



**SCOTTSDALE TRANSPORTATION COMMISSION  
Notice and Agenda**

**Date: Thursday, April 18, 2024**

**Time: 5:15 P.M.**

**Location: Kiva – City Hall**

**3939 N. Drinkwater Boulevard**

**Scottsdale, AZ 85251**

**Call to Order**

**Roll Call**

Kent B. Lall, Chair	Mailen Pankiewicz, Commissioner
Mary Ann Miller, Vice-Chair	Kerry Wilcoxon, Commissioner
Robert Marmon, Commissioner	Emmie Cardella, Commissioner
Lee Kauftheil, Commissioner	

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

**Public Comment**

Citizens may address the members of the Transportation Commission during Public Comment. This “Public Comment” time is reserved for citizen comments regarding non-agendized items. Arizona State law prohibits the Transportation Commission from discussing or taking action on an item that is not on the prepared agenda. Citizens may complete one Request to Speak “Public Comment” card per meeting and submit to City Staff. Public testimony is limited to three (3) minutes per speaker.

Written public comment for both agendized and non-agendized items may be submitted in-person by completing a yellow written public comment card or electronically by completing a Written Public Comment Form. Written public comment submitted after public testimony has begun will be provided to the members of the Transportation Commission at the conclusion of the testimony for that item. Written comments that are submitted electronically at least 90 minutes before the meeting’s scheduled start time will be provided to members of the Transportation Commission. A written public comment may be submitted electronically at the following link: <https://www.scottsdaleaz.gov/boards/transportation-commission>

1. **Approval of Meeting Minutes**-----**Discussion and Action**  
Regular Meeting of the Transportation Commission – March 21, 2024
2. **Amendment of the Transportation Commission Bylaws**----- **Action**  
Discuss and vote to update the frequency requirement of the Transportation Commission meeting times in the bylaws from 12 annual meetings to 9 annual meetings – Transportation Commission Members
3. **Traffic Signal Program** -----**Information and Discussion**  
Discuss the process for new traffic signal installation – signal warrants, designs process and construction; also discuss signal maintenance and current funding – Kiran Guntupalli, Principal Traffic Engineer
4. **Federally and Regionally Funded Studies and Plans**-----**Information**  
Overview of the 64th St Crossings Study, CAP Canal/100th St Path Study, 2nd St Neighborhood Bikeway Study and Strategic Transportation Safety Plan – Susan Conklu, Senior Transportation Planner

## 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, March 21, 2024  
Kiva-City Hall  
3939 N. Drinkwater Boulevard  
Scottsdale, AZ 85251**

#### **CALL TO ORDER**

Chair Lall called the regular meeting of the Scottsdale Transportation Commission to order at 5:18 p.m.

#### **ROLL CALL**

##### **PRESENT:**

Kent B. Lall, Chair  
Mary Ann Miller, Vice-Chair  
Robert Marmon, Commissioner  
Lee Kauftheil, Commissioner  
Mailen Pankiewicz, Commissioner  
Kerry Wilcoxon, Commissioner  
Emmie Cardella, Commissioner

##### **STAFF:**

Mark Melnychenko, Transportation & Streets Director  
Nathan Domme, Transportation Planning Manager  
Ratna Korepella, Transit Manager  
Kiran Guntupalli, Principal Traffic Engineer  
Daniel Alire, Transit Operations Coordinator  
Samuel Taylor, Senior Traffic Engineer  
Phil Kercher, Traffic Engineering Manager  
Susan Conklu, Senior Transportation Planner  
Greg Davies, Senior Transportation Planner  
Kyle Lofgren, Office Manager

## **PUBLIC COMMENT**

There were no spoken comments submitted by members of the public. One written public comment was submitted.

### **1. APPROVAL OF MEETING MINUTES**

COMMISSIONER WILCOXON MOVED TO APPROVE THE FEBRUARY 15, 2024, TRANSPORTATION COMMISSION REGULAR MEETING MINUTES. VICE-CHAIR MILLER SECONDED THE MOTION, WHICH CARRIED SEVEN (7) TO ZERO (0) BY ROLL CALL VOTE. CHAIR LALL, VICE-CHAIR MILLER, AND COMMISSIONERS MARMON, KAUFTHEIL, PANKIEWICZ, WILCOXON, AND CARDELLA VOTED IN THE AFFIRMATIVE. THERE WERE NO DISSENTING VOTES.

### **2. AMENDMENT OF THE TRANSPORTATION COMMISSION BYLAWS**

Mark Melnychenko, Transportation & Streets Director, initiated a discussion about revising the frequency requirement of the Transportation meeting times in the bylaws. He said that staff has spoken internally about meeting every other month. Staff concluded that it would better respect everyone's time if staff were to bring action items to the Commission as the majority of the items during regular meetings every other month and provide information on projects and program updates in the off months as needed. Amendment of bylaws would include a two-step process—amending the bylaws to reflect bi-monthly Transportation Commission meetings and discussing the desired meeting frequency. Staff suggested that the Commission alternate months with the Paths and Trails Subcommittee, meeting the third Thursday of January, March, May, July, September, and November, and continuing the current protocol for cancelling meetings as needed.

No action was taken at this time. An action item to amend bylaws will be scheduled for the next meeting.

### **3. TRANSPORTATION COMMISSION MEETING FREQUENCY**

Discussion ensued regarding the meeting schedule. In response to a Commissioner's question, Director Melnychenko said that staff has a strong mix of both information and action items upcoming. Meeting length would remain the same as it is currently, and additional information could be sent to Commissioners in the off months as needed. He explained that if something urgent were to come up, a special meeting could be scheduled.

Commissioners commented that they find value in the presentations and do not see a need for reducing the schedule to six meetings per year. They discussed a variety of options and came to consensus that the most constructive use of time would be for the Commission to meet nine months of the year with two off months near the holidays and one floating date. Kyle Lofgren, Office Manager, noted that changing the schedule would require an update by the Commission to the bylaws to state that the Commission is not meeting every month and identification of the months that would be taken off. If the schedule is kept as it has been, staff will follow the posting process for a meeting cancellation as needed.

Commissioner Cardella said she entered a no vote because she would prefer to keep the meeting schedule as it is and handle cancellations as they have, with the ability to cancel three or more meetings throughout the year.

COMMISSIONER WILCOXON MOVED TO UPDATE THE MEETING SCHEDULE TO REFLECT JULY, DECEMBER, AND A FLOATING MONTH OFF, TOTALING NINE YEARLY MEETINGS. COMMISSIONER MARMON SECONDED THE MOTION, WHICH CARRIED FIVE (5) TO TWO (2) BY ROLL CALL VOTE. CHAIR LALL, VICE-CHAIR MILLER, AND COMMISSIONERS MARMON, PANKIEWICZ, AND WILCOXON VOTED IN THE AFFIRMATIVE. COMMISSIONERS CARDELLA AND KAUFTHEIL DISSENTED.

#### **4. ALCP UPDATE**

Nathan Domme, Transportation Planning Manager, gave a presentation outlining the Proposition 400 (Prop 400) Arterial Life Cycle Program (ALCP) and plans for the Proposition 479 (Prop 479) Life Cycle Program. His presentation included an extensive history of the arterial life cycle program. Prop 400 is a regionally voted-on 20-year half-cent sales tax and FH funding that is funding 70 percent of ALCP projects and will be coming to an end in December of 2025. Mr. Domme explained that the program is administered through the Maricopa Association of Governments and coordinated through the City of Scottsdale. The City of Scottsdale's function is to manage the projects, starting from planning, through design, into construction, and to implementation of the project, remaining in control and managing project details. 70 percent of the funding comes from regional and federal sources and 30 percent from local match, which allows the City to have a say in design features and incorporate local policies and principles, including bike lanes, sidewalks, roundabouts, and paths and trails within all of the ALCP projects. The general goals of the ALCP are to widen existing streets, improve existing intersections, construct new arterial segments, and bring existing streets to current standards.

In December of 2025, taxes will stop being collected for Prop 400; however, the remaining funds will continue to be available for Prop 400 projects through at least January of 2026. If the Prop 479 vote passes, the tax will continue, but that revenue will be allocated to a separate list of Prop 479 projects. Mr. Domme reviewed the 12 core projects that the City of Scottsdale started with in 2005, when Prop 400 began with the ALCP. Those initial 12 projects were very robust, so they were split into 39 smaller projects based on the uniqueness of each roadway, and funding was reallocated to the projects in different segments. Of the 39 smaller projects, 18 have been completed so far; five are under construction; three are nearing construction; five are in the design process and will begin construction by 2026; four are waiting for development for road widening; and four were cancelled. 74 percent of the projects will be completed by the end of the year and 83 percent by 2026. Mr. Domme reviewed a list of remaining projects in construction or nearing construction that are anticipated to be completed in 2024/2025 and projects still in design that are anticipated to begin by 2026.

