Min	Load Ma	Load End	Vehicl	Vehicle Capacit	Missing Segmen	Pass Miles	Avg Trip
31 Valid Surveys																			
3,350,250	9/3/21 Fri	Weekday	☐	6:19 a	AM Peak	313: 68th St/Camelb	SOUTH	1	7	7	0	0	5	0	4503	35	NA	14.9	2.13
3,345,411	9/3/21 Fri	Weekday	☐	6:39 a	AM Peak	313: 68th St/Camelb	SOUTH	3	20	20	0	0	16	0	4519	35	NA	41.9	2.10
3,345,431	9/3/21 Fri	Weekday	☐	6:59 a	AM Peak	313: 68th St/Camelb	SOUTH	5	11	11	0	0	7	0	4505	35	NA	16.5	1.50
3,350,214	9/3/21 Fri	Weekday	☐	7:39 a	AM Peak	313: 68th St/Camelb	SOUTH	9	6	6	0	0	6	0	4510	35	NA	17.9	2.98
3,350,234	9/3/21 Fri	Weekday	☐	8:19 a	AM Peak	313: 68th St/Camelb	SOUTH	13	3	3	0	0	2	0	4509	35	NA	5.0	1.66
3,345,452	9/3/21 Fri	Weekday	☐	8:39 a	AM Peak	313: 68th St/Camelb	SOUTH	15	4	4	0	0	4	0	4502	35	NA	16.5	4.12
3,350,254	9/3/21 Fri	Weekday	☐	8:59 a	AM Peak	313: 68th St/Camelb	SOUTH	17	2	2	0	0	2	0	4503	35	NA	12.9	6.43
3,345,415	9/3/21 Fri	Weekday	☐	9:19 a	Midday	313: 68th St/Camelb	SOUTH	19	1	1	0	0	1	0	4519	35	NA	1.0	0.95
3,345,435	9/3/21 Fri	Weekday	☐	9:39 a	Midday	313: 68th St/Camelb	SOUTH	21	10	10	0	0	6	0	4505	35	NA	32.7	3.27
3,350,218	9/3/21 Fri	Weekday	☐	10:19 a	Midday	313: 68th St/Camelb	SOUTH	25	9	9	0	0	7	0	4510	35	NA	32.2	3.58
3,350,238	9/3/21 Fri	Weekday	☐	10:59 a	Midday	313: 68th St/Camelb	SOUTH	29	2	2	0	0	2	0	4509	35	NA	5.9	2.93
3,345,456	9/3/21 Fri	Weekday	☐	11:18 a	Midday	313: 68th St/Camelb	SOUTH	31	3	3	0	0	2	0	4502	35	NA	12.9	4.29
3,350,258	9/3/21 Fri	Weekday	☐	11:38 a	Midday	313: 68th St/Camelb	SOUTH	33	5	5	0	0	4	0	4503	35	NA	15.6	3.11
3,345,419	9/3/21 Fri	Weekday	☐	11:58 a	Midday	313: 68th St/Camelb	SOUTH	35	6	6	0	0	4	0	4519	35	NA	11.3	1.89
3,345,439	9/3/21 Fri	Weekday	☐	12:18 p	Midday	313: 68th St/Camelb	SOUTH	37	4	4	0	0	2	0	4505	35	NA	6.6	1.66
3,350,222	9/3/21 Fri	Weekday	☐	12:58 p	Midday	313: 68th St/Camelb	SOUTH	41	10	10	0	0	8	0	4510	35	NA	42.0	4.20
3,350,242	9/3/21 Fri	Weekday	☐	1:38 p	Midday	313: 68th St/Camelb	SOUTH	45	4	4	0	0	3	0	4509	35	NA	5.9	1.48
3,345,460	9/3/21 Fri	Weekday	☐	1:58 p	Midday	313: 68th St/Camelb	SOUTH	47	7	7	0	0	5	0	4502	35	NA	23.0	3.28
3,350,262	9/3/21 Fri	Weekday	☐	2:18 p	Midday	313: 68th St/Camelb	SOUTH	49	8	8	0	0	4	0	4503	35	NA	20.3	2.54
3,345,423	9/3/21 Fri	Weekday	☐	2:38 p	Midday	313: 68th St/Camelb	SOUTH	51	2	2	0	0	2	0	4519	35	NA	6.9	3.46
3,345,443	9/3/21 Fri	Weekday	☐	2:58 p	Midday	313: 68th St/Camelb	SOUTH	53	8	8	0	0	5	0	4505	35	NA	22.8	2.85
3,345,405	9/3/21 Fri	Weekday	☐	3:18 p	PM Peak	313: 68th St/Camelb	SOUTH	55	2	2	0	0	2	0	4513	35	NA	9.7	4.86
3,350,226	9/3/21 Fri	Weekday	☐	3:38 p	PM Peak	313: 68th St/Camelb	SOUTH	57	5	5	0	0	4	0	4510	35	NA	17.2	3.45
3,350,246	9/3/21 Fri	Weekday	☐	4:18 p	PM Peak	313: 68th St/Camelb	SOUTH	61	10	10	0	0	5	0	4509	35	NA	18.7	1.87
3,345,464	9/3/21 Fri	Weekday	☐	4:38 p	PM Peak	313: 68th St/Camelb	SOUTH	63	7	7	0	0	6	0	4502	35	NA	16.8	2.40
3,350,266	9/3/21 Fri	Weekday	☐	4:58 p	PM Peak	313: 68th St/Camelb	SOUTH	65	1	1	0	0	1	0	4503	35	NA	6.4	6.43
3,345,427	9/3/21 Fri	Weekday	☐	5:19 p	PM Peak	313: 68th St/Camelb	SOUTH	67	9	9	0	0	5	0	4519	35	NA	19.3	2.14
3,345,447	9/3/21 Fri	Weekday	☐	5:39 p	PM Peak	313: 68th St/Camelb	SOUTH	69	7	7	0	0	5	0	4505	35	NA	23.3	3.33
3,345,408	9/3/21 Fri	Weekday	☐	5:59 p	PM Peak	313: 68th St/Camelb	SOUTH	71	1	1	0	0	1	0	4513	35	NA	5.8	5.85

CAD/AVL Dispatch View - Map



CAD/AVL Dispatch View - Status



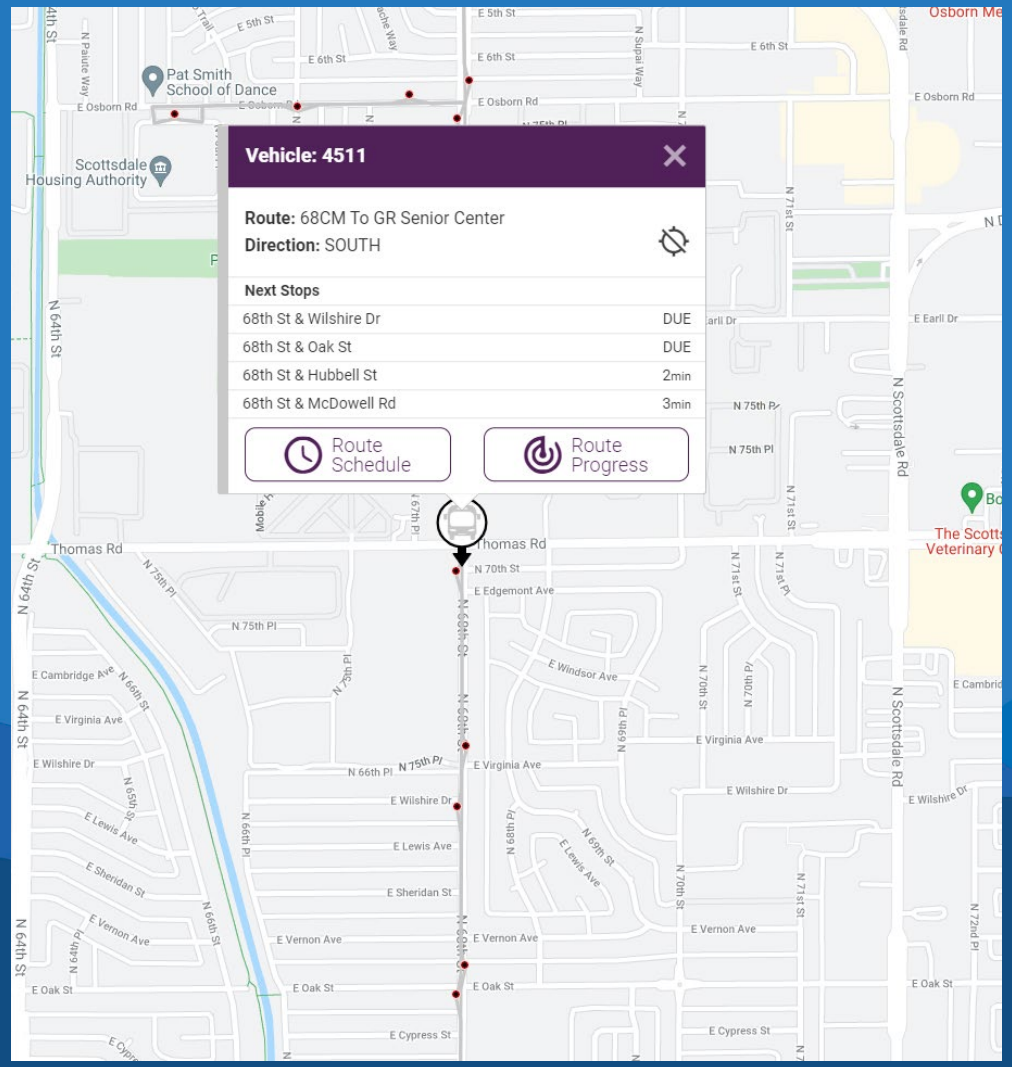
In Depot

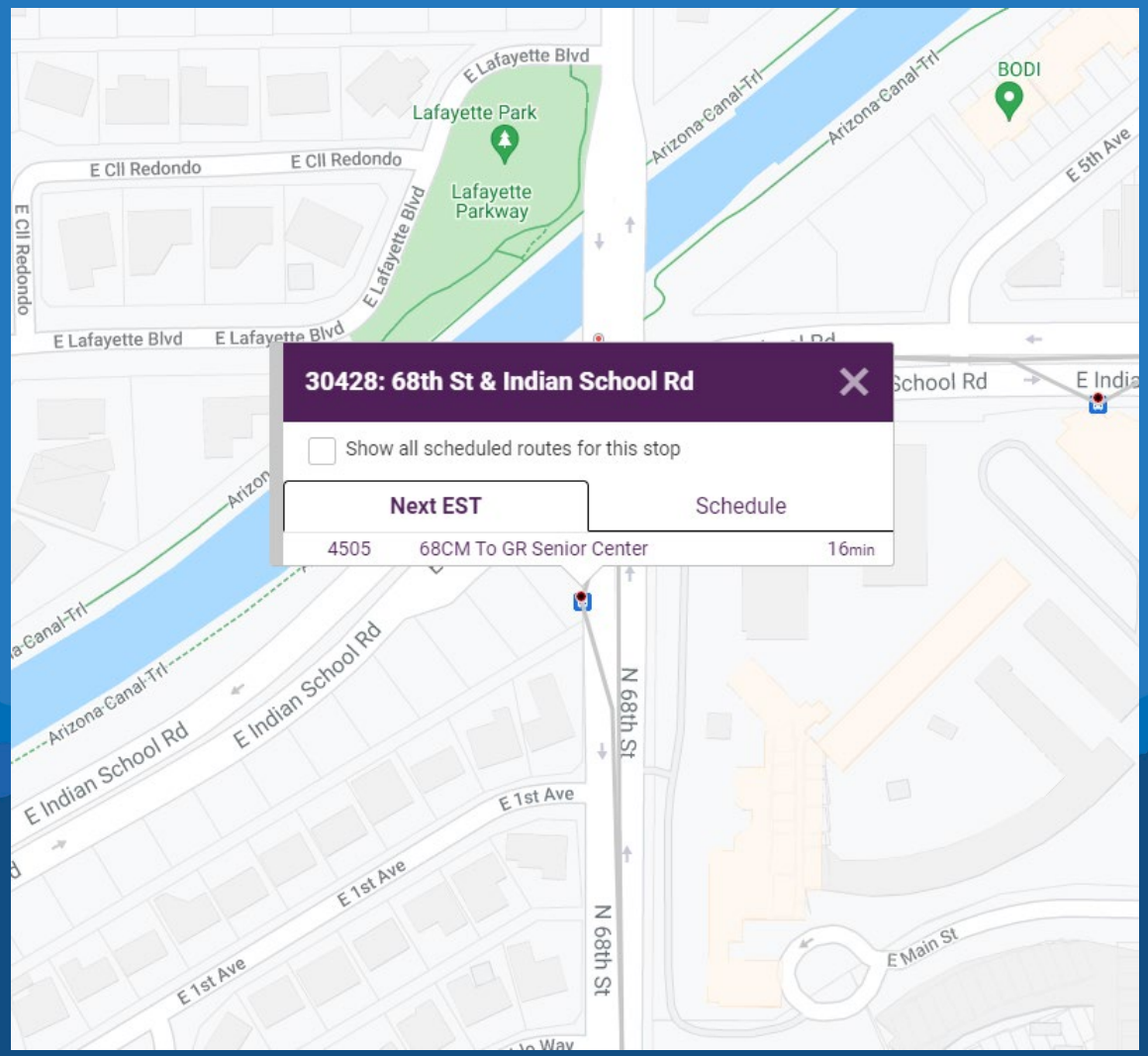
Vehicle Status

Vehicle Status	Statu...	Route ...	Vehicle	Current Work	Operator	Operator ID	Route	Speed(mph)	Block	Run	...	...	...	...	...	C...	...	.	...	...	Current Timepoint	Next Timepoint	Previous Stop	Next Stop	...	...	APC On	APC Off	APC Net	W/C On	W/C Off	W/C Net	Tra
In Depot: (9)																																	
In Depot: SOUT (2)																																	
In Depot: SSCY (21)																																	
Vehicle Status: AVM (1)																																	
AVM		On Route	4515	Rt MSTG NO...	Parker, Debra	900231	MSTG	0	9511	9511			0	...		C...	Yes	072	...	...	429 - Raintree Dr ...	429 - Raintree ...	Northsight Bl ...	Northsigh...	-...	...	0	0	3	0	0	0	Pho
Vehicle Status: Normal (10)																																	
Normal		On Route	4504	Rt 68CM SOU...	Peterson, David	900232	68CM	18	9504	9504			0	...		C...	Yes	067	...	...	442 - Scottsdale ...	340 - Granite ...	Roosevelt St ...	Roosevelt...	-...	...	2	0	2	0	0	0	Pho
Normal		On Route	4511	Rt 68CM SOU...	Camaret, Craig	900286	68CM	8	9508	9508			0	...		C...	Yes	067	...	...	261 - Camelback ...	410 - Paiute C...	Camelback R...	Goldwate...	-...	...	4	0	4	0	0	0	Pho
Normal		On Route	4514	Rt 68CM NO...	Mitchell, Vincent	900273	68CM	26	9512	9512			0	...		C...	Yes	067	...	...	410 - Paiute Com...	261 - Camelba...	Goldwater Bl ...	Camelbac...	-...	...	0	0	2	0	0	0	Pho
Normal		On Route	4501	Rt MLHD SOU...	Patterson, David	900309	MLHD	33	9509	9509			2	...		C...	Yes	067	...	...	908 - Mustang TC	906 - Hayden ...	Mountain Vie...	Hayden R...	-...	...	1	0	1	0	0	0	Pho
Normal		On Route	4503	Rt MLHD NO...	Rojas, Javier	900253	MLHD	0	9502	9502			0	...		C...	Yes	067	...	...	353 - Hayden Rd ...	906 - Hayden ...	Hayden Rd +...	Hayden R...	-...	...	0	1	0	0	0	0	Pho
Normal		On Route	4505	Rt MLHD SOU...	Carr, Jenee	900278	MLHD	31	9505	9505			0	...		C...	Yes	067	...	...	907 - Miller Rd & ...	340 - Granite ...	Miller Rd + Ea...	Miller Rd ...	-...	...	1	0	4	0	0	0	Pho
Normal		On Route	4510	Rt MLHD NO...	Bran, Juan	900209	MLHD	10	9507	9507			1	...		C...	Yes	067	...	...	340 - Granite Ree...	907 - Miller Rd ...	Eldorado Park...	Miller Rd ...	-...	...	0	0	0	0	0	0	Pho
Normal		On Route	4518	Rt MSTG SOU...	Wickline, Kathy	900285	MSTG	0	9506	9506			-1	...		C...	Yes	072	...	...	429 - Raintree Dr ...	908 - Mustang ...	Mustang TC/...	90th St +...	-...	...	1	0	1	0	0	0	Pho
Normal		On Route	4521	Rt MSTG NO...	Beehn, Roy	900207	MSTG	0	9503	9503			0	...		C...	Yes	072	...	...	911 - Via Linda Se...	908 - Mustang ...	90th St + Mo...	Mustang ...	-...	...	1	0	1	0	0	0	Pho
Normal		On Route	4522	Rt MSTG SOU...	Depasquale, C...	900262	MSTG	0	9501	9501			0	...		C...	Yes	072	...	...	909 - Via Linda & ...	911 - Via Linda...	Altadena Av ...	110th St ...	-...	...	0	1	1	0	0	0	Pho
Vehicle Status: Out Of Service (7)																																	
Out Of Service		On Route	4513					0			...		0			N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Out Of Service		On Route	4516					0			...		0			N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Out Of Service		On Route	4517					0			...		0			N...	No	072	...	...					-...	...	1	0	1	0	0	0	Pho
Out Of Service		On Route	4519					0			...		0			N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Out Of Service		On Route	4520					0			...		0			N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Out Of Service		On Route	4524					0			...		0			N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Out Of Service		On Route	4523					0			...		0			N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Vehicle Status: Powered Off (3)																																	
Powered Off		No Route	4502					0								N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Powered Off		No Route	4509					0								N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho
Powered Off		No Route	4512					0								N...	No	072	...	...					-...	...	0	0	0	0	0	0	Pho

Public interface
Bus time – Webpage and App

[VM BusTime (phoenix.gov)]





Questions?

CITY OF SCOTTSDALE

SCOTTSDALE TRANSPORTATION COMMISSION REPORT

To: **Transportation Commission**
From: **Dave Meinhart, Transportation Planning Manager**
Subject: **Transportation Action Plan Review**
Meeting Date: **November 18, 2021**

Action: Discussion, comment, and possible action

Purpose:
In addition to discussions at seven Transportation Commission meetings in 2021, the city has now conducted two phases of public outreach for the draft Transportation Action Plan (TAP). Phase I ran from August 25-September 3, 2021 and included an online questionnaire as well as a link to the draft TAP for written comments. Phase II was conducted as a virtual public open house with recorded presentations for each plan element that ran from October 18-31, 2021. Both outreach phases included press releases and various on-line notifications through the city's home page and social media outlets.

In all, feedback has been received from over 250 individuals. During Phase I, 222 questionnaire responses were submitted, and 23 commenters provided written input on the draft TAP. During Phase II, 156 views of the online documents were made and 11 commenters provided written feedback on the draft TAP.

A detailed review of the Phase I public input was provided to the Transportation Commission on September 16, 2021. Key information from the presentation is summarized below. A summary of the written comments provided in Phase I and Phase II is also provided.

Information:
Public Input Summary
The first eight questions of the Phase I online questionnaire asked respondents to select between five levels of concurrence:

1) Strongly agree
2) Agree
3) Neither agree nor disagree
4) Disagree
5) Strongly disagree

To simply analysis of the results, Table 1 classifies the percentage of responses into three categories: Agrees, Neutral, Disagrees.

Table 2 summarizes transportation challenges by category. Table 3 summarizes feedback on preferred options to reduce car travel. Table 4 summarizes preferred investment levels in five categories broken down by four geographic areas: Southern Scottsdale (south of Indian Bend Road – except Old Town), Old Town, Central Scottsdale (Indian Bend Road to Loop 101/Bell Road) and Northern Scottsdale (north of Loop 101/Bell Road).

Table 1 – Questionnaire Items 1-8

#	Question	Agrees	Neutral	Disagrees
1	Focusing on an action plan for the next 5 to 10 years is a better strategy than developing a new master plan for the next 20 to 30 years.	67%	21%	12%
2	Scottsdale should devote a portion of its transportation budget to evaluating and possibly implementing new transportation technology.	75%	9%	16%
3	Preserving and improving existing transportation infrastructure should be prioritized over building new transportation infrastructure.	48%	27%	25%
4	Scottsdale should emphasize pedestrian safety and multimodal travel over motor vehicle travel speed.	68%	15%	17%
5	It is okay to remove travel lanes on streets with excess traffic capacity to provide better bicycle and pedestrian facilities.	62%	8%	31%
6	Roundabouts improve traffic flow.	58%	15%	27%
7	Roundabouts improve traffic safety.	46%	26%	28%
8	Improving existing transit service should be prioritized over expanding transit service to northern Scottsdale.	48%	21%	32%

Table 2 – Transportation Challenges

Category	# of Responses
Traffic congestion/flow/safety	68
Speeding/poor driving/distraction	59
Limited Bike or Pedestrian infrastructure and/or safety	37
Limited transit service	32
Signal timing/signal improvements	32
New development	7
Limited parking	6
Maintenance	4
Other	12

Table 3 – Preferred Alternatives to Car Travel

Category	# of Responses
Bike/Pedestrian System	87
High Capacity Transit	44
Bus Service	37
None	26
Trolley Service	25
Transit Alternatives/Micro Transit	16
Other	21

Table 4 – Preferred Investment Levels

Prioritization Category	Southern	Old Town	Central	Northern	Average
On-street bikeways and bicycle facilities	15%	16%	15%	15%	15%
Shared-use paths (paved)	17%	16%	17%	17%	17%
Traffic flow	30%	27%	32%	33%	31%
Transit	21%	18%	20%	19%	20%
Enhanced crossings for pedestrians and bicyclists	17%	23%	16%	17%	18%

Written Public Comment Summary
Written public comments received during the Phase I outreach effort were provided in the September 16, 2021 Transportation Commission agenda packet. Written comments received during the Phase II virtual public open house are provided as Attachment 1. The written comments received from both outreach phases are summarized below.

- Multiple comment topics
  - Revise plan for 128th Street where McDowell Sonoran Preserve is on both sides (17)
  - Continue to improve bike and pedestrian access (3)
  - Crosswalk design concerns (2)
  - Light rail extension northbound into Scottsdale (2)
  - Widen Chaparral road for access to Fashion Square area (2)

    - Development density concerns (2)
- Single comment topics
    - Do not install roundabouts
    - Future Rio Verde widening must include wildlife crossing near 124th St.
    - Do not widen Mt. View Road between 92nd and 96th
    - Need mass transit
    - Support reducing number of travel lanes

Third Review of the draft Transportation Action Plan (TAP)
Discussions on the TAP began in January by highlighting two focus points: 1) emphasizing refinement of the existing transportation system over adding new infrastructure, especially if the new infrastructure will be difficult to implement at a reasonable cost; and, 2) emphasizing livable streets/community over rapid traffic throughput.

Meetings in March, April, May and June centered on proposed updates to the planned street, transit, bikeway, trail and pedestrian systems. In July, discussion moved to system preservation and maintenance and goals, policies and performance measures. In August, TAP implementation strategies were reviewed, and a first review of the draft TAP introduction and elements was completed. In September, Phase I public input was reviewed, and a second review of the draft TAP was completed.

The Transportation Commission will be asked to provide comments on the draft TAP (Attachment 2), which now includes a Glossary, at this meeting.

Next Steps:
A recommendation for Transportation Commission approval of the TAP is planned for the December 16, 2021 meeting.

Attachment 1 – Public Comments from virtual public open house
Attachment 2 – Draft TAP

Contact: Dave Meinhart, 480-312-7641, dmeinhart@scottsdaleaz.gov

Attchment 1

Transportation Action Plan - Virtual Open House Comments

Name	Address	Comments
Alison Melnychenko	8943 North 80th Place	Well thought out and detailed TAP presentation. Appreciate the challenges of maintaining the vast network of existing transportation and transit systems in Scottsdale. I place a high-priority on the pedestrian and bicycle path network and like that it is a major focus of TAP 202.
Amy Herring	7620 E 4th street	Love the simple ideas of planting trees oriented to make more shade on sidewalks. If we are to be a live, work, and play destination we must be pedestrian friendly. We must reinstate the trolley service and making walking more comfortable year round.
Jennifer Swanton	4128 E EDGEMONT AVE	The bike lanes are appreciated, as a cyclist. Keeping the bikes lanes free of potholes, debri, glass, etc is also important so that they can be used safely at all times. Additional signage to educate drivers that 3 feet from cyclists is the law will remind everyone that cyclists have a right to ride the roads. Thank you especially for the improvements to Mountain View, Mockingbird Lane, Happy Valley Rd, among other well-traveled roads by cyclists!
Ben Ebel	2616 N 69th Pl.	I really like the idea of restricting certain roads (especially the southern portion of Hayden) that are too large for the volume of traffic that they carry. This will make non-automobile movement easier on and near these roads. Other parts of this plan that I like are the potential for priority signalling for buses and BRT, both of which most large metro areas already have, but the Phoenix area is lacking. I hope that the traffic signals for the bike routes can be altered to make crossing the arterials easier. For example, crossing McDowell or Thomas on 70th or 74th, or crossing Scottsdale Road on Oak or Roosevelt/Continental takes a very long time. I often ride my bike on a busier road than I would like until I can cross one of these points and then go back to the side streets for the duration of my trip.
Bob Lucas	8364 East Cheryl Drive	Thank you for all of your hard work. It is greatly appreciated.
Carolyn Kinville	6455 N. 77th Way	Unfortunately the City of Scottsdale does not support mass transit. Buses and trollies are inadequate. Also traffic lights are not coordinated to prevent long waits at various intersections, especially those streets that are exit and entrances from and to the 101.
Matt Metz	9978 E Bayview Dr	Please do NOT widen Mountainview Rd. between 92nd St. and 96th St. This road is not nearly in need of five lanes (rather than current three), and widening would require removal of scores of beautiful mature trees, and will tempt drivers avoiding Shea to pass farther to the east (Mountainview east of 96th St.) which is a residential neighborhood. Thank you.

Attchment 1

Transportation Action Plan - Virtual Open House Comments

Name	Address	Comments
Sharon Oberritter	8614 E. Orange Blossom Ln	Traffic would flow much easier if the Council didn't approved hundreds and hundreds of apartments/condos to be build in already overbuilt areas. NO roundabout on Osborn and Miller. Are you insane? Look at the problems the 2 roundabouts already cause to the flow of traffic (90th Street and the one on Rainwater). As a 52 year resident, I'm already disgusted with the horrible traffic flow in Scottsdale now. What will it be like with the apartments on 92 St., Osborn/Hayden and more.
Kenneth Steinke	25627 N. Ranch Gate Road	This is the 2nd TAP I've seen since moving to Scottsdale in 2008. Scottsdale is unusual in that it's 31 miles north to south, less than 3 miles at its narrowest west-east areas and 11 miles at its widest. I'm astounded both times that Scottsdale refuses to consider a north-south light rail extension. Light rail works well in L.A. where we moved from and along Phoenix's routes, serving all manner of residents (young-old, poor-rich), yet it seems anathema to Scottsdale. Why? There are no bus routes in Scottsdale north of Thompson Peak Road. (Though I think rail is cleaner and more efficient.) Why?
Michael Lanin	10785 N 129th St	Access to the Fashion Square from the 101 has always baffled me. Indian School is too far south, and Chaparral sends you through a goofy neighborhood. Would those home owners sell out to widen the road and make it a 45 mph 4 lane road (plus middle turn lane)? Seems like this would ultimately pay for itself in tax revenues.
Kevin Olson	4343 n 78th st	Two big pain points as bikers and walkers, crosswalk ramps don’t line up well with the intersections and cross light buttons, end up ramping curbs to get there, could be full flat grade for ease, especially kids and elderly who don’t have as good of balance, same goes for my bike commute on Pima, narrow entrances with big bumps, also think it would be neat to see some ped walk ramps over major streets like Scottsdale road that are architectural in nature. In Iowa city they had a real nice ped walk ramp over a major street that was very safe! Happy to discuss more! Have a lot more ideas but these are a few. Wife and kids bike a ton in old town and to school via green belt and I bike commute to the air park from old town. Studied civil engineering in a previous career so still interested in traffic safety even though I now work in finance.

SCOTTSDALE TRANSPORTATION & STREETS IS ON THE MOVE...

Scottsdale's Transportation Action Plan (TAP) 2021 provides an overview of Scottsdale's current transportation infrastructure, as well as a roadmap for Scottsdale's transportation future. It includes the objectives, policies, values and guidelines to inform transportation decisions moving forward, along with a prioritized implementation plan to preserve and improve how we get around Scottsdale--whether by foot, bus, bike, vehicle, motorcycle, scooter, horse, or something yet to emerge--over the next 10 years.

Since Scottsdale drafted its first plan in 2008 and revised it in 2016, there have been significant shifts in community priorities, city leadership, traffic patterns, technology and funding. More people, for example, are interested in bikeways, trails and other amenities that support non-motorized modes of transportation. Despite additional development over the last 20 years, travel demand has not grown as much as projected. And new technology, such as adaptive traffic signals and autonomous vehicles, is reducing congestion. Several projects that made sense in 2008 have become unnecessary, infeasible or unaffordable in 2021.

HOW TO NAVIGATE THIS SITE

The plan is divided into transportation elements, which you can navigate to with the top menu. Also included in the menu are an implementation plan and a list of the figures included throughout the site.

Within each element section you'll find relevant goals, policies, performance measures, classifications, figures, and ongoing data collection.

...from Master Plan to ACTION PLAN.

The first notable difference with the 2021 plan is renaming it an "Action" plan rather than a "Master" plan. While a new name may seem like an insignificant change, it reflects an important shift in priorities.

When the 2008 and 2016 master plans were written, Scottsdale still had many locations in need of additional infrastructure, including roads, traffic lanes, paths, trails, and transit routes. A "master" plan that attempted to envision all that could and should be built over the next 20 to 30 years made sense. Now, most of the improvements included in the first two plans have either already been built, will be completed in the next five years or are no longer practical or feasible. The concept of a "Master" plan has become too rigid, too prescriptive, and too impractical to keep up with changing understanding, priorities and technology.

...from planning more to PLANNING SMARTER.

The 2021 "Action" plan eliminates a one-size-fits-all approach, replacing it with smarter, more flexible policies and planning that enable adaptability to Scottsdale's character areas [link to section below], changing technology and opportunities to leverage funding and coordinate projects.

For example, the TAP 2021 no longer includes policy dictating access to a path within a half mile of every home. While that might make sense in the Scottsdale's more urban character area, it's impractical in a character area of planned communities that have walls blocking access to the paths.

A rigid implementation plan that stipulates use of a certain type of technology that may become outdated has been replaced with a plan that includes pilot programs to continually evaluate and consider emerging technology.

Finally, the more rigid approach of narrowly defining funding for projects has been replaced with an approach that encourages saving money and time through departmental, interdepartmental and inter-agency coordination.

...from building more to PRESERVING AND IMPROVING WHAT WE HAVE.

With less need to plan and build new infrastructure, the TAP 2021 also prioritizes preserving and improving what we already have. The plan includes renovating infrastructure to meet modern acceptable safety and comfort standards that may have changed from when infrastructure was first built, such as meeting modern Americans with Disabilities Act (ADA) standards, widening shared use paths and adding shade for pedestrian and bicyclists. The plan also focuses on closing gaps within the paths, trails, bikeways and transit systems and improving regional connectivity and includes maintenance plans for pavement, paths, trails, and streetlights to extend their life and reduce cost over time.

...from prioritizing cars to PRIORITIZING PEOPLE.

Over the past 13 years, the city has widened roads to accommodate more traffic and built out roads to new development. More recently, however, traffic growth has slowed, and more people are valuing open space over more development.

The TAP 2021 prioritizes safe and accessible travel for all transportation users and supports active transportation for a healthier, more active lifestyle. One of the most notable changes with the TAP 2021 is a reclassification of many of Scottsdale's streets to reflect reduced traffic volumes. While 5% of streets need additional capacity, many others have been reclassified to reduce the number of required lanes, enabling them to be transformed into "Complete Streets" [link] that are safer and more comfortable for bicycles and pedestrians.

Ultimately, encouraging and providing better access to multimodal transportation is a "win-win" as it also reduces traffic congestion for drivers and improves air quality for all of us.

TAP 2021 GOALS AND VALUES

The following goals and values guide the TAP 2021:

1. Prioritize people, safety and livability over motor vehicles and travel speed.

2. Improve accessibility for all types of transportation and transportation users.
3. Promote active and healthy living.
4. Support sustainability and cost savings by preserving and maintaining existing infrastructure.
5. Coordinate intradepartmental and interdepartmental projects and leverage funding to plan efficiently and economically.
6. Close system gaps and improve local and regional connectivity with path systems, trail corridors and transit routes.
7. Provide transportation options that support economic vitality.
8. Ensure flexibility that can respond to economic development, changing technology and shifting priorities.
9. Continually evaluate technology to innovate and implement safer, greener and more accessible transportation solutions.
10. Improve environmental sustainability with decisions, programs and policies that preserve open space, reduce traffic congestion and consume less non-renewable resources.

Additional goals specific to transportation elements are included in each section.

COORDINATION WITH SCOTTSDALE'S GENERAL PLAN

The TAP 2021 goals and values align with those of the *Scottsdale General Plan 2035* [Link to plan], which aims for a city with Exceptional Experience, Outstanding Livability, Community Prosperity and Distinctive Character.

TAP 2021 GUIDING POLICY

In each section are goals specific to the transportation system elements. Additionally, the following policy guides the TAP 2021 and the Transportation & Streets Department overall:

Transportation network shall maximize travel route choices, travel mode choices, and access and mobility for all ages and abilities.

NOTABLE PLAN UPDATES

Implementation Plan

Often there are more desired operational needs and projects than budgets and time allow. The following guidelines will be used to prioritize transportation investments:

1. Preserve, maintain and optimize existing infrastructure.
2. Meet Americans with Disabilities Act (ADA), air quality, water quality and other regulatory requirements.
3. Enhance safety and test new concepts and technology.
4. Provide transit service with minimum 30-minute frequency.
5. Develop capital projects with funding from outside sources.
6. Develop capital projects that are funded only by the City and prioritize non-motorized access.

Performance Measures

Specific Performance Measures to track progress have been added for each transportation element.

Specific Plan Updates by Element

Street

- Street reclassifications
- Updated street cross sections

Transit

- Bus boardings per revenue mile
- Bus boardings per revenue hour
- On-time performance
- Connectivity to transportation network

Bikeway

- Removal of infeasible and impractical projects
- Identification of system and regional connectivity gaps

Trail

- Identification of system and regional connectivity gaps
- Plan to improve connectivity to preserve
- Plan to improve trail connectivity in rural neighborhoods

Pedestrian

- Modify location of landscape trees to improve warm weather shade
- Adjust sidewalk widths in less densely developed or limited access areas

SUPPORTING COMMUNITY INPUT

The TAP 2021 attempts to facilitate community input into future transportation planning by providing a more accessible online reference that is easier to navigate and includes explanation and insight into transportation decisions and planning. The TAP 2021 is intended to serve not only transportation planners and engineers, but also Scottsdale citizens, business owners, and developers as future transportation decisions are made.

STREET ELEMENT

INTRODUCTION

The Street Element of the Scottsdale *Transportation Action Plan* includes information and guidance to provide an efficient and multi-modal street network for automobiles, trucks, transit, bicycles, pedestrians and in some corridors, equestrians. Different strategies, such as building or widening streets, reconfiguring existing streets and applying technology, are used to improve traffic flow.

The city's planned travel lane capacity for the arterial and collector street system (see below for street classifications) is largely complete. Out of 1,061 lane miles of classified streets, approximately 51 lane miles (5%) will be left to build after the Capital Improvement Plan spanning fiscal years 2021-22 through 2025-26 is completed (see Figure S-1). Ten of those lane miles are adjacent to neighboring jurisdictions that will likely help fund future construction, and 14 of the lane miles are expected to be built by future development.

A greater number of arterial and collector street system miles are missing "complete streets" components. Complete streets provide better accommodations for non-motorized uses and add safety features such as dedicated turn lanes and raised medians. Many street segments built more than twenty years ago also lack adequate sidewalks (typically six-feet minimum width), accessible corner ramps and bike lanes, components that are now standard with street design. In all, an estimated 78 miles (12%) of sidewalks and 132 miles (21%) of bike lanes are missing from arterial and collector streets where all travel lanes have already been constructed.

Over the years, some streets were built with too many lanes based on anticipated development patterns that ultimately did not occur. On other streets, creation of the McDowell Sonoran Preserve reduced capacity needs. In all, thirty-two lane miles can be converted to non-auto uses by restriping or narrowing the street. Narrowing the distance between the outside curbs will be considered when the remaining travel lanes will continue to operate at 75% or less of capacity (7,500-10,000 vehicles per lane per day, depending on number of lanes, land use and access conditions).

The Street Element supports creating a safe and efficient roadway system. As the street system continues to age, preventive maintenance and repair and/or replacement of pavement, concrete, traffic signals and streetlights will need to be prioritized.

GOALS

1) Emphasize traffic safety, livable streets and multi-modal community access over rapid traffic throughput.
2) Develop and manage the street network in a manner that places reliance on maintaining existing infrastructure and improving the efficiency of the existing system before adding new roadway capacity.
3) Maintain and improve multi-modal circulation by narrowing roadways where appropriate; including alternative modes of transportation when widening roadways; using existing and future Intelligent Transportation Systems technology and access control to manage traffic flow; and identifying major and minor intersections for capacity and safety improvements.

4) Provide a framework for the development of a transportation system for Scottsdale that is based on the complete streets concept, where streets are designed and constructed in a manner that supports comfortable usage by all travel mode types.
5) Minimize heat island effects by reducing existing pavement where traffic demand is less than previously planned and experimenting with paving technologies that reduce daytime heat absorption and nighttime heat radiation.

POLICIES

1) Complete Streets: Provide sufficient right-of-way and design, operate, and maintain Scottsdale's streets to promote safe and convenient access and travel for users of all types: pedestrians; mobility-assisted; bicyclists; transit vehicles and riders; equestrians; cars; and trucks. Provide facilities and amenities that are recognized as contributing to complete streets, including roadway and pedestrian-level street lighting; pedestrian and bicycle safety improvements; access improvements in accordance with ADA; transit facilities accommodation, including but not limited to pedestrian access improvement to transit stops; street trees and landscaping; and street furnishings that are sensitive to the local context.

