



## SCOTTSDALE TRANSPORTATION COMMISSION Notice and Agenda

**Date:** Thursday, January 21, 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

#### 1. Roll Call

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

#### 2. Public Comment

Spoken comment is being accepted on agenda action 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 agenda and non-agenda 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](#).

- 3. [Approval of Meeting Minutes](#)----- Discussion and Action**  
Regular Meeting of the Transportation Commission – December 17, 2020
- 4. [Approval of Transportation Commission Annual Report](#)----- Discussion and Action**  
Approve the Transportation Commission Annual Report
- 5. [Approval of Path and Trails Subcommittee Annual Report](#)----- Discussion and Action**  
Approve the Path and Trails Subcommittee Annual Report

6. [Transportation Action Plan](#)----- **Presentation and Discussion**  
Provide update Transportation Action Plan – David Meinhart, Transportation Planning Manager
7. [Paving Program](#)----- **Discussion and Presentation**  
Update on Paving – Shayne Lopez, Paving Manager
8. **Other Transportation Projects and Program Status**----- **Presentation and Discussion**  
Status of projects and programs – Mark Melnychenko, Transportation & Streets Director
9. [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 Frances Cookson 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 Frances Cookson at 480-312-7637.



**DRAFT SUMMARIZED MINUTES**

**CITY OF SCOTTSDALE  
TRANSPORTATION COMMISSION  
REGULAR MEETING DRAFT MINUTES**

**Thursday, December 17, 2020**

**Meeting Held Electronically and Remotely**

**1. CALL TO ORDER**

Vice Chair Iacovo called the regular meeting of the Scottsdale Transportation Commission to order at 5:15 p.m.

**2. ROLL CALL**

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

**STAFF:** Mark Melnychenko, Transportation & Streets Director  
Mariah Maindonald, Staff Representative  
Doug Ostler, Traffic Engineer  
Frances Cookson, Staff Representative  
Dave Meinhart, Transportation Planning Manager  
Hong Huo, Principal Traffic Engineer  
Ratna Korepella, Transit Manager  
Pete Peralta, Transit Operations Coordinator  
Dan Worth, Executive Director, Public Works  
Greg Davies, Senior Transportation Planner  
Susan Conklu, Senior Transportation Planner

**3. PUBLIC COMMENT**

No comments were submitted.

#### **4. APPROVAL OF MINUTES**

COMMISSIONER LALL MOVED TO APPROVE THE REGULAR MEETING MINUTES OF THE TRANSPORTATION COMMISSION ON NOVEMBER, 2020, AS AMENDED. VICE CHAIR ANDERSON SECONDED THE MOTION, WHICH CARRIED 7-0 WITH CHAIR IACOVO, VICE CHAIR ANDERSON, COMMISSIONERS KOWAL, LALL, MILLER, POCHOWSKI AND YATES VOTING IN THE AFFIRMATIVE WITH NO DISSENTING VOTES.

#### **5. CONGESTION REPORT**

Doug Ostler, Traffic Engineer, presented the City's first contemporary report on traffic operations at major intersections and roadway segments and corridors. The report includes all intersections within the City's traffic models. This includes evaluations for up to 280 intersections and 30 overall roadway segments. There are performance letter grades for intersections Level of Service (LOS) and percentages for corridors. LOS is a nationally accepted rating system based on average delay at an intersection, with grades A through F. The traffic models are created and maintained by the management center. The process for producing the report was summarized. Models estimate operating conditions based on input traffic volume data, geometry characteristics and timing parameters. The Traffic Management Center (TMC) generates files from which staff tabulate and extract pertinent data.

It was discussed that staff will address the issue of inclusion of interchanges before the report is finalized. This will incorporate Commissioner direction to include interchange intersections as a separate component, as opposed to presenting them as two intersections.

Mr. Ostler summarized that nearly all intersections under the City's jurisdiction operate acceptably, with more than half operating at level Service C, B or better during peak hours according different types of roadway classifications, including major intersections and minor intersections. Efficiency of corridor travel is defined as either total travel time along the corridor or the average travel speed. Lower performing corridors are generally located near downtown areas and better performing corridors tend to be longer roadway segments. Key takeaways include: More traffic signals and intersections results in more interruptions; less than ideal spacing of traffic signals interrupts continuous traffic flow; there is heavy commuting with traffic to and from Loop 101. Approximately 96 percent of intersections operate at LOS D or better during peak hours and 91 percent operate at LOS C or better.