Prop 479 ALCP will be in effect from 2026 through 2046. The list of projects for Prop 479 was developed in coordination with MAG and includes many east/west connections on the north end of the city. Some of the projects on the list have been modified based on the Scottsdale Transportation Action Plan (TAP), most importantly, Mountain View Road from 92<sup>nd</sup> Street to 96<sup>th</sup> street was originally slated to be a road widening and is now set as a reconstruction. Reviewing a list of all ALCP projects from 2005 through 2046, Mr. Domme noted that 67 percent

of Prop 400 projects have capacity improvements and 66 percent of Prop 479 improvements will have capacity improvements, with remaining projects adding safety improvements and accessibility.

In response to questions, Mr. Domme said that projects include improved standards for sidewalks and multiuse paths, adding additional width where possible. He said that there is funding available to purchase right-of-way when necessary. Kiran Guntupalli, Principal Traffic Engineer, added that where feasible, they are able to narrow landscape buffers between the back-of-curb and sidewalk to attain the maximum sidewalk width, and occasionally, if there is a constraint, the curb is attached to the sidewalk in order to maintain consistency across the corridor.

Mr. Domme explained that the area of Pima Road north of Indian Bend is controlled by SRPMIC, and it was the tribe's decision to meander the sidewalks. Scottsdale prefers to install straight sidewalks with a buffer. Phil Kercher, Traffic Engineering Manager, said that most public streets are straight because there is limited excess right-of-way to meander streets. Master-planned communities are able to define street alignments and use street curvature to help calm traffic.

In response to a question, Director Melnychenko said that should Prop 479 not pass in November, roadway improvement projects and transit would be severely impacted, and a lot of the improvements would not be possible. Mr. Domme said that Prop 400 generated approximately \$489 million.

## **5. TRANSIT SYSTEM AND RECENT DATA UPDATE**

Ratna Korepella, Transit Manager, gave a high-level overview of the City of Scottsdale's transit system. Transit services include fixed-route services, Scottsdale Trolley, and ADA paratransit. Fixed-route services are coordinated through an IGA with Phoenix and Valley Metro. Scottsdale Trolley is a fare-free service that operates three routes at a 20-minute frequency. The trolleys are owned and maintained by the City of Scottsdale and operated by a contracted service. ADA Paratransit service is a federally mandated service operated by Valley Metro that serves an area within a three-quarter mile buffer around existing transit routes. Funding for transit operations comes from grants, Prop 400, city transportation sales taxes, and Arizona lottery funds. Fixed route operations cost approximately \$14 million annually and are all funded with Prop 400 dollars. Trolley operations cost approximately \$4 million annually and are funded using lottery funds, city transportation sales tax dollars, and federal grants.

In response to a question, Ms. Korepella explained that service frequency is dependent upon coordinating with other jurisdictions, which can create operational challenges. Route 72 currently runs at a 20-minute frequency until 10:00 p.m. or 11:00 p.m., which is the same as in other regional cities. A Commissioner expressed interest in looking at the possibility of coordinating bus service with light rail service hours and bar hours so that people do not feel the need to drive. Ms. Korepella said that ridership data shows a drop in users in the evenings.

Aaron Xaevier, Valley Metro Service Planning and GIS Manager presented an update on the 2023 Origin Destination Study, which is conducted every three to five years. His presentation included a comparison of data between the 2019 study and the 2023 study. The presentation included an overview of data focused on Scottsdale residents, trips into Scottsdale, and trolley

usage. For the study on Scottsdale residents, approximately 500 surveys were issued, representing a daily ridership of approximately 2,800 rides. The trips into Scottsdale study issued approximately 700 surveys, representing approximately 2,200 riders who were not Scottsdale residents. For trips on Scottsdale trolleys, approximately 108 surveys were collected, representing 841 daily trips, and all samples were Scottsdale residents. The surveys highlighted the following information:

- Age and gender of Scottsdale residents that ride transit
- Race and ethnicity
- Household income
- Number of vehicles in household
- Employment status
- Student status
- 2019 vs 2023 ridership
- Top used routes
- Number of trips with transfers
- Purpose of trips
- Mode used to travel to transit

Mr. Xaevier noted that there are dashboards containing the survey information available online.

In response to a question, Mr. Xaevier reiterated that surveys are conducted every three to five years in the April/May timeframe. The survey captures riders on the Scottsdale Road corridor because that is the best mix of residential and commercial areas and the best connection opportunity with other services. A contracted company conducts the surveys verbally, selecting riders based on the order in which they board the vehicle. A Commissioner suggested that consideration be given to using the trip reduction plan to get a better sense of high-use areas and employment centers. Mr. Xaevier clarified the meaning of questions and results regarding riders connecting to the Scottsdale trolleys from other jurisdictions, the change of ridership based on declining home-based work trips, the decline in female ridership, and the addition of competing technology.

Daniel Alire, Transit Operations Coordinator, gave an update on how the survey data can be used in making future planning decisions. He explained that onboard survey data helps to understand usage and develop trolley routes that serve the community's needs while maintaining connections to the regional system. The survey results help in the consideration of service planning and providing accessible paths to transit stops and connectivity from bike paths. Clever device reports are utilized to capture top trolley stops for boardings. The clever device reports and Valley Metro survey results help in future route planning and transit stops. The current results from Valley Metro show that south Scottsdale and mid-Scottsdale depend on public transportation for a minority of their trips and north Scottsdale is progressively growing in the use of transit. Mr. Alire noted that choice riders and tourism transit provide 20-minute trolley service for transit to Giants games, which reduces traffic in Old Town and allows fans to avoid driving. Discussion is currently underway to determine the most efficient type of vehicles to replace the five trolleys that are ready for retirement. Staff collaborates with Human Services to provide senior travel training through the senior center locations, helping seniors understand how to navigate the transit system.

In response to a question, Director Melnychenko said that trolley service hours have been extended to 8:00 p.m. Service will be increased incrementally over time based on ridership. In the future, when ridership increases, weekend service can be considered. He noted that studies are showing a strong need for connections to the system, which ties to street improvements. Ms. Korepella said that there is trip reduction data available that they could look at for transit purposes.

## **6. 2022 TRAFFIC VOLUME AND COLLISION REPORT**

Samuel Taylor, Senior Traffic Engineer, gave an overview of the latest volume and collision report, including a discussion of the segments and intersections with the highest number of collisions and collision rates. Traffic Volume Collision Reports have been done every two years since 1986. The reports focus on three main areas—traffic volume, collision frequency, and collision rate—and include various rankings for 202 major intersections and 323 major segments but do not include minor and local intersections and segments. When gathering information for the 2022 report, information about collisions between 2021 and 2022 was gathered and verified with the Police Department, and then those collisions were separated by intersection and segment and sent through a variety of different analyses. Reports are processed into the City’s collision database and sent to ADOT for inclusion in their collision database. Traffic volume data collection is done over a two-year period using tube counters at each intersection approach, and those numbers are normalized using monthly adjustment factors based on historical data. Mr. Taylor reviewed details of the Traffic Volume and Collision Report data. He said that the Traffic Volume and Collision Report is used for many things, including tracking collision rates, collision frequency, and traffic volume changes over time; comparing individual locations to citywide trends and averages; capital improvement project selection; and identifying segments and intersections with high collision rates and frequencies for road safety assessments.

In response to a question, Mr. Taylor explained that data is collected from the Police Department regarding mitigating factors causing crashes when preparing the Traffic Volume and Collision Report. That information is used when considering safety assessments or traffic studies at specific locations. Phil Kercher, Traffic Engineering Manager, said that the City did a deep dive into pedestrian and bicycle collisions a few years ago that could be provided to the Commission.

A comment was made that segment crashes are concentrated in south Scottsdale and intersection segments are concentrated in areas where the interstate intersects with the City. Mr. Taylor said one theory is that a lot of the roadways in south Scottsdale were built to different standards and do not have good access control, which has an impact on segment collisions. At intersections, the primary factor is traffic volume.

Commissioners requested that an agenda item to further discuss the 2022 Traffic Volume and Collision Report be agendaized for the next meeting. Commissioners expressed an interest in a deeper analysis of bicycle collisions and pedestrian volumes, total numbers as opposed to just percentages, characteristics of collisions, a map showing areas of concentration, as well as the role of police enforcement. It was mentioned that the document is not user-friendly for the public. Mr. Domme said that the Department is gearing up to develop a safety action plan that will be more digestible for the public.



In response to a question, Mr. Taylor said that speed limit studies are in the process of being updated based on speed data that has been collected over the past three to four years.