2) Traffic Safety: Collect, analyze and report on traffic collision data on a regular basis and develop remediation measures to address high frequency and high volume collision locations.

3) Roundabouts: Roundabouts shall be the first consideration for all intersections of one- or two-lane-per-direction streets that require all-way stop control. Traffic signals should only be installed or remain if a traffic or budget analysis justifies their advantage.

4) Roadway Restriping: Improve on-street bicycle accommodation and bicycling and pedestrian comfort through striping changes that consider historic and forecasted motor vehicle traffic, center turn lane requirements, existing pavement width and existing lane widths. This restriping protocol will typically be applied when roadways are being treated through standard pavement preservation applications and will incorporate buffered bike lanes where feasible.

5) Neighborhood Traffic Management: Protect Scottsdale’s residential neighborhoods from excessive vehicle travel speeds and cut-through traffic.

6) Truck Routes: All planned four lane or larger streets are considered truck routes, unless noted as an exception. Neighborhood/local system routes will not be considered for truck route designations.

7) Intelligent Transportation Systems (ITS): Support the ITS strategic plan to coordinate signals; integrate freeway and arterial operations; improve traffic progression; reduce incident clearance times; and enhance special event traffic management. Also recognize the need to balance traffic flow with improved pedestrian, bicycle and transit flow on some corridors.

8) Access Management: Define acceptable levels of access for each roadway classification to preserve

its function, including criteria for the spacing of signalized and unsignalized access points. Apply and enforce appropriate geometric design criteria and traffic engineering analysis to each allowable access point. Specific access management criteria shall be included in the City's *Design Standards & Policies Manual* (DS&PM), which is updated on a regular basis and approved by the city's Design Review Board.

9) Roadway Character Types: Identify roadway corridors as either urban, suburban or rural. Urban street areas are located in Old Town Scottsdale, where pedestrian activity is likely to be the highest and alternative modes of transportation are more likely. Suburban street areas often have separation between residential and commercial or employment uses. Generally, the suburban designation is for roadways south of Pinnacle Peak Road. Rural street areas are desert or low-density land use areas where commercial and employment activities are more limited, and equestrian activity is greater. Generally, roadways north of Pinnacle Peak Road are identified as rural.

10) Roadway Noise Abatement: Roadway noise levels considered for mitigation shall be consistent with the Arizona Department of Transportation's 2017 Noise Abatement Requirements. The ADOT standards are required by Federal law (Code of Federal Regulations – 23 CFR 772) to match the Federal Highway Administration's noise standards. These standards consider noise abatement when there is an increase of 15 decibels (dBA) in the model-predicted roadway noise levels over existing noise. levels occurs and/or the predicted noise level is at or above 67 dBA.

STREET SYSTEM/FUNCTIONAL CLASSIFICATION

The street system consists of a hierarchy from local streets (smallest capacity) to collector streets to arterial streets (largest capacity). These functional classes establish a common understanding of the use of the street and its character, regulate access from adjacent properties and determine how the costs of new street construction are shared between the city and surrounding properties. Location within areas of the city designated as Environmentally Sensitive Lands (ESL) is also a factor in street classifications.

Over the years, the three functional classes have evolved into a set of 20 sub-classifications as shown in Table S-1. Only the arterial and collector categories are identified on published maps. The character designations (rural, suburban and urban) are determined during the design review process. Location within areas of the city designated as Environmentally Sensitive Lands (ESL) is also a factor in roadway classifications.

Figure S-1

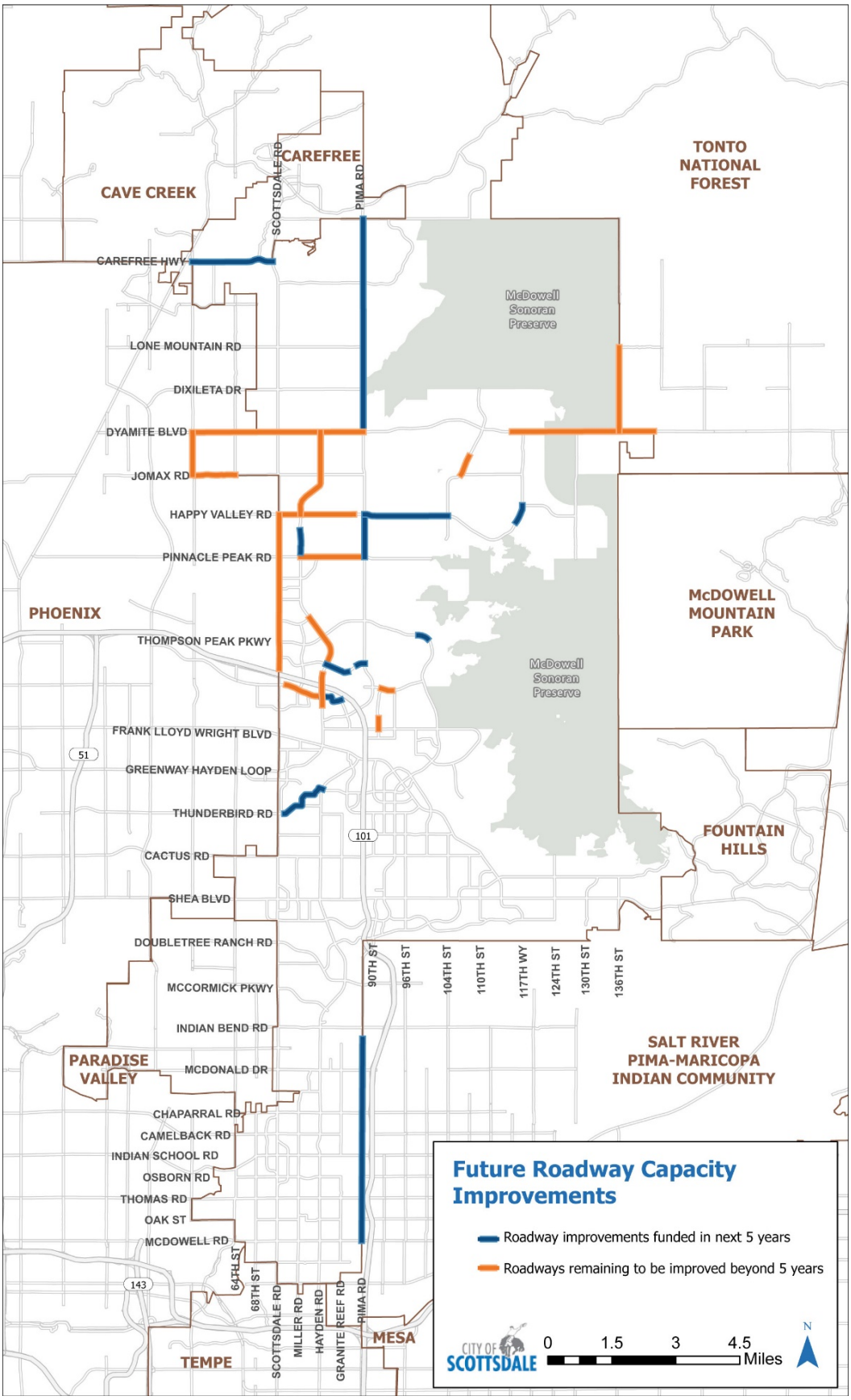

CAREFREE
CAVE CREEK
SCOTTSDALE RD
PIMA RD
TONTO NATIONAL FOREST
CAREFREE HWY
McDowell Sonoran Preserve
LONE MOUNTAIN RD
DIXILETA DR
DYAMITE BLVD
JOMAX RD
HAPPY VALLEY RD
PINNACLE PEAK RD
PHOENIX
McDOWELL MOUNTAIN PARK
THOMPSON PEAK PKWY
McDowell Sonoran Preserve
FRANK LLOYD WRIGHT BLVD
51
GREENWAY HAYDEN LOOP
THUNDERBIRD RD
101
FOUNTAIN HILLS
CACTUS RD
SHEA BLVD
DOUBLETREE RANCH RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
MCCORMICK PKWY
INDIAN BEND RD
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PARADISE VALLEY
MCDONALD DR
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
MCDOWELL RD
64TH ST
68TH ST
143
SCOTTSDALE RD
MILLER RD
HAYDEN RD
GRANITE REEF RD
PIMA RD
MESA
TEMPE
Future Roadway Capacity Improvements
Roadway improvements funded in next 5 years
Roadways remaining to be improved beyond 5 years
CITY OF SCOTTSDALE
0
1.5
3
4.5
Miles
N

Table S-1

Functional Classification Categories	
Street Type	**Character**
Major Arterial	a) rural b) suburban c) urban
Minor Arterial	a) rural/ESL b) suburban c) urban
Major Collector	a) rural/ESL b) suburban c) urban
Minor Collector	a) rural/ESL with trails b) rural/ESL c) suburban d) urban
Local Collector	a) rural/ESL with trails b) rural/ESL c) suburban
Local Residential	a) rural/ESL with trails b) rural/ESL c) suburban
Local commercial/industrial	

Major and Minor Arterials

Arterial streets have raised medians, provide regional continuity and provide for long-distance traffic movements. Coordinating regional networks maintains continuous and useful links between Scottsdale and its neighbors. Major arterials stress traffic movement while minimizing local access. Minor arterials also stress traffic movement, but moderate access is provided to adjacent land uses. Access is controlled primarily through the raised medians, as well as by the spacing and location of driveways and intersections. Arterial streets generally serve higher traffic volumes (20,000–55,000 average daily trips [ADT]) than collector streets.

Major and Minor Collectors

Collector streets provide for shorter distance traffic movements and connect arterial and local streets. Collectors serve medium traffic volumes (5,000–32,000 ADT) and balance prioritizing access to adjacent commercial and residential land uses and travel efficiency.

Local Collector, Residential and Commercial/Industrial Streets

Local streets provide direct access to adjacent land uses, provide access to the collector street system and accommodate lower traffic volumes (usually less than 5,000 ADT) and travel speeds. Traffic calming can be considered on local streets.

Street Classification Map

Figure S-2 presents the recommended functional classification system for all arterial and collector streets in the city. Arterials and collectors are also designated as either major or minor. Minor collectors are further designated as having a center turn lane or not. The number of lanes ranges from two on a minor collector to six on a major arterial.

Table S-2 lists planned changes to street classifications and Table S-3 lists minor collector segments that would not require a center turn lane.

Table S-2

Street	From	To	2016 Classification	Planned
64th Street	Jomax Road	Dynamite Boulevard	Major Collector	Minor Collector
92nd Street	Raintree Drive	Frank Lloyd Wright Blvd.	Major Collector	Minor Collector
96th Street	Via Linda	Shea Boulevard	Major Collector	Minor Collector
100th Street Loop	Frank Lloyd Wright Blvd.	Frank Lloyd Wright Blvd.	Major Collector	Minor Collector
130th/132nd Street	Shea Boulevard	Via Linda	Major Collector	Minor Collector
Drinkwater Boulevard	Scottsdale Road	Scottsdale Road	Couplet	Minor Arterial
Goldwater Boulevard	Scottsdale Road	Scottsdale Road	Couplet	Minor Arterial
Hayden Road	McKellips Road	Indian School Road	Major Arterial	Minor Arterial
Legend Trail Parkway	Pima Road	Stagecoach Pass	Major Collector	Minor Collector
McCormick Parkway	Scottsdale Road	Hayden Road	Major Collector	Minor Collector
McDowell Mountain Rd.	105th Street	Bell Road	Minor Arterial	Minor Collector
Osborn Road	68th Street	Scottsdale Road	Major Collector	Minor Collector
Raintree Drive	Thompson Peak Pkwy.	Frank Lloyd Wright Blvd.	Major Collector	Minor Collector
Redfield Road	Raintree Drive	Frank Lloyd Wright Blvd.	Major Collector	Minor Collector
Thunderbird Road	89th Street	Frank Lloyd Wright Blvd.	Major Collector	Minor Collector
Westland Drive	Scottsdale Road	Hayden Road	Minor Arterial	Minor Collector

Figure S-2

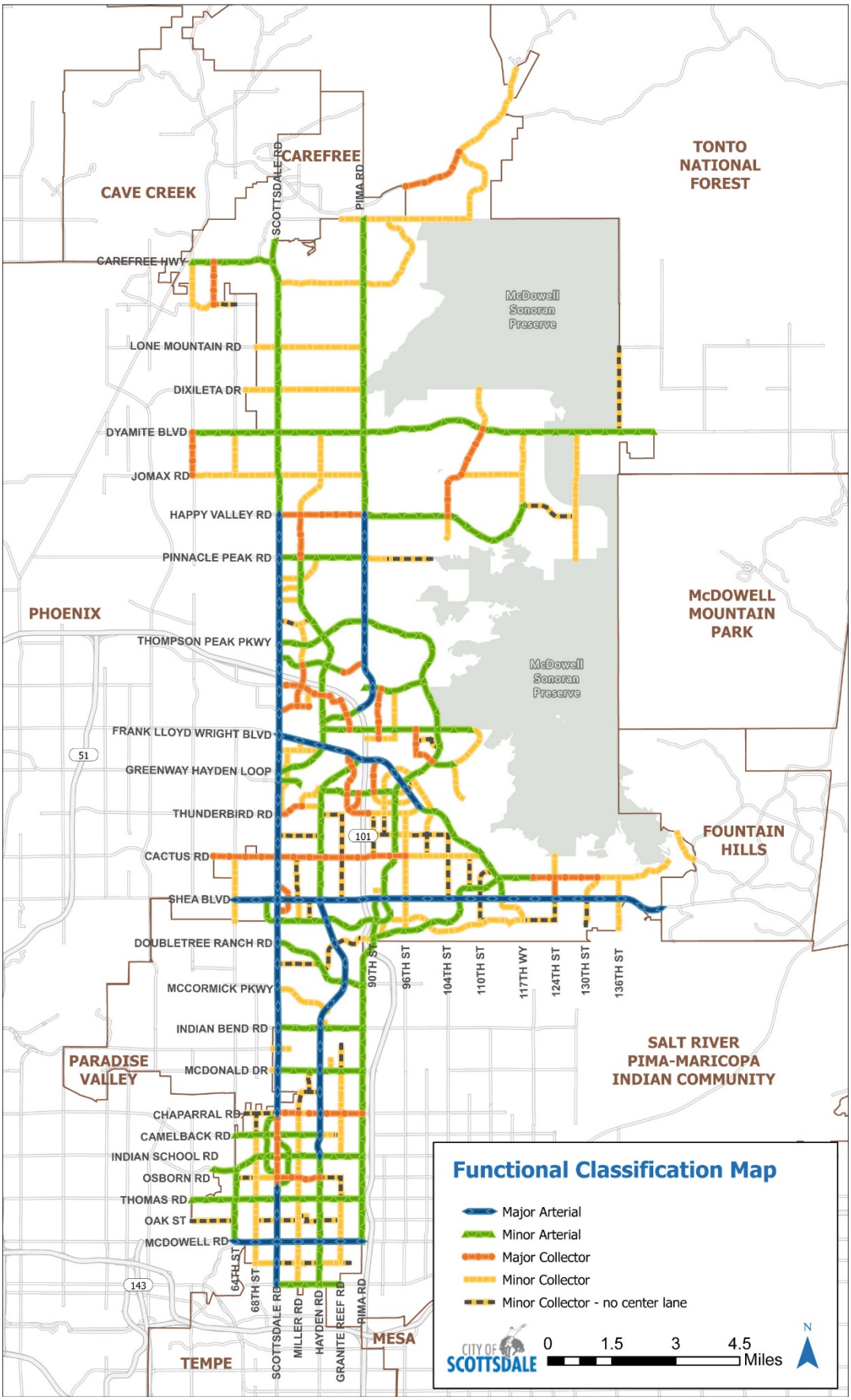

CAREFREE
CAVE CREEK
SCOTTSDALE RD
PIMA RD
TONTO NATIONAL FOREST
CAREFREE HWY
McDowell Sonoran Preserve
LONE MOUNTAIN RD
DIXILETA DR
DYAMITE BLVD
JOMAX RD
HAPPY VALLEY RD
PINNACLE PEAK RD
PHOENIX
McDOWELL MOUNTAIN PARK
THOMPSON PEAK PKWY
McDowell Sonoran Preserve
FRANK LLOYD WRIGHT BLVD
51
GREENWAY HAYDEN LOOP
THUNDERBIRD RD
101
FOUNTAIN HILLS
CACTUS RD
SHEA BLVD
DOUBLETREE RANCH RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
MCCORMICK PKWY
INDIAN BEND RD
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
PARADISE VALLEY
MCDONALD DR
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
MCDOWELL RD
64TH ST
68TH ST
143
SCOTTSDALE RD
MILLER RD
HAYDEN RD
GRANITE REEF RD
PIMA RD
MESA
TEMPE
Functional Classification Map
Major Arterial
Minor Arterial
Major Collector
Minor Collector
Minor Collector - no center lane
CITY OF SCOTTSDALE
0 1.5 3 4.5 Miles
N

Table S-3

Street	From	To	Proposed
68th Street	Camelback Road	Chaparral Road	Minor Collector - no center lane
78th Street	Mountain View Road	Shea Boulevard	Minor Collector - no center lane
78th Street	Jackrabbit Road	McDonald Drive	Minor Collector - no center lane
84th Street	Shea Boulevard	Thunderbird Road	Minor Collector - no center lane
90th Street	Cactus Road	Thunderbird Road	Minor Collector - no center lane
92nd Street	Sweetwater Avenue	Thunderbird Road	Minor Collector - no center lane
100th Street	Cactus Road	Camino del Santo	Minor Collector - no center lane
104th Street	Shea Boulevard	Sweetwater Avenue	Minor Collector - no center lane
108th Street	Via Linda	Cactus Road	Minor Collector - no center lane
110th Street	Mountain View Road	Cholla Street	Minor Collector - no center lane
110th Street/Altadena	Cholla Street	Frank Lloyd Wright	Minor Collector - no center lane
124th Street	Mountain View Road	Shea Boulevard	Minor Collector - no center lane
130th Street	Southern terminus	Shea Boulevard	Minor Collector - no center lane
136th Street	Dynamite Boulevard	Lone Mountain Road	Minor Collector - no center lane
Camelback Road	82nd Street	Granite Reef Road	Minor Collector - no center lane
Chaparral Road	66th Street	Scottsdale Road	Minor Collector - no center lane
Dove Valley Road	60th Street	64th Street	Minor Collector - no center lane
Eastwood Lane/Via de Ventura	Scottsdale Road	Doubletree Ranch Road	Minor Collector - no center lane
Granite Reef Road	Thomas Road	Osborn Road	Minor Collector - no center lane
Granite Reef Road	McDonald Drive	Arizona Canal	Minor Collector - no center lane
Grayhawk Drive	Scottsdale Road	Hayden Road	Minor Collector - no center lane
Jackrabbit Road	Quail Place	Scottsdale Road	Minor Collector - no center lane
Jackrabbit Road	Miller Road	Hayden Road	Minor Collector - no center lane
Miller Road	Shea Boulevard	Cactus Road	Minor Collector - no center lane
Miller Road	Chaparral Road	Jackrabbit Road	Minor Collector - no center lane
Mountain View Road	117th Way	124th Street	Minor Collector - no center lane
Oak Street/Murray Lane	Miller Road	Granite Reef Road	Minor Collector - no center lane
Osborn Road	64th Street	68th Street	Minor Collector - no center lane
Paradise Lane	98th Street	Thompson Peak	Minor Collector - no center lane
Pinnacle Peak Road	92nd/93rd Street	Via Ventosa	Minor Collector - no center lane
Raintree Drive	Frank Lloyd Wright	100th Street	Minor Collector - no center lane
Ranch Gate Road	118th Street	128th Street	Minor Collector - no center lane
Roosevelt Street	Scottsdale Road	Hayden Road	Minor Collector - no center lane
Roosevelt Street	Granite Reef Road	Latham Street	Minor Collector - no center lane
Sweetwater Avenue	Scottsdale Road	Hayden Road	Minor Collector - no center lane
Sweetwater Avenue	90th Street	Frank Lloyd Wright	Minor Collector - no center lane
Thunderbird Road	Hayden Road	84th Street	Minor Collector - no center lane
Via Linda	Via de Ventura	Loop 101 underpass	Minor Collector - no center lane

Figures S-3 through S-7 are graphical representations of the typical cross section for each street type.

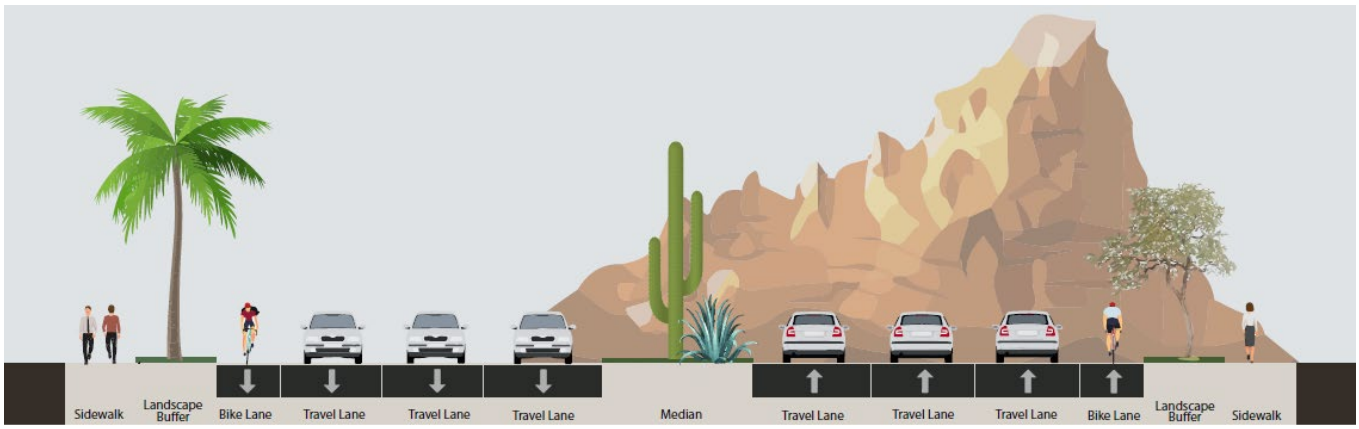


Figure S-4: Generalized Street Cross-section – Minor Arterial

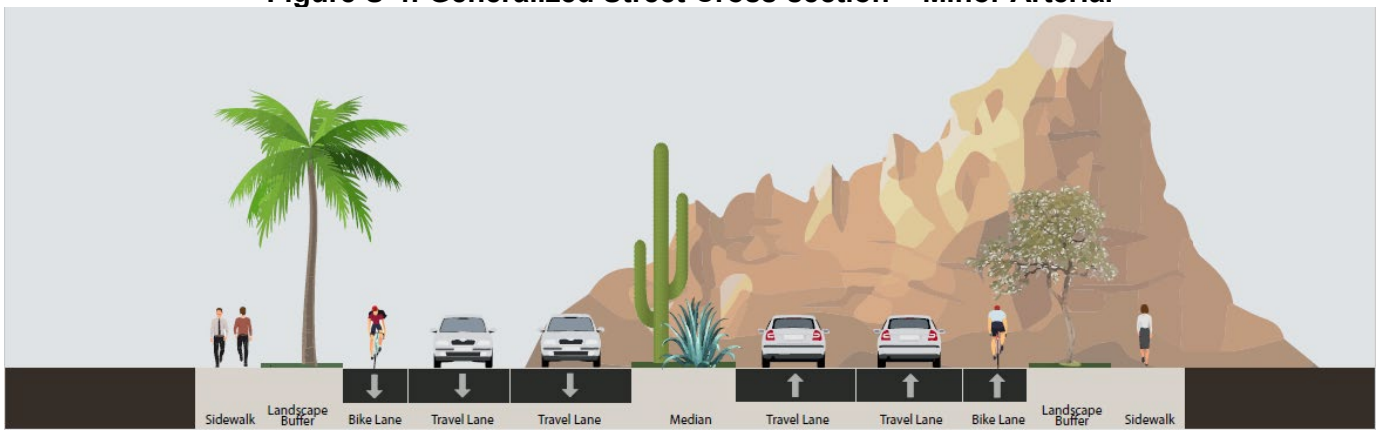
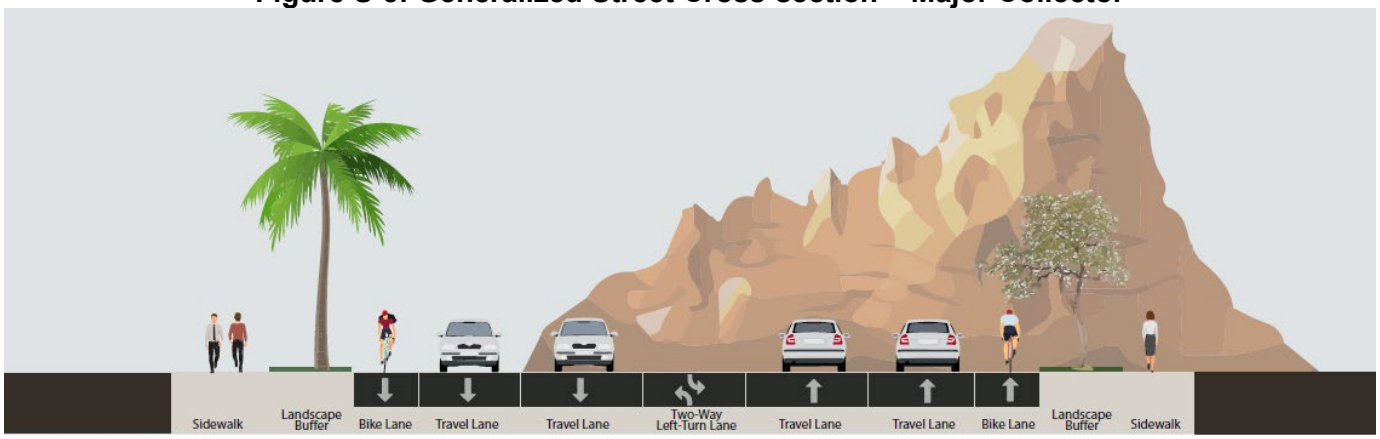


Figure S-5: Generalized Street Cross-section – Major Collector



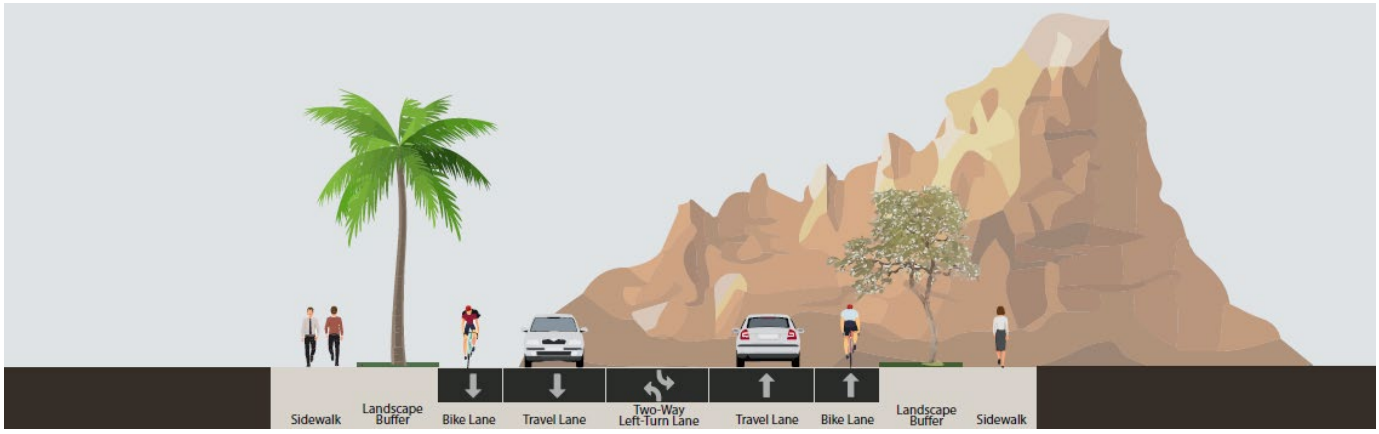
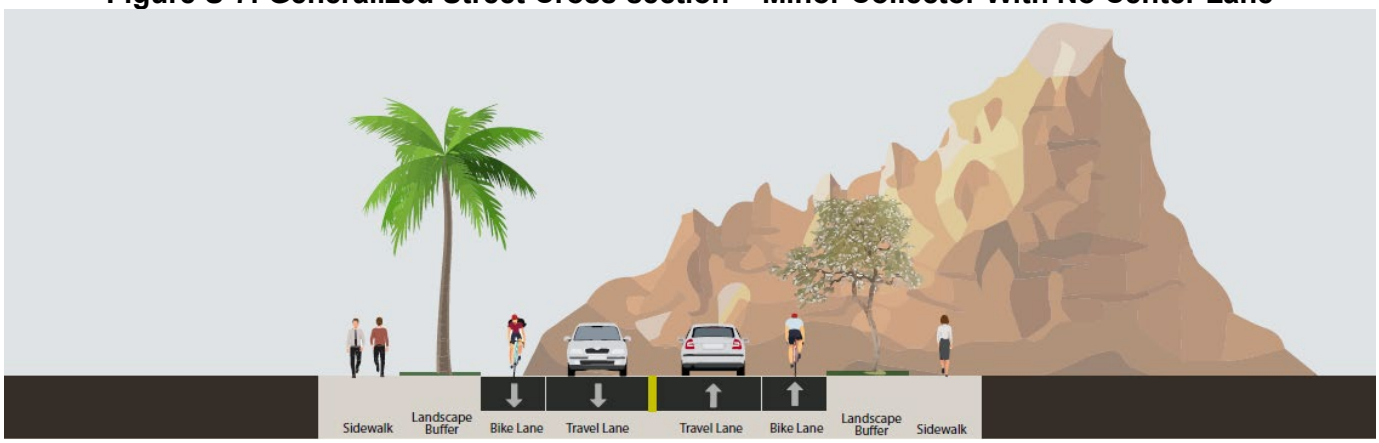


Figure S-7: Generalized Street Cross-section – Minor Collector With No Center Lane

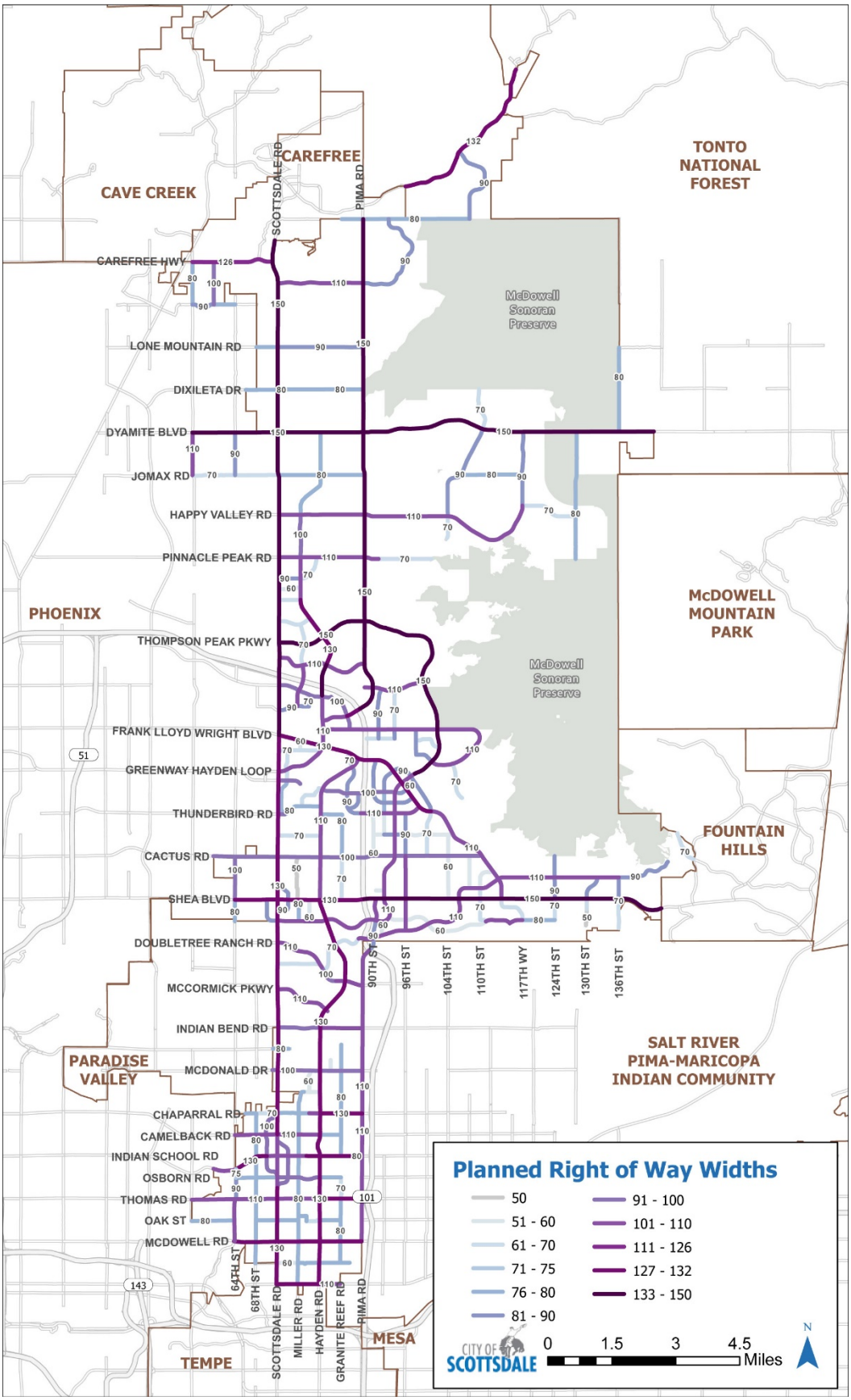


For all street classifications, the lane dimensions, sidewalk widths, sidewalk attachment to/detachment from the curb and placement of sidewalks with respect to shade trees are determined on a street segment basis. The type of curb, including vertical, rolled, or ribbon, is also determined on a street segment basis. (Additional information for these details is provided in the DS&PM [link].) All street classifications exist for each type of street--rural, suburban or urban. (For more information on street types, please see descriptions above [link] and the DS&PM [link].)

RIGHT-OF-WAY

Typical right-of-way requirements are provided in the DS&PM cross section examples. However, many street segments have had varying classifications over time. As a result, Figure S-8 is provided to identify the recommended right-of-way dedication widths for all streets classified as minor collector and larger on the Street Classification Map. The recommended widths are intended to provide a consistent outside edge of right-of-way that matches previous dedications and acquisitions, as well as to maintain consistency with the city's *Scenic Corridor Design Guidelines* (2003). These dimensions are stated for the street segments only. At intersections, a larger dimension may be necessary to accommodate turning lanes.

Figure S-8


CAREFREE
CAVE CREEK
TONTO NATIONAL FOREST
McDowell Sonoran Preserve
McDOWELL MOUNTAIN PARK
PHOENIX
FOUNTAIN HILLS
PARADISE VALLEY
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
MESA
TEMPE
SCOTTSDALE RD
PIMA RD
CAREFREE HWY
LONE MOUNTAIN RD
DIXILETA DR
DYAMITE BLVD
JOMAX RD
HAPPY VALLEY RD
PINNACLE PEAK RD
THOMPSON PEAK PKWY
FRANK LLOYD WRIGHT BLVD
GREENWAY HAYDEN LOOP
THUNDERBIRD RD
CACTUS RD
SHEA BLVD
DOUBLETREE RANCH RD
MCCORMICK PKWY
INDIAN BEND RD
MCDONALD DR
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
MCDOWELL RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
64TH ST
68TH ST
MILLER RD
HAYDEN RD
GRANITE REEF RD
51
101
143
Planned Right of Way Widths
50
51 - 60
61 - 70
71 - 75
76 - 80
81 - 90
91 - 100
101 - 110
111 - 126
127 - 132
133 - 150
CITY OF SCOTTSDALE
0 1.5 3 4.5 Miles
N

PERFORMANCE MEASURES

1) Reduce citywide intersection and roadway segment collision rates, based on six-year moving averages.
2) Maintain existing streets to a citywide “Very Good” pavement condition index (70-85).
3) Maintain vehicular level of service (LOS) D or better at most signalized intersections, except in designated activity cores or urban roadway corridors where walkability, transit access, and aesthetic or right-of-way considerations are overriding.
4) Use Maricopa Association of Governments data to monitor average roadway travel times and assess the feasibility of mitigation strategies when a trip takes 30% longer in peak travel times than during non-peak times.
5) Target average daily traffic volumes on collector streets 7,500-9,000 vehicles per lane per day using 2040 forecasted volumes.
6) Target average daily traffic volumes on arterial streets to no more than 8,500-10,000 vehicles per lane per day using 2040 forecasted volumes.
7) Maintain a positive (excellent/good) rating of 70 percent or better in the National Community Survey for “Ease of Travel by Car.”

PUBLIC TRANSIT ELEMENT

INTRODUCTION

Public transit is a key component of the city's transportation network and a critical mobility alternative for Scottsdale residents, visitors and workers. The Public Transit Element of the Scottsdale Transportation Action Plan (TAP) provides guidance on maintaining a viable transit system and expanding service to meet the needs of the community and region. This guidance aligns with the Connectivity section of the 2035 Scottsdale General Plan.

Public transit service coincides with Scottsdale's unique character areas, each with varying needs and lifestyles. It also serves visitors from all over the world, along with a large seasonal population. An effective transit service must provide transportation choices for those who elect to use transit, as well as those who are dependent on it by integrating future technology and micro-mobility solutions. Ultimately, transit planning aims to enhance connectivity to schools and inter-jurisdictional coordination; provide accessible mobility choices; reduce congestion and pollution; and improve quality of life.

A robust transit system does not stop at city boundaries but makes strong connections to the regional system. Routes should effectively serve major employment hubs, activity centers, local businesses and schools throughout Scottsdale and provide transfers to other routes that link to various parts of the Valley. Convenient and safe access to transit supports employees who work within and outside of Scottsdale, along with students, from elementary to college age.

The future for Scottsdale transit hinges on the ability to leverage and build on the existing bus system and improve connectivity to the rest of the region through cost-effective and data-driven solutions. Transit changes go through a regional public involvement process twice a year, and proposed modifications are based on public input, ridership, public requests, survey data and funding. Continuing to build strong partnerships with neighboring communities, such as
Phoenix and Tempe, and Valley Metro, the regional transit agency, is very important for ensuring a successful transit system in Scottsdale.

Continued funding for Scottsdale public transit also relies on people choosing to use it. To ensure transit service is attractive and competitive with other forms of transportation, it must be frequent, fast and convenient. In addition, the vehicles and bus facilities must be clean, reliable and comfortable.