Staff addressed Commissioner questions, particularly in reference to the purpose of the report, which is to assist in identifying the heat map traffic locations within the City, which can then be targeted for mitigation efforts, including signal timing changes, capital projects or left turn lanes. As technologies improve, this very intensive method of collecting data and producing reports will be replaced by real-time data collection.

In response to a Commissioner question, Mr. Ostler explained the process for traffic volume impact studies in preparation for new developments and identification of mitigation needs.

#### **6. OVERVIEW OF THE CITY OF SCOTTSDALE TRANSIT SYSTEM**

Ratna Korepella, Transit Manager, reviewed the two north/south routes on Scottsdale Road and Hayden Road as well as a number of east/west routes, coming from Phoenix and connecting to

other communities. Fixed routes are fee-based, may require transfers and are paid for on a per mile basis. The four existing trolley routes provide direct links without transfers, are fare free and are paid for by the hour. The buses are owned by the City and a contractor provides the service. Riders have the ability to transfer between trolley and fixed routes. Most weekday travel is primarily used for work purposes. Fixed route frequency has continually been assessed and modified toward higher efficiency for riders. Routes were shut down on March 25 with three out of four routes resuming on August 3rd. Transfer maps and schedules were reviewed. Due to ridership volumes, operation hours are limited to 13 hours on weekdays at the present time. Primary funding is derived from regional sales tax (Prop 400) as well as local City sales tax dollars, lottery funds and federal grants.

The City and Valley Metro provides paratransit, which is a shared door-to-door service offered in compliance with the ADA act of 1990. The City is required to provide ADA paratransit within three-quarters of a mile of any public transit route and in small geographic areas which are surrounded on all sides by fixed route service. The City's three programs are ADA paratransit, RideChoice and Cab Connection. Each program is operated with varying costs and requirements, with some cost sharing between the rider and the City depending upon the program.

Staff addressed Commissioner questions. Customer feedback and complaints are submitted through the Customer Assistance System (CAS) and are logged into the regional system. Specialized software is utilized in route planning. On-vehicle camera devices provide real-time data on trolley locations at any given time. This assists in rerouting strategies in response to vehicle collisions.

Pete Peralta, Transit Operations Coordinator, stated that a Transfer Connection Protocol program is being released through Clever Devices, which facilitates real-time communication bus to bus, trolley to trolley and trolley to fixed route. This allows riders to put in a request for real-time and scheduled transfers. The audio system for informing riders of upcoming stops is up and running in conjunction with Clever Devices. Other software includes GPS auto-vehicle locating.

In response to a Commissioner question, Dan Worth, Executive Director, Public Works, said that the decision on stopping and resuming routes in response to the pandemic was a City Manager decision in consultation with City Council.

Businesses are highlighted on the trolley brochure and the publication produced by the Economic Development Group. The marketing plan for the new routes had to be scaled back due to the pandemic. The department works closely with Economic Development, including a current rebranding and advertising campaign. They have not advertised nationally as of yet.

Chair identified the requirements that must be met when the City makes adjustments to transit service, including ensuring bus stops are ADA compliant. Mark Melnychenko, Transportation & Streets Director, noted that the transit system is the subject of one of the City's planning efforts in the new year. Other significant upcoming processes include update of the Transportation Master Plan and the pavement prioritization program.

## **7. E-COUNTERS FOR BIKES/PEDESTRIANS**

Susan Conklu, Senior Transportation Planner, gave a brief overview of the counts program. Evaluation and Planning is included as one of the 5 Es in measuring the City's bicycle-friendly status with the League of American Bicyclists. Counts help determine mode share and collision

rates. The City installed its first EcoCounter in summer of 2018 in conjunction with the Crosscut Canal Bridge and Path project south of McDowell. Inductive loops detect cyclists in both directions. A pyro sensor detects pedestrians and direction of travel. Reports are easily generated with the input of desired data criteria. The City identified eight locations for permanent counters and purchased two mobile counters. Next steps are to study counts on a monthly or quarterly basis, providing updates to the Transportation Commission and the public. The City will partner with the Maricopa Association of Governments (MAG) in its regional bike count efforts.

Staff addressed Commissioner questions. The department has received 24 responses to its survey regarding the Old Town Bicycle Master Plan virtual open house.