A Commissioner suggested that staff consider the use of AI technology when reviewing large amounts of data.

Director Melnychenko encouraged Commissioners to email any additional questions to him or Mr. Kercher.

**7. COMMISSION IDENTIFICATION OF FUTURE AGENDA ITEMS**

Possible future agenda items include:

- ADQ trip reduction survey update
- Update on role of police and traffic enforcement

**8. ADJOURNMENT**

With no further business to discuss, being duly moved by Commissioner Kaufheil and seconded by Commissioner Wilcoxon, the meeting adjourned at 8:16 p.m.

AYES: Chair Lall, Vice-Chair Miller, and Commissioners Marmon, Kaufheil, Pankiewicz, Wilcoxon, and Cardella

NAYS: None

SUBMITTED BY:  
eScribers, LLC.

# SCOTTSDALE TRANSPORTATION COMMISSION REPORT



**To:** Transportation Commission  
**From:** Kiran Guntupalli, Principal Traffic Engineer  
Ruben Salse, ITS Traffic Signal Supervisor  
**Subject:** Traffic Signal Program  
**Meeting Date:** April 18, 2024

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## **Action:**

Information and Discussion regarding Traffic Signal Program in the City.

## **Purpose:**

The purpose of this presentation is to detail the processes required to assess the need for installation of a traffic signal, outline the different stages involved in its design, construction, and subsequent maintenance responsibilities.

## **Background:**

Traffic Engineering and the ITS Signals staff install and maintain much needed infrastructure and play a vital role in facilitating traffic flow and safety on our city streets. Residents rely on Traffic Engineering staff to evaluate requests for traffic signal installations, while ITS Signals crews ensure that the installed traffic signal infrastructure operates effectively and meets the community's needs.

**Note:** *The maintenance and refinement of our transportation system is a focal point of the City Council adopted 2022 Transportation Action Plan which provide the city with a blueprint for the next ten years. The following description provides a more detailed overview of these responsibilities.*

## **Engineering Responsibilities:**

### **Observations and Signal Warrant Study:**

Traffic Engineering staff begin by conducting initial observations and analysis of the requested location. This involves studying traffic patterns, volume, speed, collision history, and pedestrian activity to determine the necessity and feasibility of installing a traffic signal. In order to determine if a traffic signal is warranted, Traffic Engineering evaluates the intersection to determine if a traffic signal will comply with local, state, and federal regulations and standards. This involves adherence to the City of Scottsdale Design Standards and Policy Manual, the Federal Highway Administration (FHWA) Manual on Uniform Traffic Control Devices (MUTCD), and the AZ State Supplement to the MUTCD. The MUTCD identifies that the investigation of the need for a traffic control signal shall include an analysis of the applicable factors contained in the following traffic signal warrants and other factors related to existing operation and safety at the study location:

Warrant 1, Eight-Hour Vehicular Volume.

Warrant 2, Four-Hour Vehicular Volume.

Warrant 3, Peak Hour.

Warrant 4, Pedestrian Volume.

Warrant 5, School Crossing.

Warrant 6, Coordinated Signal System.

Warrant 7, Crash Experience.

Warrant 8, Roadway Network.

Warrant 9, Intersection Near a Grade Crossing – Does not apply in Scottsdale.

Even with satisfaction of a traffic signal warrant or warrants, engineering judgement shall be exercised regarding the installation of a traffic control signal.

***Traffic Signal Design:***

Traffic Engineering possesses in-house design expertise, supplemented at times by external consulting services for traffic signal design, with costs typically falling between \$30,000 and \$50,000. Factors such as signal phasing, addressing utility conflicts, adherence to design standards, and considerations of constructability are integral aspects of the design process. Other key aspect of design is scheduling utility coordination for the power supply. Following standard processes in plan review and acceptance is essential for a successful design.

***Procurement and Construction:***

*Material Procurement:* After COVID material procurement delays have delayed the project schedules due to limited equipment supply. The essential traffic signal equipment is typically finalized at 60% design. To mitigate delays, Traffic Engineering has been procuring long lead equipment upon reaching 60% design. Typical lead times for materials include signal controllers, poles, and mast arms, which range from four to six months, signal heads with a lead time of three months, and meter pedestals with a lead time of one year.

*Construction Services:* Construction Services are offered through two main avenues: Job Order Contract (JOC) Services and Design-Bid-Build Services.

Job Order Contract Services:

- A pre-established contract is in place.
- Projects typically take approximately 6 months from start to completion.
- JOC facilitates efficient execution of multiple projects within a streamlined timeframe but are a bit expensive.

Design-Bid-Build Services:

- The procurement process involves advertising for contractors to bid on projects.
- Projects under this model usually span about 1.5 years from start to completion.
- With accurate design, the price of construction is lower.

**Maintenance of Infrastructure:**

Maintaining the infrastructure of traffic signals is essential for efficient operation and road safety. It encompasses inspections, repairs, and maintenance of all the equipment that relates to signal and streetlights. The ITS Signal crew is responsible for the upkeep of 320 traffic signals, 11 pedestrian hybrid beacons, and 10,000 streetlights. Additionally, we mark blue stake tickets for traffic signal and ITS infrastructure projects.

***Preventive Maintenance:***

Every signalized intersection undergoes annual maintenance to ensure optimal functionality. This process involves checks for equipment failures and verification of all wiring to detect any signs of wear and tear. As part of our ongoing improvement efforts, a new requirement to upgrade all 8-inch signal heads to 12-inch was added to a maintenance task as a standard for enhanced visibility and efficiency at intersections. The devices included in preventive maintenance are meter pedestal, cabinet & controller, signal heads (F,

R, Q, F Modified (HAWK), PED/HAND Countdown), detection, CCTV, push buttons with R10-3e signs, flag mount Internally Illuminated Street name signs, preemption equipment, ITS Communication Equipment and paint touch up if needed.

***Staffing:***

The ITS Signal maintenance team consists of one supervisor and ten technicians. This includes three ITS Signal Tech-III and three ITS Signal Tech-II technicians who are responsible for leading and maintaining each of the three maintenance zones in North, Middle, and South Scottsdale. Additionally, one ITS Signal Tech-II and one ITS Signal Tech-I are designated for street light maintenance, while two ITS Signal Tech-I technicians are assigned to 811 utility locating tasks. Additionally, the maintenance crew is responsible for upgrading street light outages by installing LED fixtures within a 10-day timeframe. Street light knockdown replacements are addressed by City Staff within 30 days. They also oversee the management of more than 20,000 utility locate tickets each year. Staff responds promptly to traffic signal pole/cabinet and street light knockdowns, including after-hours emergency response and conducts inspections on city-owned poles to assess their end-of-service status.

**Conclusion:**

In conclusion, the traffic signal program is a vital component of maintaining road safety and efficient traffic flow within our community. This begins with engineering evaluation and judgment to determine appropriate locations for traffic signals. Traffic Engineering staff oversee the design and construction of the traffic signal, verifying compliance with the established standards. Diligent maintenance and upgrades ensure that our traffic signals remain operational and effective. Employing skilled technicians and implementing modern technologies reduce downtime and improve overall traffic management. With a commitment to ongoing improvements and a dedication to serving the needs of our community, our traffic signal program remains essential for creating safer and more accessible roadways for all.

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Staff Contact: Kiran Guntupalli, 480-312-7623, [kguntupalli@scottsdaleaz.gov](mailto:kguntupalli@scottsdaleaz.gov)

# Transportation Commission

April 18, 2024

## Traffic Signal Program

Kiran Guntupalli, Principal Traffic Engineer

Ruben Salse, ITS Traffic Signals Supervisor



# Agenda

## Engineering

- Citizen Request/ Development
- Traffic Signal Warrants
- Design

## Construction

- Material Procurement
- Construction

## Maintenance

- Inventory
- Preventive Maintenance
- Staffing
- Additional Responsibilities



# Engineering

- Citizen Request
  - Observations
  - Crashes
  - Data Collection
    - 24-hour Traffic Volume on major and minor approaches and right-turn volume reductions
- Development
  - Traffic Impact and Mitigation Analysis



# Traffic Signal Warrants

- Warrant 1, Eight-Hour Vehicular Volume
- Warrant 2, Four-Hour Vehicular Volume
- Warrant 3, Peak Hour
- Warrant 4, Pedestrian Volume
- Warrant 5, School Crossing
- Warrant 6, Coordinated Signal System
- Warrant 7, Crash Experience
- Warrant 8, Roadway Network
- Warrant 9, Intersection Near a Grade Crossing – **Does not apply in Scottsdale**