Scottsdale Transportation and Streets developed a series of transit improvement strategies to be phased in over the next five to ten years. Planned improvements closely align with the 2035 General Plan and are consistent with the Scottsdale City Council's objective of "Advancing Transportation."

The following goals and policies guide planned improvements.

GOALS

1) Build a viable, cost effective, reliable public transportation alternative for all income levels and lifestyles and that coincides with Scottsdale's unique character areas, each with varying needs. Effective transit service provides citizens, visitors, a seasonal population and special events with transportation choices.
2) Develop routes that effectively serve major employment, commercial and retail uses; community and senior centers; schools; and other activity centers throughout Scottsdale, and that connect to the regional system.
3) Focus service on the transit-dependent population, as well as those who choose public transit for their transportation.
4) Continually monitor and improve paratransit programs as boundaries change with transit improvements.
5) Implement service and amenities to make the system more convenient to use and sustainable over time. Special consideration will be given to emerging technologies and infrastructure that improve service, mitigate the extreme heat and help reduce emissions.
6) Ensure that all transit assets, including the bus fleet, bus stops and park-and-ride facilities, are in a state of good repair.
7) Link the city's extensive active transportation network for pedestrians and cyclists directly to the public transit system.
8) Improve connections to the region's expanding High-Capacity Transit system (Light Rail, Streetcar, and Bus Rapid Transit) and provide convenient transfers to fixed service routes that link to other parts of the Valley.
9) Build upon the goals in the 2035 General Plan and the overall goal of Scottsdale City Council to "Advance Transportation." Provide transit investments that can be implemented with sustainable funding.
10) Maximize use of existing transit facilities (transit centers, park-and-rides, bus stops) to strengthen connections to local, fixed route, express and other potential transit modes and provide needed amenities and parking for those utilizing the transit system.

POLICIES

1) Service standards for Scottsdale's local bus routes ensure a 30-minute minimum frequency of service.
2) The standard for local bus stops is placement at 1/4-mile intervals.
3) To comply with National Transit Database reporting requirements, financial and system information will be reconciled quarterly.
4) Gather key transit system data by using Automated Passenger Counters and Clever Devices to analyze, measure and ensure the success of the system.
5) Review bus route performance at the segment level to evaluate and implement necessary changes to ensure successful routes and passenger connections within the transit system.

CURRENT TRANSIT SYSTEM

Existing transit service in Scottsdale is characterized by regional fixed route buses operating on the arterial and collector street grid system, express bus service, the trolley system and paratransit. (See Figure T-1.) Scottsdale currently has nine fixed routes, one express route and four trolley routes.

It is important to note that Trolley is the brand name for Scottsdale's owned and operated bus service, which differs from fixed routes by providing direct routes (without transfers) to selected activity centers in Scottsdale. Trolley routes also deliver better connectivity between neighborhoods, commercial corridors and the regional system. The Scottsdale Trolley is a free service funded by the 0.2% Scottsdale Transportation Sales Tax. Scottsdale also receives preventative maintenance funds from the Federal Transit Administration (FTA), Arizona Lottery Funds and other federal grants to offset a portion of trolley operating expenses. In addition, all trolley buses are purchased with FTA grant funds, which typically have a 15% to 20% local match requirement. There are currently 21 buses in the city's trolley fleet.

Trolley utilizing roundabout at Mustang Transit Center

Scottsdale has intergovernmental agreements (IGAs) with Valley Metro and the city of Phoenix to operate fixed route service, the most common form of transit service in the region. Fixed routes, where the Regional Fare Policy applies, are primarily funded with the Proposition 400 Regional Sales Tax and are paid for per mile. It uses standard size transit vehicles (usually 40-foot buses) and is generally characterized by buses operating along the major arterial grid network. The vehicles make frequent stops, and passengers may need to make transfers to reach their destinations. Route 72 on Scottsdale Road is an example of fixed route bus service. Almost all fixed bus routes in Scottsdale connect to other jurisdictions, and the service is contracted to an outside provider. Most transit service is focused south of Frank Lloyd Wright Boulevard, where the highest population, land use densities and need are located.

Express buses operate as commuter service during peak hours and usually connect outlying areas with major activity centers. The routes, with limited a.m. and p.m. trips, typically serve park-and-ride lots or transit centers and may parallel fixed route service with fewer stops. Route 510, which travels between Scottsdale's Mustang Transit Center and downtown Phoenix, is an example of express bus service. Scottsdale is proposing to expand the express bus system by providing a convenient link to and use of the freeway system, the Mustang Transit Center and the Thunderbird Park-and-Ride.

East Valley Dial-a-Ride is a federally mandated demand-responsive paratransit service that does not follow a fixed route. Paratransit provides flexible-schedule, on-demand transportation for those unable to access traditional fixed route service, such as seniors and passengers with disabilities. The Americans with Disabilities Act (ADA) requires that complementary paratransit service be provided in all areas within 3/4 mile of fixed route bus service (See Figure T-2). Currently Scottsdale does not have any bus service north of Frank Lloyd Wright Boulevard and residents there fall outside the required paratransit service boundary. To help residents who are outside of the mandated service area, the city participates in the RideChoice program through Valley Metro.

Scottsdale also provides Cab Connection, an alternative program to Dial-A-Ride. Cab Connection offers more flexibility than Dial-a-Ride and operates at less cost to the city using a voucher system. All users must be Scottsdale residents and have a disability, be on dialysis or be age 65 or older. Extended service hours are usually provided for individuals who qualify under ADA.

Figure T-1

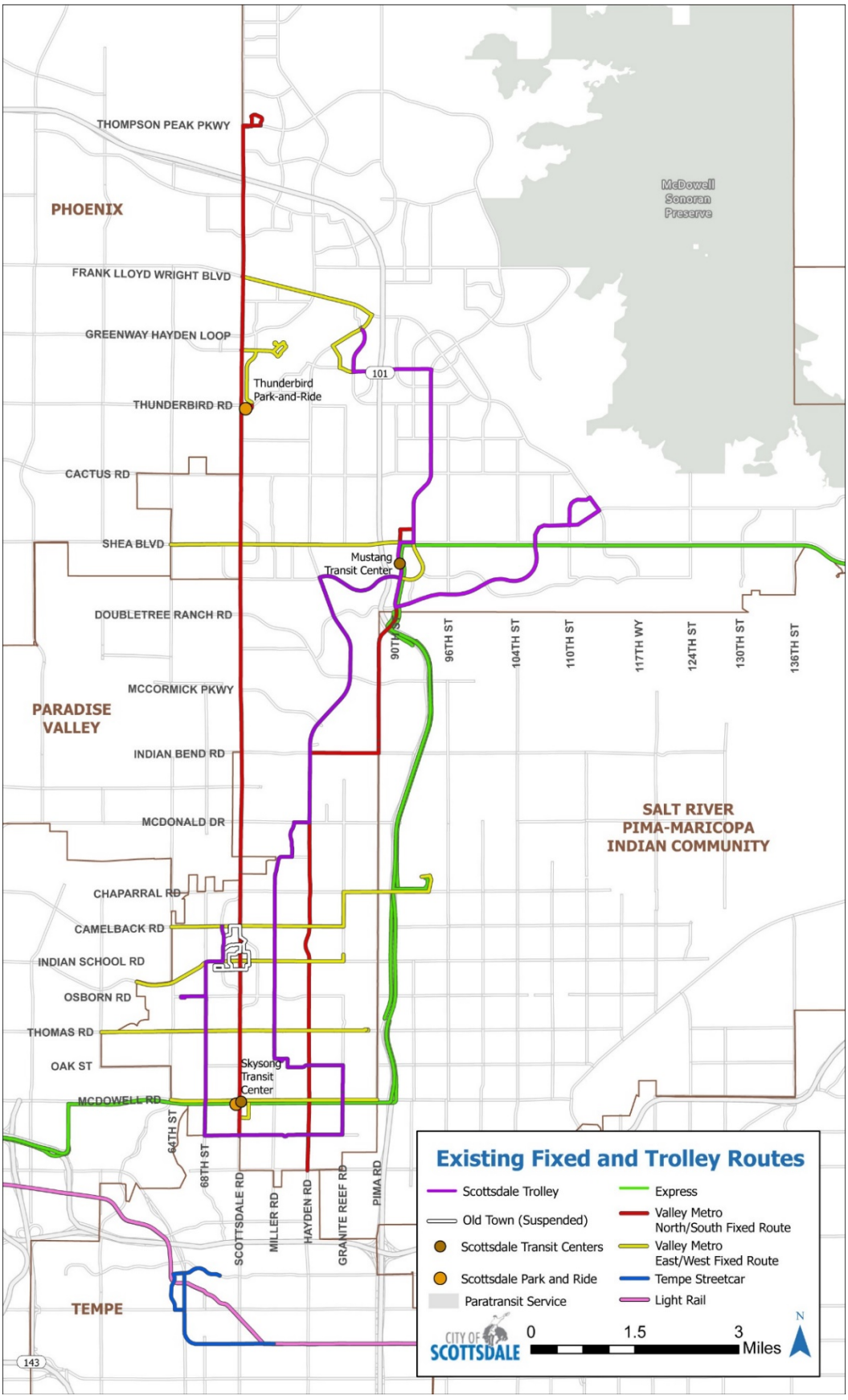
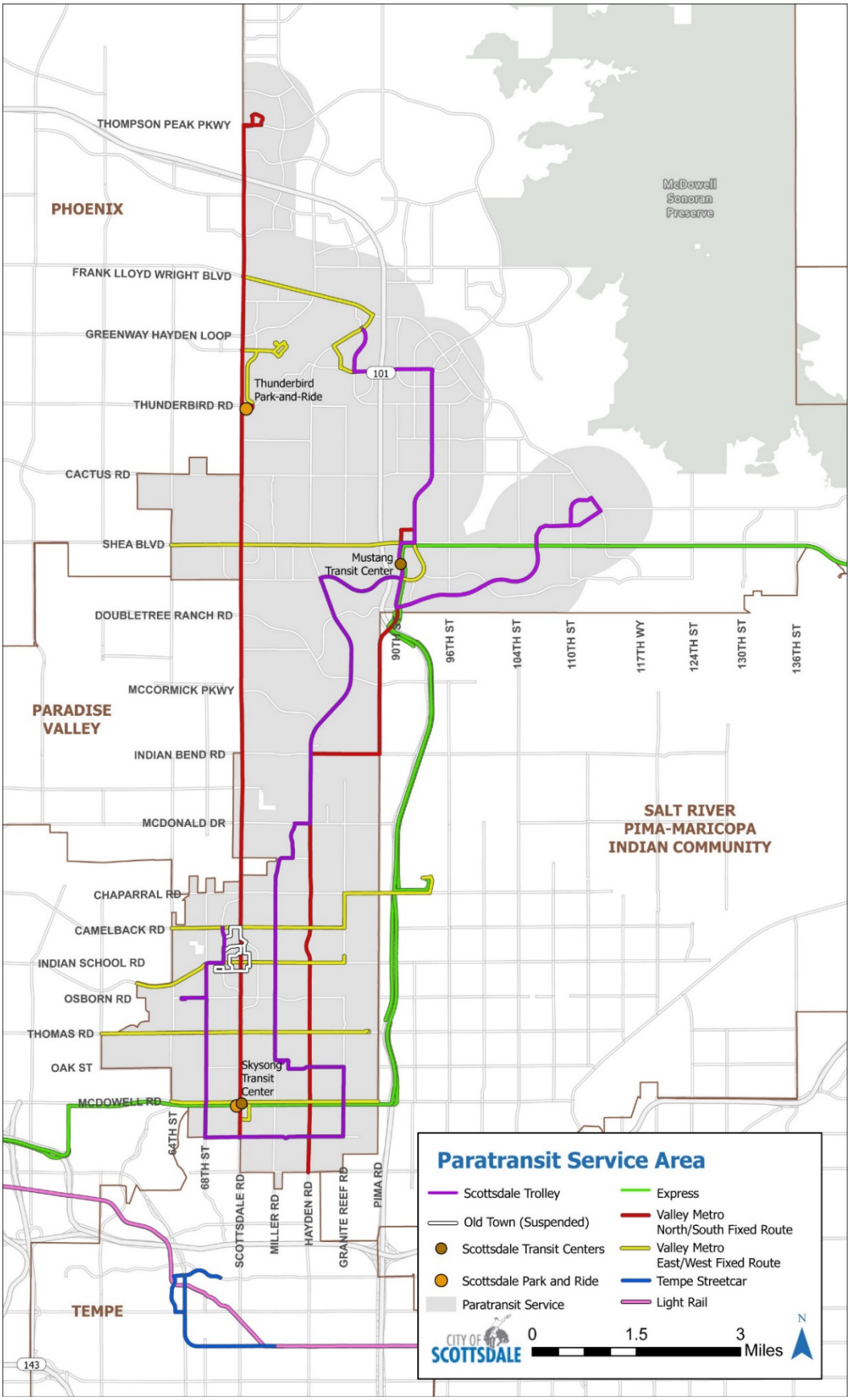

THOMPSON PEAK PKWY
PHOENIX
McDowell Sonoran Preserve
FRANK LLOYD WRIGHT BLVD
GREENWAY HAYDEN LOOP
101
Thunderbird Park-and-Ride
THUNDERBIRD RD
CACTUS RD
SHEA BLVD
Mustang Transit Center
DOUBLETREE RANCH RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
MCCORMICK PKWY
PARADISE VALLEY
INDIAN BEND RD
MCDONALD DR
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
Skysong Transit Center
MCDOWELL RD
64TH ST
68TH ST
SCOTTSDALE RD
MILLER RD
HAYDEN RD
GRANITE REEF RD
PIMA RD
TEMPE
143
Existing Fixed and Trolley Routes
Scottsdale Trolley
Old Town (Suspended)
Scottsdale Transit Centers
Scottsdale Park and Ride
Paratransit Service
Express
Valley Metro North/South Fixed Route
Valley Metro East/West Fixed Route
Tempe Streetcar
Light Rail
CITY OF SCOTTSDALE
0
1.5
3
Miles
N

Figure T-2


THOMPSON PEAK PKWY
PHOENIX
McDowell Sonoran Preserve
FRANK LLOYD WRIGHT BLVD
GREENWAY HAYDEN LOOP
101
Thunderbird Park-and-Ride
THUNDERBIRD RD
CACTUS RD
SHEA BLVD
Mustang Transit Center
DOUBLETREE RANCH RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
MCCORMICK PKWY
PARADISE VALLEY
INDIAN BEND RD
MCDONALD DR
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
Skysong Transit Center
MCDOWELL RD
64TH ST
68TH ST
SCOTTSDALE RD
MILLER RD
HAYDEN RD
GRANITE REEF RD
PIMA RD
TEMPE
143
Paratransit Service Area
Scottsdale Trolley
Old Town (Suspended)
Scottsdale Transit Centers
Scottsdale Park and Ride
Paratransit Service
Express
Valley Metro North/South Fixed Route
Valley Metro East/West Fixed Route
Tempe Streetcar
Light Rail
CITY OF SCOTTSDALE
0
1.5
3
Miles
N

FACILITIES

Existing transit facilities in Scottdale range from on-street passenger facilities, such as bus stops, to large facilities, such as park-and-rides and transit centers. Currently, Scottsdale has 524 active bus stop locations for all transit routes that are continually assessed for appropriate amenities, accessibility, and safety, including more lighting opportunities. To date, 250 of those locations have a bench or seating, 163 have transit shelters and 237 provide shade. Scottsdale uses a standard bus shelter kit that includes a bus shelter, seating, a trash receptacle, a bicycle rack and signs. Other amenities, including vertical shade elements for early morning and late afternoon users, should also be considered as technology and funding become available. The following criteria are used for deciding bus shelter locations:

- Bus frequency
- Highest ridership locations, often at the one-mile arterial intersections
- Bus operational requirements
- Pedestrian safety
- Passenger comfort
- Right-of-way availability

Scottsdale standard bus shelter and associated amenities

Bus stops are planned at ¼-mile intervals on all fixed bus routes and wider spacing for limited-stop/express bus routes. Overall, standard bus stop spacing makes the system more user friendly, as riders know where to expect stops and the city can market or "brand" service along a route.

Currently there are two transit passenger facilities located in Scottsdale. The Thunderbird Park-and-Ride, located adjacent to the Airpark at the southeast corner of Thunderbird and Scottsdale roads, provides 450 parking spaces for transit users who wish to make system connections and leave their vehicle at a secure facility. Planned improvements aim to increase use of the facility by providing access from additional routes. The Mustang Transit Center, located on 90th Street between Shea Boulevard and Mountain View Road outside the Mustang Library, provides amenities for end-of-line users or those making transit connections to other parts of the system. In addition to the two transit facilities, informal park-and-ride agreements have been established for shared parking arrangements at lots throughout Scottsdale.

PLANNED IMPROVEMENTS

Through the planning process, the following phased transit improvement strategies (See Figures T-3 and T-4) were developed in addition to the goals and policies. These strategies will help prioritize capital projects and system operational improvements. Consistent with the overall TAP emphasis, the strategies 1) emphasize refining the existing transportation system over adding new infrastructure and 2) emphasize livable streets/community over rapid traffic throughput.

Bus stops

- Improve the bus stop cleaning, refurbishment and prioritization process.
- Expand and improve lighting opportunities at bus stops.
- Improve ADA accessibility at bus stops in conjunction with the city's ADA Transition Plan.
- Increase shade at bus stops and modify structures to address solutions for full-day coverage.

Service

- Work in tandem with Complete Streets efforts to accommodate all users of the street and make strong ties to the active transportation network.
- Coordinate layover locations on a continual basis to ensure drivers have amenities.
- Modify end-of-line turnarounds as needed to ensure connections are made with productive mileage.
- Provide connectivity between the MLHD and 68CM trolley routes on Camelback Road.
- Implement an express route connecting the Thunderbird Park-and-Ride and Mustang Transit Center to downtown Phoenix using Loop 101 and 202.
- Expand the use of the Thunderbird Park-and-Ride and the Mustang Transit Center.
- Expand service to McDowell Mountain Aquatic Center and Arabian Library.
- Provide special event service for major venues, such as the Waste Management Open and WestWorld events.

Data

- Improve the process and accuracy of reporting revenue miles and costs to the National Transit Database to ensure city compliance to receive federal funding.
- Develop a Transit Asset Management Plan.
- Use Automated Passenger Counter data to evaluate routes at the segment level.

Figure T-3

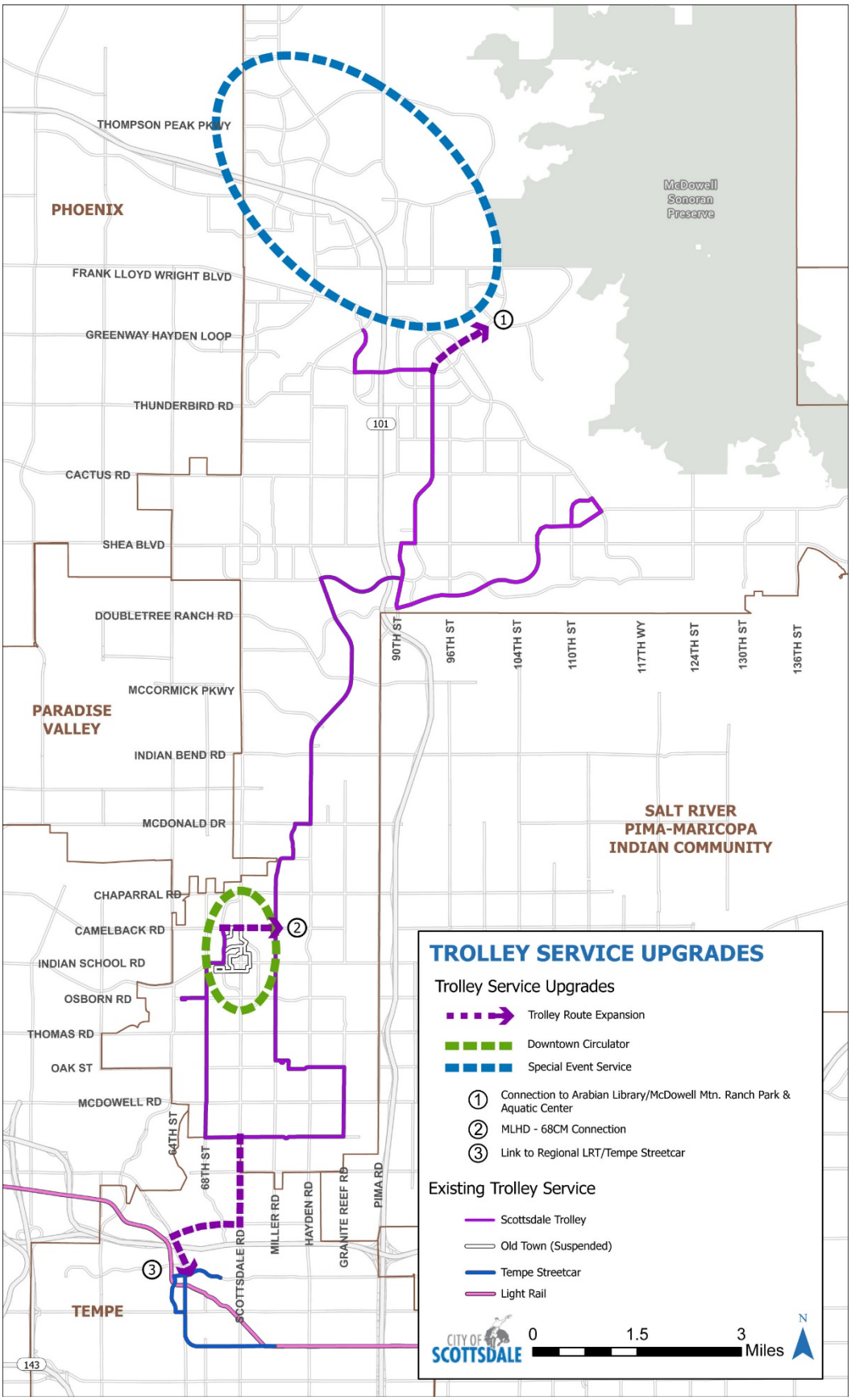
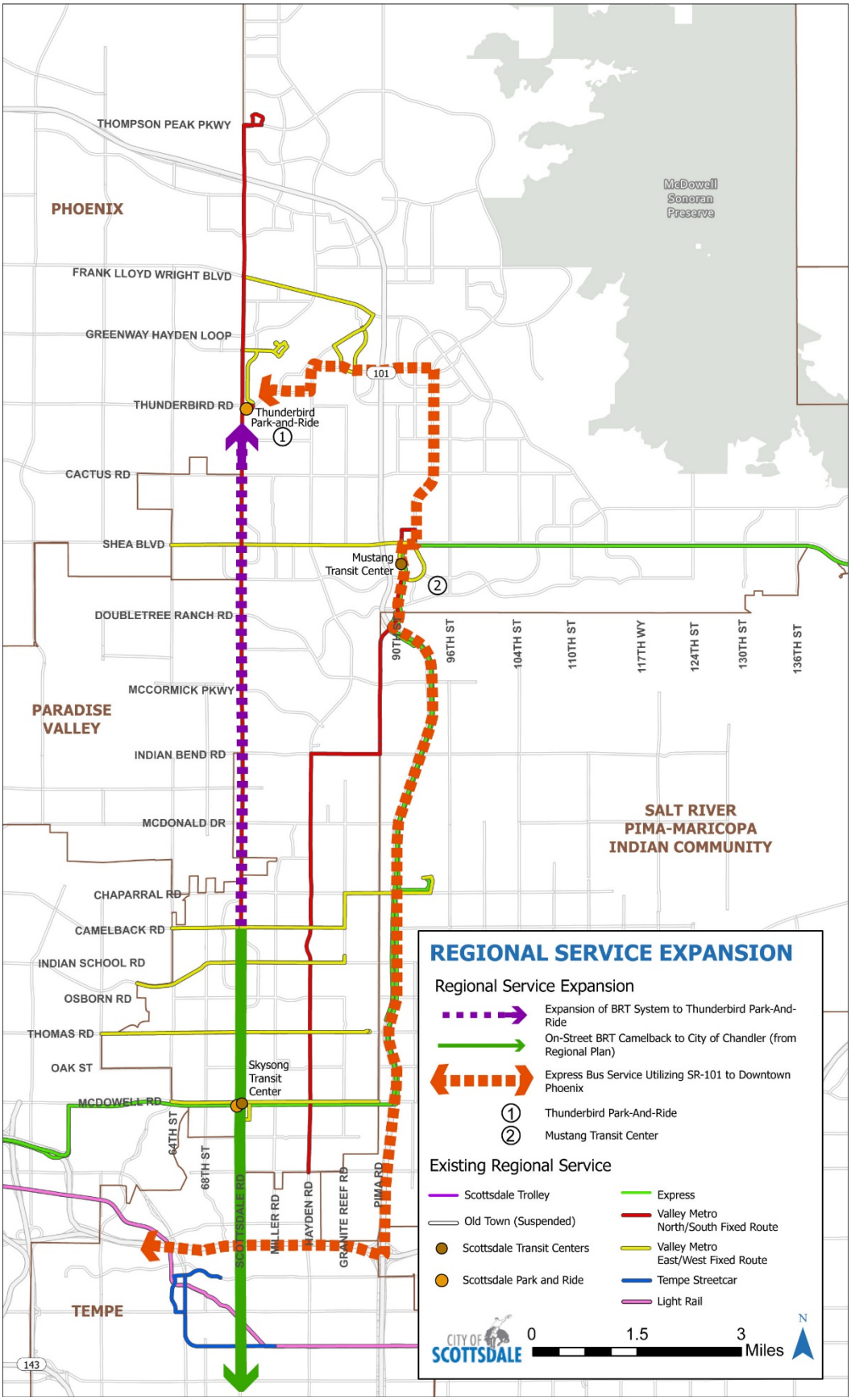

THOMPSON PEAK PKWY
PHOENIX
McDowell Sonoran Preserve
FRANK LLOYD WRIGHT BLVD
GREENWAY HAYDEN LOOP
THUNDERBIRD RD
101
CACTUS RD
SHEA BLVD
DOUBLETREE RANCH RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
MCCORMICK PKWY
PARADISE VALLEY
INDIAN BEND RD
MCDONALD DR
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
MCDOWELL RD
64TH ST
68TH ST
SCOTTSDALE RD
MILLER RD
HAYDEN RD
GRANITE REEF RD
PIMA RD
TEMPE
143
TROLLEY SERVICE UPGRADES
Trolley Service Upgrades
Trolley Route Expansion
Downtown Circulator
Special Event Service
1 Connection to Arabian Library/McDowell Mtn. Ranch Park & Aquatic Center
2 MLHD - 68CM Connection
3 Link to Regional LRT/Tempe Streetcar
Existing Trolley Service
Scottsdale Trolley
Old Town (Suspended)
Tempe Streetcar
Light Rail
CITY OF SCOTTSDALE
0
1.5
3
Miles
N

Figure T-4


THOMPSON PEAK PKWY
PHOENIX
McDowell Sonoran Preserve
FRANK LLOYD WRIGHT BLVD
GREENWAY HAYDEN LOOP
101
THUNDERBIRD RD
Thunderbird Park-and-Ride
1
CACTUS RD
SHEA BLVD
Mustang Transit Center
2
DOUBLETREE RANCH RD
90TH ST
96TH ST
104TH ST
110TH ST
117TH WY
124TH ST
130TH ST
136TH ST
MCCORMICK PKWY
PARADISE VALLEY
INDIAN BEND RD
MCDONALD DR
SALT RIVER PIMA-MARICOPA INDIAN COMMUNITY
CHAPARRAL RD
CAMELBACK RD
INDIAN SCHOOL RD
OSBORN RD
THOMAS RD
OAK ST
Skysong Transit Center
MCDOWELL RD
64TH ST
68TH ST
SCOTTSDALE RD
MILLER RD
HAYDEN RD
GRANITE REEF RD
PIMA RD
TEMPE
143
REGIONAL SERVICE EXPANSION
Regional Service Expansion
Expansion of BRT System to Thunderbird Park-And-Ride
On-Street BRT Camelback to City of Chandler (from Regional Plan)
Express Bus Service Utilizing SR-101 to Downtown Phoenix
1 Thunderbird Park-And-Ride
2 Mustang Transit Center
Existing Regional Service
Scottsdale Trolley
Old Town (Suspended)
Scottsdale Transit Centers
Scottsdale Park and Ride
Express
Valley Metro North/South Fixed Route
Valley Metro East/West Fixed Route
Tempe Streetcar
Light Rail
CITY OF SCOTTSDALE
0
1.5
3
Miles
N

Information

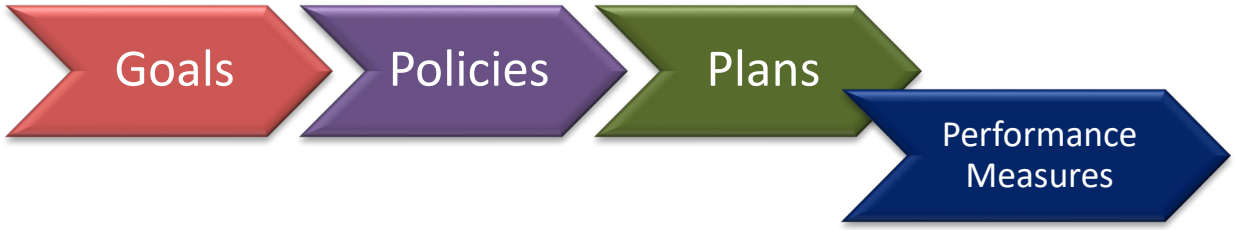
- Market transit services to city staff and the general public through press releases, social media, internal publications and the city website and news feed.
- Provide travel training for potential new rider groups.
- Consider rebranding “Scottsdale Trolley” through a public input process.

Emerging Technology

- Develop an electric bus fleet.
- Improve Transit Signal Priority.
- Expand the use of Clever Devices for increasing system data requirements and communication needs.

Regional Connectivity

- Based on ridership, funding and public comments, improve service frequency on Phoenix and East Valley routes connecting to Scottsdale.
- Expand connectivity to regional Light Rail and Tempe Streetcar with Trolley and fixed route service.
- Connect to on-street Bus Rapid Transit (BRT) routes from Phoenix.
- Evaluate the feasibility of and potentially implement an on-street BRT route on Scottsdale Road from the Thunderbird Park-and-Ride to Chandler.



PERFORMANCE MEASURES

Service performance measures provide the framework for evaluating our transit service both within and in and out of Scottsdale. Scottsdale evaluates local and regional service using three performance areas: ridership, productivity and quality of service. Performance measures help define the specific modal service levels (frequency), service design (routing) and standards for modifying service and can include existing and future regional fixed routes, trolley service, circulator service, express service, Bus Rapid Transit and paratransit. Performance measures provide a toolbox for determining productivity and managing transit service throughout the system.

The following series of performance measures will help evaluate the success of our existing transit system and future improvements.

1) *Bus boardings per revenue mile* is the number of passengers collected during one mile of scheduled revenue service (productivity).
2) *Bus boardings per revenue hour* is the number of passengers collected during one revenue hour of scheduled revenue service (productivity).
3) *On-time Performance* analyzes whether trips are arriving at time points early, late or on time and determines service reliability for customers (productivity).
4) *Connectivity to transportation network* evaluates the system on a quarterly basis to ensure convenient ties within the city transportation network and to the regional transit system (connectivity).
5) *Missed trips due to operational failures* determines maintenance quality and loss in revenue due to operational interruptions (reliability).
6) Rating of bus or transit service on the National Community Survey evaluates public opinion of the system. The city will aim for a positive rating of 60% or better (quality of service).

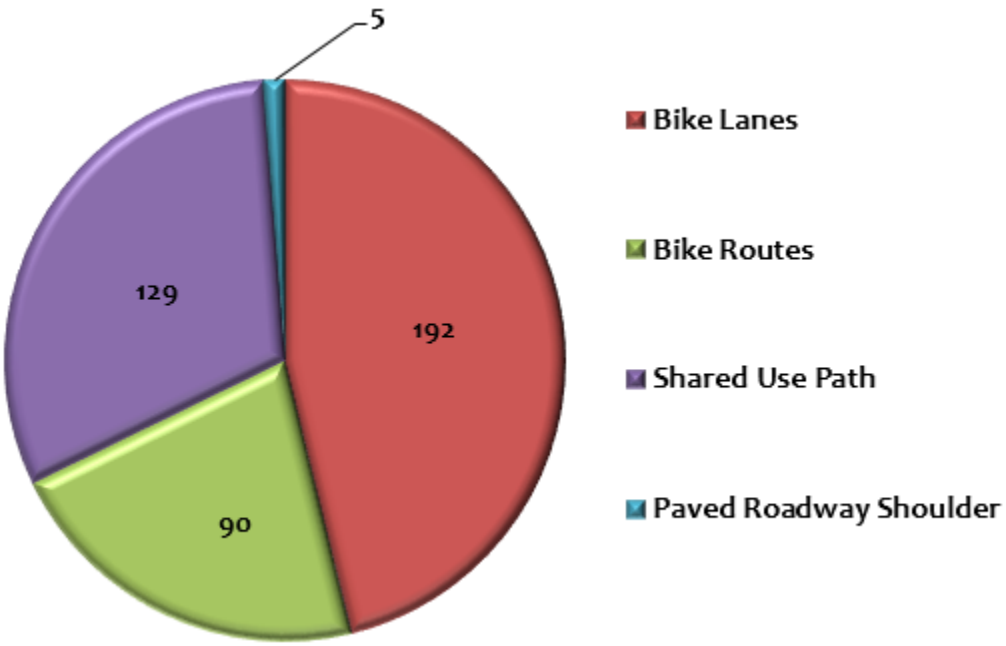
BIKEWAY ELEMENT

INTRODUCTION

The Bikeway Element of the Transportation Action Plan (TAP) serves to expand and enhance Scottsdale's on-street and paved path network to provide safe and inviting access for pedestrians, bicyclists and other non-motorized users to travel to destinations in Scottsdale and neighboring communities.

The City of Scottsdale currently maintains a robust network of on-street and off-street bike facilities, including bike lanes, bike routes, shared use paths and paved roadway shoulders (see Figure B-1).

2021 Existing Bikeway Network (Miles)



Scottsdale's street system provides the most direct access to nearly all destinations in the city for active transportation users via bike lanes and bike routes. These bike lanes and bike routes allow users direct access to the off-street shared use path network. City's design guidelines for arterial and collector streets are found in the *Design Standards and Policies Manual* (DS&PM). These facilities include bike lanes, sidewalks, and trails and are typically included with new construction and major reconstruction projects. New or modified bike lanes can also be installed when streets are restriped with pavement management projects.

The off-street network consists of paved shared use paths and unpaved shared use trails. Trails are discussed in the Trail Element of this TAP. All shared use paths and side-paths (adjacent to streets) are open to all non-motorized users. Shared use paths represent an important component of the overall bike network. They provide opportunities to ride for users who may not be comfortable riding in the roadway, such as casual cyclists, children, families and older adults.

GOALS

1) Build bike facilities that form a continuous network with seamless connections to public transit, schools, neighborhoods, community destinations and the regional bike network. Special consideration will be given to emerging concepts and infrastructure that increase the comfort and confidence level of all riders.
2) Implement education, encouragement and data collection programs to increase bike usage and improve bike safety.
3) Expand the network of on-street and off-street bike facilities to increase the amount of biking for all trip purposes.
4) Maintain and enhance the current bike transportation network to meet current design standards.
5) Achieve a Platinum-level Bicycle Friendly Community certification from the League of American Bicyclists (LAB) [link to program].

POLICIES

1) Construction Priorities: Completion and renovation of the three primary shared use paths (Arizona Canal/Cross Cut Canal, Central Arizona Project Canal and Indian Bend Wash), followed by other paths that improve regional connectivity, will be prioritized for use of capital improvement funds and grant requests. Side paths next to streets should be incorporated into improvement plans for collector and arterial streets.
2) Roadway Restriping: Improve on-street bike accommodation and bicyclist and pedestrian comfort through striping changes that consider historic and forecasted motor vehicle traffic, center turn lane requirements, existing pavement width and existing lane widths. This restriping protocol will typically be applied when roadways are being treated through standard pavement preservation applications and will incorporate buffered bike lanes where feasible.

3) Neighborhood Bikeways: Develop Neighborhood Bikeways on low-volume, low-speed roadways to be used by a wide range of bicyclist abilities. Improvement options should consider traffic calming and enhanced roadway crossings.

4) Wayfinding: Implement a cohesive wayfinding system directing people to and along shared use paths and Neighborhood Bikeways and to community destinations.

5) Intelligent Transportation Systems (ITS): Identify and test solutions that balance traffic flow with improved bicycle mobility in key corridors.

6) Education and data collection: Promote bicycling's benefits for health, recreation, transportation and tourism. Evaluate bicycle usage counts on the network to establish trends and prioritize outreach and improvements.

7) Safety and Enforcement: Inform the public (motorists, bicyclists and pedestrians) about bicycle, vehicle and pedestrian operation on streets and paths. Work with public safety staff to improve enforcement of traffic laws related to biking. Collect, analyze and report on bicycle collision data on a regular basis and develop remediation measures to address high-frequency and high-volume collision locations. Support Safe Routes to School programs. Support the use of grade separated crossings at barriers such as freeways and arterial roadways and along large drainageways.

ON-STREET BIKEWAYS

The on-street bike system will continue to expand and improve as new roadway segments of minor collector size or larger are constructed. New construction will follow the standard cross sections already in place or identified for revision through the TAP, and as mentioned above, potential new bike lane restriping efforts will be coordinated with the city's pavement management program.

As noted in the Street Element, minor collectors that do not require a center turn lane will also be a focus area for adding improved bike lanes, typically with painted buffers. Constructed bike lane buffers will also be assessed based on applicability, safety, cost and maintenance issues.