**ENGINEERING JUDGEMENT**





# Traffic Signal Design

Design &  
Construction



- Design Costs - \$30- \$50K
  - Consultant
  - In house
- Signal Phasing
- Utility Conflicts
- Understanding of Design Standards & Constructability
- Schedule
- Utility Coordination for Power drop
- Plan Review and Acceptance

# Construction

## Material Procurement

- Long Lead Items
  - Poles – 4 to 6 months
  - Mast arms – 4 to 6 months
  - Signal Controller – 4 to 6 months
  - Meter Pedestal – 1 Year
  - Signal heads – 3 months

## Construction Services

- Job Order Contract Services
  - Contract is pre-established
  - 6 months from start to finish
- Design Bid Build Services
  - Purchasing will advertise for contractors to bid
  - 1.5 year from start to finish

# Maintenance of Infrastructure

- 320 - Traffic Signals
- 11 - Pedestrian Hybrid Beacons
- 10,000 – Street lights
- Blue Stake, Traffic Signal, and ITS Infrastructure

## *A Focal Point of the TAP*

- Maintenance and refinement of the existing transportation system

**Always CALL 811 before you dig!**

# Preventive Maintenance

- Everyone of the intersections is touched every year.
- Check for failures in equipment
- Verify all the wiring for wear and tear
- Update all 8" signal heads to 12" (New)
- Devices in Traffic Signal
  - Meter Pedestal
  - Cabinet & Controller
  - Signal Heads
    - F, R, Q, F Modified (HAWK), PED/HAND Countdown
  - Detection
  - CCTV
  - Push Buttons with R10-3e signs
  - Flag mount Internally Illuminated Street name signs
  - Preemption Equipment
  - ITS Communication Equipment
  - Paint touch up



# Maintenance Staffing

- 10 Technicians, one Supervisor and report to the Traffic Engineer, Principal

	ITS Signal Tech III	ITS Signal Tech II	ITS Signal Tech I
Traffic Signal Maintenance	3	3	
Street Light Maintenance		1	1
811 Utility Locating-			2

**Maintenance**



# Traffic Signal Crew- Addl. Responsibilities

- Upgrade street light outages with LED fixtures within 10 days
- Replace street light knockdowns using City Staff within 30 days
- Manage over 20,000 utility locate tickets annually
- Respond to traffic signal pole/cabinet and street light knockdowns
- After-hours emergency response
- Inspect city owned poles for end of service

# Questions ?

## TRANSPORTATION COMMISSION REPORT



**To:** Transportation Commission  
**From:** Susan Conklu, Senior Transportation Planner  
**Subject:** Federal and Regional Plans and Studies  
**Meeting Date:** April 18, 2024

### **ITEM IN BRIEF**

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**Action:** Presentation and discussion

**Purpose:**

Provide information on the recent applications for MAG Design Assistance

**MAG Design Assistance Background:**

The city of Scottsdale is currently working on several studies through the Maricopa Association of Governments (MAG) Design Assistance Program and the Strategic Transportation Safety Plan through the Safe Streets and Roads for All (SS4A) United States Department of Transportation federal program.

The MAG Design Assistance Program supports bicycle and pedestrian facilities that increase connectivity on the regional active transportation network. \$500,000 is offered on an annual basis and selected projects are advanced to the concept design level utilizing consultants from MAG's on-call list. The program also assists with extensive public outreach and evaluation of the feasibility of projects. There is no local match required, unless a project is scored and ranked below the available funding for the program. Then the local agency may either pay the difference in funding or request MAG Closeout Funding and pay a 5.7% local match.

**Current Regionally Funded Studies:**

City of Scottsdale has had several successful Design Assistance applications over the years. Currently, three Scottsdale studies are funded:

Fiscal Year 2022/23 program

- 64<sup>th</sup> Street Crossing Study at Thomas and Indian School Roads
- Central Arizona Project Canal/ 100<sup>th</sup> Street Path

Fiscal Year 2023/24 program

- 2nd Street Neighborhood Bikeway

**64<sup>th</sup> Street Crossing Study at Thomas and Indian School Roads**

Currently, Crosscut Canal Path users must make a two-stage at-grade crossing of both Thomas Road and 64<sup>th</sup> Street. Path users transitioning between the Arizona Canal and Crosscut Canal must also make a two-stage at-grade crossing Indian School Road and 64<sup>th</sup> Street intersection.

A draft feasibility study from 2006 provided concepts and cost estimates for a grade separated crossing of Thomas Road and 64<sup>th</sup> Street. An updated cost estimate from Capital Project Management indicated a potential price of \$4.4M or more to construct the features identified in the 2006 study.



The goal of this study is to further develop concepts for bike & pedestrian crossing improvements at both 64th Street and Thomas Road and 64th Street and Indian School Road, along the Crosscut Canal to include grade-separated and controlled at-grade options. TYLin International is the consultant and Harrington Planning+Design is the subconsultant for this study.

Two open houses were held January 10<sup>th</sup> and 13<sup>th</sup> to introduce the study team and gather public feedback. The meeting materials and questionnaire were also available on the study webpage at [www.ScottsdaleAZ.gov](http://www.ScottsdaleAZ.gov), found by searching “bike pedestrian”. The next steps for the study include: developing the draft report, hosting the 2<sup>nd</sup> Open House meetings to present alternatives, and finalizing the report.

### **Central Arizona Project Canal/ 100<sup>th</sup> Street Path**

The intent of this project is to develop a concept for a multi-use path between 92<sup>nd</sup> Street and Frank Lloyd Wright Boulevard. This is Primary Path in the Transportation Action Plan and a segment of the planned regional CAP Canal path. There are currently sidewalks of varying width and bike lanes on both sides of 100<sup>th</sup> Street. This study will evaluate a 1.5- mile long path on the east side of 100<sup>th</sup> Street and a 2-mile path along the CAP Canal. The project will provide access to existing and planned segments of the CAP Canal Path, two bicycle/pedestrian bridges over the canal, the Indian Bend Wash Path system, Thompson Peak Parkway side path, WestWorld and the Reata Sports Complex. Y2K Engineering is the consultant for this study.

Two open houses were held January 20<sup>th</sup> and 24<sup>th</sup> to introduce the study team and gather public feedback. The meeting materials and questionnaire were also available on the study webpage at [www.ScottsdaleAZ.gov](http://www.ScottsdaleAZ.gov), found by searching “bike pedestrian”. The next steps for the study include: developing the draft report, hosting the 2<sup>nd</sup> Open House meetings to present Alternatives, and finalizing the report.

### **2<sup>nd</sup> Street Neighborhood Bikeway**

The study will look at the western portion of the 1.8-mile 2nd Street Neighborhood Bikeway through Old Town Scottsdale that connects Indian Bend Wash Path and Arizona Canal Path. This is included in the 2022 Transportation Action Plan Bikeway Element.

The study will focus on an 0.8-mile segment of 2nd Street from Goldwater Boulevard to the Arizona Canal Path, a Pedestrian Hybrid Beacon crossing at 2nd Street and Indian School Road, and other segments connecting to the Arizona Canal and Crosscut Canal in the neighborhood including 68th Street, Pinto Lane, Navajo Trail and Osborn Road. This study area will link to the recently completed improvements on 68th Street, future improvements from the 64th Street Crossings Study as well as upcoming traffic signals at 2nd Street/Goldwater Boulevard and Osborn Road/64th Street.

Next steps include requesting approval of the MAG Agreement from City Council on April 16, 2024 and study kick-off with the consultants, WSP.

## **Safe Streets and Roads for All (SS4A) Federal Program:**

### **Background**

The Infrastructure Investment and Jobs Act, also known as the Bipartisan Infrastructure Law (BIL) established the Safe Streets and Roads for All (SS4A) discretionary program. This authorized and appropriated \$5 billion to be awarded by the Department of Transportation for the Safe Streets for All (SS4A) grant program for FY 2022-2026. Funds for the fiscal year SS4A grant program are awarded on a competitive basis to support planning, infrastructure, behavioral, and operational initiatives to prevent death and serious injury on roads and streets involving all roadway users.

The Safe Streets and Roads for All (SS4A) program provides funding for two types of grants: Action Plan Grants and Implementation Grants. Implementation Grants must request funds to implement roadway safety strategies or projects that are consistent with an existing, comprehensive safety action plan (Action Plan). Communities with an eligible Action Plan can apply for Implementation Grants.

The city of Scottsdale applied for an Action Plan Grant on September 14, 2022. On Feb. 1, 2023, USDOT announced \$800 million in grant awards for 511 communities through the first round of funding for the Safe Streets and Roads for All (SS4A) grant program. These awards include [474 Action Plan Grants](#) and [37 Implementation Grants](#). Scottsdale's funding request for action plan funding was awarded. City Council approved the funding agreement totaling \$288,000 with the U.S. Department of Transportation Federal Highway Administration (FHWA) for the acceptance of the Grant Agreement on September 19, 2023.

### **Scottsdale Strategic Transportation Safety Plan**

The grant will fund consultant services to prepare the Strategic Transportation Safety Plan. The plan will look to define practices (both existing and new) in the city of Scottsdale to improve overall transportation safety. Transportation safety is a shared responsibility, and this plan will guide safety improvements, programs and strategies for all transportation modes, especially the most vulnerable users. This plan will establish a safety culture tailored to Scottsdale that demonstrates a commitment to safety. Potential features include:

1. Education Component – public safety messaging
2. Enforcement Component
3. Evaluation tools to monitor progress
4. Workforce Safety in the Right-of-Way
5. Plan that builds off of our program successes

Existing Traffic Data in 2022, Scottsdale had 16 roadway fatalities out of 3,485 total crashes. This is 2% of all roadway fatalities out of 4% of all crashes in the Metro area. Scottsdale is safer than a lot of cities in the region. Maricopa Association of Governments ranks the top 100 intersections by crash risk. Of these, Scottsdale has only one intersection, which is Hayden Road and Indian School Road ranked at number 70 out of 100.

Scottsdale's Strategic Transportation Safety Plan will build off existing safety measures including low-cost, high-impact safety strategies with attention to evidence-based solution. Existing studies, plans and policies evaluate and improve traffic safety through the 2022 Transportation Action Plan, Traffic Volume and Collision Report, road safety audits, site specific safety studies and device reviews.

**Available funding**

The Federal share of a SS4A grant may not exceed 80 percent of total eligible activity costs. Recipients are required to contribute a local matching share of no less than 20 percent of eligible activity costs. All matching funds must be from non-Federal sources. The budget is included in the table below.

<b>CURRENT FUNDING SOURCES</b>				
<b>Project</b>	<b>Type of Grant</b>	<b>Federal Grant</b>	<b>Transportation 0.2% Sales Tax Local Match</b>	<b>Total</b>
Strategic Transportation Safety Plan	Safe Streets and Roads for All	\$288,000	\$72,000	\$360,000

Scottsdale will be responsible for the financial management of the project and will submit reimbursement requests to FHWA. The matching funds for \$72,000 are budgeted in the FY 2023/24 Transportation & Streets Department Operating Budget.

The Request for Proposals for Consulting Services is currently being finalized for the solicitation. Once the Safety Plan begins, the process will take 12-18 months. It will include public involvement. Staff will include the Police Department in the development of the plan. The city will look for opportunities to apply for Implementation Funding when the plan is complete.

**Paths & Trails Subcommittee Update**

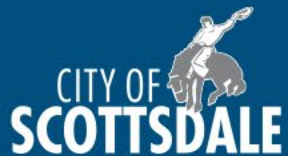
Transportation staff provided an update to the Paths & Trails Subcommittee at the April 4, 2024 meeting. Discussion included the frequency of the MAG Design Assistance Call for Projects, a question about an engineering component of the Strategic Transportation Safety Plan, encouragement to review design standards in the Safety Plan, and a comment about the existing crash data and how Scottsdale ranks per population.

**Staff Contact:** Susan Conklu, 480-312-2308, [sconklu@scottsdaleaz.gov](mailto:sconklu@scottsdaleaz.gov)

# Federal and Regional Plans and Studies

Transportation Commission

April 18, 2024



# Introduction

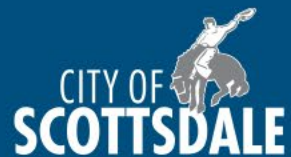
Maricopa Association of Governments  
(MAG) Design Assistance Program

Safe Streets and Roads for All (SS4A)  
Federal Program





# MAG Design Assistance Program



# Background

- Annual budget and call for projects
- Eligible projects include bicycle and pedestrian facilities, connectivity on the regional active transportation network, projects that increase walking and biking
- Provides consultant services to produce concept/ 15% level designs, public outreach and a feasibility study
- Fully funded through MAG, utilizing their on-call consultants
- Three Scottsdale studies are currently funded



# Current Studies

## FY 2022/23 program

- 64<sup>th</sup> Street Crossing Study at Thomas and Indian School Roads
- Central Arizona Project Canal/ 100<sup>th</sup> Street Path

## FY 2023/34 program

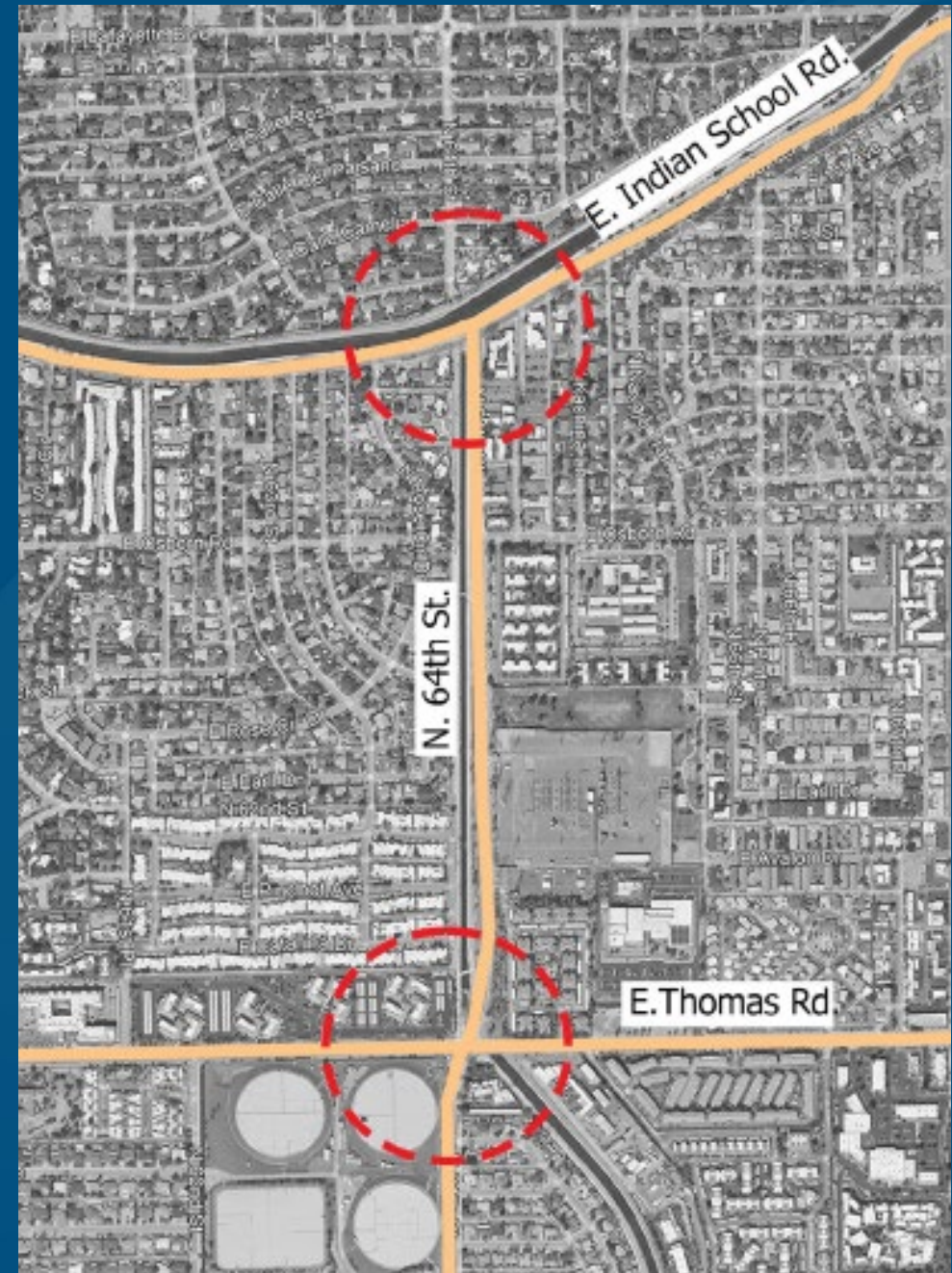
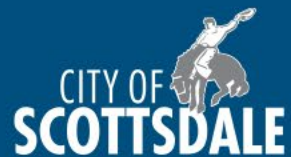
- 2<sup>nd</sup> Street Neighborhood Bikeway





# 64<sup>th</sup> Street Crossing Study at Thomas and Indian School

MAG Design Assistance



# Existing Conditions at 64<sup>th</sup> Street and Thomas Road

Crosscut Canal Path users must make a two-stage at-grade crossing of both Thomas Road and 64<sup>th</sup> Street.