NEW DESIGNATION – NEIGHBORHOOD BIKEWAYS

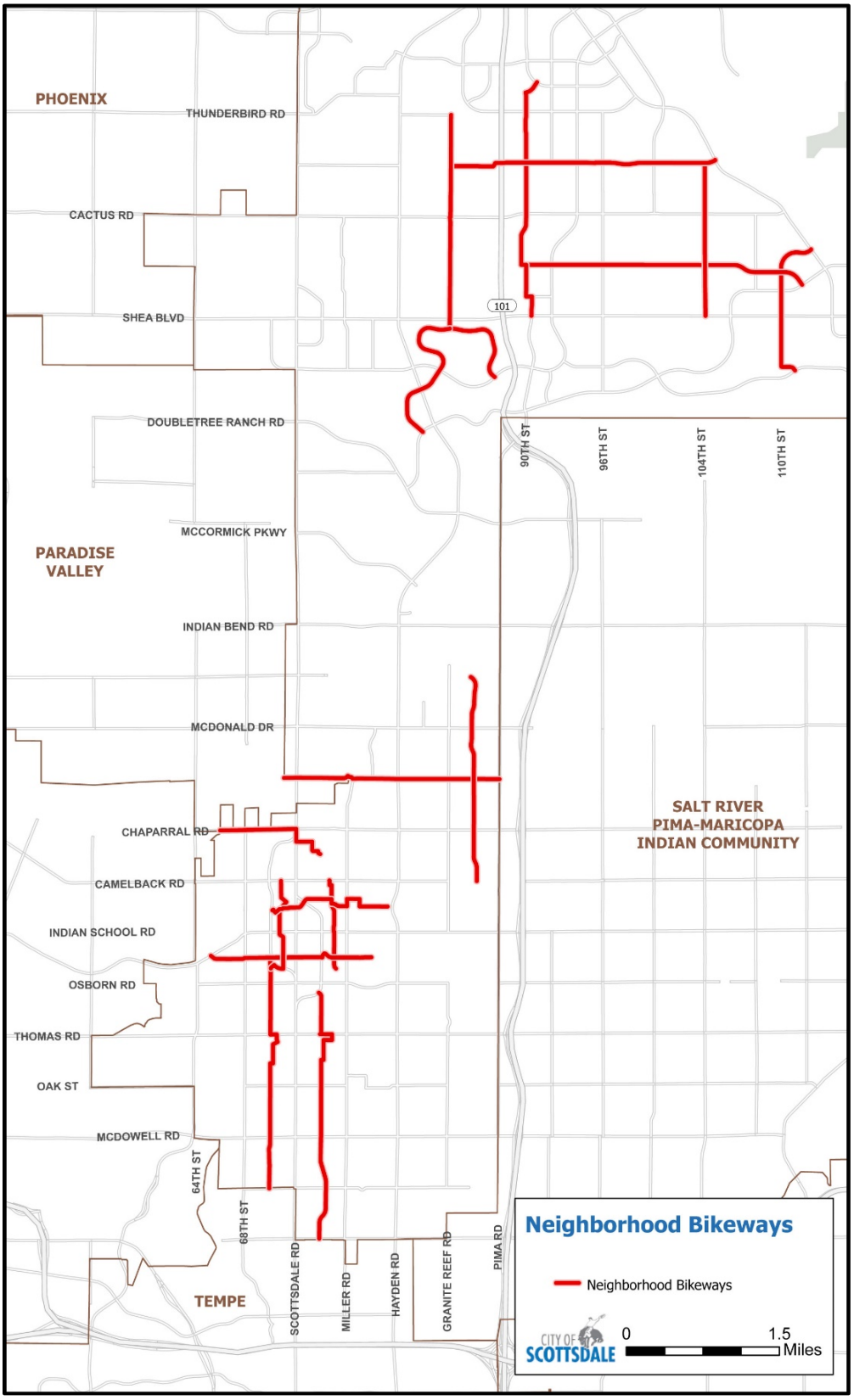
Neighborhood Bikeways are typically found on streets with traffic volumes of under 2,000 vehicles per day (vpd) and residential speeds (25 miles per hour or less) and often contain connections that can only be made by bike or as a pedestrian. They are typically found on the ¼-mile street network through neighborhoods but feature destinations such as parks, schools, libraries, community centers, religious centers, and medical facilities. They also connect to the rest of the bikeway network. Compared to bike lanes along busier streets,

neighborhood bikeways are low-stress and accommodate a wider range of users. They typically have shared lane markings (sharrows) or bike lanes, depending on traffic volumes, and can include signage, traffic calming and enhanced crossings at major streets (see Table B-1 and Figure B-2).

Table B-1 Scottsdale Neighborhood Bikeways

Street	From	To	Mileage
70th Street	Continental Drive	2nd Street	2.4
	(potential extension)		0.4
74th Street	McKellips Road	Thomas Road	2.0
	(potential extension)		0.5
84th Street	Shea Boulevard	Thunderbird Road	2.5
86th Street	Camelback Road	Lincoln Drive	2.0
	(potential extension)		0.5
Arabian Trail	Via Linda	Mountain View Road (east)	2.5
90th Street	Shea Boulevard	Redfield	2.4
104th Street	Shea Boulevard	Sweetwater	1.5
110th Street	Mountain View Road	Frank Lloyd Wright	1.5
Jackrabbit	Scottsdale Road	87th Terrace	2.0
Cholla	89th Street	Via Linda	2.8
Sweetwater	84th Street	Frank Lloyd Wright	2.6
2nd Street	Indian Bend Wash	Crosscut Canal	1.6
Glenrosa Street/5th Avenue	Indian Bend Wash	Arizona Canal	1.4
Chaparral Road/Rancho Vista Drive	64th Street	Arizona Canal	1.2
70th Street/Marshall Way	Osborn Road	Camelback Road	1.1
75th Street	2nd Street	Camelback Road	0.9
		Total	31.8

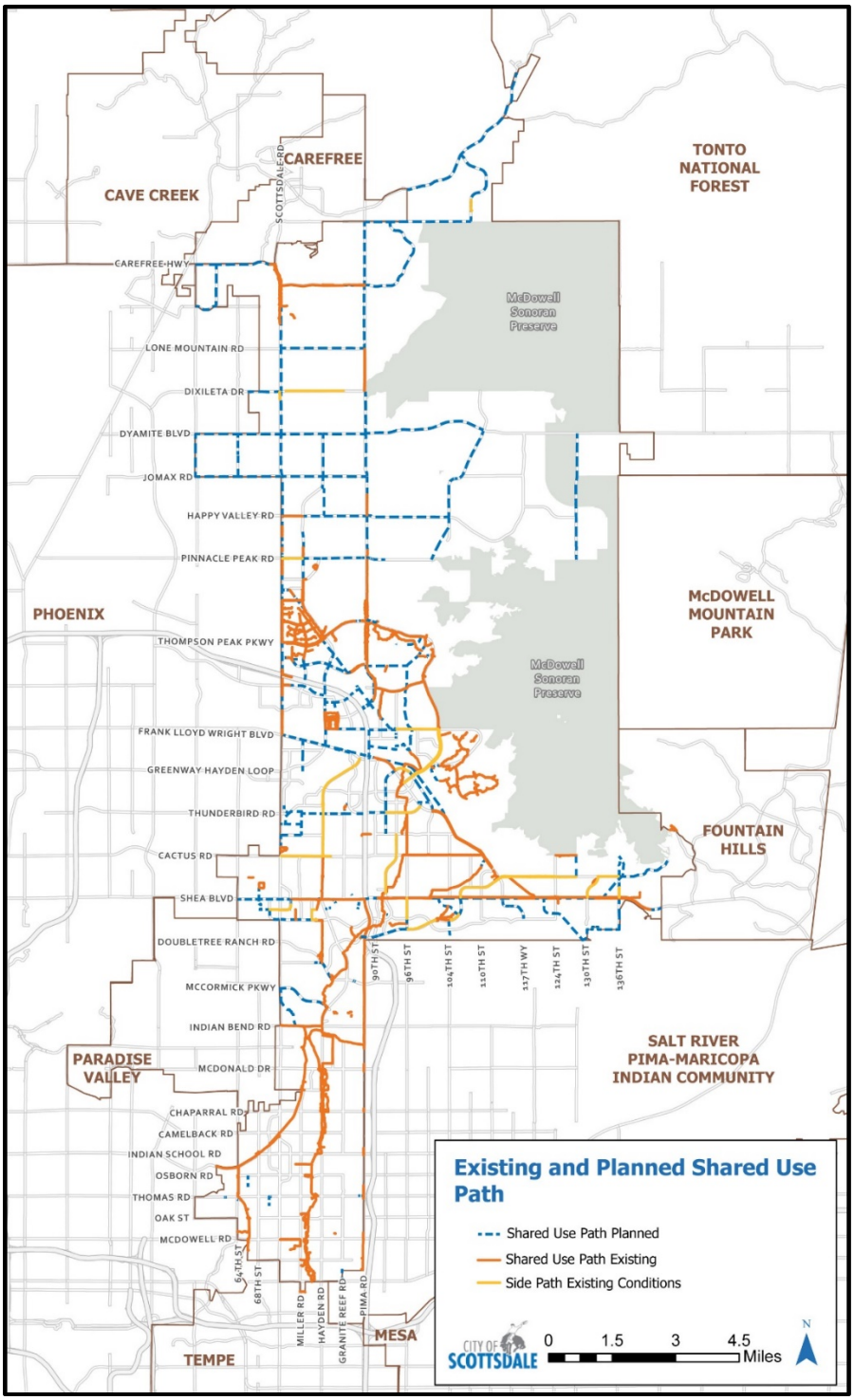
Figure B-2 –Neighborhood Bikeways



SHARED USE PATHS

The existing and planned shared use path network is shown in Figure B-3. These paths link to the on-street network while providing connectivity to a wider range of bicyclists. They also feature grade-separated crossings in many locations. Segments are prioritized for construction based on three criteria: the potential demand in the vicinity of the corridor, the existing bicycling conditions on parallel roadways and the potential for connections to the city's existing bicycle network. The availability of grant funding is also considered.

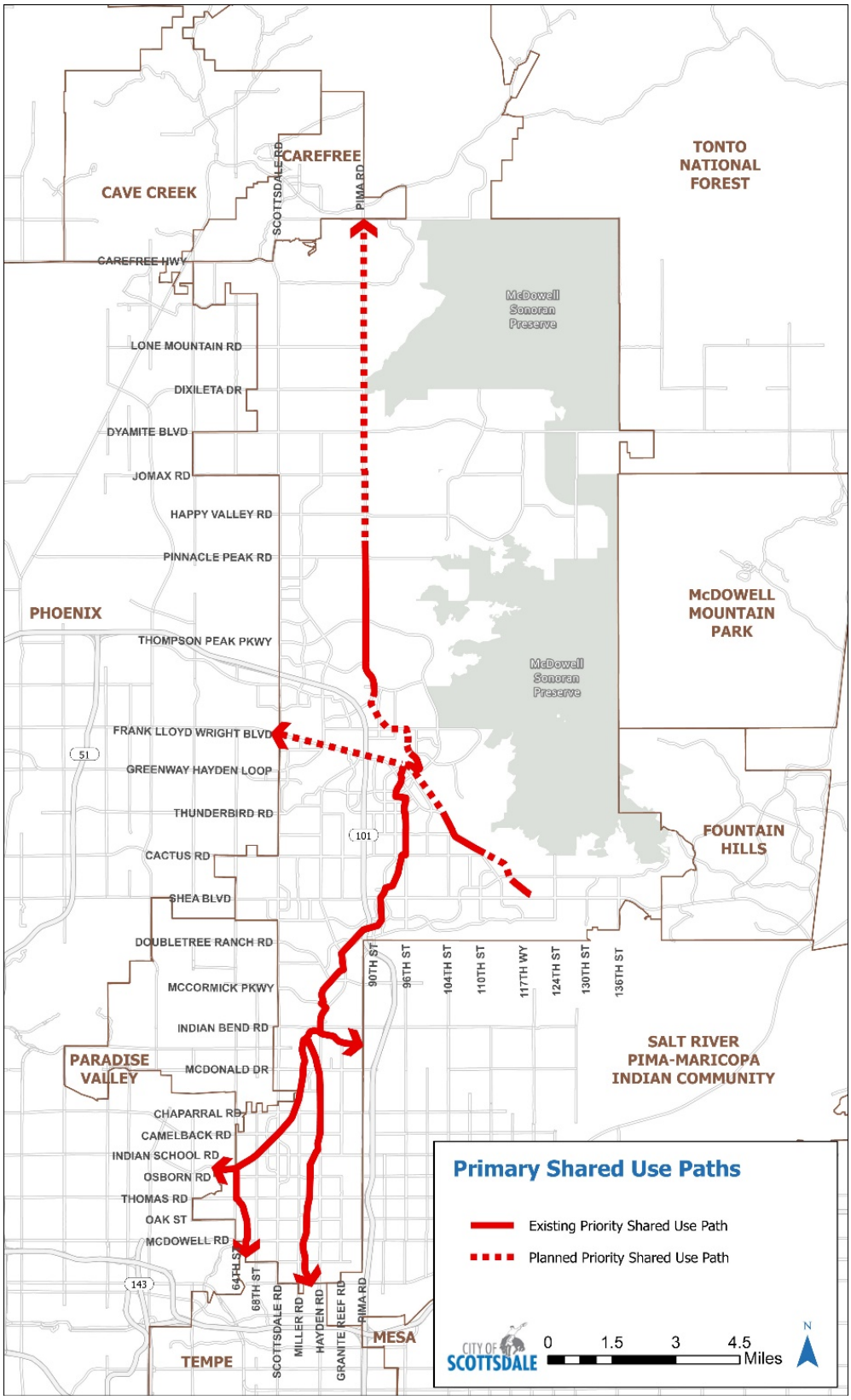
Figure B-3 – Existing and Planned Shared Use Paths Map



Three primary shared use paths serve as the spine and main linkages throughout Scottsdale: the Indian Bend Wash (IBW) Path, the Crosscut Canal Path/Arizona Canal Path and the Central Arizona Project (CAP) Canal Path. Each provides local and regional connectivity and is a high priority for implementation. More details on the three primary paths are provided below and shown in Figure B-4:

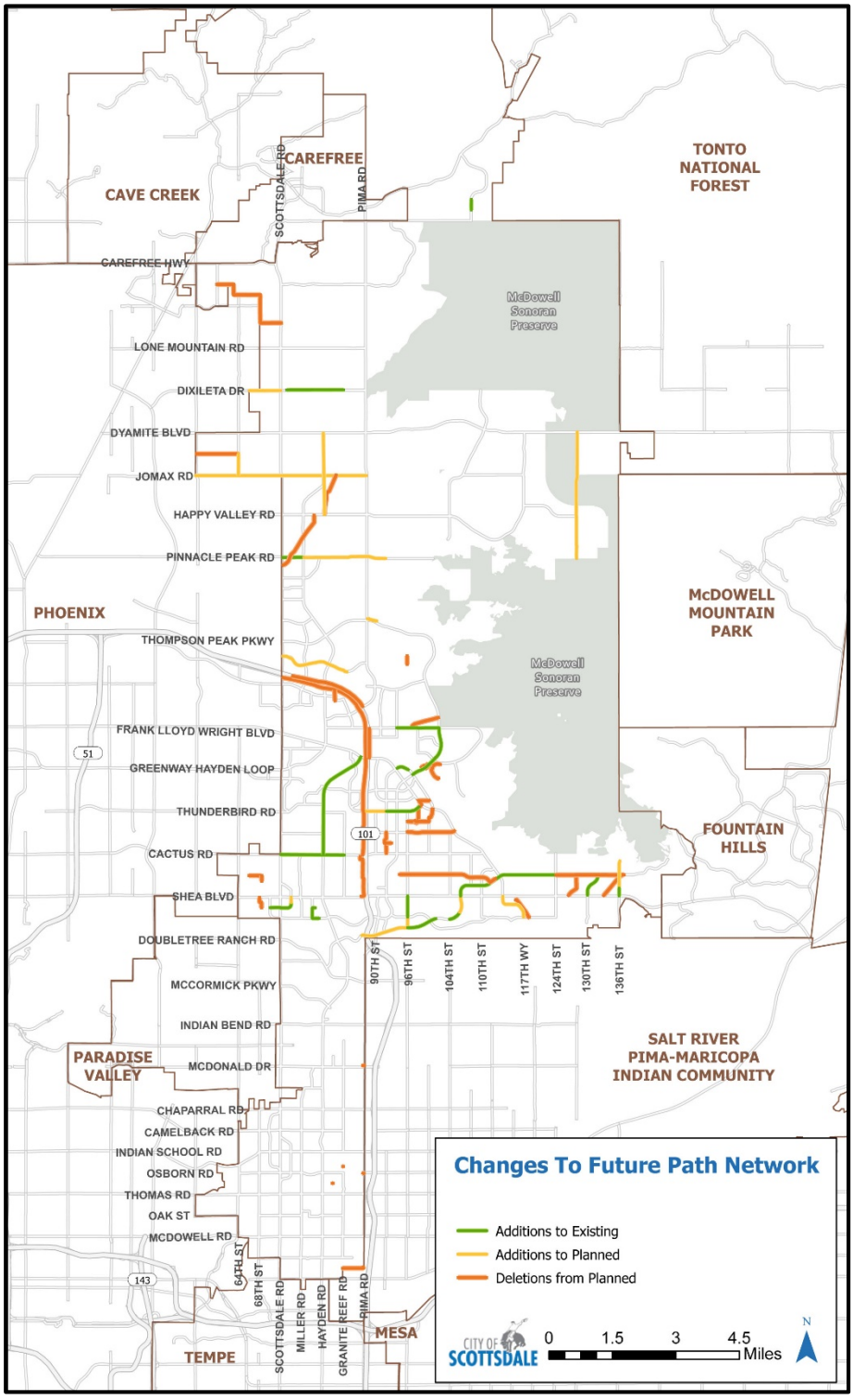
- Indian Bend Wash (IBW) Path – The IBW path runs north/south and links to the city of Tempe and the town of Carefree. Approximately 15 miles of path exist from McKellips Road to the WestWorld area, which is the approximate center point of the IBW Path. The northern section is approximately 13 miles long, of which 3.5 miles is constructed between Trailside View and Pinnacle Peak Road, while the rest is planned.
- Crosscut Canal Path/Arizona Canal Path – The 1.8-mile Crosscut Canal Path connects to a path in Tempe and to the 5.8-mile Arizona Canal Path, which connects to Phoenix and the Salt River Pima Maricopa Indian Community. Both canals are paved throughout Scottsdale.
- Central Arizona Project (CAP) Canal Path – As part of a regional planned path, Scottsdale's 9.2-mile planned path runs along the south side of the CAP Canal, primarily along adjacent developed land. Approximately 2.2-miles of the path are complete east of Loop 101 along the Frank Lloyd Wright Boulevard corridor. This path connects to city of Phoenix and the Salt River Pima-Maricopa Indian Community.

Figure B-4 – Primary Shared Use Path Map



Changes to the future non-primary path network are broken into three categories: additions to the planned system, additions to the existing path system and deletions from the planned path system. These changes represent a net change of 12 additional path miles. These changes are shown in Figure B-5.

Figure B-5 – Changes To Future Path Network



PERFORMANCE MEASURES

1) Reduce citywide per capita bicycle collision occurrences, based on six-year moving average data.
2) Maintain a positive (excellent/good) rating of 70% or better in the National Community Survey for “Ease of Travel by Bicycle.”
3) Percentage of residences within ½-mile network distance to a shared use path.
4) Mileage of completed shared use paths.
5) Mileage of arterial and collector roadways with bike lanes.
6) Mileage of completed Neighborhood Bikeways.
7) Number of annual bicyclist boardings on transit routes.
8) Annual counts from permanent counters, mobile counters, and third party vendors.

TRAIL ELEMENT

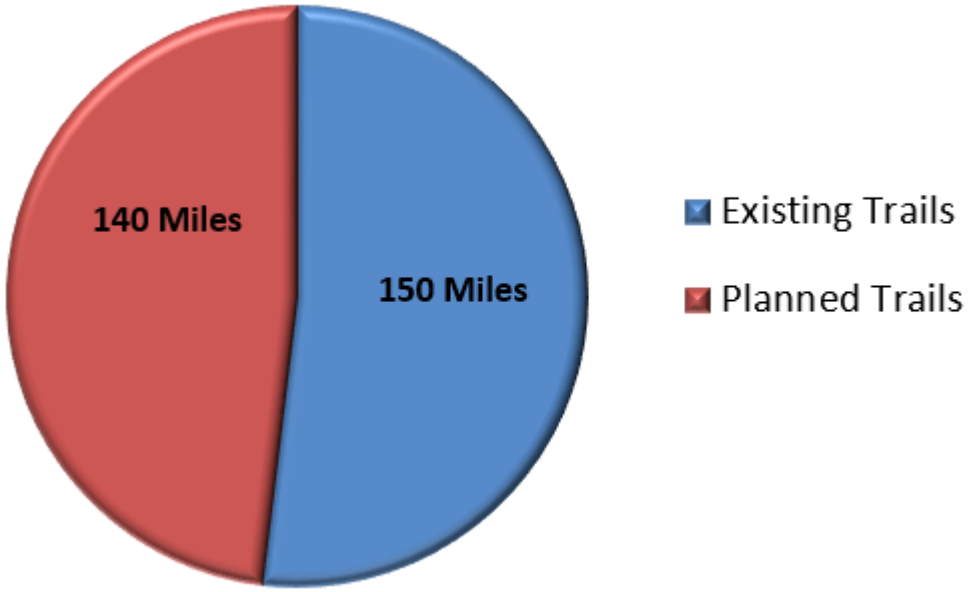
INTRODUCTION

Scottsdale's goal is to develop and maintain a citywide interconnecting network of trails to provide valuable recreation and transportation opportunities for residents and visitors. Trails function as transportation links between schools, residential areas, parks, places of employment, shopping areas and other areas of interest. Trails also provide hikers, walkers, joggers, equestrians, mountain bicyclists and people with disabilities opportunities to improve health and fitness, spend time with family and friends, enjoy the natural environment and escape the stress of everyday life. Trails are an integral part of Scottsdale's transportation infrastructure and a fundamental component to an enhanced quality of life for the community.

Scottsdale has been preparing plans and building public trails for the last five decades. In 2004, after an extensive public involvement process, the *Scottsdale Trails Master Plan: On the Right Trail* was officially adopted by City Council. In 2007, the Transportation Department assumed responsibility for public trails outside Scottsdale's McDowell Sonoran Preserve and kept the commitment to include trails within an element of the first Transportation Master Plan update which occurred in 2016. This 2021 Transportation Action Plan Trail Element is a culmination of the past planning efforts and aligned with approved policies, network planning and design standards.

Today Scottsdale has 150 miles of trails that are woven throughout neighborhoods within the city. This transportation action plan documents 140 miles of planned trails that will complete the buildout of the network over future years (see Figure T-1)

Figure T-1
Miles of Existing and Planned Trails Outside of Scottsdale McDowell Sonoran Preserve



GOALS

1) Develop an effective and connected multi-modal transportation system with the integration of trails.
2) Actively work with neighborhoods, neighborhood associations and adjacent jurisdictions to coordinate all planned and existing links to the trail network.
3) Provide improved trail connectivity within neighborhoods and access to schools and parks.
4) Maintain Scottsdale's high aesthetic values and environmental standards when planning and constructing trails.
5) Educate the public about easements and maintenance responsibilities associated with the trail network.

POLICIES

1) Trail access: Purchase public access if necessary, align trails where there is available access, and avoid condemnation when possible.
2) Trail obstruction: Coordinate with landowners regarding obstruction removal and require trail realignment by landowner if necessary.
3) New trails crossing undeveloped land: Identify existing rights of way along parcel boundaries to build temporary trail if necessary and require developers to dedicate a public nonmotorized access easement and build trail if applicable.
4) Trail Easement Abandonment: Trail easement abandonment requests will require a Trail Impact Analysis.

TRAIL CLASSIFICATIONS & STANDARDS

Trail widths vary depending on the purpose and environment. A trail could follow a major roadway, weave through a neighborhood or traverse rugged terrain. Therefore, trail classifications and standards were established to assist in providing the right trail for the right place.

Scottsdale has four types of trails: primary trails, secondary trails, neighborhood trails and minimally improved/rugged trails. Each classification has unique standards that align the trail with its environment. For all trail classifications, motorized vehicles are only permitted for maintenance and emergency purposes and where trail widths allow.

Primary Trails

Primary Trails provide both transportation and recreation links between residential areas, schools, businesses, parks, places of employment and other areas of significant community activity. Primary Trails are used by hikers, equestrians and bicyclists and typically have the most use of the trail types. The trail surface may be comprised of either native soil or decomposed granite. Urban Trails have the greatest width of all trail classifications and therefore accommodate leisurely side-by-side travel and easy passing for multiple user types. These trails are typically located within areas of relatively level topography.

Secondary Trails
Secondary Trails provide alternative transportation and recreation links through areas such as desert washes, scenic corridors, vista corridors and other desert open space areas. Secondary Trails are also used by hikers, equestrians and bicyclists, but typically experience a lower level of use than Primary Trails. Secondary Trails are narrower than Primary Trails and occasionally users must travel single file. Secondary Trails are typically located within areas of level to moderate topography.

Neighborhood Local Trails
Neighborhood Local Trails provide access in and around neighborhood areas and provide connections to Primary and Secondary Trails. Neighborhood Local Trails typically act as "feeder" trails to the regional trail network and may provide close-to-home recreational opportunities. Hikers, equestrians and bicyclists also use Neighborhood Local Trails, and in more rural areas, they sometimes serve as "sidewalks."

Minimally Improved/Rugged Trails
Minimally Improved/Rugged Trails are built as far away from traffic as possible and designed for equestrians, hikers, runners and mountain bikers. Minimally Improved/Rugged Trails are constructed in areas where other disability-accessible trail options are available or where the construction of an accessible trail will alter substantially the character of the surrounding area, impact culturally significant areas or be difficult to construct because of the terrain, such as in washes.

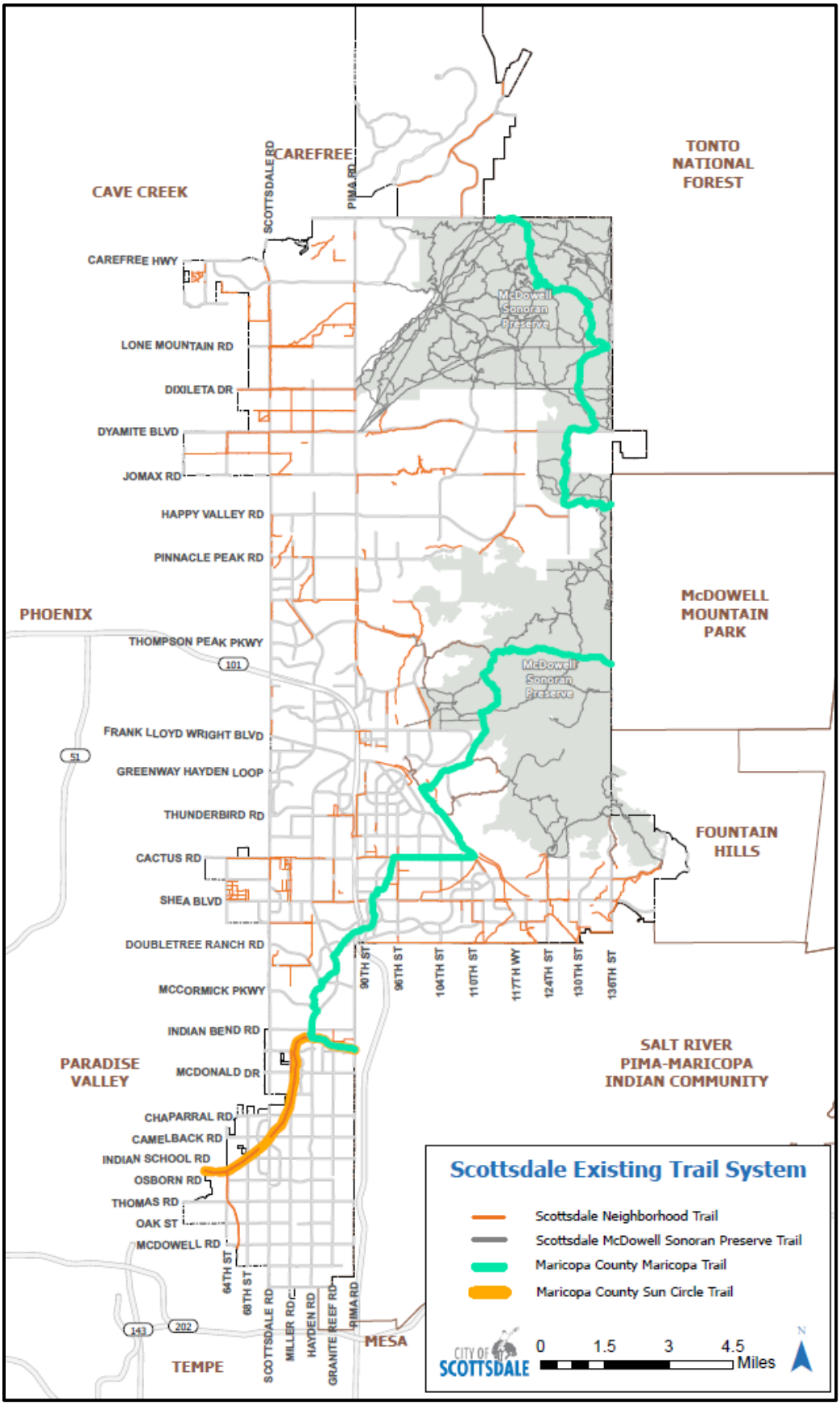
Trail standards such as slope, width and vegetation clearance are associated with each trail classification. These standards can be found in the Scottsdale *Design Standards & Policies Manual* (2018).

TRAIL CORRIDORS & REGIONAL CONNECTIVITY

Scottsdale has a robust trail system throughout the city with 220 miles of trails in Scottsdale's McDowell Sonoran Preserve and 150 miles of trails in the neighborhood trail system.

Main trail corridors, including the Arizona Canal, Crosscut Canal, Central Arizona Project Aqueduct and Arizona Public Service (APS) Powerline, provide gateways to the regional trail system. An extensive regional trail system, including the Sun Circle Trail and Maricopa Trail, winds through Scottsdale and aligns with existing trails located along the main trail corridors, the Indian Bend Wash Path System and Scottsdale's neighborhood trail system (see Figure T-2).

Figure T-2 Scottsdale Existing Trail System



TRAIL PRIORITIZATION

Neighborhood trails are constructed using a yearly capital project. The first priorities for trail construction are the completion of planned connections to the Scottsdale's McDowell Sonoran Preserve at designated access points approved by the McDowell Sonoran Preserve Commission and planned Neighborhood Trails in rural areas that do not have sidewalks.

Specific trail segments and improvements are further prioritized by the following criteria:

- Corrects safety issue on an existing trail or with a new trail
- Completes a gap or unfinished project resulting in a significant, usable and continuous trail
- Completes the final unfinished segment in an existing trail
- Connects a trail to another trail
- Improves access to a neighborhood, community, Preserve or regional trail destination
- Constructs a trail which meets the desired design guidelines without special conditions that would increase the construction costs
- Builds a trail in an area with high potential use due to the surrounding character area and/or land uses

ADJUSTMENTS TO PLANNED NETWORK

During the development of the Transportation Action Plan, the planned trail system was reviewed to identify segments that:

- Lack connectivity,
- Are prone to network redundancy,
- Are infeasible to construct due to terrain and/or lack sufficient public rights-of-way or easements.

In this effort, 48 miles of planned trails were removed from the planned network of 188 miles, leaving 140 miles of planned trails.

Additionally, the Transportation Action Plan prioritizes completing the remaining connections to Scottsdale's McDowell Sonoran Preserve at designated access points approved by the McDowell Sonoran Preserve Commission and filling in gaps within the neighborhood trail systems.

Scottsdale will continue to add to the robust network of trails available to residents and visitors. Most importantly, Scottsdale will continue to conduct inventories of the existing neighborhood trail system and make improvements to trails in need of repair. Scottsdale will also continue to educate residents and homeowner associations on their responsibility to maintain trails adjacent to their homes and communities.

The following figures provide the locations of the planned trail segments removed from the network.