# Existing Conditions at 64<sup>th</sup> Street and Thomas Road

Thomas Road looking east  
toward 64<sup>th</sup> Street and the  
Crosscut Canal





# Existing Conditions at 64<sup>th</sup> Street and Indian School Road

Path users transitioning between the Arizona Canal and Crosscut Canal must make a two-stage at-grade-crossing at Indian School and 64<sup>th</sup> Street.

There is a right turn slip lane for eastbound drivers on Indian School Road to turn southbound on 64<sup>th</sup> Street.



# Existing Conditions at 64<sup>th</sup> Street and Indian School Road

64<sup>th</sup> Street and Indian School  
Road looking north toward the  
Arizona Canal.



# 64<sup>th</sup> Street Crossing Study

## Open House #1

Two open houses were held on Wednesday January 10<sup>th</sup> and Saturday January 13<sup>th</sup> to introduce the study team and gather public feedback.

The meeting materials and questionnaire were also shared on the study webpage.

[www.ScottsdaleAZ.gov](http://www.ScottsdaleAZ.gov) – Search “bike pedestrian”



# 64<sup>th</sup> Street Crossing Study

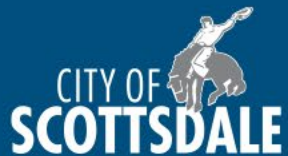
## Next Steps

- Draft report
- Open House #2 to present Alternatives
- Final report



# Central Arizona Project Canal/ 100<sup>th</sup> Street Path Study

MAG Design Assistance



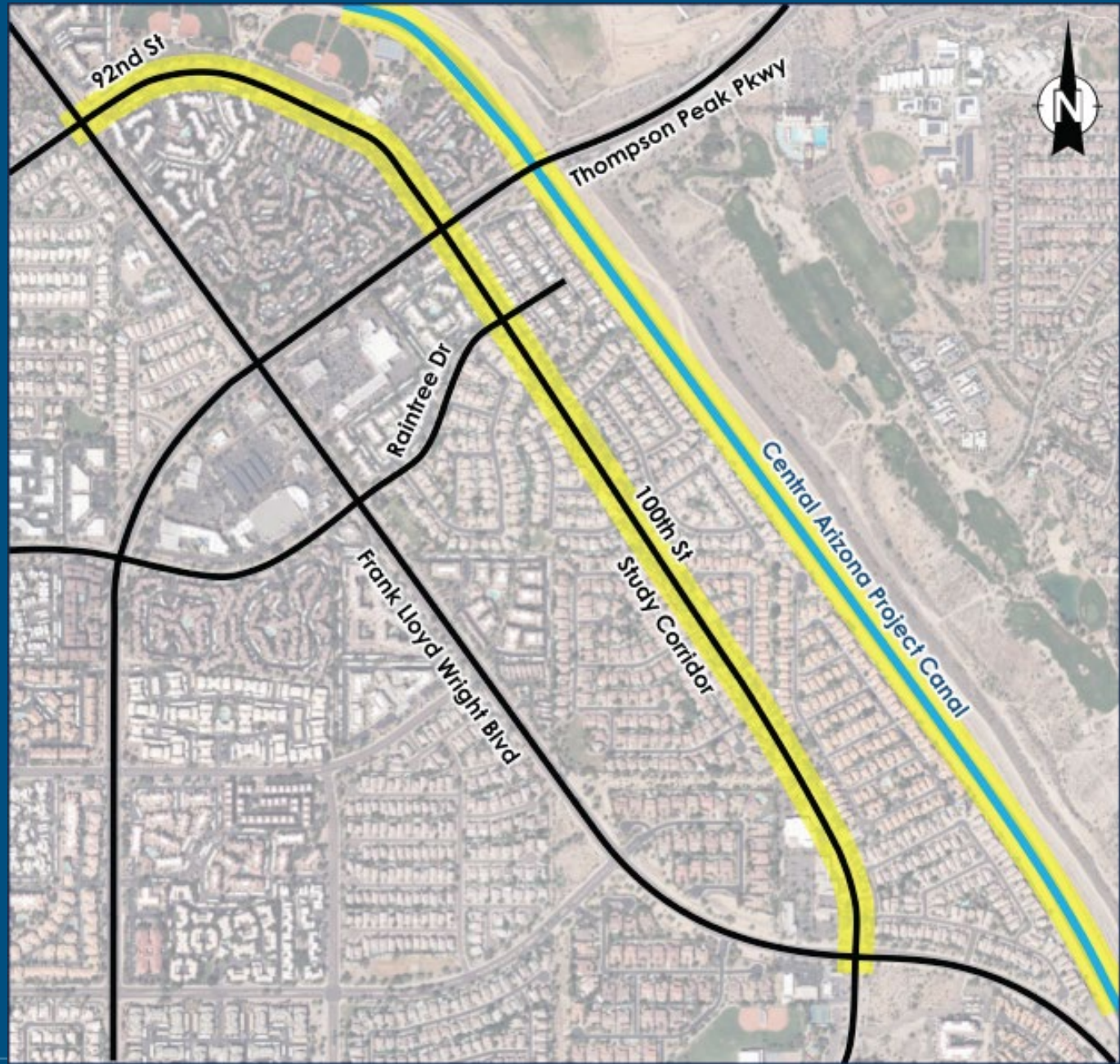


# CAP Canal/ 100<sup>th</sup> Street Study

## Existing Conditions 100<sup>th</sup> Street

Sidewalk on both sides of 100<sup>th</sup> St

No existing path along the canal but is a Primary Path in the Transportation Action Plan and part of the planned CAP Canal regional path.





# CAP Canal/ 100<sup>th</sup> Street Study

## Existing Conditions 100<sup>th</sup> Street

Photo 1: Near Horizon Park with the Indian Bend Wash Path connection, looking east.

Photo 2: 100<sup>th</sup> Street at Thompson Peak Parkway looking west showing multi-family housing.



# CAP Canal/ 100<sup>th</sup> Street Study

## Open House #1

Two open houses were held on Saturday January 20<sup>th</sup> and Wednesday January 24<sup>th</sup> to introduce the study team and gather public feedback.

The meeting materials and questionnaire were also shared on the study webpage.

[www.ScottsdaleAZ.gov](http://www.ScottsdaleAZ.gov) – Search “bike pedestrian”