Figure T-3 Central Area – Planned Trail Segments Removed from Network

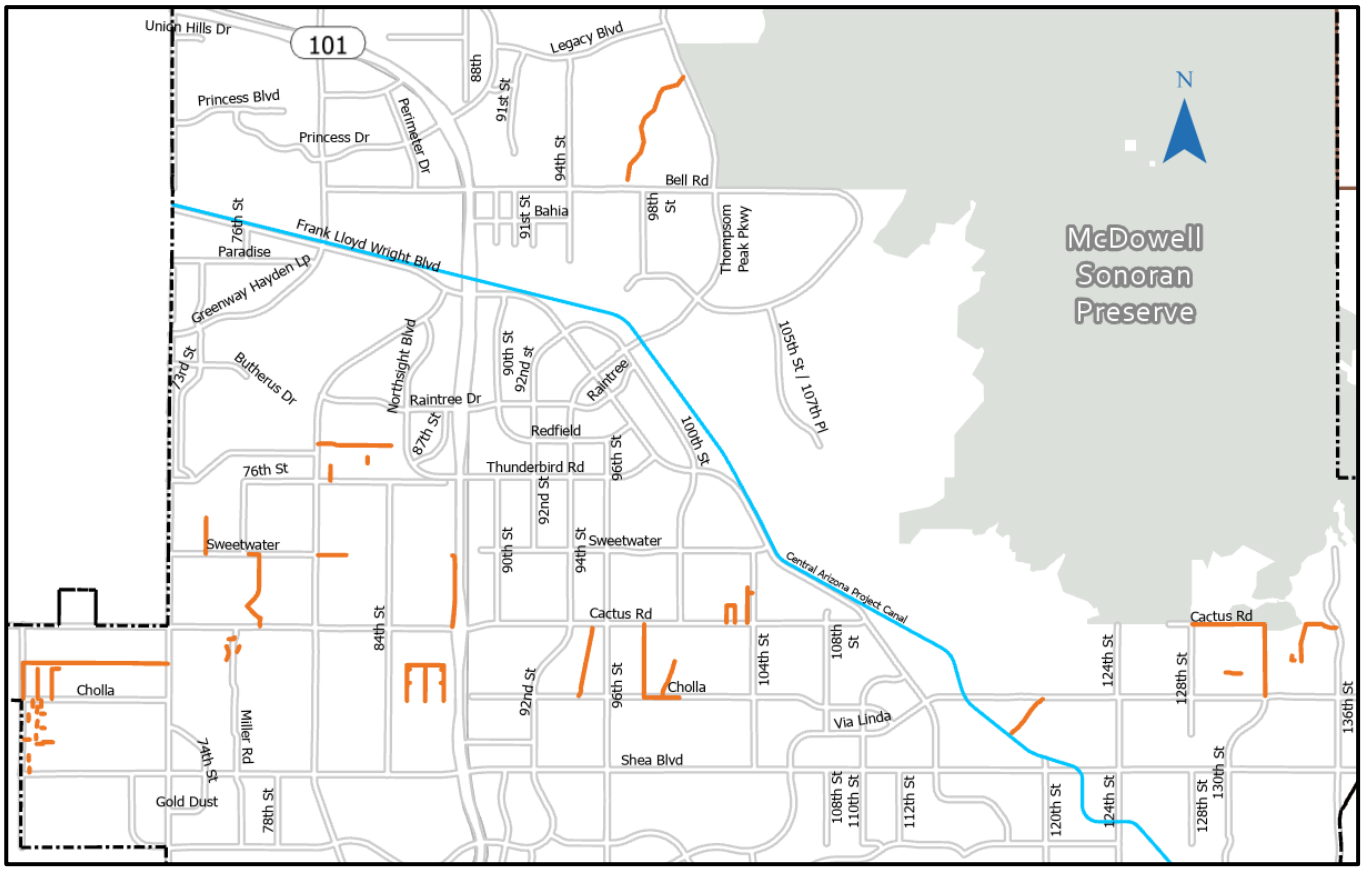


Figure T-4 Northern Area A – Planned Trail Segments Removed from Network

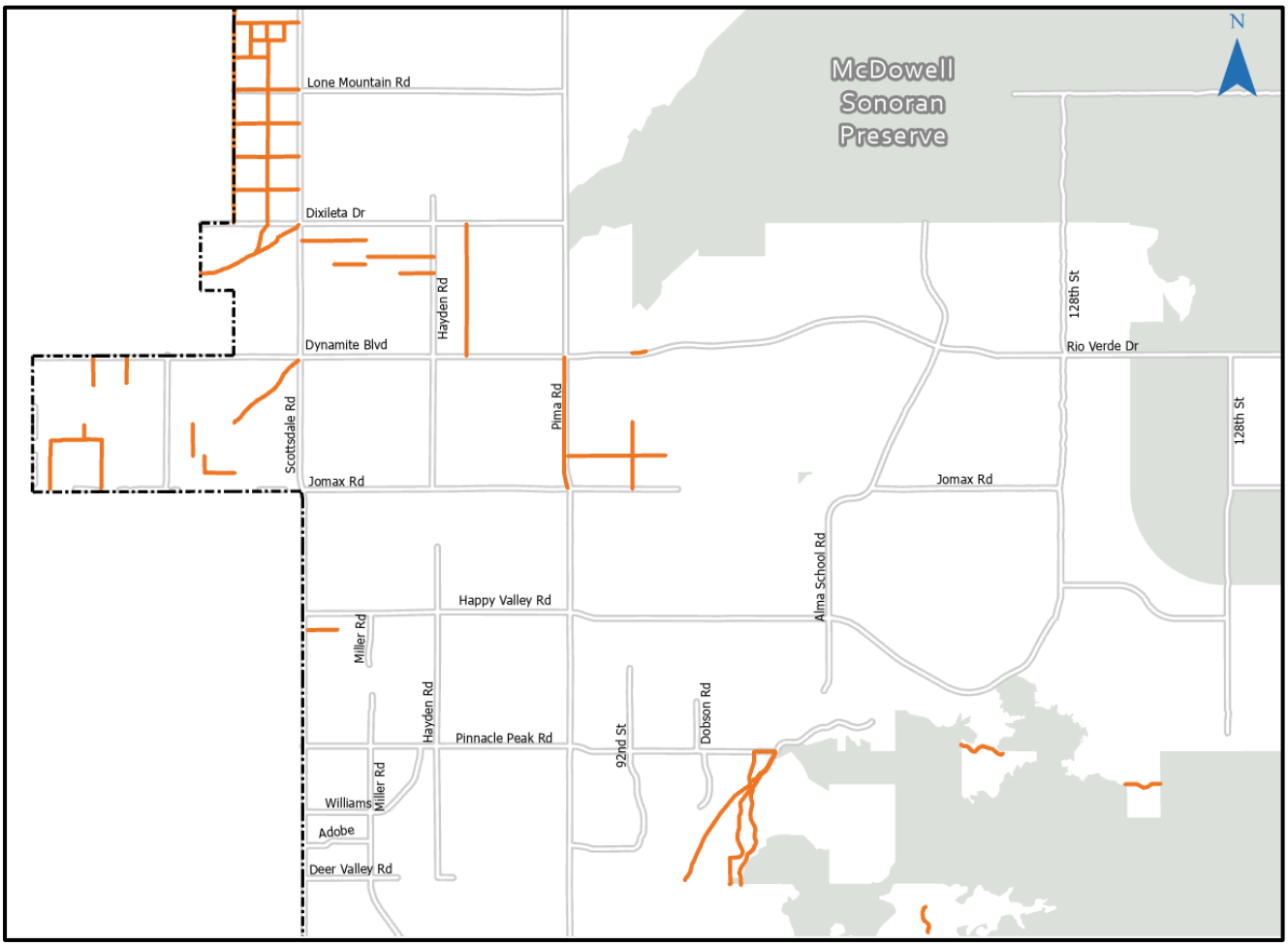


Figure T-5 Northern Area B – Planned Trail Segments Removed from Network

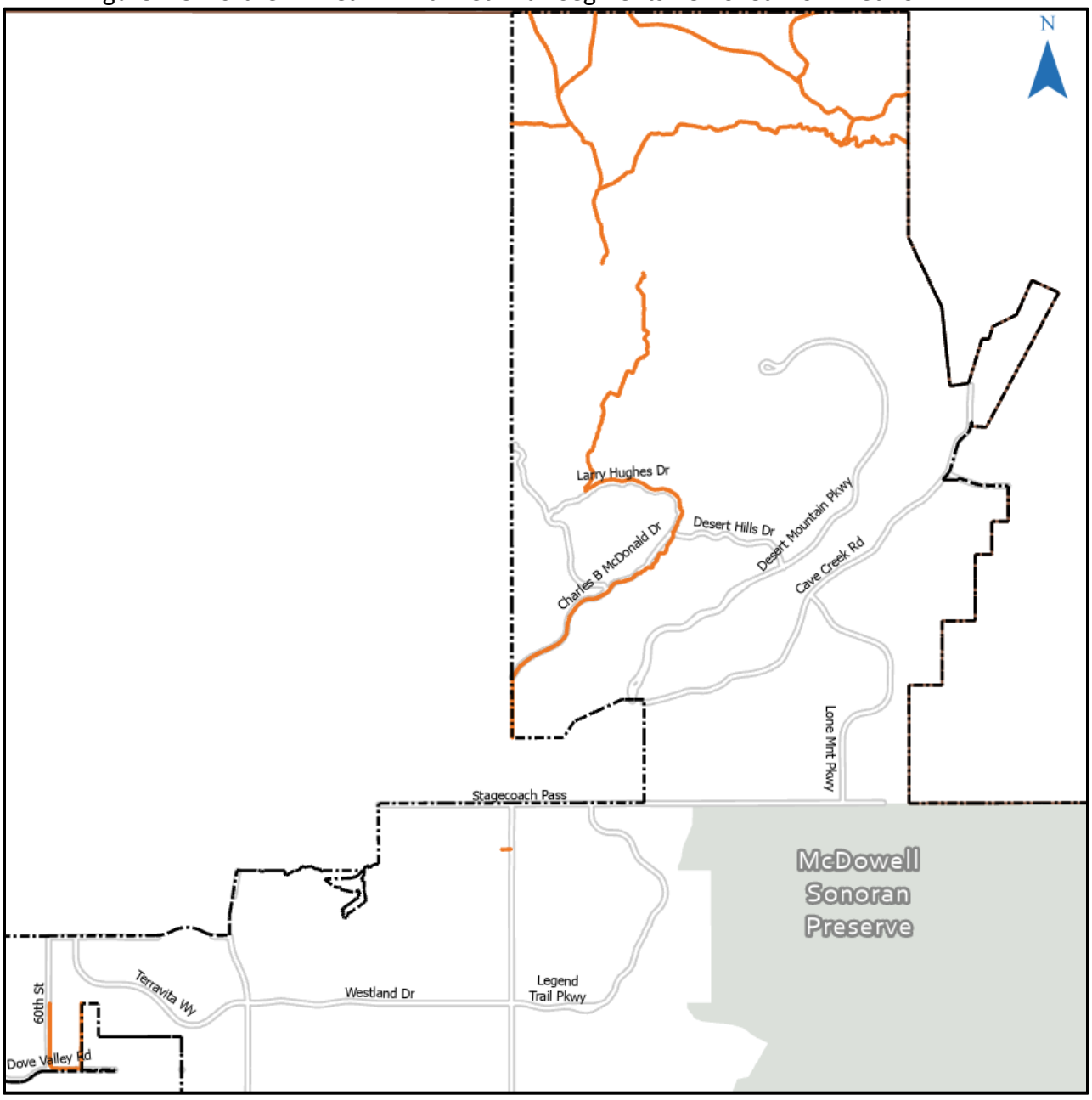
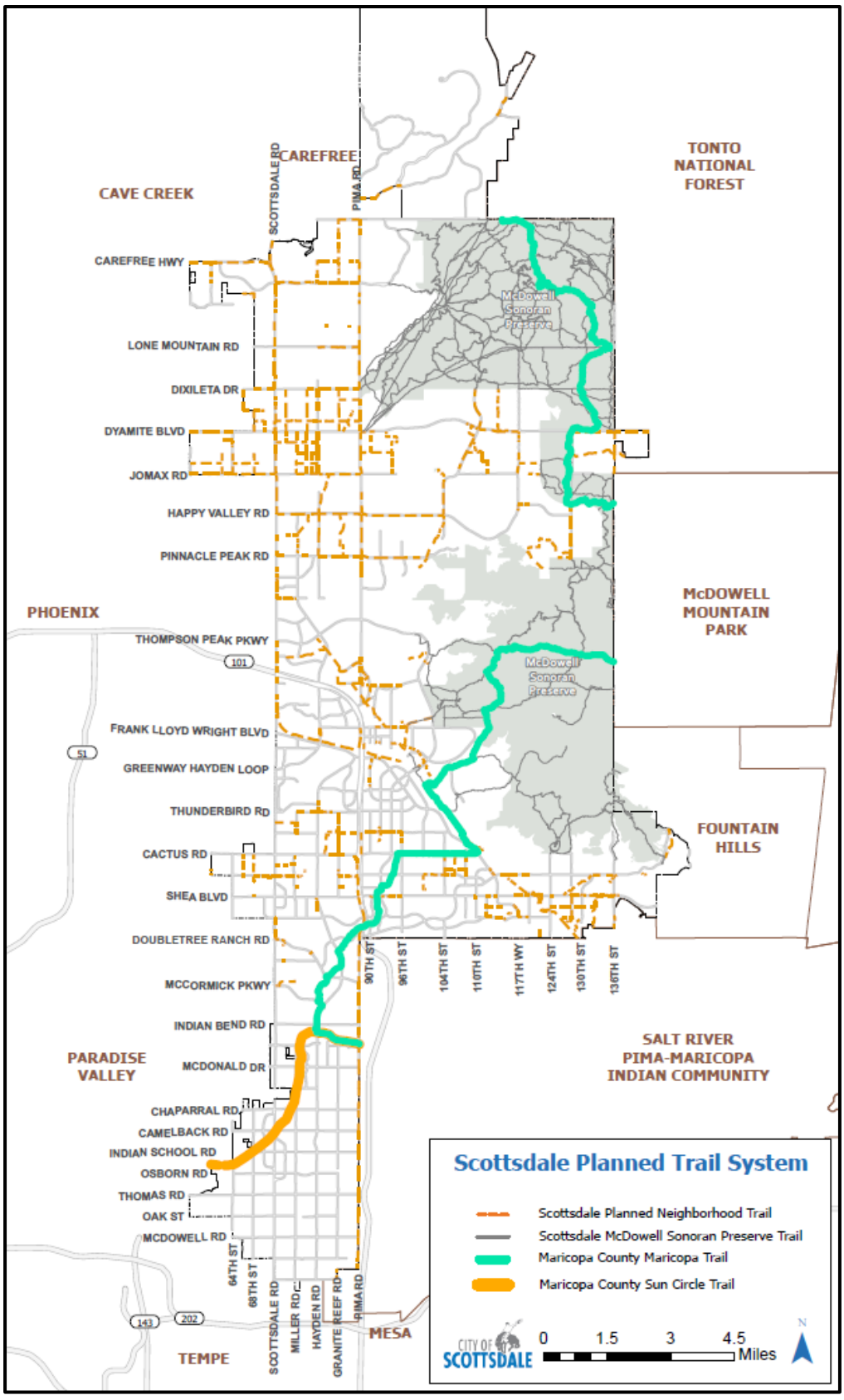


Figure T-6 depicts the planned trail network outside of the Scottsdale's McDowell Sonoran Preserve including network adjustments.

Figure T-6 Scottsdale Planned Trail System



PERFORMANCE MEASURES

1) Mileage of completed trails per year
2) Mileage of rehabilitated trails per year
3) Percent of planned trail network constructed per year
4) Percent of population within ¼ mile network distance to trail

PEDESTRIAN ELEMENT

INTRODUCTION

Scottsdale's sidewalks and enhanced crossings provide a network for people walking, skating and using personal assistive mobility devices. The Pedestrian Element will assess priorities to make Scottsdale more walkable and provide safe, convenient, barrier-free pedestrian ways and facilities that promote walking short distances. For example, shade along sidewalks and bus stops can make walking and transit use much more comfortable.

Specific sidewalk standards are found in the *Design Standards and Policies Manual* (DS&PM) Street Geometrics and Public Pedestrian Facilities sections. The TAP Streets Element provides cross sections by functional classification [will link] with guidance similar to that in the DS&PM. The cross sections outline sidewalk placement, which vary by functional classification and character areas.

One significant change to the pedestrian element in the 2021 TAP is a new policy to locate shade trees on the west side of north/south streets and on the north side of east/west streets on the side of the sidewalk, opposite the street. Previously shade trees were placed between the sidewalk and the street. The new orientation provides the most shade for pedestrians during the hottest months of the year.

GOALS

1) Build and maintain pedestrian facilities that form a continuous and interconnected network with seamless connections to public transit, schools, neighborhoods and community destinations.

2) Provide pedestrian amenities, promote land uses and encourage private efforts that enhance public spaces, neighborhoods, commercial and employment areas.

3) Implement education, encouragement and data collection programs to increase walking and reduce the number and severity of pedestrian crashes.

4) Create and improve pedestrian access between neighborhoods and to transit routes.

5) Maintain and enhance the current pedestrian network to meet current design standards.

6) Provide pedestrian/cycling enhanced crossings where appropriate.

POLICIES

1) Construction Priorities: Prioritize use of capital improvement funds to complete projects that address accessibility concerns, network gaps, school and/or transit access and reductions in neighborhood barriers.

2) Roadside Landscaping: Orient shade tree placement to maximize shade on the sidewalk during the summer months (west of west-side sidewalk on north/south roads, north of north-side sidewalk on east/west roads).

3) Roadway Restriping: Improve pedestrian comfort through striping changes that provide greater separation from vehicles though the installation of new bike lanes, wider bike lanes or buffered bike lanes.

4) Neighborhood Barriers: Reduce the length of continuous perimeter walls to encourage pedestrian connectivity to collector and arterial streets and shared use paths and transit connections.

5) Enhanced Pedestrian Crossings: Develop and use the *Guidelines to Identify Pedestrian Crossing Treatments* to support grade separations, pedestrian signals and other crossing enhancements.

6) Intelligent Transportation Systems (ITS): Identify and test solutions that balance traffic flow with improved pedestrian mobility in key corridors.

7) Safety: Work with public safety staff to improve enforcement of traffic laws related to pedestrians. Collect, analyze and report on pedestrian collision data on a regular basis and develop remediation measures to address high-frequency and high-volume collision locations. Support Safe Routes to School programs.

SIDEWALK CROSS SECTIONS

Trees are located on the west or north side of the sidewalk to provide maximum shade during hotter times of the year. In previous plans, trees were located between the sidewalk and the curb on both sides of the street. Lower growing landscaping will typically remain in a 3- to 4-foot buffer between the sidewalk and curb. Figure P-1 shows the current cross section and location of trees, while Figure P-2 shows the proposed change in location of trees and shade. Figure P-3 show the new orientation of shade trees on streets. Cross sections did not change on the south side and east side of streets in relation to the placement of trees and continue to place a landscape buffer between the sidewalk and curb.

Figure P-1
Existing Cross Section

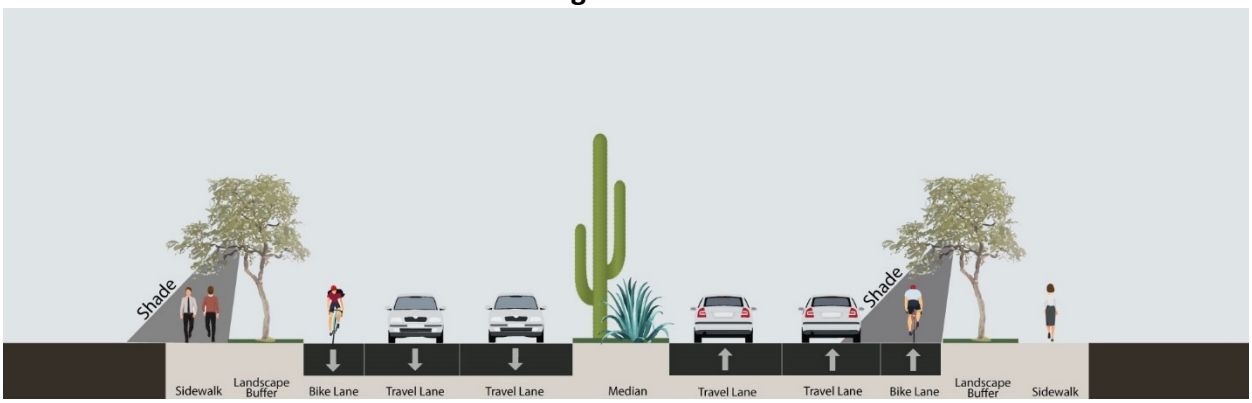


Figure P-2

Cross Section with Proposed Tree Position Change

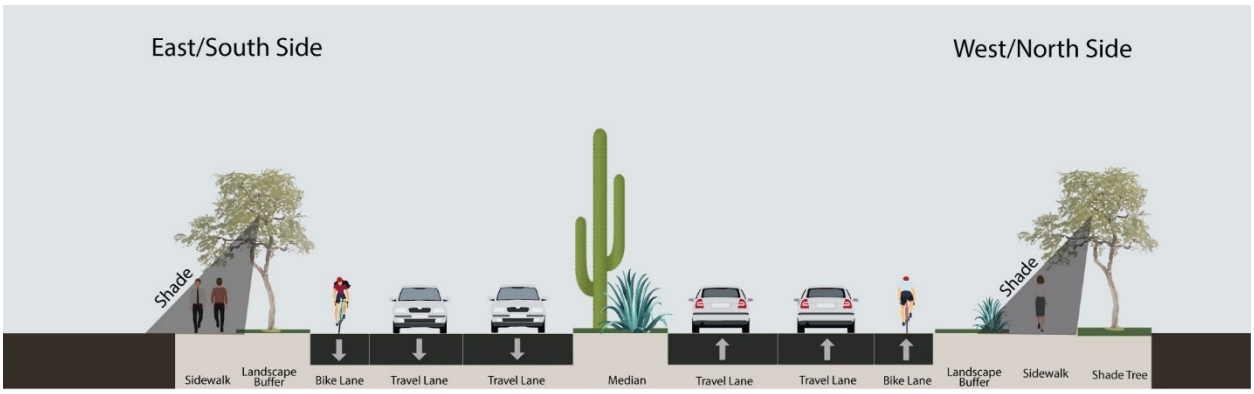


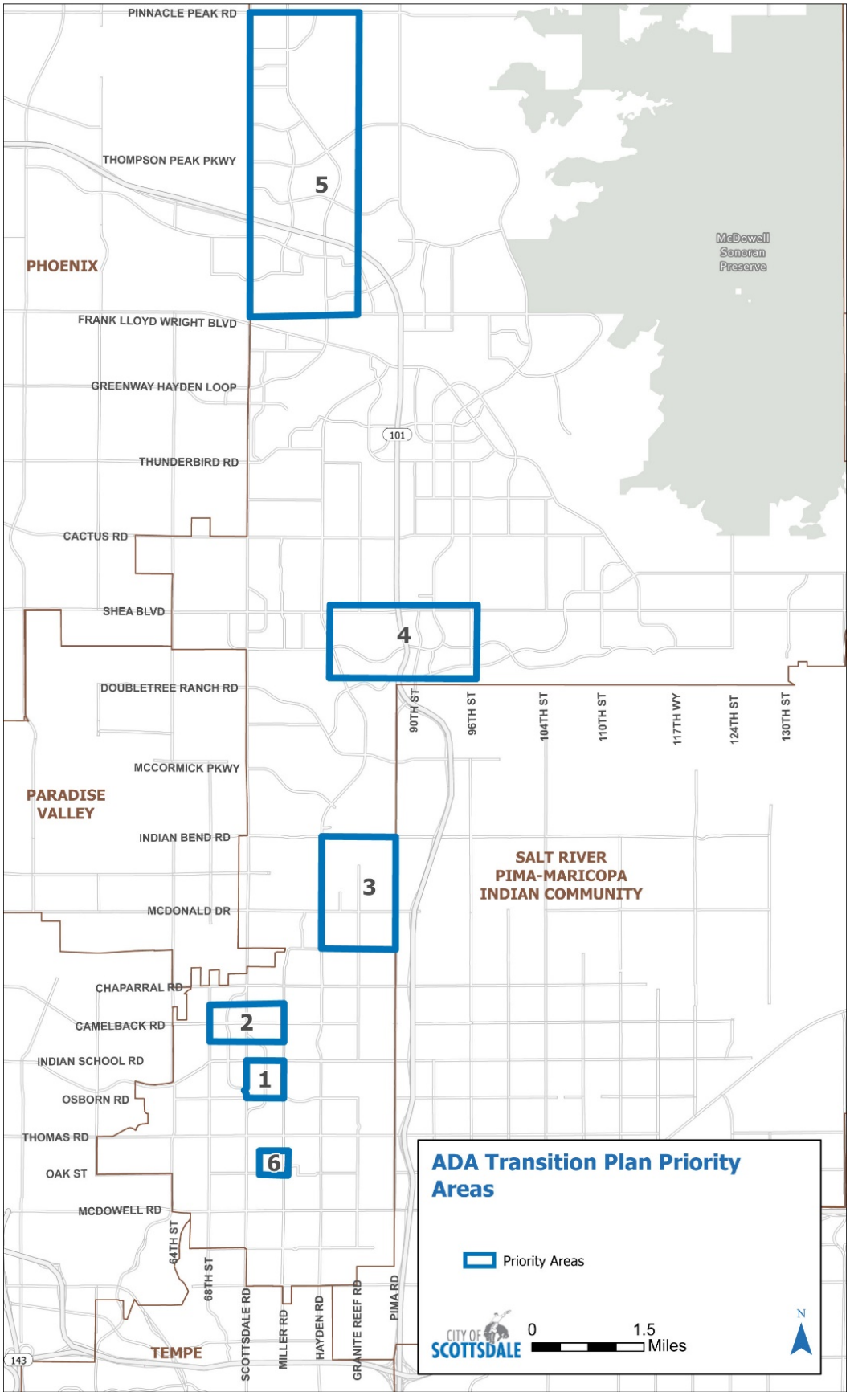
Figure P-3
Proposed Cross Section

In areas where sidewalks are less likely to experience high volumes of pedestrians due to lower density and/or subdivision access restrictions, one side of four-lane and six-lane streets has a narrower sidewalk of six feet, while maintaining an eight-foot-wide sidewalk on the other side. The wider sidewalk also serves as a side path for bicyclists. Some roads are planned to have a 10-foot multi-use path in place of a sidewalk to provide regional non-motorized connections to the city of Phoenix.

ACCESSIBILITY

The 2021 draft Scottsdale Americans with Disability Act (ADA) Self-Evaluation and Transition Plan Update prioritizes areas for improvements for pedestrians along streets and transit routes (shown in Figure P-4). Additional ADA improvements will continue to be included on streetscape, pavement maintenance, and developer-driven projects.

Figure P-4 Priority Areas



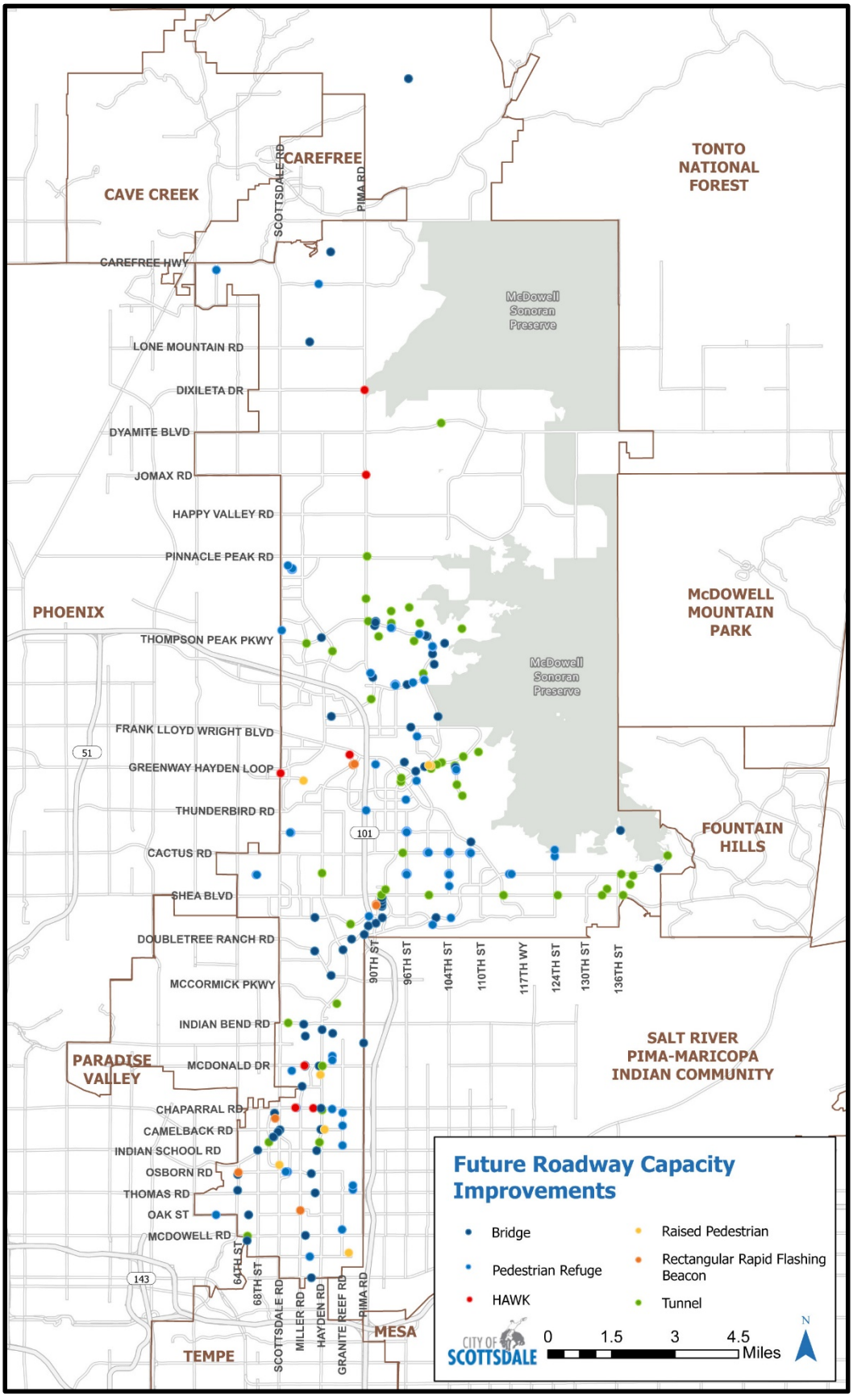
ENHANCED CROSSINGS

Trends show that we are more active than previous generations. With the movement towards livable communities, walking and biking are becoming more attractive to enhance the quality of life. Enhanced crossings are integral in accomplishing connectivity and safety and promote the health, livability and equity of a community. There are two main categories of enhanced crossings: grade separated and at-grade crossings. Criteria such as sight distance, proximity to intersections, traffic volumes, roadway cross section and nonmotorized volumes are used to determine what type of crossing is appropriate at a given location.

Enhanced bicycle, pedestrian and equestrian crossings provide safer connectivity at various locations including intersections, physical barriers and high nonmotorized activity areas. Enhanced crossings also provide regional connectivity, transit access and ADA accessibility. Types of enhanced crossings include bridges, tunnels, pedestrian refuge islands, raised pedestrian crossings, high intensity activated crosswalks (HAWKs) and rectangular rapid flashing beacons. Currently, there are 219 enhanced crossings in Scottsdale ranging from raised pedestrian crosswalks to tunnels and bridges.

As shown in Figure P-5, enhanced crossings are more prevalent in central and southern Scottsdale due to the context of the built environment. Central and southern Scottsdale has an urban and dense environment compared to northern Scottsdale, which has a suburban and low-density environment. A myriad of opportunities remain in central and southern Scottsdale to integrate enhanced crossings. A pedestrian refuge is the most commonly implemented enhanced crossing Scottsdale because it serves neighborhoods and is cost-effective.

Figure P-5 Scottsdale Enhanced Crossings



GRADE-SEPARATED CROSSINGS

A grade-separated crossing is a bridge, underpass or tunnel that allows nonmotorized traffic to avoid any interaction at street crossings, intersections or a physical barrier. Grade separated crossings are encouraged where paths and trails intersect major streets or canals. Examples of grade-separated crossings are shown in Figure P-6.

Figure P-6 Grade Separated Crossings

Bridge **Underpass** **Tunnel**

Grade-separated crossings should be required with new construction where major roadways cross a trail or path. Design of new drainage culverts should accommodate a path and trail and consider the needs of bicyclists, pedestrians and equestrians.

AT-GRADE CROSSINGS

Where grade-separated crossings are not viable or necessary, at-grade crossings can be used. In many locations and for many reasons, grade separation and/or signalization may not be feasible or warranted. Several specific treatments can be incorporated at designated crossings that give path and trail users a greater sense of security, comfort and convenience.

Signalized At-grade Crossings

In the absence of a grade-separated crossing, a signalized crossing should be considered if warranted, according to the Manual on Uniform Traffic Control Devices (MUTCD). Examples of signalized crossings include a Rectangular Rapid Flashing Beacon or High Intensity Activated Crosswalk (HAWK) (see Figure P-7).

Figure P-7 – Signalized Enhanced Crossings

Rectangular Rapid Flashing Beacon

HAWK

Unsignalized At-Grade Crossings

Unsignalized at-grade crossings are considerably less costly than grade-separated crossings. Streets with many lanes, higher traffic speeds and higher traffic volumes would better accommodate bicyclists and pedestrians with the use of a greater number of design treatments such as a Raised Pedestrian or Pedestrian Refuge (see Figure P-8).

Figure P-8 Unsignalized At-Grade Crossings

Raised Pedestrian

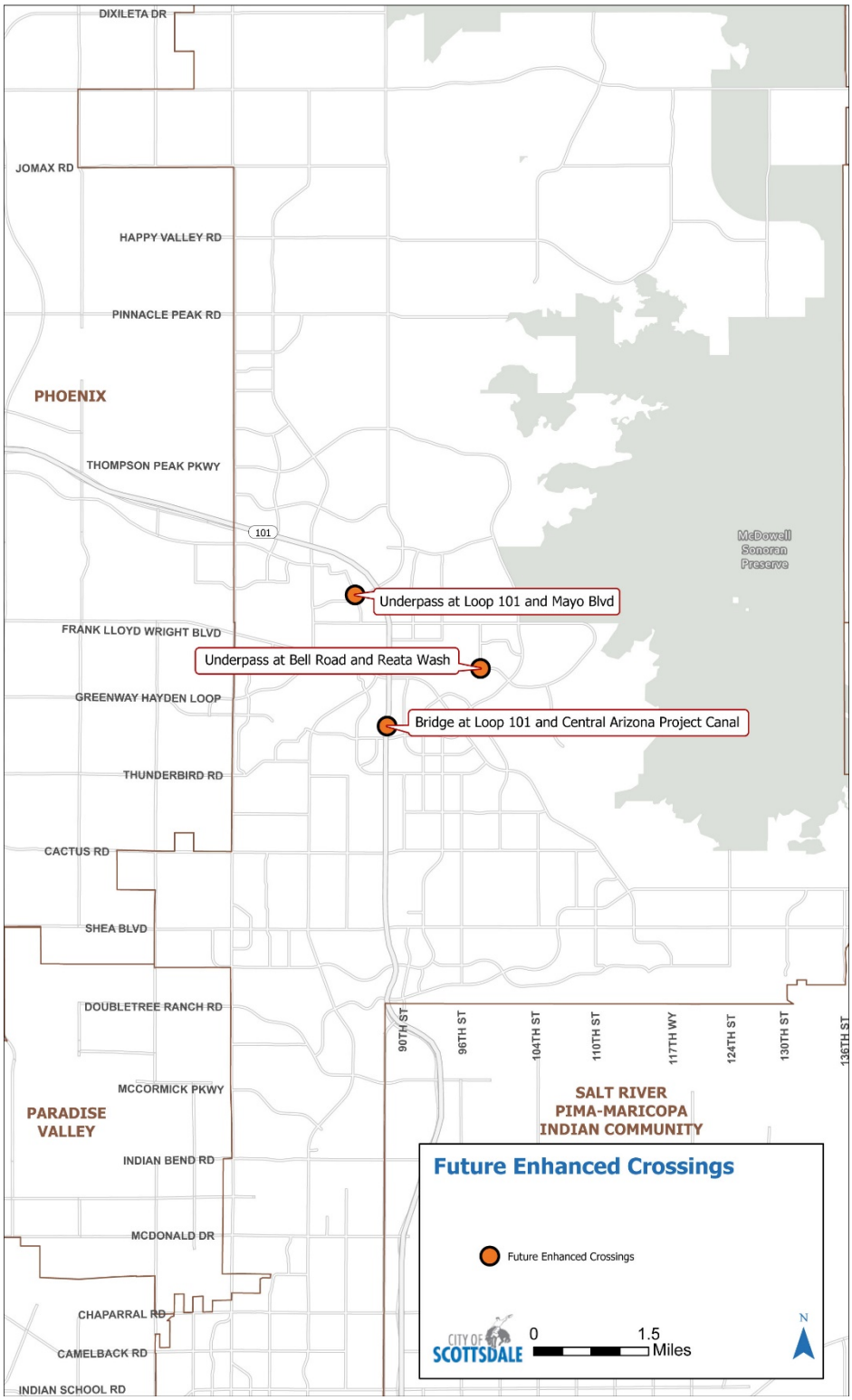
Pedestrian Refuge

FUTURE ENHANCED CROSSINGS

Scottsdale recently developed *Guidelines to Identify Pedestrian Crossing Treatments* to assist in determining what type of crossing is appropriate for an identified location. The document incorporates recommendations from state and federal transportation agencies, provides a standardized process to evaluate new crossing locations and provides criteria and considerations for establishing a new enhanced crossing.

In addition to using established guidelines for the installation of new enhanced crossings, Scottdale continues to be proactive in the planning and future capital programming of three identified locations that are critical for regional connectivity. These locations are a bridge over the Loop 101 along the Central Arizona Project Canal, an underpass at Bell Road within the Reata Wash to provide connectivity between WestWorld and Scottsdale's McDowell Sonoran Preserve and an underpass at Loop 101 at the Mayo Boulevard alignment (see Figure P-9).

Figure P-9 Future Enhanced Crossings



PEFORMANCE MEASURES

1) Reduce citywide per capita pedestrian collision occurrences, based on six-year moving average data.
2) Complete pedestrian improvements identified as Priority Areas in the ADA Self-Evaluation and Transition Plan Update within five years.
3) Maintain a positive (excellent/good) rating of 80 percent or better in the National Community Survey for “Ease of Walking.”
4) Percentage of arterial and collector roadway miles with sidewalks that meet current design standards.
5) Percentage of population within ¼ mile network walking distance to a collector or arterial street.

IMPLEMENTATION PROGRAM

INTRODUCTION

There will always be a finite level of resources available to meet current and future transportation system needs. Therefore, a program to prioritize new transportation infrastructure projects, programs and services must also consider the requirements necessary to preserve, maintain and operate/optimize the existing transportation system. Goal 2 in the Street Element of this Transportation Action Plan (TAP) provides a good example of this concept:

> "Develop and manage the street network in a manner that places reliance on maintaining existing infrastructure and improving the efficiency of the existing system before adding new roadway capacity."

The major recurring revenue sources available for transportation are the city's annual share of the State Highway User Revenue Fund (HURF) at $17.9 million in 2020-21, which is primarily generated through per gallon taxes on fuel and the 0.2% Transportation privilege (sales) tax at $23.6 million in 2020-21. HURF revenue is shared with cities based on population. When looking at new 2020 census data, HURF revenue is forecast to drop by approximately $1.1 million per year, versus pre-census 5-year estimates, and will be less in 2025-2026 than was collected in 2020-21. The forecasted 0.2% sales tax revenue is expected to average 3% growth annually through 2025-26.

Both revenue sources have restrictions on their use. HURF expenditures must be tied to the operation, maintenance and improvement of the street system, including traffic signals. However, HURF revenues provide less than 80% of the city's actual costs to preserve, maintain and operate the street system. Up to one-half of the 0.2% sales tax can be used for planning and operations-related transportation costs. The remaining half of the 0.2% sales tax is programmed for capital improvements.

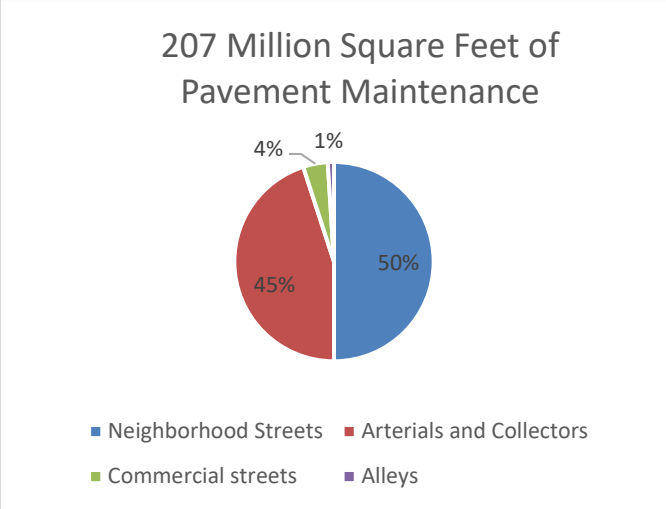
A much smaller recurring revenue source is the state's Local Transportation Assistance Fund (LTAF), which is also shared based on population. Annual LTAF revenue totals approximately $650,000 per year, less than 2% of the total generated by HURF and the 0.2% Transportation sales tax. LTAF can only be used for transit-related expenses.

Other revenue sources are reliant on voter-approved sales tax extensions, competitive grants and federal funding levels. These include the city's 0.1% temporary Transportation sales tax (expires 1/31/29) at $12.4 million in 2020-21. Proposition 400 regional transportation sales tax

(expires 12/31/25) will provide a total of $240.4 million and federal one-time grants and federal transit preventative maintenance grants will provide of total of $30.7 million through 2025-26.

EXISTING TRANSPORTATION SYSTEM (2021)

Pavement/Striping/Signage/Concrete
The city maintains 207 million square feet (3,380 lane miles) of street and alley pavement. The street system also includes striping and signage that must be maintained and renovated/replaced on an ongoing basis. Sidewalk maintenance issues are funded out of the pavement-related operating budget, while new ramps that meet Americans with Disabilities Act (ADA) requirements are funded from the pavement overlay capital program.



Intelligent Transportation/Traffic Signals/Streetlights
Many intersections in Scottsdale are fully signalized, and a large portion of these are connected to the city's Intelligent Transportation System (ITS). In addition, most streets in areas not covered by Natural Area Open Space development requirements, generally south of the Thompson Peak Parkway east/west alignment, have a street lighting system. The city is responsible for operation and maintenance of 318 traffic signals, 175 ITS cameras and 8,966 Streetlights.

Grading & Drainage/Bridges & Culverts/Sweeping/Dust Control
Due to the city's topography, drainage management is another critical requirement within the transportation system. The city is responsible for 232 bridges and large culverts that are part of the Arizona Department of Transportation's Bridge Inspection Program. The city also maintains 95 washes and drainage channels comprising 160 acres and including 9000 grates, catch basins, handrails and guardrails.

To address airborne particulates, a major concern in the Phoenix region, and stormwater quality, the city operates a program that sweeps major streets twice per month, the Old Town/Entertainment District five times per week, residential streets once per month and shared use paths (57 miles) twice per month. The city also provides additional sweeping service and maintenance when requested. Over 20,000 miles of sweeping occurs annually. The city also

has a comprehensive dust control program on unpaved roads and shoulders that includes dust palliative roads (29 miles), shoulders (76 miles), alleys (95 miles) and lots. Maintenance grading is also required on 8 miles of roads and 28 miles of shoulders that do not have dust palliative treatment due to lower traffic volumes.

Medians and Right of Way

The city is responsible for 27 million square feet (620 acres) of median and back of curb (right of way) landscaping, which is part of the city's standard cross section requirements for roadway projects. Medians are typically 16-24' wide, depending on the street classification, and the landscaping often includes irrigation systems that also require maintenance. In some master planned communities, the homeowner's association takes on primary responsibility for maintaining median and right of way landscaping.

Transit

The city owns and maintains a fleet of twenty-one buses for use on trolley routes. The city also maintains 593 bus stops, 197 of which include bus shelters. The buses, which cost more than $500,000 each, have been purchased with a combination of federal grants and regional Proposition 400 funding and therefore have not impacted the city's transportation budget. If no replacement for Proposition 400 is enacted, however, the city will likely be responsible for at least 20% of bus purchase costs beginning in 2026. Additionally, bus routes in Scottsdale and associated paratransit service, which receive approximately $12 million in regional funding per year from Proposition 400, would not be available beginning in 2026.

Paths and Trails

Maintenance or sweeping costs for Scottsdale's 129 miles of concrete shared use paths, including side paths in roadway corridors, are absorbed in operating budgets discussed previously. The city does not program dedicated funds for maintaining its 150 miles of trails, the majority of which are the responsibility of adjacent property owners or homeowner associations.

TRANSPORTATION INVESTMENT PRIORITIES

The following list of ranked priorities will be used to guide transportation system investments:

1) Preserve/Maintain/Optimize existing infrastructure.
2) Meet Americans with Disabilities Act, Air Quality, Water Quality and other regulatory requirements.
3) Enhance safety and test new concepts/technology.
4) Provide transit service with minimum 30-minute frequency.
5) Develop capital projects with funding from outside sources.

6) Develop capital projects that are funded only by the city and prioritize non-motorized access.

The following factors, in addition to cost, will guide transportation investment in specific Capital Improvement Plan (CIP) projects and programs:

- Condition and maintenance cost of existing assets
- Safety and/or regulatory compliance requirements
- Citizen input
- Expected usage levels (current and projected)
- Connection to regional networks
- Completion of a network gap
- Coordination with new development
- Connection to transit service
- Recommendation in a regional plan
- Expansion of non-auto options

CAPITAL IMPROVEMENT PLAN (CIP) – POTENTIAL PROJECT AND PROGRAM LIST

Taking into consideration the investment priorities and project review factors described in the previous section, the table below provides the recommended list of potential CIP projects. Projects that are currently included in the draft Proposition 400 Extension regional plan (as of July 2022) are highlighted in green. The projects included in the CIP list all remain subject to the city's annual budget development and prioritization process. Projects with authorized funding will continue to follow the public review process that occurs during design and prior to construction.

Category	Project/Program Name	Description
New Roadway Capacity	Legacy Boulevard Bridge	Construct the second bridge and approaches on Legacy Boulevard over the Reata Pass Wash. The bridge is approximately 250' long x 40' to accommodate 2 travel lanes, bike lane and sidewalk.
	Dynamite Boulevard - 56th to Pima	Construct a complete street from 56th Street to Pima Road (4 miles). Depending on volume forecasts, the project will be widened to either 3 or 5 lanes. A 5-lane roadway is more likely east of Scottsdale Road. Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lanes, 6-8' sidewalk on one side, 8-10' side path and 6-8' trail. The project crosses the Rawhide Wash (100-year discharge of 9,000 cfs) approximately 1/2 mile west of Pima Road. A bridge span of approximately 300' is anticipated. Additional turn bay capacity and signal modifications are planned at Scottsdale Road and Pima Road. A new major intersection at the Hayden Road alignment is also planned.
	Pinnacle Peak Road - Scottsdale Road to Pima Road	Construct a 4-lane complete street between Scottsdale and Pima roads (2 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, an 8-10' side path and 6-8' multi-use trail. Additional turn bay capacity and signal modifications at key intersections may be required. Right-of-way acquisition will be necessary in some locations.
	Miller Road - Princess Drive to Legacy Boulevard	Construct a 4-lane complete street between Princess Drive and Legacy Boulevard (1 mile). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median and 8' sidewalks. The project will cross the Loop 101 using the new underpass completed in 2021. The majority of this project is expected to be constructed by private development.

	Scottsdale Road - Loop 101 to Jomax Road	Construct a 4- to 6-lane complete street (4.7 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' shared use path and 6-8' trail. A new bridge, using Scottsdale and Proposition 400 ALCP funds, has already been constructed over the Rawhide Wash (100-year discharge of 9,000 cfs) approximately 1,200' south of Pinnacle Peak Road.
	Happy Valley Road - Scottsdale Road to Pima Road	Construct a 4-lane complete street between Scottsdale and Pima roads (2 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' shared use path and 6-8' trail. The project crosses the Rawhide Wash (100-year discharge of 9,000 cfs) approximately 250' west of existing Hayden Road. A bridge span of approximately 300' is anticipated. Additional turn bay capacity and signal modifications are planned at Scottsdale Road and Pima Road. A new major intersection at the Miller Road alignment is also planned.
	Jomax Road - 56th Street to 94th Street	Construct a new 3-lane complete street between 56th and 94th streets (4.5 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, a 10' shared use path and 6-8' multi-use trail. Traffic signals and additional turn bay capacity at Hayden Road may also be included. Right-of-way acquisition will be necessary in some locations.
	Lone Mountain Road - 68th Street to Pima	Construct a new 3-lane complete street between 68th Street and Pima Road (2.5 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' side path and 6-8' multi-use trail. Right of way acquisition may be required in some locations.

	56th Street - Jomax to Dynamite	Construct a new 5-lane collector complete street between Jomax Road and Dynamite Boulevard (1 mile). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' side path and 6-8' multi-use trail. Traffic signals and additional turn bay capacity at Jomax Road and Dynamite Boulevard may also be included, and a roundabout is planned at the Pinnacle Vista Drive intersection. Right-of-way acquisition will be necessary in some locations.
	Mountain View Road - 92nd to 96th (requires reclassification in future)	Expand Mountain View Road from a 3-lane to a 5-lane complete street between 92nd and 96th streets. Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, and 6-8' sidewalk on each side. Right-of-way acquisition will be required.
	Shea Boulevard/Loop 101 Bypass	Construct roundabouts at up to three locations to facilitate travel on the Mountain View Road corridor between Loop 101 and 96th Street as an east/west alternative to Shea Boulevard, which is at or over capacity in this area. The intersections include Mt. View/90th, Mt. View/92nd, and Mt. View/96th.
	Hayden Road - Jomax to Dynamite	Construct a new 3-lane complete street between Jomax Road and Dynamite Boulevard (1 mile). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' side path and 6-8' multi-use trail. Traffic signals and additional turn bay capacity at Jomax Road and Dynamite Boulevard may also be included. Right-of-way acquisition will be necessary in some locations. The majority of this project is expected to be constructed by private development.
	North Old Town Intersection Improvements	Add capacity and improve vehicular and pedestrian safety at up to eight intersections in the vicinity of Scottsdale Fashion Square and the Scottsdale Waterfront high activity areas. The intersections are Scottsdale/Camelback, Scottsdale/Fashion Square, Scottsdale/Highland, Scottsdale/Rancho Vista, Scottsdale/Chaparral, Goldwater/Highland, Goldwater/Camelback and Camelback/Marshall Way. A roundabout is planned at the Goldwater/Highland location.

	Alma School Road - Happy Valley to Dynamite	Complete the missing 1/2-mile gap in the minor arterial roadway near Jomax Road, realign and improve the Alma School Parkway and Jomax Road intersection to a roundabout, add 8-10' shared use path and 6'-8' shared use trail on west side, add missing sections of 6' sidewalk on east side and improve roadside and cross drainage.
	Stagecoach Pass Road - Pima to 97th	Widen Stagecoach Pass Road for 1.1 miles to accommodate bike lanes, construct a 6' sidewalk on the north side and improve cross drainage. The majority of this project is expected to be constructed by private development.
	128th Street - Ranch Gate to Rio Verde	Construct two 11' travel lanes with a 5' buffer and a 10' colored concrete path on the east side. The roadway would be constructed with grading but no drainage culverts.
	Scottsdale Road Intersection Improvements - Mountain View to Greenway	Construct additional turn lane capacity and/or pedestrian crossing improvements at up to 11 signalized intersections and new right turn bays at up to 15 locations. Major intersections include Shea Boulevard, Cactus Road, Thunderbird Road and Greenway Parkway.
	Dixileta Drive - 66th Street to Pima	Construct a new 3-lane complete street between 66th Street Road and Pima Road (2.75 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' side path and 6-8' multi-use trail. Right-of-way acquisition may be required in some locations.
	Rio Verde Drive - 118th to 144th	Construct a 4-lane complete street between 118th and 144th streets (3.25 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' side path and 6-8' trail on north side. A wildlife underpass or overpass may be installed in the vicinity of the 124th Street alignment. A roundabout or traffic signal may be installed at 136th Street.
	136th Street - Rio Verde to Lone Mountain	Construct a new 3-lane complete street between Rio Verde Drive and Lone Mountain Road (2 miles). Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane, 6-8' sidewalk or trail on the east side. Right of way acquisition will be required in some locations.

Transit	Scottsdale Road BRT - Roosevelt Street to Camelback Road	Design and construct infrastructure and operate a bus rapid transit system on Scottsdale Road that would connect to Tempe and Chandler. The project is proposed in the new Regional Transportation Plan that is being prepared by MAG.
Complete Street Renovations	Hayden Road Complete Street - McKellips Road to Indian School Road	Reconfigure the existing 6-lane Hayden Road between McKellips Road and Indian School Road as a 4-lane complete street with additional intersection turn lane capacity, increased access management (raised medians), on-street bike lanes and accessible 8' minimum width sidewalks.
	Via Linda Active Transportation Corridor	Reconfigure the Via Linda corridor between 90th Street and Frank Lloyd Wright Boulevard (3.7 miles) to meet arterial complete street standards. Improvements include continuous sidewalks that meet current arterial standards for setback from curb (other than near transit stops), accessibility and freedom from obstructions. The project will also create continuous 4-6' bike lanes through modifications to existing curbs and/or median edges. 1/4-mile pedestrian crossings will also be considered. An existing pedestrian overpass near the 102nd Street alignment that was constructed over 30 years ago may also need modifications by the time this project is scheduled. The city operates local bus service, with approximately ¼-mile stop spacing, on the entire project length.
	Scottsdale Road Active Transportation Corridor - Highland to Frank Lloyd Wright	Reconfigure the Scottsdale Road corridor between Highland Avenue and Frank Lloyd Wright Boulevard to meet arterial complete street standards. Improvements include continuous sidewalks that meet current arterial standards for width (8' minimum), accessibility and freedom from obstructions. The project will also create continuous 5-6' bike lanes. Three miles of frontage in this regional corridor is in Paradise Valley and 2.8 miles of frontage is in Phoenix.

	92nd/94th Street Active Transportation Corridor	Reconfigure the 92nd/94th Street corridor between Shea Boulevard and Thunderbird Road (2.2 miles) to meet arterial complete street standards. Improvements include continuous sidewalks that meet current arterial standards for setback from curb (other than near transit stops), accessibility and freedom from obstructions. The project will also create continuous 4-6' bike lanes through modifications to existing curbs and/or median edges. Intersection improvements at Cactus Road and 1/4-mile pedestrian crossings will also be considered. The city operates local bus service, with approximately ¼-mile stop spacing, on the entire project length.
	Scottsdale Road Active Transportation Corridor - McKellips to Roosevelt	Reconfigure the Scottsdale Road corridor between McKellips Road and Roosevelt Street to meet arterial complete street standards. Improvements include continuous sidewalks that meet current arterial standards for setback from curb (other than near transit stops), accessibility and freedom from obstructions. The project will also create continuous 5-6' bike lanes. The western frontage in this regional corridor is in Tempe.
	Miller Road Active Transportation Corridor - Marigold Lane to Jackrabbit Road	Reconfigure the Miller Road corridor between Marigold Lane and Jackrabbit Road to provide sidewalks that meet current standards for width (6' minimum), accessibility and freedom from obstructions. Pedestrian crossing treatments may also be necessary at several ¼-mile locations. The majority of this 5-mile corridor has been in its current configuration for more than 40 years. For 3 miles, Miller Road is used for local bus service that connects to 3 east/west regional bus routes.
	68th Street Active Transportation Corridor	Reconfigure the 68th Street corridor between Continental Drive and Jackrabbit Road (4 miles) to provide sidewalks that meet current standards for width (6' minimum), accessibility and freedom from obstructions. The section north of Chaparral Road will require widening to provide space for bike lanes. Pedestrian crossing treatments may also be necessary at several ¼-mile locations. The southern 2.5 miles of the project corridor is used as a local bus route. The corridor also connects to regional bus routes at four east/west streets and to Tempe's local circulator at Continental Drive. Approximately 0.8 miles of frontage on the northern end of the project corridor are in Paradise Valley.

	Oak Street Active Transportation Corridor - 56th Street to Pima Road	Reconfigure the Oak Street corridor between 56th Street and Pima Road to provide sidewalks that meet current standards for width (6' minimum), accessibility and freedom from obstructions. Pedestrian crossing treatments may also be necessary at several ¼-mile locations. The majority of this 4-mile corridor has been in its current configuration for more than 40 years. Oak Street has 1 mile of transit service and intersects with two regional bus routes and 2 local routes.
	Downtown Couplet Active Transportation Improvements	Provide continuous 6-8' sidewalks and bike lanes on the City's 3-mile downtown couplet roadway. The project will include reducing the roadways (Goldwater Boulevard and Drinkwater Boulevard) to 2 lanes in each direction and adjusting median and curb locations to allow for bike lanes and sidewalks in both directions. An improved crossing treatment will be necessary on Drinkwater Boulevard north of Earll Drive
	Roosevelt Street/Continental Drive Active Transportation Corridor	Reconfigure the Roosevelt Street/Continental Drive corridor between 66th Street and Latham Street (3 miles) to provide bike lanes or shared lanes and sidewalks that meet current standards for width (6' minimum), accessibility and freedom from obstructions. Pedestrian crossing treatments may also be necessary at several ¼-mile locations, as well as at Scottsdale Road and Hayden Road. Single lane roundabouts may be considered at the 68th Street, Miller Road and Granite Reef Road intersections. Two miles of the corridor are on local bus routes operated by Scottsdale and/or Tempe. It also intersects with two regional bus routes. The southern frontage west of Scottsdale Road (0.75 miles) is in Tempe.
	Granite Reef Road Active Transportation Corridor	Reconfigure the Granite Reef Road corridor between Roosevelt Street and Lincoln Drive to provide sidewalks that meet current standards for width (6' minimum), accessibility and freedom from obstructions. Pedestrian crossing treatments may also be necessary at several 1/4 mile locations. Granite Reef Road between Roosevelt Street and Camelback Road (3 miles) has been designated by MAG as an Active Transportation Grid Tier 1 and Tier 2 corridor. One mile of the corridor has transit service, and the entire corridor intersects 3 east/west bus routes.

	Chaparral Road Active Transportation Corridor	Reconfigure and realign Chaparral Road between 66th Street and 69th Place (0.5 miles) to provide two 11' travel lanes, 5' buffered bike lanes and setback sidewalks that meet current standards for width (6' minimum), accessibility and freedom from obstructions. Single lane roundabouts may be constructed at the 66th Street and 68th Street intersections.
	Westland Road - Hayden to Pima	Widen/reconstruct/realign Westland Road between Hayden and Pima roads (1 mile) as a 3-lane complete street. Other project elements will include 5-6' bike lanes, curb/gutter, catch basins, storm drains/culverts, center turn lane/raised median, 6-8' sidewalk on one side, 8-10' side path and 6-8' multi-use trail. A roundabout will be considered at the Westland/Hayden intersection. Right-of-way acquisition will be necessary in some locations.
	Cactus Road Active Transportation Corridor - 60th to Loop 101	Modify curb lanes as necessary to allow for 5' bike lanes, construct approximately 1.5 miles of missing sidewalk (6-8') and reconstruct approximately 4 miles of sidewalk that is too narrow and sits mostly back of curb. An 8' side path exists on the north side from Scottsdale Road to 84th Street. Frontage on the north side of the road between 60th Street and Scottsdale Road is in Phoenix.
Shared Use Paths	Indian Bend Wash Shared Use Path Expansion - McKellips Road to Shea Boulevard	Redesign and widening/reconstruction of the Indian Bend Wash shared use path system between McKellips Road and Shea Boulevard (approximately 10 miles). The improvements will meet current design standards for width, slope and accessibility that were not in place when most of the pathway was built in the 1970s and 1980s. Impacts to the usability of the path due to adjacent irrigation and ponded stormwater will be addressed and a new bridge will be required at the Osborn Road crossing. Improved accommodations for cyclists at the two remaining signalized roadway crossings, Indian Bend Road and McCormick Parkway are also needed. Phase I is funded in the FY 22-26 CIP.
	Pima Shared Use Path - Roosevelt to McDowell	Reconstruct and widen approximately 0.7 miles of existing 8' path that is in poor repair. The new width will be 10'. It is expected that the path will continue south when the Salt River Pima-Maricopa Indian Community extends Pima Road to the Curry Road alignment.

	CAP Path and Trail	Complete the CAP Trail shared-use path between Scottsdale Road and 124th Street. The project will include an 8-10' concrete path and grade-separated crossings at Thompson Peak Parkway, Via Linda and Shea Boulevard. Approximately 2.3 miles of the 8.3-mile corridor have been constructed by the city or adjacent landowners. The 3 grade separated crossings will pass under existing bridges. A separate proposal for a Loop 101 overpass bridge has also been developed.
	WestWorld Area Path and Trail Connections	Construct approximately 5.5 miles of 10' shared use path and 6-8' trail that link the upper Indian Bend Wash Path System to the McDowell Mountain Preserve, the north Pima Road Path and Thompson Peak Park. Grade-separated crossings will connect to existing drainage structures at Thompson Peak Parkway and Bell Road and to buried tunnels at Pima Road and Hayden Road.
	Shea Boulevard Shared Use Path - 142nd Street to Eagle Mountain Parkway	Construct a 10’ wide shared use concrete path, handrail, and new guardrail along curb on the south side of Shea Boulevard from the existing section of shared use path at 142nd Street east to Eagle Mountain Parkway in Fountain Hills. Partnership with Fountain Hills is required.
	Shea Boulevard Shared Use Path Gap Connections	Complete approximately 4.6 miles of 8-10' shared use path gaps along the south side of Shea Boulevard between 64th Street and 142nd Street. Approximately 4.4 miles of 8' shared use path separated from back of curb has been constructed over the past several decades by adjacent development and/or the city. There is not sufficient space on street to add bike lanes by narrowing travel lanes.
	CAP/Loop 101 Bike and Pedestrian Bridge	A concept for the Loop 101 overpass bridge was developed using a MAG design assistance grant in 2014. This structure, including approaches, is approximately 2000 feet long and is separate from the CAP Path & Trail project.
	Bicycle/Pedestrian Bridge at Loop 101 and Union Hills	Construct a new bicycle/pedestrian bridge across the Loop 101 on the former Union Hills Road alignment and approximately 0.6 miles of 10' shared use path from Loop 101 to Pima Road. An underpass at Pima Road to connect to the Indian Bend Wash Path extension may also be constructed.

	Indian Bend Wash Northwest Branch - Scottsdale Road to Indian Bend Road	Construct a new 10' shared use path connecting Scottsdale's Indian Bend Wash Path to an existing bridge where Scottsdale Road crosses the northwest branch of Indian Bend Wash (approximately 1.1 miles). This connection is part of a proposed Regional Conduit identified in MAG's 2020 *Active Transportation Plan.*
Street Reconfigurations and Enhanced Pedestrian/Bicycle Crossings	Pedestrian/Bicycle Crossing Enhancements	Improve the ability for pedestrians and bicyclists to safely cross busy streets. Improvements may include hybrid pedestrian beacons, rectangular rapid flash beacons, pedestrian refuges, pedestrian median barriers, crosswalk treatments, sidewalk gap removals and improved lighting or other approved technologies.
	Buffered Bike Lanes (Striping)	Repurpose underutilized curb lanes and/or unnecessary two-way center turn lanes by striping buffered bike lanes
	Neighborhood Greenways (Bicycle Boulevards)	Design and construct improvements to support Neighborhood Bikeways. Typical features of these corridors include restriping, traffic calming, wayfinding signage and enhanced crossings of major roadways.
	Grade Separated Pedestrian/Bicycle Crossings	Install new grade separated crossings for pedestrians and cyclists across major streets with strong active transportation use. The new connections would support connections from paths to parks/schools/employment across arterial roadways. Targeted corridors would include Scottsdale Road, Hayden Road and Shea Boulevard.
	Separated Bike Lanes	Repurpose underutilized curb lanes and/or unnecessary two-way center turn lanes by constructing physical buffers for bike lanes or constructing new side paths.
	Roadway Right Sizing	Repurpose underutilized curb lanes and/or unnecessary two-way center turn lanes by narrowing roadway footprints (moving curbs).

Preservation/Maintenance/ Optimization	Pavement Management	Complete ongoing street and alley pavement overlays and all associated improvements, which may include milling and surface treatments on the existing roadway; traffic control; new pavement thickness; water valve and manhole lowering and raising; signal detection upgrades from loops to video; Americans with Disabilities Act (ADA) upgrades for concrete ramps and signal push buttons; concrete repairs to curbs and sidewalks; new striping plans; new thermoplastic striping; and new signage for bike lanes and sidewalks.
	ADA Improvements	Scottsdale has developed an ADA Transition plan for improved pedestrian accessibility through the provision of improved sidewalk ramps, improved transit stops, modifications to driveway cross slopes and the elimination of sidewalk gaps. Improvements to corner ramps are also federally required for pavement overlay projects.
	Signal System and ITS Replacements and Upgrades	Scottsdale currently operates 318 traffic signals and 175 ITS cameras, all with limited lifespans for equipment and structures. Intelligent Transportation System (ITS) communications equipment and traffic control room requirements must also be upgraded over time. In addition, changes in technology, design standards and citizen expectations (including bicycle detection and emergency vehicle preemption) can affect how the signal system is managed and maintained.
	Streetlight Replacement and Maintenance	Scottsdale is responsible for close to 9,000 streetlights, all with limited lifespans for equipment and structures.
	Traffic Signals	Install new signals that have met warrants or perform major signal renovations at up to four intersections per year.
	Intersection and Roadway Corridor Safety Improvements	Scottsdale prepares a citywide collision report every two years, and the data is used to prioritize locations to conduct roadway safety assessments. The assessments often identify long-term capital improvement recommendations. Only a small number of these intersection improvements qualify for federal grants.
	Transit Stop Improvements	Construct new or renovate existing transit shelters and bus stop pads and furnishings. There are currently close to 600 bus stops in the city, of which 197 have shelters.

	Sidewalks	Install missing gaps and/or renovate short segments in the sidewalk system. Particular focus is given to locations near schools and/or along transit routes.
	Bikeways	Install missing gaps and/or renovate short segments in the shared use path network. Install, update or renovate path or bike-lane striping.
	Trails	Construct new trails or install missing gaps in the trail network. Update or renovate existing trail surfaces and signage.
	Neighborhood Traffic Management	The city works with neighborhoods to remediate traffic speed and cut-through concerns using an adopted policy.
	LED Conversion for Streetlights	Complete a citywide conversion of nearly 10,000 high pressure sodium streetlights to energy efficient LED lights. The project will also evaluate smart lighting management systems to provide insights into power usage and remote diagnostic and dimming capabilities.

LIST OF ABBREVIATIONS AND ACRONYMS

ADA - American with Disabilities Act
ADOT - Arizona Department of Transportation
ADT - Average Daily Traffic
APS - Arizona Public Service
SRTS - Safe Routes to School
BRT - Bus Rapid Transit
CAP - Central Arizona Project
CFR - Code of Federal Regulations
CIP - Capital Improvement Program
dBA - Decibels
DRB - Design Review Board
ESL - Environmentally Sensitive Land
HAWK - High Intensity Activated Crosswalk
HURF - Highway User Revenue Fund
IGA - Intergovernmental Agreement
ITS - Intelligent Transportation System
LAB - League of American Bicyclists
LTAF - Local Transportation Assistance Fund
MAG - Maricopa Association of Governments
MUTCD - Manual on Uniform Traffic Control Devices
NAOS - Natural Area Open Space
NTD - National Transit Database
SRPMIC - Salt River Pima-Maricopa Indian Community

LIST OF TERMS AND DEFINITIONS

Access Management	Proactive management of vehicular access points to land parcels adjacent to all manner of roadways.
Active Transportation	Any self-propelled, human-powered mode of transportation, such as walking, skateboarding or bicycling.
Activity Center	Area where there is a concentration of commercial, retail, office and other land uses.
ADA Transition Plan	A plan that includes an entity's programs, services, activities, facilities, current policies, practices and procedures as required by the American with Disabilities Act.
Americans with Disabilities Act	Federal civil rights law passed in 1990. The law prohibits discrimination against people with disabilities and requires public entities and public accommodations to provide accessible accommodations for people with disabilities.
Arabian Library	City of Scottsdale Library.
Arizona Canal	A water conveyance canal included in the Salt River Project water system.
At-grade Crossing	A crossing that where a shared use path or trail crosses a Roadway on the same level.
Automated Passenger Counters	An electronic device available for installation on transit vehicles including buses and rail vehicles which accurately records boarding and alighting data.
Bicycle Friendly Community	A city recognized by the League of American Bicyclists as a community providing safe accommodation and facilities for bicyclists and encouraging residents to bike for transportation and recreation.
Bike Lane	An integral section of a roadway that is marked for exclusive bicycle use and is always one-way.
Bike Route	A shared street, bike lane or shared use path in any combination that is designated by signing or placement on a map.
Buffered Bike Lane	A conventional bicycle lane paired with a designated buffer space separating the bicycle lane from the adjacent motor vehicle travel lane and/or parking lane.
Bus Rapid Transit	A bus-based public transport system designed to have better capacity and higher average travel speed than a conventional bus system.
Cab Connection	A taxi voucher program for Scottsdale residents who are age 65 or older or have a certified disability. The program provides a transportation alternative that is within the control of the participant, is flexible and is relatively affordable.
Capital Improvement Plan	A plan that authorizes and provides the basis for control of expenditures for the acquisition of significant city assets and construction of all capital facilities.

Central Arizona Project Aqueduct	A 336-mile diversion canal in Arizona that diverts water from the Colorado River to the Bill Williams Wildlife Refuge south portion of Lake Havasu near Parker, Arizona into central and southern Arizona.
Clever Device	A device that provides computer aided dispatch, automatic vehicle location, real-time passenger Information and automatic vehicle management for transit vehicles.
Commuter	A person who travels some distance to work on a regular basis.
Complete Street	A street designed and operated to enable safe and comfortable access for all users: motorists, pedestrians, bicyclists, and transit.
Crosscut Canal	A water conveyance canal included in the Salt River Project water System.
Dial-a-Ride	A transport system that complements the existing transit system by providing transportation to people who are unable to utilize local bus service due to a disability.
Employment Hub	A high concentration of traded-sector jobs and employers Within an urban area.
Express Route Service	A type of fixed route transit that typically picks up passengers from park-and-ride lots in suburban areas and takes them to a central urban location.
Federal Transit Administration	A federal agency that provides financial and technical assistance to local public transit systems, including buses, subways, light rail, commuter rail, trollies and ferries.
Fixed Route	Transit services provided on a repetitive, fixed schedule along a specific route with vehicles stopping to pick up and deliver passengers to specific locations, each fixed route trip serves the same origins and destinations, such as rail and bus.
Freeway	A facility designed to safely handle very large volumes of through traffic. Direct access is limited to widely spaced interchanges.
Grade Separated Crossing	A structure built to provide a pedestrian or bicyclist way across high-speed, high-volume roadways by means of either an overpass (bridge) or underpass (tunnel).
Grid System	Roadways that are parallel lines and another set of the same lines perpendicular to them used for motor vehicles and transit.
High Capacity Transit	Transit technology that operates on separate right-of-way and functions to move large numbers of passengers at high speeds, e.g., busway, light rail, commuter rail, etc.
High Intensity Activated Crosswalk	A traffic control device used to stop road traffic and allow pedestrians and bicyclists to cross safely.
Highway User Revenue Fund	A fund that contains revenues collected from gasoline and use-fuel taxes, motor-carrier taxes, vehicle-license taxes, motor vehicle registration fees and other miscellaneous fees in the state of Arizona.

Indian Bend Wash Path System	An existing and planned shared use path corridor that stretches from the Scottsdale/Tempe border on the south to the Scottsdale/Carefree border on the north. Portions of the corridor traverse flood control facilities designed for recreational uses.
Intelligent Transportation System	The control and information systems that use integrated communications and data processing technologies for the purposes of improving the mobility of people and goods and increasing safety, reducing traffic congestion and managing incidents effectively.
Intergovernmental Agreement	Any agreement that involves or is made between two or more governments in cooperation to address issues of mutual concern.
Inter-jurisdictional Coordination	An effort to bring all parties together to discuss issues, examine solutions, resolve problems and improve regional connectivity.
League of American Bicyclists	A membership organization that promotes cycling for fun, fitness and transportation through advocacy and education.
Light Rail Transit	A streetcar-type vehicle operated on city streets, semi-exclusive rights of way, or exclusive rights of way. Service may be provided by step-entry vehicles or by level boarding.
Local Residential	A street that provides direct access to adjacent land uses, provide access to the collector street system and accommodate lower traffic volumes (usually less than 5,000 ADT) and travel speeds.
Local Route	A transit route comprised within the Scottdale Trolley System.
Local Transportation Assistance Fund	A fund used to provide assistance to local communities for general transportation purposes statewide.
Loop 101	A freeway contained within the Arizona Department of Transportation regional freeway system.
Major Arterial	A roadway street with raised medians providing regional continuity and carries large volumes of traffic between areas of the city and through the city. Typical cross-section are six lanes contained within 150 feet of right of way.
Major Collector	A roadway street providing traffic movement between arterial and local streets, with some direct access to abutting commercial and multi-family land uses. Center left- turn lanes are provided to allow for greater access. Typical cross-section is four lanes contained within 100-feet of right of way.
Mandated Service Area	The area required to provide complementary paratransit service to origins and destinations within corridors with a width of three-fourths of a mile on each side of each fixed transit route. The corridor shall include an area with a three-fourths of a mile radius at the ends of each fixed route.

Maricopa Trail	An unpaved trail contained within Maricopa County regional trail system.
McDowell Sonoran Preserve	The Scottsdale McDowell Sonoran Preserve is a large, Permanently protected, sustainable desert habitat that includes an interconnected network of non-motorized, multi-use trails (hike/bike/horse) accessed from multiple trailhead locations.
Minor Arterial	A roadway street with raised medians providing regional continuity and carries large volumes of traffic between areas of the city and through the city. Typical cross-section are four lanes contained within 110 feet of right of way.
Minor Collector	A roadway street providing traffic movement between arterial and local streets, with some direct access to abutting commercial and multi-family land uses. Center left- turn lanes are often provided to allow for greater access. Typical cross-section is two lanes contained within 80-feet of right of way.
MLHD Trolley, 68CM Trolley	Miller Road and Hayden Road, 68th Street and Hayden Road routes served by Scottsdale Trolley.
Multimodal System	Having or using a variety of transportation modes.
Mustanger Transit Center	A transit facility located at 90th Street and Cochise Drive in Scottsdale, Arizona that includes bus bays with enhanced access for flexible routing options, transit shelters that provide bicycle parking, trash receptacles; enhanced shade and seating options and public art.
National Community Survey	A benchmarking survey providing a comprehensive and accurate picture of livability and resident perspectives about local government services, policies and management.
National Transit Database	Primary source for information and statistics on the transit systems in the United States.
Natural Area Open Space	A percentage of property required by the city of Scottsdale to be preserved to protect environmental features, including vegetation, washes, mountain ridges and peaks from inappropriate development.
Neighborhood Bikeway	A bicycle facility typically found on streets with traffic volumes of under 2,000 vehicles per day (vpd) and residential speeds (25 miles per hour or less) which often contains connections that can only be made by bike or as a pedestrian.
Neighborhood Circulator	A short-distance, circular, fixed-route transit mode that takes riders around a specific area with major destinations.
Neighborhood Traffic Management	The assessment of traffic issues in local neighborhoods to address speed and other traffic conditions.
Neighborhood Trail	A trail that provides access in and around neighborhood areas and provides connections to Primary and Secondary Trails.
Nonmotorized	Not equipped with a motor.

Old Town Scottsdale	An area formerly known as Downtown Scottsdale located in the heart of the city of Scottsdale.
On-Street Network	Facilities located on the street, anywhere on or along the curb of streets.
Paratransit	Transportation for people with disabilities who are unable to use the regular, fixed route transit service that serves their region.
Park-n-Ride	Parking lots with public transport connections that allow commuters and other people heading to city centers to leave their vehicles and transfer to a bus, rail system (rapid transit, light rail, or commuter rail), or carpool for the remainder of the journey.
Paved Path Network	A network made up of paved shared use paths with a minimum width of eight feet.
Paved Roadway Shoulder	An area paved adjacent to the striped edge line of a roadway.
Pavement Condition Index	A score given to a section of pavement on a roadway with a range from 0–100. A score of 85-100 represents a road in excellent condition.
Pedestrian Refuge	A crossing that includes raised median islands that provide a location for pedestrians to safely wait for a gap in the traffic so they can finish crossing the road.
Performance Measure	A regular measurement of outcomes and results, which generates reliable data on the effectiveness and efficiency of programs.
Preventive Maintenance	All the activities, supplies, materials, labor, services, and associated costs required to preserve or extend the functionality and serviceability of a transit asset in a cost-effective manner.
Primary Trail	A trail that provides both transportation and recreation links between residential areas, schools, businesses, parks, places of employment and other areas of significant community activity.
Proposition 400	A half-cent sales tax extension approved by Maricopa County, Arizona voters that went into affect January 1, 2006, for transportation improvements in the Maricopa County region.
Public Transit	A system of transport for passengers by group travel systems available for use by the general public.
Raised Pedestrian Crossing	A crosswalk with ramped speed tables spanning the entire width of the roadway, often placed at midblock crossing locations.
Rectangular Rapid Flashing Beacon	A crossing with pedestrian-actuated conspicuity enhancements used in combination with a pedestrian, school, or trail crossing warning sign to improve safety at uncontrolled, marked crosswalks.
Regional Fare Policy	A policy set by Valley Metro Regional Transportation Authority for the fixed route and light rail systems.

Regional Sales Tax	A tax collected at the point of sale within a specified region such as a county.
Restriping	To change the lane markings or other markings on a road or another paved path.
RideChoice Program	Transportation for ADA paratransit certified people with disabilities and seniors aged 65 and above who reside in participating communities.
Right-of way	The area allowing the right to make an access corridor, usually to and from another piece of land.
Roadway Cross Section	The view obtained in a section between the right-of-way lines cut perpendicular to the direction of travel along the road. It includes features on the traveled portion of the road used by vehicular traffic as well as access for non-vehicular traffic.
Roundabout	A circular traffic control device used in place of a traffic signal or multi-way stop.
Route 510	Valley Metro express transit route which travels between Scottsdale's Mustang Transit Center and downtown Phoenix.
Route 72	Valley Metro regional transit route serving Scottsdale Road with end points at Thompson Peak Parkway and Chandler Fashion Square.
Rugged Trail	A trail built as far away from traffic as possible and designed for equestrians, hikers, runners and mountain bikers.
Safe Routes to School	A federal program enabling and encouraging children, including those with disabilities, to walk and bicycle to school.
Salt River Pima-Maricopa Indian Community	A sovereign tribe located in the metropolitan Phoenix area.
Scottsdale Airpark	One of the largest employment centers in the state of Arizona. Anchored by the Scottsdale Airport, the Scottsdale Airpark encompasses an 8.6 square mile area with over 2,900 businesses employing more than 51,000 people.
Scottsdale General Plan 2035	An adopted plan that guides the physical development of Scottsdale, Arizona for a twenty-year timeframe.
Scottsdale Trolley System	A public transit system managed and operated by the city of Scottsdale, Arizona.
Secondary Trail	A trail that provides alternative transportation and recreation links through areas such as desert washes, scenic corridors, vista corridors and other desert open space areas.
Shared Use Path	A paved pathway set aside for the exclusive use of active transportation travel that is intended for two-way movement separated from roadway infrastructure.
Side Path	An eight-foot or ten-foot-wide sidewalk that is separated from the back of curb in most cases and/or is adjacent to a bike lane.
Sidewalk	A paved path for pedestrians at the side of a road.
Standard Size Transit Vehicle	A transit vehicle averaging a length of 39 feet with a seating capacity of 29.

Sun Circle Trail	An unpaved trail contained within the Maricopa County regional trail system.
Tempe Streetcar	A modern streetcar system located in Tempe, Arizona.
Thunderbird Park-n-Ride	A transit facility located at Scottdale Road and Thunderbird Road served by regional transit routes.
Traffic Signal	A signaling device positioned at road intersections, pedestrian crossings, and other locations to control flows of traffic.
Trail	An unpaved, natural soil area with a minimum width of four feet to allow the movement of pedestrians, equestrians and bicyclists.
Trail Easement	The area the allows a use on a specific piece of land.
Transit Asset Management Plan	A plan that uses the condition of assets to guide the optimal prioritization of funding at transit properties in order to keep transit networks in a State of Good Repair.
Transit Center	A transit facility providing a connection point where multiple buses are able to stop simultaneously to allow cross-route transfers between other buses or, where an LRT station exists, a transfer to an LRT vehicle.
Transit Dependent Population	Populations that rely on public transportation for transportation and have limited or no access to a private automobile.
Transit Frequency	The amount of time it takes between transit vehicle arrivals at a specific stop location.
Transit Modes	Transit buses, vans, light rail, and other vehicles that operate on a predetermined route according to a predetermined schedule.
Transit Signal Priority	The utilization of existing vehicle location and wireless communication technologies to advance or extend the green light of a traffic signal for a transit vehicle.
Transportation Action Plan	A multimodal plan to guide transportation improvements in the city of Scottsdale for a five to ten-year time frame.
Transportation Sales Tax	A tax collected at the point of sale by a public entity for transportation improvements.
Truck Route	Four-lane or larger streets identified for regular through passage of trucks over 10,000 lbs. Intermittent pick-up and delivery of materials and merchandise may occur on all streets.
Turnaround	A location permitting the turning around of a vehicle.
Valley Metro	The Regional Public Transportation Authority located in Maricopa County, Arizona.
Vehicles Per Day	Vehicles traveling past a specific location in a 24-hour period, typically stated as an annualized average to account for seasonal variations.
Voucher System	A system that sets up procedures to safely verify, approve, record, and issue vouchers for public transportation.
Waste Management Open	A professional golf tournament on the PGA Tour, held in late January/early February at the Tournament Players Club in Scottsdale, Arizona.

Wayfinding	Signage to assist pedestrians and bicyclists to reach destinations and identify routes.
WestWorld	A premier, nationally recognized, user-friendly equestrian center and special events facility serving the city of Scottsdale community and visitors.

CITY OF SCOTTSDALE

Transportation Action Plan
Public Input Overview

Transportation Commission
November 18, 2021

Online Questionnaire

Reviewed at September 16, 2021 Meeting

Scottsdale seeking input for Transportation Action Plan

By Jennifer Banks, transportation public information officer, 480-312-7517

Kelly Corsette, communications & public affairs director, 480-312-2336

August 25, 2021

How could the city improve traffic flow, bicycle and pedestrian safety, and transit options over the next 10 years? These and other key questions are being evaluated as Scottsdale drafts its 2021 Transportation Action Plan, which will guide the city's transportation priorities, investments and programs over the next decade.

As part of the process, the city is seeking input from Scottsdale residents, business owners and people who work in the city. Providing input is easy – visit ScottsdaleAZ.gov and search "TAP" to find a link to the online questionnaire along with links to supporting material and information.

The online questionnaire will be available until Friday, Sept. 3.

The TAP will provide not only an overview of Scottsdale's current transportation infrastructure, but direction for Scottsdale's transportation future for approximately the next 10 years. Feedback will be used to shape the goals, policies and performance measures for each of Scottsdale's transportation elements (street, transit, trail, bikeways and pedestrian) and an overall prioritized implementation program.