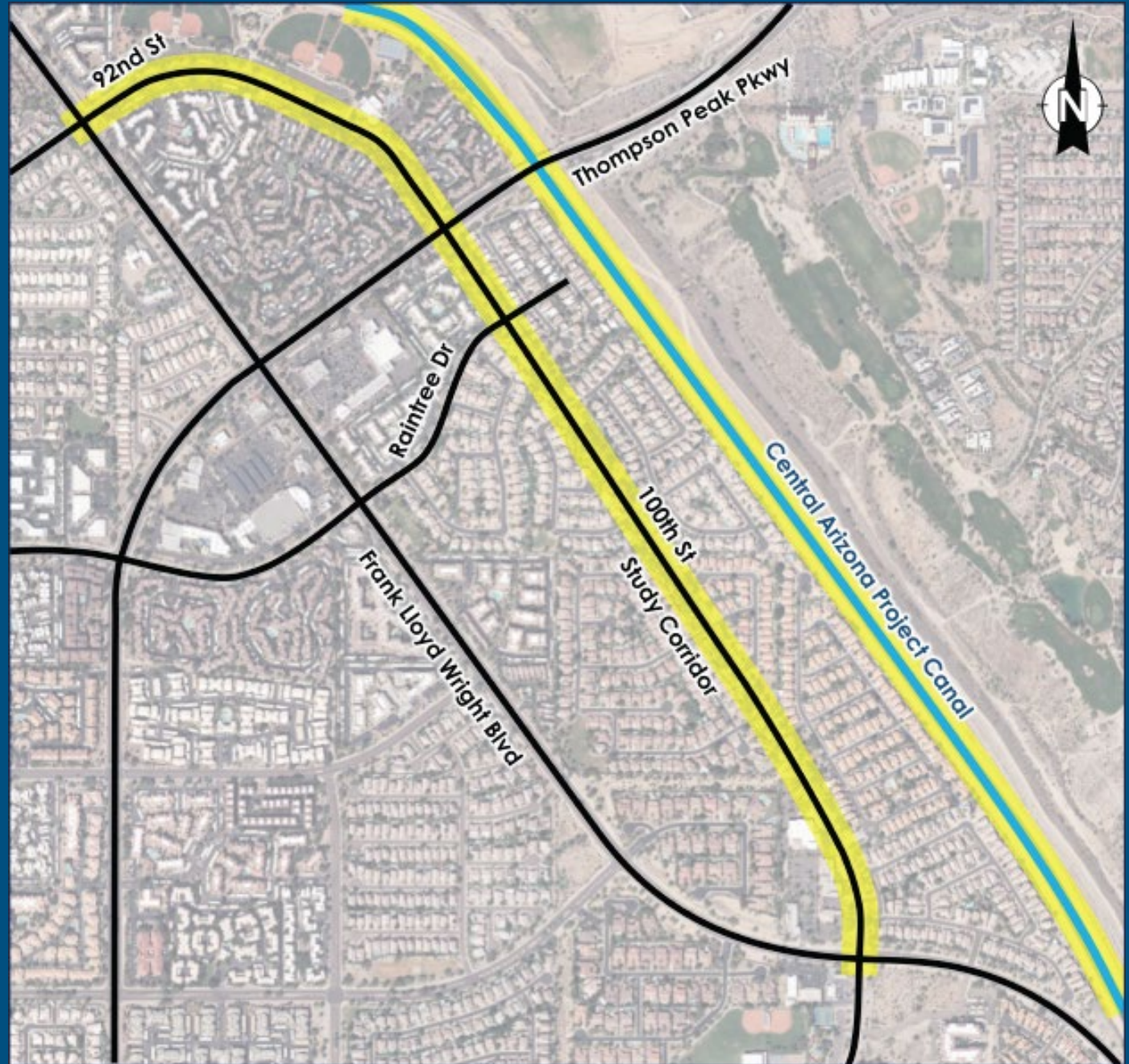




# CAP Canal/ 100<sup>th</sup> Street Study

## Improvements being considered

- Multi-use path on the south side of the canal
- East side of 100<sup>th</sup> St with Multi-use path
- Crossing Improvements on 100<sup>th</sup> St
- Multi-use path on the north side of the canal



# CAP Canal/ 100<sup>th</sup> Street Study

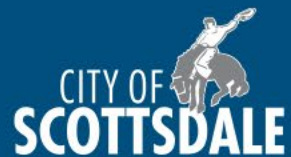
## Next Steps

- Draft report
- Open House #2 to present Alternatives
- Final report



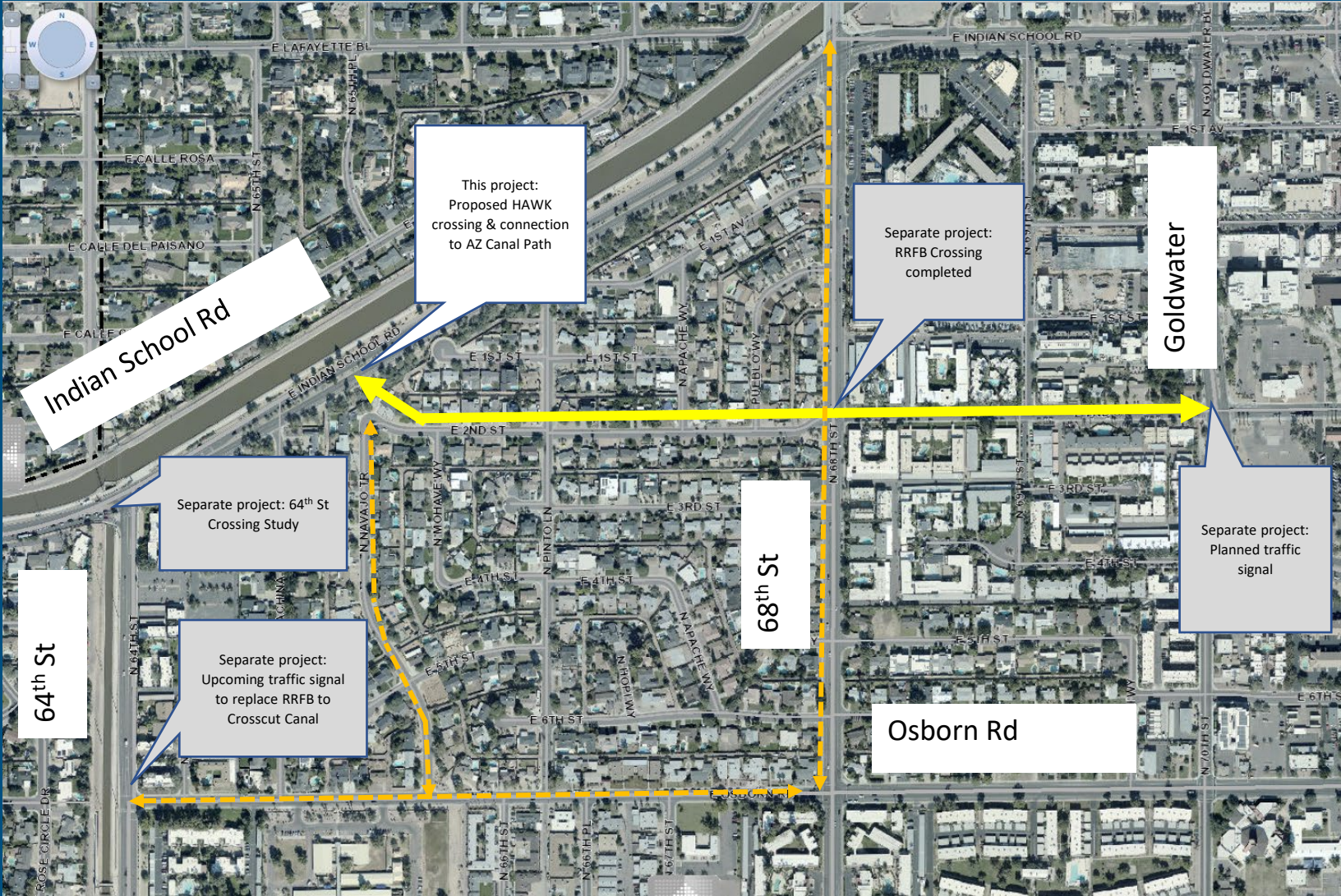
# 2<sup>nd</sup> Street Neighborhood Bikeway Study

MAG Design Assistance





# 2nd Street Neighborhood Bikeway Study Area





# 2<sup>nd</sup> Street Neighborhood Bikeway Study

## Next Steps

- Staff is requesting approval of MAG Agreement from City Council on April 16, 2024
- Kick off the study
- Photo: 2<sup>nd</sup> Street crossing at 68<sup>th</sup> Street looking south



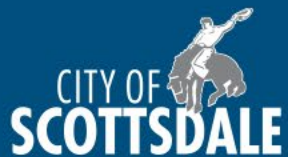




**FHWA**

# Safe Streets and Roads for All (SS4A)

Federal Program



# SS4A Federal Program Background

## Bipartisan Infrastructure Law (BIL)

Established the Safe Streets and Roads for All (SS4A) discretionary program.

\$5 billion in appropriated federal funds for FY2022-2026.

Initiatives to prevent roadway deaths and serious injuries through two types of grants:

- ✓ 1. Planning and Demonstration Grants
- 2. Implementation Grants



# SS4A Federal Program Background

The city of Scottsdale applied for an Action Plan Grant September 14, 2022.

On February 1, 2023, USDOT announced \$800 million in grant awards for 511 communities through the first round of funding:

Included 474 Action Plan Grants and 27 Implementation Grants

*\$47.7 million awarded in Arizona for 8 planning grants.*

*Scottsdale's funding request was awarded.*

City Council approved the funding agreement totaling \$288,000 with U.S. Department of Transportation Federal Highway Administration (FHWA) for the acceptance of Grant Agreement on September 19, 2023.



# Scottsdale's Plan - Overview

The grant will fund consultant services to help prepare the Strategic Transportation Safety Plan.

Transportation safety is a shared responsibility, and this plan will guide safety improvements, programs and strategies for all transportation modes, especially the most vulnerable users.



# Strategic Transportation Safety Plan

Potential features of the Plan will establish a safety culture tailored to Scottsdale that demonstrates a commitment to safety.

1. An Education Component (public safety messaging)
2. An Enforcement Component
3. Evaluation tools to monitor progress
4. Workforce Safety in the Right-of-Way
5. Build off of our program successes



Our goal is to reduce the likelihood of traffic crashes resulting in fatal or serious injuries.



# Existing Traffic Data

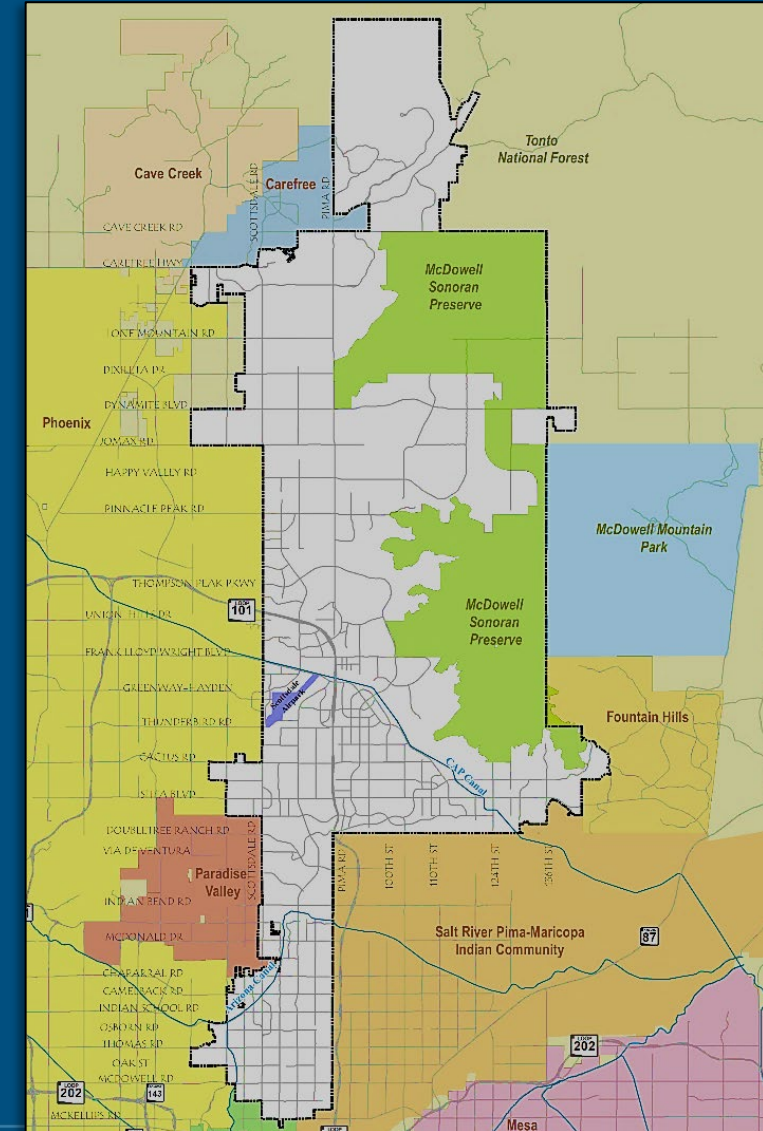
In 2022 Scottsdale had 16 roadway fatalities out of 3,485 total crashes. This is 2% of all roadway fatalities out of 4% of all crashes in the Metro Area.

*How do we rank Regionally?*

Scottsdale is safer than a lot of the region

Maricopa Association of Governments has ranked the top 100 intersections by crash risk. Scottsdale has only one intersection in the top 100 at number 70.

Hayden Road and Indian School Road

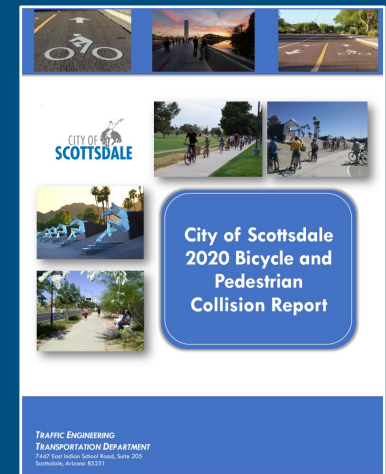
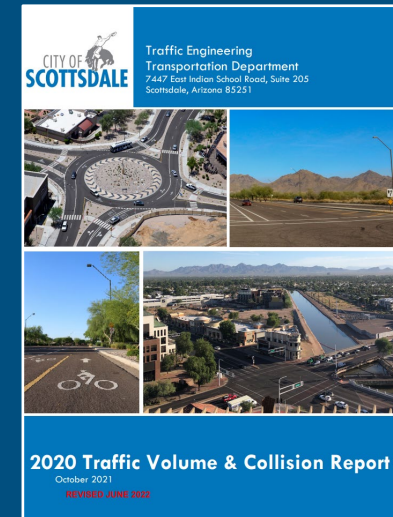
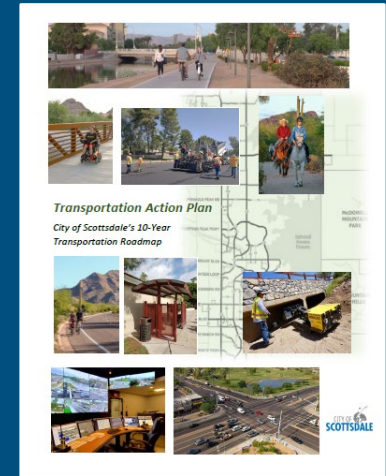
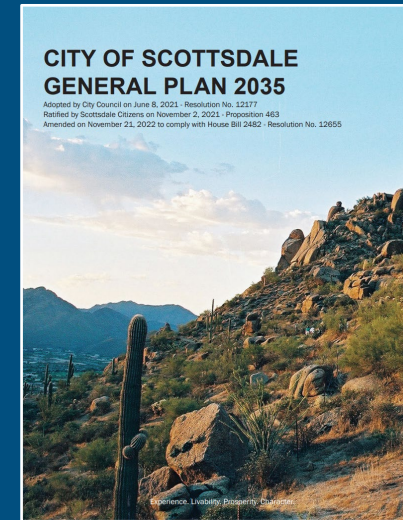




# Plan Tailored for Scottsdale

The plan will build off existing safety measures including low-cost, high-impact safety strategies with attention to evidence-based solutions.

Existing studies, plans and policies evaluate and improve traffic safety through the 2022 Transportation Action Plan, Traffic Volume and Collision Report, road safety audits, site specific safety studies, and device reviews.



# Resource Impacts

CURRENT FUNDING SOURCES				
Project	Type of Grant	Federal Grant	Transportation 0.2% Sales Tax Local Match	Total
Strategic Transportation Safety Plan	Safe Streets and Roads for All	\$288,000	\$72,000	\$360,000





# Next Steps

The Request for Proposals for Consulting Services is currently being finalized for the solicitation.

Once the Plan begins, the process will take 12 – 18 months.

- Public involvement
- Include Police in development of the Plan
- Staff look to possibility apply for Implementation Funding



# Paths & Trails Subcommittee Update

Transportation staff presented this item at the April 4, 2024 Paths & Trails Subcommittee Meeting

Discussion included:

- The frequency of the MAG Design Assistance Call for Projects
- A question about an engineering component of the Strategic Transportation Safety Plan
- Encouragement to review design standards in the Safety Plan
- A comment about the existing crash data and how Scottsdale ranks per population.



Thank you.  
Questions?



## Lofgren, Kyle

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**From:** WebServices  
**Sent:** Friday, March 22, 2024 3:08 PM  
**To:** Conklu, Susan  
**Subject:** Transportation Commission Public Comment

**Importance:** High

**Name:** Susan Wood  
**Address:** 96th st and Yucca  
**Email:** samw1222@aol.com  
**Phone:** (480) 540-4648

**Comment:**

Email sent to Mark Melnychenko today: Mark, I attended the Transportation Commission meeting last evening. I was confused with your response to Commissioner Kauftheil about my invitation for someone from the commission to attend the Wednesday discussion group at the Via Linda Senior Center. See my email below that I sent via the City website, to the Transportation Commission. You responded at the meeting, quote: "It would be best ,if, that group of residents have been invited to participate, public comment etc. at the commission, and they have not. That is probably the best venue for them to participate. And for yourselves to hear public comment. It is a little iffy because of the open meeting laws." I have some questions that maybe the City attorney can answer: What does the open meeting law have to do with1 commissioner coming to a meeting with a group of 15 - 20 residents? Does the Transportation Planning director have the authority to tell commissioners who they can and can't meet with? Is there a way to correspond with Commissioners (from any commission) directly, without the control or supervision of the staff. I know there have been 3 members from other commissions that have attended and spoken at the Wednesday meeting in the past. Is that against the law, the rules, what violation is it? Why are the commissioners from the Transportation Commission advised not to meet with residents? I never received an answer from any of the commissioners to my email below. This morning I received the response from Kyle, below. On another topic, I was shocked to see that the Commissioners were given the report (2022 Traffic Volume and Collision report), earlier that afternoon to prepare for the meeting. The report is 288 pages. Obviously, this discussion was merely to "check off the box", so you could claim that you told the commissioners about the report, but never intended to have a meaningful discussion. I have done extensive analysis of the report since it was released last November. In fact, I met with Transportation staff to discuss it. I wonder if any of the commissioner would be interested in finding out about my research? But none of the Transportation commissioners even knew that such a report existed? Sounds like a huge communication problem.