Once completed and approved by the City Council, the TAP will replace the most recent Transportation Master Plan, approved in 2016.

- Coordinated with city vendor – Polco
  - Response period: 8/25-9/3/21
  - Total Number of Responses = 222

Question 1-8 Summary

#	Question	Agrees	Neutral	Disagrees
1	Focusing on an action plan for the next 5 to 10 years is a better strategy than developing a new master plan for the next 20 to 30 years.	67%	21%	12%
2	Scottsdale should devote a portion of its transportation budget to evaluating and possibly implementing new transportation technology.	75%	9%	16%
3	Preserving and improving existing transportation infrastructure should be prioritized over building new transportation infrastructure.	48%	27%	25%
4	Scottsdale should emphasize pedestrian safety and multimodal travel over motor vehicle travel speed.	68%	15%	17%
5	It is okay to remove travel lanes on streets with excess traffic capacity to provide better bicycle and pedestrian facilities.	62%	8%	31%
6	Roundabouts improve traffic flow.	58%	15%	27%
7	Roundabouts improve traffic safety.	46%	26%	28%
8	Improving existing transit service should be prioritized over expanding transit service to northern Scottsdale.	48%	21%	32%

CITY OF SCOTTSDALE

Transportation Challenges (categories)

257 total responses

Category	# of Responses
Traffic congestion/flow/safety	68
Speeding/poor driving/distraction	59
Limited Bike or Pedestrian infrastructure and/or safety	37
Limited transit service	32
Signal timing/signal improvements	32
New development	7
Limited parking	6
Maintenance	4
Other	12

CITY OF SCOTTSDALE

Transportation Improvements to Reduce Auto Use (categories)

256 total responses

Category	# of Responses
Bike/Pedestrian System	87
High Capacity Transit	44
Bus Service	37
None	26
Trolley Service	25
Transit Alternatives/Micro Transit	16
Other	21

CITY OF SCOTTSDALE

Priorities Feedback – Summary

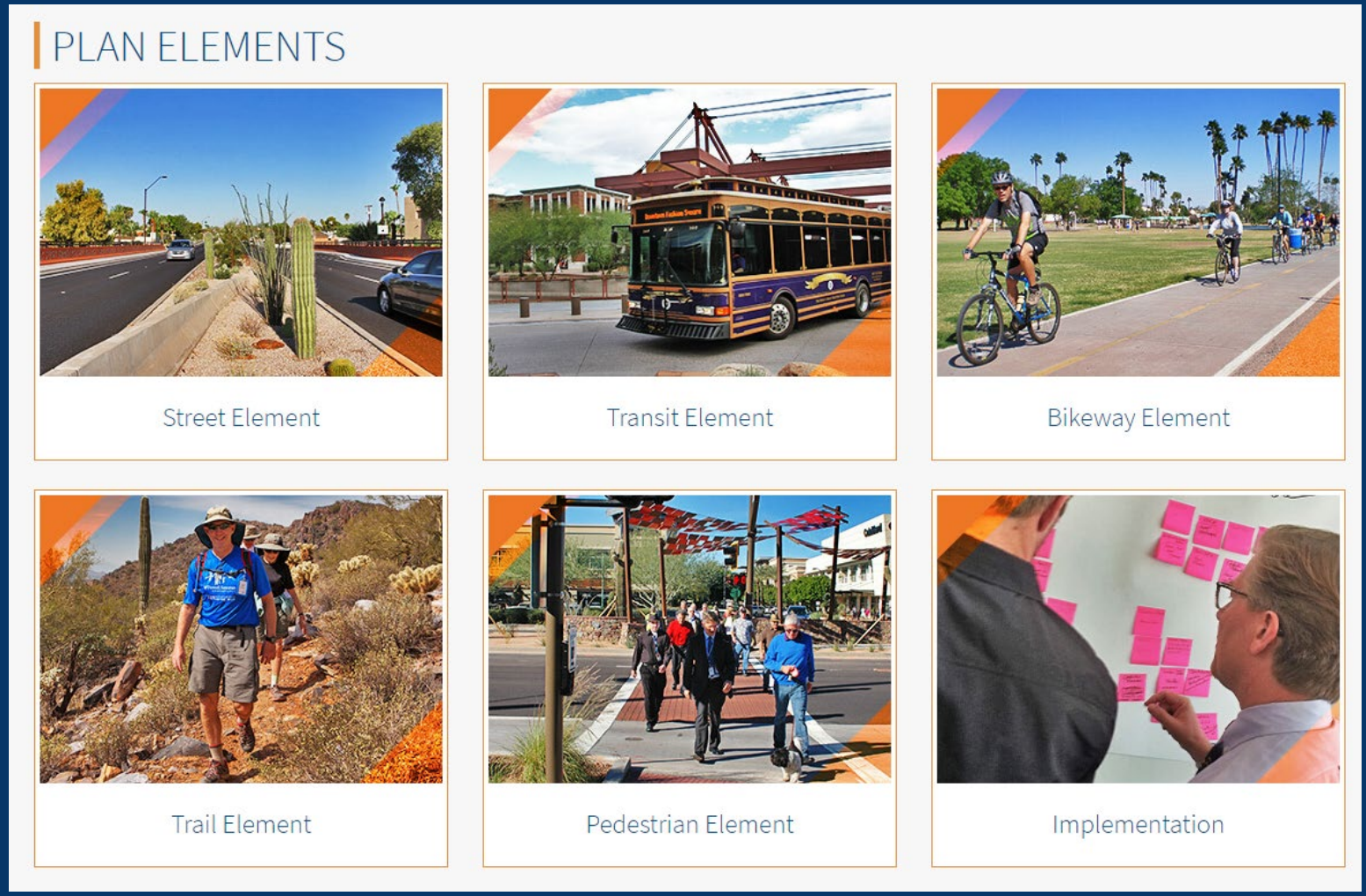
Prioritization Category	Southern	Old Town	Central	Northern	Average
On-street bikeways and bicycle facilities	15%	16%	15%	15%	15%
Shared-use paths (paved)	17%	16%	17%	17%	17%
Traffic flow	30%	27%	32%	33%	31%
Transit	21%	18%	20%	19%	20%
Enhanced crossings for pedestrians and bicyclists	17%	23%	16%	17%	18%

Respondents suggest about 30% of expenditures should be allocated to traffic flow/congestion relief

CITY OF SCOTTSDALE

Virtual Public Open House (October 18-31, 2021)

- Recorded presentations for each element
- 156 web page views
- 11 individuals submitted comments online



CITY OF SCOTTSDALE

Written Public Comments on the draft Transportation Action Plan Questionnaire and Open House Phases

- Multiple comment topics
  - Revise plan for 128th Street where McDowell Sonoran Preserve is on both sides (17)
  - Continue to improve bike and pedestrian access (3)
  - Crosswalk design concerns (2)
  - Light rail extension northbound into Scottsdale (2)
  - Widen Chaparral road for access to Fashion Square area (2)
  - Development density concerns (2)

CITY OF SCOTTSDALE

Written Public Comments on the draft Transportation Action Plan

- Single comment topics
  - Do not install roundabouts
  - Future Rio Verde widening must include wildlife crossing near 124th St.
  - Do not widen Mt. View Road between 92nd and 96th
  - Need mass transit
  - Support reducing number of travel lanes

CITY OF SCOTTSDALE

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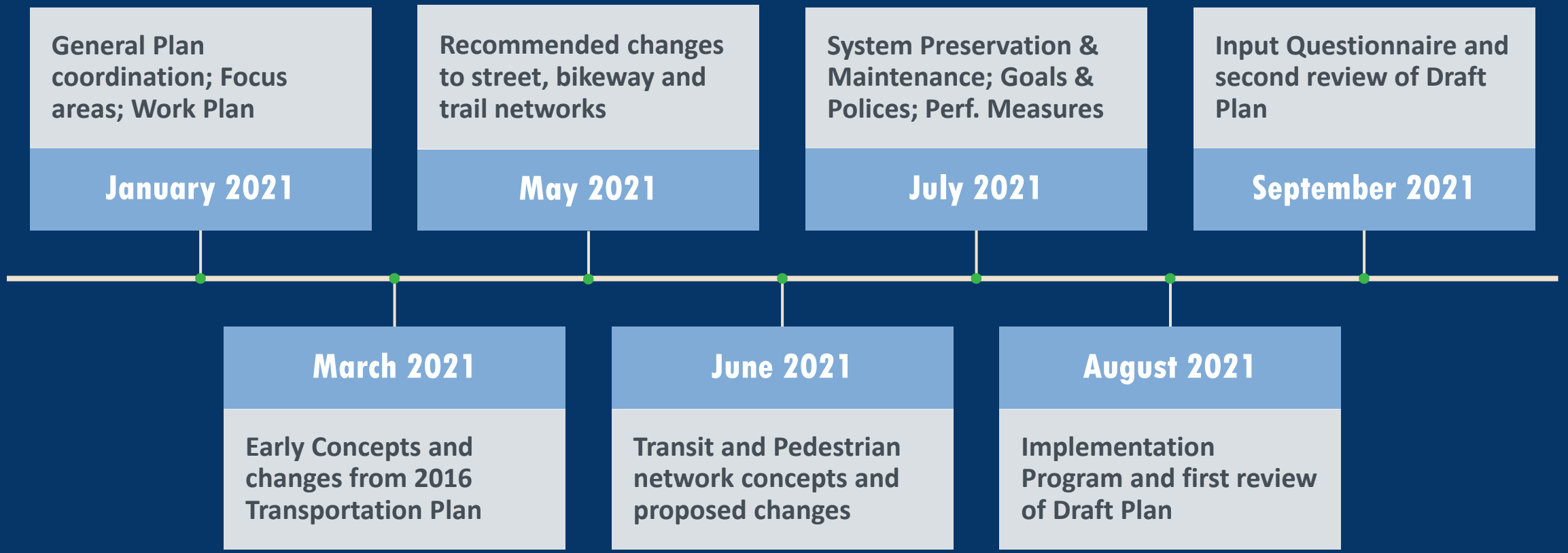
Transportation Action Plan 3rd Review

Transportation Commission
September 16, 2021

Transportation Action Plan Development



CITY OF SCOTTSDALE

SCOTTSDALE TRANSPORTATION & STREETS IS ON THE MOVE...

Scottsdale's Transportation Action Plan (TAP) 2021 provides an overview of Scottsdale's current transportation infrastructure, as well as a roadmap for Scottsdale's transportation future. It includes the objectives, policies, values and guidelines to inform transportation decisions moving forward, along with a prioritized implementation plan to preserve and improve how we get around Scottsdale, whether by foot, bus, bike, vehicle, motorcycle, scooter, horse, or something yet to emerge--over the next 10 years.

Since Scottsdale drafted its first plan in 2008 and revised it in 2016, there have been significant shifts in community priorities, city leadership, traffic patterns, technology and funding. More people, for example, are interested in bikeways, trails and other amenities that support non-motorized modes of transportation. Despite additional development over the last 20 years, travel demand has not grown as much as projected. And new technology, such as adaptive traffic signals and autonomous vehicles, is reducing congestion. Several projects that made sense in 2008 have become unnecessary, infeasible or unaffordable in 2021.

HOW TO NAVIGATE THIS SITE

The plan is divided into transportation elements, which you can navigate to with the top menu. Also included in the menu are an implementation plan and a list of the figures included throughout the site.

Within each element section you'll find relevant goals, policies, performance measures, classifications, figures, and ongoing data collection.

Introduction

CITY OF SCOTTSDALE

Non-Typographical Updates Since September 16, 2021

- Eliminated discussion regarding character areas

CITY OF SCOTTSDALE


Street Element

Non-Typographical Updates Since September 16, 2021

- None

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Transit Element

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Non-Typographical Updates Since September 16, 2021

- Deleted text and mapping related to reinstatement of the Downtown Circulator
- Revised text regarding Trolley service expansion
  - Previous: “Connect to McDowell Mountain Aquatic Center, Arabian Library, Scottsdale Airpark and areas beyond Loop 101 along Scottsdale Road.”
  - Current: “Expand service to McDowell Mountain Aquatic Center and Arabian Library.”

CITY OF SCOTTSDALE

Bikeway Element

Non-Typographical Updates Since September 16, 2021

- McDonald Drive: Scottsdale to Indian Bend Wash
  - Add existing 8’ south sidewalk to side path system map
- Indian Bend Road: Hayden to Pima
  - Add existing 8’ north sidewalk (Hayden to 84th) to side path system map
  - Add 84th to Pima to planned side path system map

CITY OF SCOTTSDALE


Trail Element

Non-Typographical Updates Since September 16, 2021

- None

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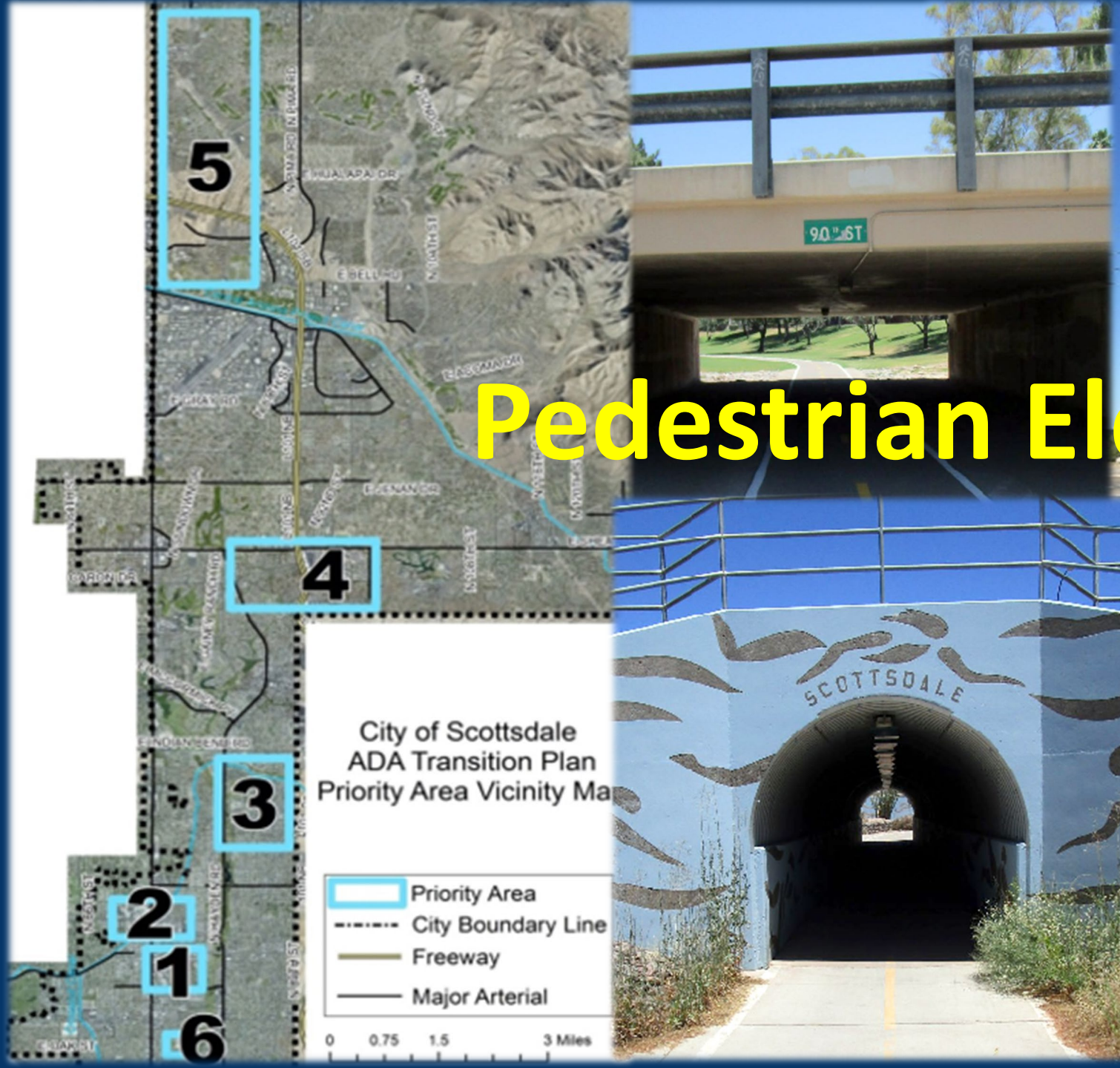
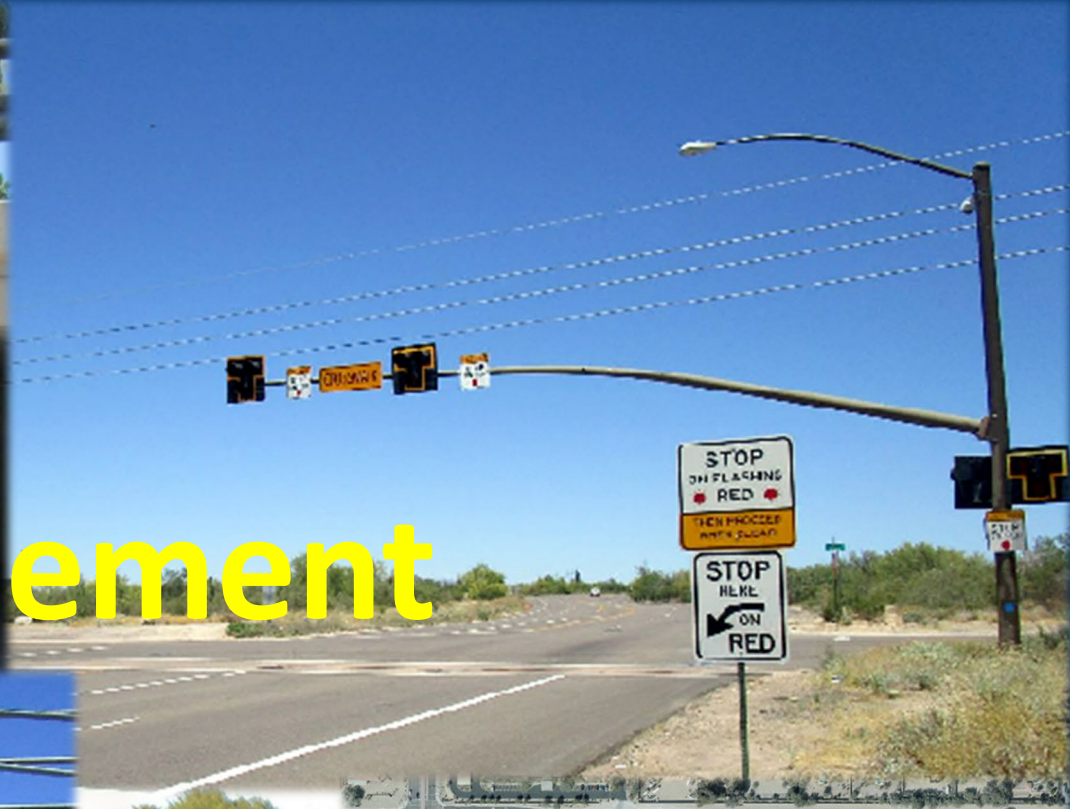
Pedestrian Element





Non-Typographical Updates Since September 16, 2021

- None

CITY OF SCOTTSDALE

IMPLEMENTATION PROGRAM

INTRODUCTION

There will always be a finite level of resources available to meet current and future transportation system needs. Therefore, a program to prioritize new transportation infrastructure projects, programs and services must also consider the requirements necessary to preserve, maintain and operate the existing transportation system. Section 2 in the Street Element of this Transportation Action Plan (TAP) provides a good example of this concept:

> "Develop and manage the street network in a manner that places reliance on maintaining existing infrastructure and improving the efficiency of the existing system before adding new roadway capacity."

The major recurring revenue sources available for transportation are the city's annual share of the State Highway User Revenue Fund (HURF) at $17.9 million in 2020-21, which is primarily generated through per gallon taxes on fuel and the 0.2% Transportation privilege (sales) tax at $23.6 million in 2020-21. HURF revenue, which is shared with cities based on population, is only forecast to grow 2.9% (total) through 2025-2026. The forecasted 0.2% sales tax revenue is expected to average 3% growth annually through 2025-26.

Implementation Program

CITY OF SCOTTSDALE

Non-Typographical Updates Since September 16, 2021

- Added lane mile data to existing pavement maintenance discussion
- Revised text regarding Highway User Revenue Funds
  - Previous: “HURF revenue, which is shared with cities based on population, is only forecast to grow 2.9% (total) through 2025-2026.”
  - Current: “HURF revenue is shared with cities based on population. When looking at new 2020 census data, HURF revenue is forecast to drop by approximately $1.1 million per year, versus pre-census 5-year estimates, and will be less in 2025-2026 than was collected in 2020-21.”

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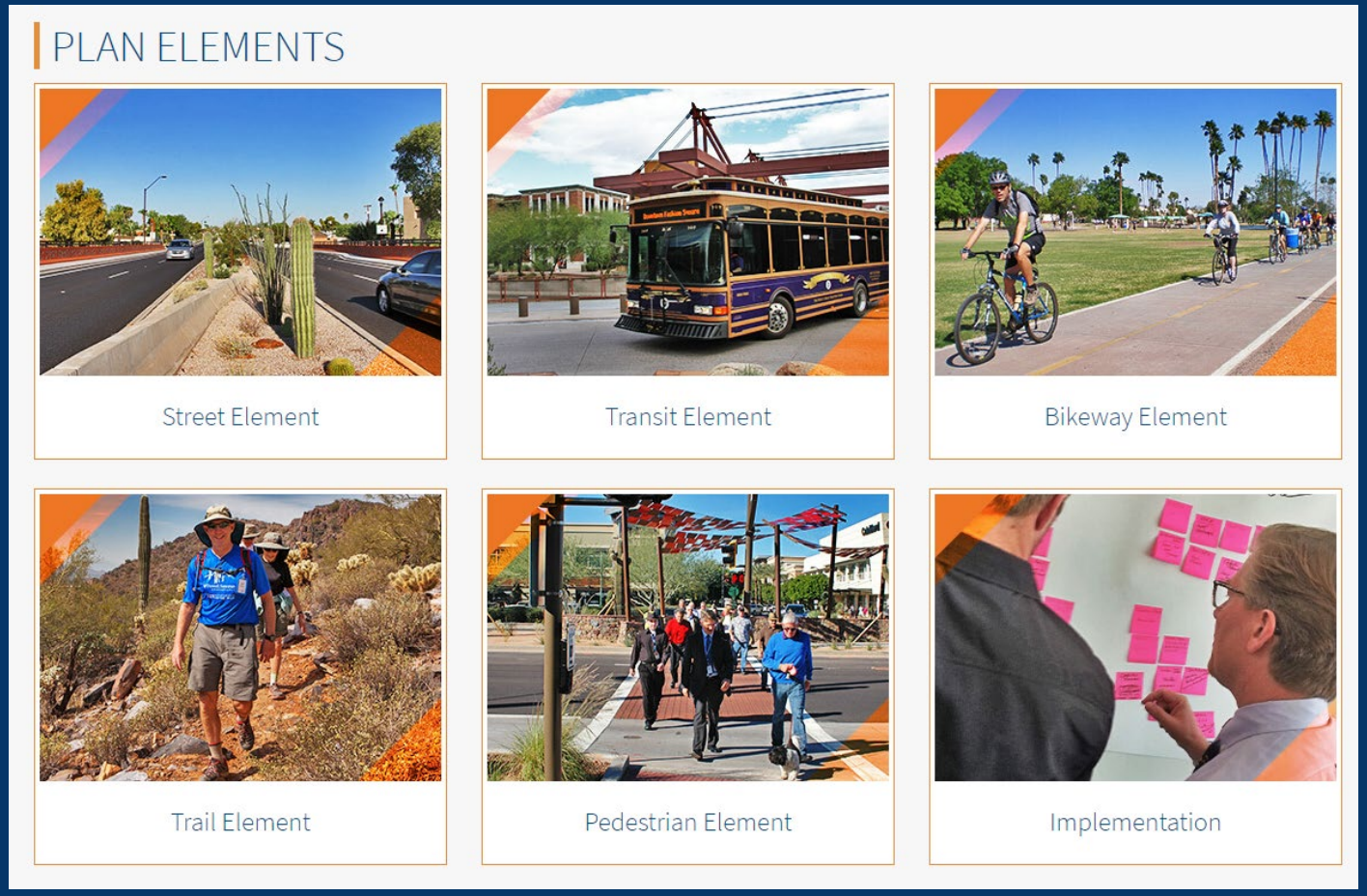
Next Steps

- Final presentation of draft TAP and recommendation to Transportation Commission on December 16, 2021
- Initiate review with City Council in early 2022



CITY OF SCOTTSDALE

SCOTTSDALE TRANSPORTATION COMMISSION REPORT

To: **Transportation Commission**
From: **Dave Meinhart, Transportation Planning Manager**
Subject: **Capital Improvement Plan for Fiscal Year 2022-2023 Budget**
Meeting Date: **November 18, 2021**

Action: Review staff recommendations for Capital Improvement Plan project priorities.

Purpose:
Present proposed Transportation and Streets Department priorities for capital projects in fiscal years 2022-2023 through 2026-2027 (FY 23-27).

Information:
Each year the City Council adopts a five-year Capital Improvement Plan (CIP) as part of the annual budget adoption process. Only the first year of the CIP is funded, with the following four years serving as a forecast of future capital project budget needs. In addition, the Transportation and Streets CIP is adjusted to match the funding levels programmed by the Maricopa Association of Governments (MAG) in their annual update of the Arterial Life Cycle Program (ALCP).

The primary sources of funding for transportation capital projects are the City's 0.2% Transportation Privilege Tax, the Regional 0.5% Transportation Sales Tax (Proposition 400), and Federal grants. Scottsdale voters passed Question 1 in November 2018, which authorized the City to collect an additional 0.1% Transportation Privilege Tax for a period of 10 years. The priority use of this temporary funding source is to ensure the availability of the 30% local match required for ALCP roadway corridor improvements.

The first step in the annual CIP process, per State law, is the re-budgeting of projects not completed during the current fiscal year, unless they have been terminated or deferred by the City Council. The second step is determining whether existing projects have appropriate budgets and whether new sources of funding (grants, developer contributions, etc.) have become available to reduce the use of City funds. After these steps have been taken, a combination of projects that have been previously reviewed, but not funded in the current fiscal year, and new projects are identified for consideration and prioritization.

The FY 23 CIP development cycle is currently at the departmental prioritization stage. The Transportation and Streets Department's priorities will then go through a citywide review process that results in a recommendation to the City Manager. The City Manager's recommendation is then presented to the City Council, which considers the input of the department and the Transportation Commission.

The Transportation and Street Department's CIP recommendations are provided below through a series of tables.

Staff Recommendations:
Table 1 includes standalone, non-ALCP transportation projects recommended for re-budgeting to allow for their completion. These projects are not requesting funding changes in FY 23-27.

Table 1: Existing Projects for Re-Budget (project total)

PROJECT	DESCRIPTION	TOTAL
68th: Indian School to Thomas	Bike lanes (grant)	$0.9M
98th North of McDowell Mtn.	Half-street completion	$1.3M
Buffered Bike Lane Installation	Buffered bike lanes on various streets	$1.2M
Goldwater Blvd Underpass	South of Chaparral Road	$3.0M
Illuminated Street Signs	Scottsdale Road corridor	$1.2M
Indian Bend Wash at Chaparral	Underpass (grant)	$2.1M
Indian Bend Wash Path Renovation	Phase I reconstruction	$2.1M
ITS Infrastructure/Network	Video detection/upgrades (grant)	$3.5M
Old Town Pedestrian Improvements	Sidewalks, ADA access, path link	$3.5M
Old Town Streetlights	Replace existing	$3.2M
Osborn Road Complete Street	Bike/ped and roundabout (grant)	$7.8M
Pedestrian Crossing Improvements	Enhanced crossing treatments	$1.4M
PM-10 Dirt Road Paving	Dust mitigation (grant)	$4.7M
Shared-Use Path Signage	Path wayfinding	$0.8M
Slurry/Milling Unpaved Alleys	Paving dirt alleys	$1.2M
Thomas Road: 56th to 73rd	Bike lanes, ADA access, signals (grant)	$4.8M

Table 2 includes projects to be re-budgeted at the amounts programmed in MAG's FY 2022 Arterial Life Cycle Program. The year listed in Table 2 refers to the expected year for full construction to be underway.

Table 2: ALCP Projects for Re-budget (project total)

PROJECT	DESCRIPTION	YEAR	TOTAL
Raintree Dr: Scottsdale to Hayden	New collector street connection	2022	$40.0M
Redfield Rd: Raintree to Hayden	Restriped collector street	2022	$0.4M
Shea Blvd: Loop 101 to 136th	Multiple intersections, ITS	2022	$14.2M
Pima: Pinnacle Peak to Happy Valley	6-lane complete street	2022	$30.0M
Happy Valley: Pima to Alma School	4-lane complete street	2022	$23.6M
Hayden/Miller: Pinnacle to Happy Valley	4-lane complete street	2022	$14.2M
Scottsdale: Jomax to Dixileta	4-lane complete street, roundabout	2022	$23.8M
Pima Rd: McDowell to Via Linda	4-lane complete street (SRPMIC grant)	2022	$33.2M
Hualapai: Hayden to Pima	4-lane complete street	2023	$10.7M

Table 2 (continued): ALCP Projects for Re-budget (project total)

PROJECT	DESCRIPTION	YEAR	COST
Frank Lloyd Wright/Loop 101	Diamond interchange	2023	$4.0M
Raintree/Loop 101	Modify existing interchange	2023	$1.2M
Raintree: Hayden to Loop 101	4-lane complete street	2023	$6.2M
Pima: Happy Valley to Jomax	4-lane complete street	2023	$22.2M
Carefree Highway	4-lane complete street	2024	$11.4M
Pima: Dynamite to Las Piedras	4-lane complete street	2024	$19.9M
Miller Rd at Loop 101	4-lane complete street	2024	$3.0M
Scottsdale: Dixileta to Carefree	4-lane complete street	2025	$16.9M
Pima: Jomax to Dynamite	4-lane complete street	2025	$11.7M
Pima: Las Piedras to Stagecoach	4-lane complete street	2026	$25.9M
Scottsdale: Thompson Peak to Pinnacle	6-lane complete street (Phase II)	2026	$8.7M
Scottsdale: Pinnacle Peak to Jomax	4 to 6-lane complete street	2026	$2.6M
Hayden/Loop 101	Interchange improvements	2026	$19.4M

Table 3 identifies the unfunded projects that have been prioritized by staff for potential inclusion in the FY 23-75 Capital Improvement Plan. The list includes:

- Recurring projects that address capital maintenance needs;
- Recurring projects that are smaller in scale (typically <$250,000) and can be designed and built in two fiscal years or less;
- Previously reviewed standalone projects (typically >$250,000) that were not funded in the current fiscal year or were not included in the FY 22-26 CIP (shown in *italics*); and,
- New standalone project requests that are being reviewed for the first time (shown in **bold**).

A key focus for this year's ranking is capital maintenance for both recurring and new projects.

Table 3: Prioritized Project Recommendations

RANK	PROJECT	DESCRIPTION	1-YR COST	5-YR COST
1	Trolley Vehicle Purchase	Replacement vehicles; no City funds	-	$4.45M
2	Pavement Overlay Program	Pavement restoration	$6.55M	$32.75M
3	**Pavement Overlay Program (increase)**	Pavement restoration	$2.60M	$13.00M
4	ADA Transition Plan Implementation	Ramps, driveways, bus stops, gaps	$0.30M	$1.50M
5	Illuminated Street Signs	Expansion of pilot program citywide	$1.07M	$5.36M
6	Pavement Overlay - Alleys	Pavement restoration	$0.50M	$2.50M
7	Streetlight Replacement	Equipment/upgrades	$0.20M	$1.00M
8	**Scottsdale Rd Signal Detection System Upgrade**	Improved automation (grant request)	$1.49M	$1.49M
9	**Flashing Yellow Arrow Pilot**	Improved automation (grant request)	$0.83M	$0.83M
10	**Indian Bend Wash Path Extension**	WestWorld to Bell (grant request)	$1.81M	$1.81M
11	**Central Arizona Project Canal Path**	Scottsdale to Northsight (grant request)	$2.71M	$2.71M
12	Roadway Capacity/Safety Improvements	Turn bays, crossings	$0.90M	$4.50M
13	Traffic Signal Construction	Replacements/upgrades/new signals	$0.60M	$3.00M
14	Bikeways Program	Path repair, gaps, striping	$0.40M	$2.00M
15	Transit Stop Improvements	Replacement and new shelters/pads	$0.30M	$1.50M
16	Sidewalk Improvements	Repairs, gaps	$0.20M	$1.00M
17	Trail Improvement Program	Install and/or renovate unpaved trails	$0.20M	$1.00M
18	Neighborhood Traffic Mgmt. Program	Trafic calming devices and striping	$0.20M	$1.00M
19	**Buffered Bike Lanes - Phase II**	Extension of current project (4 years)	$0.40M	$1.60M
20	**Pedestrian Crossing Improvements - Phase II**	Extension of current project (5 years)	$0.35M	$1.75M
21	*Goldwater/Highland Intersection*	Roundabout, ped access, drainage	-	$2.95M
22	*Alma School: Jomax to Quail Track*	Intersection and roadway widening	-	$4.32M
23	*Materials Yard at Pima and 88th Street Phase I*	Enclose equipment storage area		$1.47M
24	*Materials Yard at Pima and 88th Street Phase II*	Enclose signals storage area	-	$1.79M

Next Steps:
The draft CIP priorities will be reviewed by the City's executive staff. The final recommended draft CIP will be reviewed with the Transportation Commission in approximately March 2022.

Contact: Dave Meinhart, 480-312-7641, dmeinhart@scottsdaleaz.gov

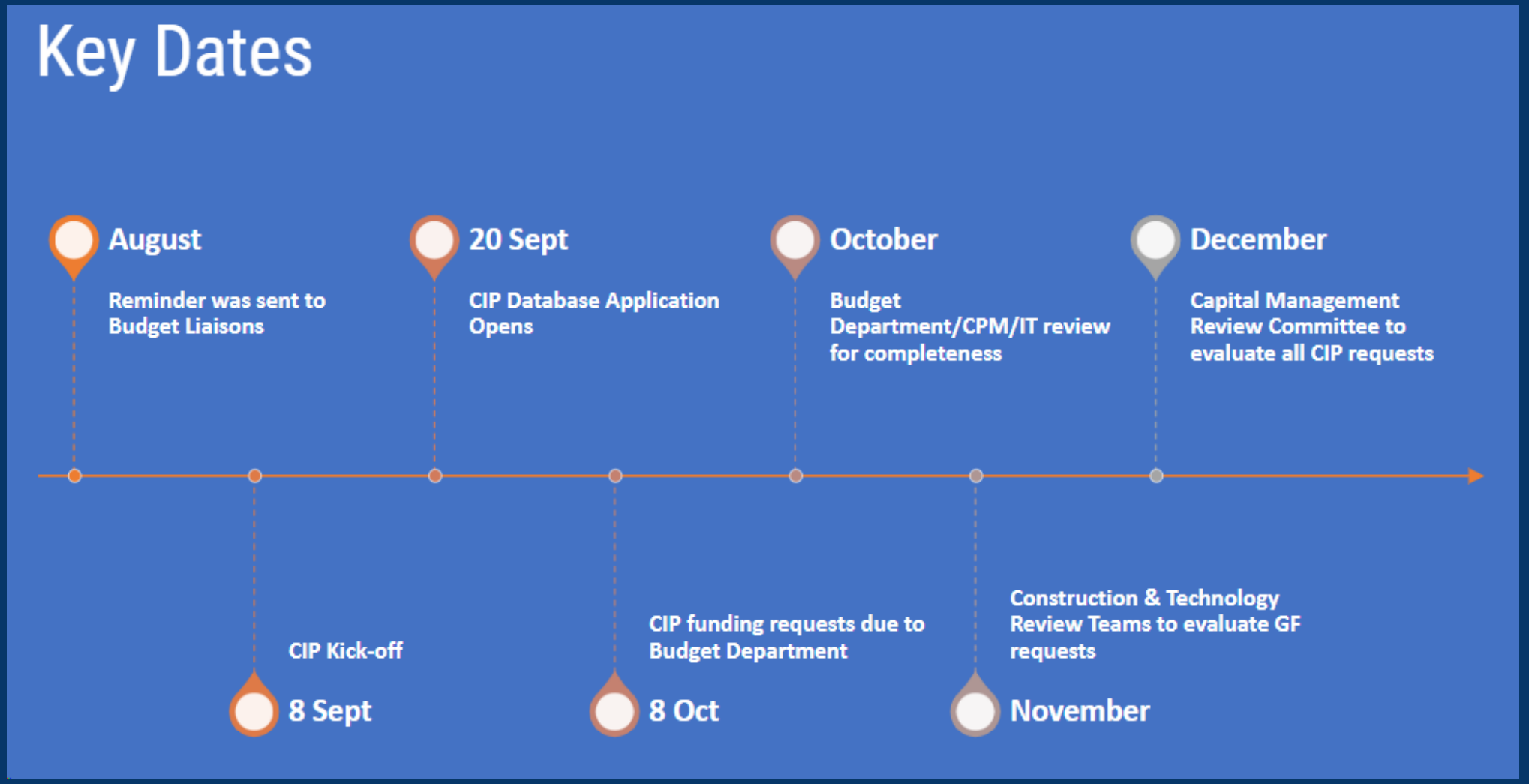
CITY OF SCOTTSDALE

Capital Improvement Plan Priorities Fiscal Year 2022-2023

Transportation Commission

November 18, 2021

Citywide CIP Process – Fiscal Year 2022-2023 (FY 23)



- January/March 2022 – review by City Manager's Executive Team
- April/June 2022 – review and adoption by City Council

CITY OF SCOTTSDALE

Public Works Division CIP Prioritization Process

Step 1:
Re-budget ongoing projects with no significant cost or timing changes (not ranked)

→

Step 2:
Update database and prioritize projects requiring changes and projects not funded in the current fiscal year

→

Step 3:
Develop project scopes/cost estimates for unbudgeted projects and prioritize

Step 1: Existing Transportation Projects for Re-Budget in FY 22

- 16 non-Arterial Life Cycle Program (ALCP) projects
  - 7 projects include grant funds
- 22 ALCP projects
  - Projects must also be reprogrammed annually by Maricopa Association of Governments

CITY OF SCOTTSDALE

Step 2: Projects Recommended for Budget Adjustments or Recommended but not Funded in Fiscal Year 2021-2022 (FY 22)

- No significant budget or timing adjustments this fiscal year
- One project recommended in FY 22-26 CIP but not in adopted FY 22 budget
  - Goldwater/Highland Intersection Improvements

CITY OF SCOTTSDALE

Prioritized Project Recommendations

RANK	PROJECT	DESCRIPTION	1-YR COST	5-YR COST
1	Trolley Vehicle Purchase	Replacement vehicles; no City funds	-	$4.45M
2	Pavement Overlay Program	Pavement restoration	$6.55M	$32.75M
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4	ADA Transition Plan Implementation	Ramps, driveways, bus stops, gaps	$0.30M	$1.50M
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11	Central Arizona Project Canal Path	Scottsdale to Northsight (grant request)	$2.71M	$2.71M
12	Roadway Capacity/Safety Improvements	Turn bays, crossings	$0.90M	$4.50M

CITY OF SCOTTSDALE

Prioritized Project Recommendations (continued)

RANK	PROJECT	DESCRIPTION	1-YR COST	5-YR COST
13	Traffic Signal Construction	Replacements/upgrades/new signals	$0.60M	$3.00M
14	Bikeways Program	Path repair, gaps, striping	$0.40M	$2.00M
15	Transit Stop Improvements	Replacement and new shelters/pads	$0.30M	$1.50M
16	Sidewalk Improvements	Repairs, gaps	$0.20M	$1.00M
17	Trail Improvement Program	Install and/or renovate unpaved trails	$0.20M	$1.00M
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19	Buffered Bike Lanes - Phase II	Extension of current project (4 years)	$0.40M	$1.60M
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22	Alma School: Jomax to Quail Track	Intersection and roadway widening	-	$4.32M
23	Materials Yard at Pima and 88th Street Phase I	Enclose equipment storage area		$1.47M
24	Materials Yard at Pima and 88th Street Phase II	Enclose signals storage area	-	$1.79M

CITY OF SCOTTSDALE

- Next steps
  - Input from the Transportation Commission will be provided to the City Manager's Executive Team
  - Final recommendations for the FY 23-27 CIP will be reviewed with Transportation Commission approx. March 2022

CITY OF SCOTTSDALE

TENTATIVE FUTURE AGENDA ITEMS

Rev.10-29-2021

All Items Subject to Change

TRANSPORTATION COMMISSION

MEETING DATE: December 16, 2021 **REPORTS/PRESENTATIONS DUE December 9**

- **Approval of Meeting Minutes ..... Action**
  Approval of Regular meeting minutes November 18, 2021
- **Transportation Action Plan ..... Presentation, Discussion and Action**
  Discussion of the Transportation Action Plan and Commissions recommendations – David Meinhart, Transportation Planning Manager
- **Commission Identification of Future Agenda Items.....Discussion**
  Commissioners may identify items or topics of interest for future Commission meetings

MEETING DATE: January 20, 2022 **REPORTS/PRESENTATIONS DUE January 13**

- **Approval of Meeting Minutes ..... Action**
  Approval of Regular meeting minutes December 16, 2021
- **Vacant Land .....Presentation and Discussion**
  Impact on areas and traffic with new buildings created – Phil Kercher, Traffic Engineer & Ops Manager
- **New Project Development .....Presentation and Discussion**
  Project development and how it ties in with Transportation – Phil Kercher, Traffic Engineer & Ops Manager
- **Bus Ridership and the Transit System.....Presentation and Discussion**
  Update on bus ridership and the Transit System – Ratna Korepella, Transit Manager
- **Other Transportation Projects and Programs Status .....Information**
  Status of projects and programs – Mark Melnychenko, Transportation & Streets Director
- **Commission Identification of Future Agenda Items.....Discussion**
  Commissioners may identify items or topics of interest for future Commission meetings

MEETING DATE: February 17, 2022 **REPORTS/PRESENTATIONS DUE February 10**

- **Approval of Meeting Minutes ..... Action**
  Approval of Regular meeting minutes January 20, 2022
- **Roundabout Education……..…….…Presentation and Discussion**
  Discuss benefits of Roundabouts and how success is evaluated – Phil Kercher, Traffic Engineer & Ops Manager
- **Miller Road Bridge and Flood Control Project .....Presentation, Discussion and Possible Action**
  Update on the Miller Road Bridge and Flood Control Project – David Meinhart, Transportation Planning Manager
- **Commission Identification of Future Agenda Items.....Discussion**
  Commissioners may identify items or topics of interest for future Commission meetings

FUTURE ITEMS:

- **Loop 101 Mobility Project.....Presentation and Discussion**
  Kristin Darr, consultant
- **Impact on Parking.....Presentation and Discussion**
  Latest parking study, Walter Brodzinski, Right-Way Supervisor
- **Urban Air Mobility .....Presentation and Discussion**
  Discuss Urban Air Mobility as Mode of Transportation

- **Smart City.....Presentation and Discussion**
  Discussion on the City's participation in Smart City applications.
- **Study and Results from Truck Platooning .....Presentation and Discussion**
  Update on Study and Results from Truck Platooning
- **Electric Car Movement.....Presentation and Discussion**
  Presentation on electric car movement – Hong Huo, Traffic Engineer Principal
- **Shea and 124th Street Underpass .....Presentation and Discussion**
  Update on underpass – Susan Conklu, Senior Transportation Planner
- **Downtown Trolley.....Presentation and Discussion**
  Update on trolly usage – Ratna Korepella, Transit Manager
- **General Plan Update.....Presentation and Discussion**
  Update on general plan – Erin Perreault
- **Transit System Evaluation Recommendations..... Action**
  Presentation of the Transit Plan Evaluation Recommendations – Ratna Korepella, Transit Manager
- **Update on MAG Prop 400E .....Presentation and Discussion**
  Update on MAG Prop 400E – MAG staff
- **Utilities Causing Project Delays……Discussion**
  Discuss the delays utility projects are holding up project schedules and budgets- Mark Melnychenko, Transportation & Streets Director
- **Scooter Pattern Usage……Presentation and Discussion**
  Discuss the number of EZ tickets received for scooter devices – Susan Conklu, Senior Transportation Planner
- **Bus Stop Lighting……..…Discussion**
  Discuss future plans to light bus stop shelters – Ratna Korepella, Transit Manager
- **Connected Vehicle Technology on Loop 101 ……...……..…Discussion**
  Discuss USA's Transportation Research Department regarding connected vehicle technology – Mark Melnychenko, Transportation & Streets Director

PATHS & TRAILS SUBCOMMITTEE

MEETING DATE: December 7, 2021 **REPORTS DUE November 30, 2021**

- **Approval of Meeting Minutes ..... Action**
  Approval of Regular meeting minutes of October 5, 2021
- **Path Counter Numbers Update .....Presentation and Discussion**
  Information on the current path counter numbers – Susan Conklu, Senior Transportation Planner
- **Other Transportation Projects and Programs Status.....Information**
  Status of projects and programs – Susan Conklu, Senior Transportation Planner
- **Subcommittee Identification of Future Agenda Items.....Discussion**
  Subcommittee members may identify items or topics of interest for future Subcommittee meetings

FUTURE ITEMS:

- **Wayfinding.....Presentation and Discussion**
  Update on Wayfinding – Susan Conklu, Senior Transportation Planner
- **Bicycle Education Program .....Presentation and Discussion**
  Update on Laws and Education – Susan Conklu, Senior Transportation Planner
- **Bike Month Recap.....Presentation and Discussion**
  Information on Bike Month – Susan Conklu, Senior Transportation Planner
- **Access to Indian Bend Wash .....Presentation and Discussion**
  Better access and how the Parks Dept. can assist. – Susan Conklu, Senior Transportation Planner
- **Path and Trail Gap Analysis .....Presentation and Discussion**

Information on gaps in the citywide path and trails network – Greg Davies, Senior Transportation Planner

- **Equestrian Connectivity ..... Presentation and Discussion**
  Panel – Susan Conklu, Senior Transportation Planner
- **Vision Zero..... Presentation and Discussion**
  Information on Vision Zero (Tempe) – Susan Conklu, Senior Transportation Planner

APPROVED BY TRANSPORTATION COMMISSION ON FEBRUARY 21, 2019

APPROVED
SUMMARIZED MINUTES

CITY OF SCOTTSDALE
TRANSPORTATION COMMISSION
REGULAR MEETING

Thursday, January 17, 2018

KIVA – CITY HALL
3939 N. DRINKWATER BOULEVARD
SCOTTSDALE, AZ 85251

1. CALL TO ORDER

Chair called the regular meeting of the Scottsdale Transportation Commission to order at 5:17 p.m.

2. ROLL CALL

PRESENT: Barry Graham, Chair
Pamela Iacovo, Vice Chair
Don Anderson
George Ertel
Renee Higgs
Michael Kuzel
B. Kent Lall

STAFF: Paul Basha, Transportation Director
Frances Cookson, Staff Representative
Dave Meinhart, Senior Transportation Planner
Dan Worth, Public Works Director
Keith Marquis, Senior Budget Analyst

GUESTS: Loren Worthington
Adam Rosenberg

3. PUBLIC COMMENT

Chair invited public comments.

Adam Rosenberg expressed approval for lagging left turn signals in the City. He noted that some of the light configurations are being changed and he would like to go back to the lagging

left. He also noted the prevalence drivers not using turn signals and making wide turns, suggesting there should be a higher standard of performance from drivers.

Loren Worthington expressed concern regarding bicycle and scooter parking in sidewalks and other areas that prevent the full and safe travel of individuals with disabilities. It is also important to note many individuals with disabilities utilize adaptive scooters and bikes. Cities should consider this in negotiations with the bike and scooter companies. Currently, other cities such as Seattle, Portland and Detroit are implementing adaptive bike and scooter programs to address this issue.

4. APPROVAL OF MINUTES

Regular Meeting of the Transportation Commission – November 15, 2018

Chair called for comments or changes. Commissioners provided grammatical corrections.

Commissioner referred to the section on light rail and asked for the following insertion, "Commissioner noted that rail technology is even older technology by at least a century than freeways."

Commissioner referred to page 8, paragraph 3, line 4 recounting his recollection that a Commissioner did comment that numbers presented are far too conservative, but it was also observed that rather than using average daily volumes, we should use peak hour averages, because the average daily volumes mask the rush hour issues. Paul Basha, Transportation Director, agreed that the clarification was appropriate. Commissioner provided the clarifying language, "Commissioner observed using average daily volumes mask rush hour issues. Usage of peak travel time averages would be more appropriate."

COMMISSIONER ERTEL MOVED TO APPROVE THE REGULAR MEETING MINUTES OF THE TRANSPORTATION COMMISSION ON NOVEMBER 15, 2018 AS AMENDED. COMMISSIONER LALL SECONDED THE MOTION, WHICH CARRIED 7-0 WITH CHAIR GRAHAM, VICE CHAIR IACOVO AND COMMISSIONERS ANDERSON, ERTEL, HIGGS, KUZEL AND LALL VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

5. ELECTION OF OFFICERS

Chair said that according to bylaws, officers are elected when there is a vacancy or at the beginning of each calendar year.

COMMISSIONER ANDERSON MOVED TO NOMINATE COMMISSIONER GRAHAM FOR CHAIR AND COMMISSIONER IACOVO FOR VICE CHAIR. COMMISSIONER ERTEL SECONDED THE MOTION, WHICH CARRIED 7-0 WITH CHAIR GRAHAM, VICE CHAIR IACOVO AND COMMISSIONERS ANDERSON, ERTEL, HIGGS, KUZEL AND LALL VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

6. TRANSPORTATION COMMISSION ANNUAL REPORT OF 2018

Chair invited questions and comments. Commissioner Anderson clarified that he was present for nine meetings and only absent once.

COMMISSIONER ANDERSON MOVED TO APPROVE TRANSPORTATION COMMISSION ANNUAL REPORT OF 2018 AS AMENDED. COMMISSIONER LALL SECONDED THE MOTION, WHICH CARRIED 7-0 WITH CHAIR GRAHAM, VICE CHAIR IACOVO AND COMMISSIONERS ANDERSON, ERTEL, HIGGS, KUZEL AND LALL VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

7. PATH AND TRAILS ANNUAL REPORT OF 2018

Chair invited questions and comments. Mr. Basha acknowledged Frances Cookson for her work on the annual report.

COMMISSIONER KUZEL MOVED TO APPROVE THE PATH AND TRAILS ANNUAL REPORT OF 2018 AS PRESENTED. COMMISSIONER ERTEL SECONDED THE MOTION, WHICH CARRIED 7-0 WITH CHAIR GRAHAM, VICE CHAIR IACOVO AND COMMISSIONERS ANDERSON, ERTEL, HIGGS, KUZEL AND LALL VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

8. ADJUSTMENTS TO CAPITAL IMPROVEMENT PROGRAM FOR BRIDGE REPAIR

Mr. Basha introduced Dave Meinhart, Senior Transportation Planner, Dan Worth, Public Works Director and Keith Marquis, Senior Budget Analyst.

Mr. Basha explained that agenda item was at the request of the Commission to provide an accounting of the budget transfers necessary for the repair and replacement of the two bridges. These are emergency funding measures based on identification of the deteriorating bridge conditions. The costs are outlined as follows:

Drinkwater Bridge: $8,579,000
68th Street Bridge: $4,650,000

Three of the funding sources for the Drinkwater Bridge repair derive from Transportation Sales Tax fund, two from Bond 2000 funds, one from the General Fund for the CIP Plan and one from an undesignated, unreserved fund balance. Three projects were cancelled to allow funding for the bridge repair, including street operations in the north storage facility, sidewalk improvements and paving unpaved roads. Considerable savings were derived from the contractor fee for the Mustang Transit Passenger facility. Interest earnings from the Bond 2000 account were dedicated to this program. General Fund monies are being used for the Drinkwater Bridge repairs, primarily because the bridge is used as a park. The presence of park elements factored into the deterioration of the bridge, for example the weight of the pond and damage from watering the grass.

Commissioner referred to use of the sidewalk improvement funds and asked if the funding will be replenished in the future. Mr. Basha said the sidewalk improvement funds are vital to the community. The $200,000 is an annual amount for the program. It is unlikely that the City will be able to reimburse the sidewalk fund. However, the cost represents just one year of sidewalk

improvement funding. In preparing the CIP plan for City Council review, the Department has requested $200,000 in the sidewalk improvement fund for future years. The funds taken from the CIP plan for the bridge repairs are also likely unrecoverable.

Mr. Basha acknowledged Dave Meinhart for recognizing that the Maricopa Association of Governments (MAG), through its Arterial Lifecycle Program (ALCP) will consider contributing funds to the bridge improvements. This is not yet approved, but MAG staff have indicated their recommendation to MAG's board to approve funds to reimburse Scottsdale for the bridge repairs. Mr. Meinhart stated that the funding request to MAG would be structured as other ALCP projects (70 percent regional, 30 percent local). The proposal is for $6 million of the $8.75 million reimbursed.

Commissioner inquired as to whether any potential funds from MAG would go back into these identified funding areas. Mr. Basha affirmed that the first choice would be to replenish these funds, however there will be other options and discussion will include use of the funds. The Transportation Commission will be asked for their input at that time. Commissioner agreed that it is more important to get bridges operating than to repave sidewalks and unpaved roads. He asked whether the Department has identified which roads would have been paved had the funding not been moved. Mr. Worth said he was not able to provide the specific segments; however they are generally north of Happy Valley and east of Pima Road. Commissioner commented that as the roads in the area have always been unpaved, it was not necessarily an undue hardship to delay paving. Mr. Worth agreed, however he stated that the City manages approximately 18 miles of unpaved roads in northern Scottsdale that get over 100 daily vehicle trips, which triggers dust control requirements imposed by the County. This paving project had a congestion mitigation air quality grant associated with it. It is hoped that funding from MAG or the CIP process will get the project back into the CIP. The project had been included in year 22/23 CIP.

Commissioner asked if pedestrian sidewalks are automatically included with the construction of unpaved roads. Mr. Worth said when built, most of these roads in North Scottsdale will be built to the standard cross-section, which often involves an adjacent trail in rural areas.

Vice Chair expressed surprise at the savings for Mustang Transit Facility, especially as the west side of the roundabout was taken out and reinstalled. Mr. Basha confirmed that the savings were realized, even with the reconstruction. Commissioner asked why so much was left over. Mr. Basha said the savings were realized as a result of the economic climate when the project was bid. The contractor gave a price much below the engineer's estimate.

Chair sought clarification that MAG funds could possibly pay for the projects. Mr. Basha clarified that the MAG funds most likely could pay for the improvements to the Drinkwater Bridge.

Chair asked if the sidewalk improvements are localized to the Downtown. Mr. Basha said they are located throughout the City.

Mr. Basha addressed the 68th Street Bridge Repairs funding source list, with each representing Transportation Sales Tax funds, the largest being a frontage road connection project south of Frank Lloyd Wright, north of Thunderbird. The project was to provide City streets where currently there are private driveways into very large box developments. Projects that lost funding include two years of bikeways improvement, two years of trail improvements and roadway capacity and safety improvements. Mr. Meinhart asked MAG if the City could request

70 percent funding for this project, however MAG declined, stating that 68th Street is not at the same classification as Drinkwater Boulevard.

In response to a question from Chair, Mr. Worth stated that Scottsdale has approximately 600 bridges. ADOT funds and performs bridge inspections in the City every two years. These inspections resulted in discovering the deficiencies on the 68th Street Bridge. Chair asked for details about the deficiencies. Mr. Worth stated that during the previous inspection, ADOT identified some deterioration on the 68th Street Bridge and they were very surprised to see how much it had advanced in the two-year period. Contributing factors included the age of the structure and the proximity of the concrete on the bottom of the bridge deck to the canal.

Chair asked whether new technology or materials would be used to ensure that the replacement structures are stronger. Mr. Worth said they are installing a basic standard reinforced concrete bridge deck.

9. TRANSPORTATION MASTER PLAN MODIFICATIONS

Mr. Basha stated that the Transportation Master Plan was adopted by City Council approximately 18 months ago. Since that time there have been changes warranting discussion. These are only street modifications. Staff does not yet know if they will schedule a recommendation vote by the Transportation Commission and action by City Council.

There is only one omission in the plan. The street segment of Lincoln Drive, south of Indian Bend Road and north of McDonald Drive is a half-mile street and one-eighth mile of Lincoln Drive west of Scottsdale Road is in the City limits of Scottsdale. The yellow designation east of Scottsdale Road is designated as a minor collector in the 2016 Transportation Master Plan and the one-eighth mile west of Scottsdale Road in the City of Scottsdale was simply omitted. West of the one-eighth mile, Lincoln Drive is in the jurisdiction of the Town of Paradise Valley. Commissioner asked if the additional designation as a minor arterial would have implication in terms of maintenance or improvements. Mr. Basha said it would not have maintenance implications but may have implication on additional lanes in the future. The Town of Paradise Valley is in the process of improvements to Lincoln Drive in their jurisdiction and they intend the improvements to correspond to Scottsdale's minor arterial classification.

Commissioner commented on traffic issues with drivers pulling out of the retail locations south onto Lincoln going east, including many near misses and asked about plans to address this. Mr. Basha agreed that the median openings have been the site of near and actual collisions. The openings are located in the Town of Paradise Valley. The properties to the north and south of Lincoln Drive are in the City of Scottsdale. Any modifications would be a joint effort between the Town of Paradise Valley and Scottsdale to close any medians. Based on discussions with the Town of Paradise Valley, modifications would be relatively expensive, not in terms of construction but in terms of public comment and decision making.

Commissioner asked what is planned for the one-eighth mile located in Scottsdale. Mr. Basha stated that the segment does have a median for its length, so there cannot be left turns in or out. There is no easy way to solve the problem of drivers making right turns and attempting to get across three lanes of traffic to get into the third left-turn lane. In response to a Commissioner question, Mr. Basha clarified that the only point of discussion is that the segment was inadvertently left off of the Transportation Master Plan and is now being included. Modifications to the segment are not being included in the Transportation Master Plan. Designating it as a

minor arterial is consistent with its construction. There have been discussions regarding adding an eastbound exclusive right-turn lane from eastbound Lincoln to southbound Scottsdale Road, which could be done with or without the designation.

Mr. Basha addressed the segment of Hayden Road in the vicinity of SR-101 (between Scottsdale and Hayden), which was changed by a rezoning case by City Council within the last six months. The land was previously State owned and is now owned by Nationwide, who submitted the rezoning request. The traffic study done for Nationwide predicted future traffic volumes in the year 2030 of 34,410 vehicles per day on Hayden immediately north of the freeway and 39,300 immediately south of the freeway. Prior to the City Council meeting considering the rezoning, there was an allegation that the City did not require a traffic study for the Nationwide rezoning request, which is not true. The traffic study was required, submitted, reviewed and approved by the Transportation Department prior to the rezoning case being heard by City Council. Nationwide agreed to the stipulation that the segment be a six-lane street. The property to the south of the freeway east and west of Hayden Road is currently State land. When auctioned and developed, the City intends to stipulate that the roadway be constructed to a six-lane road. Changing the Transportation Master Plan to have the designation would be helpful in those conversations with the Arizona State Land Department and the eventual property developers.

Commissioner inquired as to studies of other surrounding backroads and traffic impacts. Mr. Basha confirmed that all the other streets were evaluated by the consulting traffic engineer for Nationwide and reviewed by staff in the Transportation Department. This was the only location where a change in street classification was necessary.

Mr. Basha addressed an alignment change of an existing street, Legacy Drive between Hayden Road and 88th Street. The Transportation Master Plan envisions a minor arterial, two lanes per direction with a raised landscape median for the entire length. To this end, several years ago, the City renamed the streets to be consistent to Legacy West of Hayden and Legacy at Pima Road. This is a critical part of the City as the location of the water treatment plant. The alignment was proposed prior to September 11, 2001. Since then there is heightened concern regarding road facilities being adjacent to public infrastructure, particularly water treatment plants. The Water Resources Department strongly discourages the alignment. If it were to occur, they would want it lowered approximately 40 feet, which would require driveways at several locations across the alignment. The Water Resources Department would also not be comfortable with a street underneath and immediately adjacent to the City of Scottsdale infrastructure and they recommend that the alignment not become a road. The minor arterial alignment proposed for Legacy drive is a short segment to the north and a longer segment that begins south of the freeway intersecting with Mayo Boulevard, crossing underneath the freeway and connecting with Legacy Drive. It would include an extension of Perimeter Drive from Princess to Mayo. Another crossing of the freeway (not an interchange) would be vital to transportation in the immediate vicinity. It is anticipated that the segment will have a very high volume of traffic in the future, should it exist. It connects Thompson Peak Parkway through the greater Airpark area and west into Phoenix.

Commissioner commented that in five years, Mayo Clinic Phoenix will be doubling its campus size. In response to a Commissioner question, Mr. Basha confirmed that the discussions include the fact that the Miller Road alignment underneath the freeway will be part of improvements to the 101. There is discussion for constructing for Miller Road connecting to the north and south. This is undeveloped land owned by the Arizona State Land Department. When it becomes developed property, the City will stipulate construction of Miller Road. Nationwide

intends to construct portions of Miller Road (east half). They would prefer to construct the full width of Miller Road for half of the frontage. That portion of Miller Road would be constructed to full width just south of Legacy Drive. When the property to the west is developed, the developer will be required to construct the full width of Miller Road at its location. It is anticipated that in the next few years, Arizona State Lands will auction the property and it will be developed. Portions of the roadways have been included in the CIP Program and ALCP Program. If the developers do not develop the vacant property, the Department will request funds to construct them as City streets and then stipulate for repayment when the property is developed. The Miller Road underpass is being constructed with the fifth lane widening of the freeway. The underpass at Legacy Drive is not included, in part because it is not in the Transportation Master Plan and because there was not the opportunity to explore this prior to design build of the Pima Freeway.

Commissioner noted that since the new alignments are not included in the Transportation Master Plan, there are likely no construction estimates. Mr. Basha said there are some preliminary cost estimates. The cost difference is relatively low compared with the cost estimates for the water treatment bifurcation alignment. The City included the water campus alignment in the advanced publicity for the November sales tax election. Essentially what they are requesting to do is use the same name, "Legacy Drive from Hayden Road to 88th Street (Pima Road)," but suggesting that it be a different alignment with the same name and essentially the same costs.

Mr. Basha addressed a segment adjacent to WestWorld north of Central Arizona Project Canal, south of Bell Road and east of the freeway. A minor arterial is proposed as an extension of McDowell Mountain Ranch Road from Thompson Peak Parkway past 98th Street connecting to 94th Street. It would provide additional access to WestWorld. Currently, WestWorld access is to the Pima Freeway without an interchange. The closest interchange is Pima Princess to the north and the Frank Lloyd Boulevard interchange to the south. The alignment will allow eastern access for traffic entering and exiting WestWorld for major events.

Commissioner asked for more detail about what a new road would look like. Mr. Basha said the existing road is basically a driveway into WestWorld, closed for most major events and used only for venue setup and takedown. It is one lane per direction. Proposed changes would make it an arterial street with two lanes per direction with a raised landscape median designed for 55 mph.

In response to Commissioner question, Mr. Basha estimated the construction costs to be $15 million.

In response to a Commissioner question, Mr. Basha confirmed that the "driveway" into WestWorld is the property of WestWorld, however WestWorld is essentially the property of the City. The driveway is either in right-of-way or an easement with the Bureau of Reclamation. Mr. Worth stated that the existing roadway, where McDowell Mountain Ranch Road crosses the bridge on the east end of WestWorld and intersects WestWorld Drive, which is on federal land.

Commissioner noted that WestWorld has an independent budget and asked whether they should be asked to contribute. Mr. Basha said that WestWorld requested that the City of Scottsdale provide funding. It is essentially an enterprise account that generates revenue for the City. Discussion ensued regarding the revenues generated at WestWorld and the potential to allocate those funds toward construction. Commissioner commented that WestWorld is one of the highest used facilities in the country.

Chair asked for Mr. Basha's assessment on the possibility of the project being prioritized, if it were to be added to the Transportation Master Plan. Mr. Basha said that the cost is a challenge. However, City Manager Jim Thompson has directed the WestWorld director to have major, high spectator events at WestWorld year-round. Including this minor arterial roadway would assist with WestWorld attracting more events.

In response to a question from Chair, Mr. Basha stated that he has not yet directed staff to look at the project for eligibility for regional funding or grants. It is still in the conceptual stage.

Mr. Basha said there were only two changes to the Transportation Master Plan from the City Council adoption compared to the Transportation Commission and Transportation Department recommendations. One of these considered 128th Street through the Preserve. It was recommended by the Commission and the Department to City Council that the Transportation Master Plan eliminate 128th Street through the Preserve. Council elected to include it. Their reasoning was the existence of 118th Street to the west. The planned construction of 450 homes was anticipated to greatly stress the capacity of Ranch Gate Road and Happy Valley Road. The absence of 128th Street would magnify the impact. The Transportation Department noted that 118th Street has been in the Transportation Master Plan since 1991 and will provide an outlet for the homes during construction and when inhabited. However, City Council noted that there is a one-half mile segment of 118th Street is absent. They suggested that 128th Street remain in the Transportation Master Plan through the Preserve until 118th Street had certainty of existence. 118th Street is currently under construction (the missing one-half mile) and is anticipated to be open for traffic by June, 2019. The Transportation Department recommends that 128th Street is no longer necessary, as 118th Street exists. The alignment is in public right-of-way. The intent is to move the alignment from the Transportation Master Plan and build it as a one lane per direction emergency access for fire and police.

In response to a Commissioner question, Mr. Basha stated that Pinnacle Vista is one-half mile south of Dynamite Boulevard.

Commissioner stated they were perplexed that the City would "give up the idea and ability of pushing 128th Street through there." He commented that it is not known what the traffic demands will be farther north. He asked about the anticipated activity in the gray area identified on the slide. Mr. Basha stated that the area has some homes, however most of the property is vacant. There is high interest from the development community. Commissioner commented that as such, there will be more need for north and southbound access through the area. Mr. Basha concurred, noting that the City will not be giving up the right-of-way. Should there one day be a need for a minor or major collector, the City could certainly pursue this option.

Commissioner inquired as to what right-of-way the City will keep through the Preserve and whether the width meets the requirement of a minor arterial. Mr. Basha clarified that it is a minor collector, not minor arterial. The right-of-way actually exceeds the width for a minor arterial. The minor arterial width is currently 70 feet and, in the past, it was 100 feet. Most of the alignment has a width of 100 feet. A four-lane road could fit the width, should it become necessary in the future.

Commissioner asked what harm it does to leave it as it is and "get rid of the line." Mr. Basha stated that the purpose is to prevent construction of a street at the location. It is a recommendation for never constructing a street.

Commissioner expressed agreement for removing the line from the Transportation Master Plan, as they do not agree with putting traffic through the Preserve. Chair noted that there already exists traffic through the Preserve via Dynamite (Rio Verde Drive). Mr. Basha stated that is the hope of the Preserve Commission and Sonoran Conservancy that this will one day be a long bridge that would allow wildlife to cross beneath it.

Chair asked whether there would still be the option of an emergency driveway minor collector without City Council approval. Mr. Basha said City Council would have to approve the expenditure.

Commissioner asked whether taking the designation out of the Transportation Master Plan would open up the Transportation Commission to pressure from the Preserve Commission to abandon the right-of-way. Mr. Basha suggested this would not occur, as this is already City property.

Chair asked whether the "yellow line" should still be identified in the Transportation Master Plan. Even as a future driveway for emergencies, the right-of-way should still be identified. Mr. Basha said the City has built a number of streets in the City that are public right-of-way which are not in the Transportation Master Plan. Typically only major collector street designations and above are included in the Transportation Master Plan.

Mr. Basha stated that the Transportation Department recommends no change in the classification of the next two streets, including Scottsdale Road and Pima Road north of Pinnacle Peak Road. Scottsdale Road is a minor arterial north of Happy Valley and a major arterial south of Happy Valley. Pima Road is a minor arterial north of Dynamite and a major arterial south of Dynamite. In 2016, Scottsdale Road had 31,000 vehicles per day between Happy Valley and Jomax, compared to 34,000 last year and 35,000 predicted for 2035. North of Dynamite, there were 26,000 per day two years ago, 27,000 last year and 23,000 predicted in the future. On Pima Road, the numbers are 19,000, 21,000 and 30,000 respectively north of Happy Valley and 16,000, 17,000 and 31,000 north of Dynamite Boulevard. The 2016 Transportation Master Plan recommends that Scottsdale Road be a four-lane facility between Happy Valley and Jomax for two reasons. The City of Phoenix would need to construct the third southbound Scottsdale Road lane, if designated as a major arterial, like it is south of Happy Valley. Scottsdale Road immediately north of the 101 has three lanes northbound and two lanes southbound, because the City of Phoenix is not particularly interested in widening Scottsdale Road at the Pima Freeway to a third southbound lane. Another consideration is that if Scottsdale Road is widened to six lanes, this serves Scottsdale property to the east, but another municipality on the west for a portion of the segment (however, from Jomax to Dynamite, it is Scottsdale on both sides of the road). The Transportation Department suggests that some traffic currently on Scottsdale Road would instead use Pima Road (two-mile segment between Happy Valley Road and Dynamite Boulevard), if Pima Road were six lanes and Scottsdale Road were four lanes.

Commissioner asked if the vacant land between Happy Valley and Jomax is simply vacant land. Mr. Basha said it is essentially vacant, with a few buildings and homes in the area. Mr. Meinhart added that quite a bit of the land is still owned by the State.

Commissioner commented that most of the traffic on those segments are Scottsdale residents, so Scottsdale would be served whether the location is in Phoenix or not. Commissioner suggested that a lien or similar mechanism could be placed on the land so that when it is sold, the developer would owe the City a specified amount for having built the improvements.

In response to question from Chair, Mr. Basha said there is no proposal to change the classifications, but to leave them as they currently exist.

Vice Chair requested clarification on the projected increase in traffic volumes to 36,000 on Scottsdale Road to Jomax followed by reduction to 23,000 in 2035. Mr. Basha stated that there is speculation traffic would take alternate routes between Jomax and Dynamite to the east and west. Transportation models are especially imperfect as they relate to the edge of the network of streets. There is even less accuracy this far north.

Chair stated that the Commission would be studying the issues in greater depth prior to deciding on how to move forward.

Mr. Basha asked Commissioners on an informal basis if they believe the suggested modifications warrant changing the Transportation Master Plan.

Vice Chair commented that from the presentation, there only seems to be one modification of concern, the removal of 128th Street from the Transportation Master Plan. She is in favor of all of the recommendations, however, this was the most divided in terms of Commission opinion. Commissioner concurred with that assessment. Commissioner said that as long as the City is retaining the right of way for an arterial (if necessary) for 128th Street, they are happy with the recommendation. Chair said he was enthusiastic about the Legacy Boulevard plan. There was general consensus of approval from the remaining Commissioners.

10. OTHER TRANSPORTATION PROJECTS AND PROGRAM STATUS

Mr. Basha stated that the City Council CIP Subcommittee has been formed and is now meeting. It consists of Vice Mayor Phillips as Chair and Councilmembers Littlefield and Klapp. They have held their first meeting and the second occurred 12 hours ago. The next meeting is scheduled for two weeks. The meetings are televised live and rebroadcast periodically during the week. The CIP Subcommittee indicated strongly that they would like City Council to develop a bond election for November to ask for voters to approve property tax supported bonds for a variety of purposes, excluding Transportation. The opinion of the Subcommittee is that the Transportation sales tax was just passed and that voters should not be asked to pay additional taxes to pay for additional transportation projects. The Subcommittee directed staff to include on a future City Council agenda discussion regarding a bond election in November, 2019. The Subcommittee suggested four different bond amounts to be discussed: $300 million, $350 million, $400 million, and $450 million.

City Council adopted the ordinance on bicycles and related devices on November 13th. Only one revision was made, which addressed prohibition of parking bicycles near public art. The ordinance became effective December 13th. Electric bicycles and electric scooters are addressed in the ordinance. JUMP is the first electric bike share company (owned by Uber) to operate in the City. It is anticipated that there will be eight scooter companies beginning operation in Scottsdale in the next four months. It is anticipated that most will disappear, being acquired by another scooter company or just ceasing operation. Currently four scooter companies are operating, with four others ready to deploy. Historically, Bird has not been a good corporate citizen, however the other companies have been very cooperative. In response to a Commissioner question, Mr. Basha stated the ordinance requires a maximum of five devices by one owner within 200 feet. Bird frequently disobeys this part of the ordinance, having multiple devices in small areas. The ordinance allows the City to impound vehicles that are

violating the ordinance, however Scottsdale has not yet begun doing this. Bird has been informed that the City will begin doing so in the near future. There was a serious collision recently, which some have described as a scooter collision, however the individual was not actually riding a scooter at the time of the accident. The injured person is in critical condition. He had rented a scooter and was standing next to the scooter at the intersection of Miller and Thomas. Two cars collided and one hit the pedestrian.

Mr. Basha stated that he was recently contacted by a reporter from the Arizona Republic, who requested a series of statistics, which Mr. Basha provided. He reviewed the list of statistics with the Commission as an informational item. From 1980 through 2018, the City size has essentially doubled, increasing 109 percent. During the "annexation wars of the 1980's" there was a great deal of conflict between the City of Scottsdale and the City of Phoenix, and between the City of Scottsdale and the City of Mesa. At one point, staff was asked by the City Manager to explore the possibility of annexing the unincorporated County land north of Pinnacle Peak west to I-17. The City of Mesa was exploring annexing east of the SRPMIC community going north of Fountain Hills, north of Pinnacle Peak Road and west to Scottsdale Road. The City of Mesa and the City of Phoenix were collaborating so that Scottsdale would end at Pinnacle Peak Road. North of Scottsdale would be Mesa and west would be Phoenix. Fortunately, the cities came together to make excellent decisions. From 1995 to 2019, the number of road miles in Scottsdale has increased only by 55 percent. Over 20 years, the City's lane miles have only increased by 22 percent. From 1995 through current, bike lane miles have increased 2000 percent.

Mr. Basha reviewed that two fiscal years ago, City Council allocated $2 million per year for Downtown pedestrian improvements. Currently, $1.8 million remains in the account. The remaining funds will go toward projects in the vicinity of the Scottsdale Road/Camelback Road intersection. One portion consists of one-quarter mile of unpaved shared use path along the Arizona Canal. Once the concrete path is constructed, there will be continuous concrete shared use paths from the border with Phoenix, the border with Tempe and the border with SRPMIC. The bus storage area will be lengthened to accommodate two buses. Bicycle lanes will be provided on Camelback Road east of Scottsdale Road continuous to the Indian Bend Wash east of Hayden. The sidewalk will be widened north and south and sidewalk will be installed where none currently exists. The radius at the intersection of Scottsdale and Camelback will be widened to accommodate large numbers of pedestrians. Five other intersections in the vicinity will be narrowed for those that only require one lane per direction. Parking spaces will be included in these spaces.

The Rio Verde Drive roundabout construction will be complete in a week. The project extends from 116th Street to 128th Street and is entirely privately funded. The developer was required to build two roundabouts, one at 118th Street and one at 122nd Street. There has been considerable opposition from residents in Rio Verde unincorporated Maricopa County to the east. The complaints allege that the roundabouts do not accommodate the large number equestrian trailers. The roundabouts are designed to accommodate a four-door pickup truck pulling a six-horse trailer. Mr. Basha showed two videos of the area, including such a vehicle easily traversing the roundabout. One of two national experts on roundabout design designed the roundabout while the other was hired to review the design. In response to a Commissioner question Mr. Basha stated that the designers are Mark Johnson and Scott Ritchie.

11. PUBLIC COMMENT

There were no comments.

12. COMMISSION IDENTIFICATION OF FUTURE AGENDA ITEMS

Commissioner said he had previously requested to agendize a presentation on accident clearance policies and procedures, which would require the presence of Traffic Center staff. Randy Ghezzi had indicated that Scottsdale allows individual officers significant latitude in how they clear accidents. Mr. Basha said this will be on a future agenda.

Commissioner stated that the previous meeting included discussion regarding inviting someone from the Transportation Management Center to speak to the Commission. Mr. Basha said this is included as a future item. Chair commented that historically, the Commission would hold one of its meetings annually at the Center. There was consensus to hold a meeting there in March or April.

Vice Chair said she had experienced an interesting presentation on Urban Aerial Mobility (UAM) and it would be helpful for the Commission to understand that the City considers its right-of-way including into the air. UAM is projected to be a reality in 20 years. It would be interesting to hear about this subject while in its infancy.

12. ANNOUNCEMENTS

There were no announcements.

13. ADJOURNMENT

With no further business to discuss, being duly moved by Commissioner Higgs and seconded by Vice Chair Iacovo, the meeting adjourned at 8:47 p.m.

AYES: Chair Graham, Commissioners Ertel, Anderson, Ertel, Higgs, Kuzel and Lall.
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**