In response to a Commissioner question, Greg Davies, Senior Transportation Planner, stated that scooters would likely be counted as bicycles in the automated counts, as the wheels interact with the inductive loop.

In answer to a question from Chair, Ms. Conklu stated that grant funding was not used for installation of the counters. The Bikeway Y account was the funding source.

## **7. OTHER TRANSPORTATION PROJECTS AND PROGRAM STATUS**

Mr. Melnychenko highlighted infrastructure projects, including a new High Intensity Activated Crosswalk (HAWK) at Scottsdale Road and Palm Lane; audible signal at Scottsdale Road and McDonald; high visibility crosswalks at Pima multiuse path; ADA, curb, gutter and sidewalk improvements at Hayden Road and Roosevelt, paving improvements on Indian School Road.

Upcoming items to City Council include: Camelback Road sidewalks; MCDOT integrated management pilot and revised scooter ordinance.

Chair thanked staff for its responsiveness to input from the Commission and residents, particularly in terms of safety improvements.

## **8. COMMISSION IDENTIFICATION OF FUTURE AGENDA ITEMS**

Commissioners identified potential item topics, including Clever Devices, heat island effects, and transportation issues being tracked in the legislature.

## **9. ADJOURNMENT**

With no further business to discuss, being duly moved by Vice Chair Anderson and seconded by Commissioner Kowal, the meeting adjourned at 7:12 p.m.

AYES: Chair Iacovo, Vice Chair Anderson, Commissioners Kowal, Lall, Miller, Pochowski 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>**



## Transportation Commission Annual Report

Prepared by Mariah Maindonald, Administrative Assistant Supervisor, January 5, 2021

Approved by the Transportation Commission on January 21, 2021

Web Site Address: [www.scottsdaleaz.gov/boards/transportation-commission](http://www.scottsdaleaz.gov/boards/transportation-commission)

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**Number of Meetings Held: 8**

**Public Comments: 4**

### Major Topics of Discussion / Action Taken:

- Discussion and Action on Bicycle and Related Devices Ordinance *January*
- Presentation and Discussion on 2018 Collision Report *January*
- Presentation and Discussion on Scottsdale General Plan Update & Citizen Review *February*
- Presentation and Discussion on Capital Project Communication *February*
- Presentation and Discussion on Pedestrian Facilities Near Scottsdale Quarter *February*
- Presentation and Discussion on MAG 2020 Call for Projects – Prop. 400 Extension *February*
- Presentation, Discussion and Action on COVID Update *June*
- Presentation and Discussion on Budget Update *June*
- Discussion and Action on Transportation Master Plan Amendments *August*
- Presentation and Discussion on Capital Improvement Projects Programs *August*
- Presentation and Discussion on Bicycle Friendly Community Application *August*
- Discussion and Action on Background Ratification of Prior Actions from August 20<sup>th</sup> Transportation Commission *September*
- Presentation, Discussion and Action on Concepts for the 101 Interchange Design *September*
- Presentation and Discussion on FHWA Operations Through Partnership *October*
- Presentation and Discussion on 2020 Bicycle and Ped. Collision *October*
- Action on Election of Officers *November*
- Action on Path and Trails Subcommittee Appointments *November*
- Presentation and Discussion on Draft FY 22-FY 26 CIP *November*
- Presentation and Discussion on Osborn Road Complete Street Project *November*
- Presentation and Discussion on Paving Prioritization *November*
- Presentation and Discussion on 2020 Congestion Report *December*
- Presentation and Discussion on Overview of the City of Scottsdale Transit System *December*
- Presentation and Discussion on E-Counters for Bikes/Pedestrians *December*

### Current Member Attendance:

Member Name, Title	Present	Absent	Service Dates
Don Anderson, Commissioner	8	0	From January to December
George Ertel, Commissioner	5	1	From January to October*
Barry Graham, Commissioner	5	1	From January to October*
Pamela Iacovo, Commissioner	8	0	From January to December
Michael Kuzel, Commissioner	6	0	From January to October*
Karen Kowal, Commissioner	2	0	From November to December
B. Kent Lall, Commissioner	8	0	From January to December
Mary Ann Miller, Commissioner	8	0	From January to December
Donald Pochowski, Commissioner	2	0	From November to December
<u>Andy Yates, Commissioner</u>	<u>2</u>	<u>0</u>	<u>From November to December</u>

\*Ertel, Graham, and Kuzel resigned in October and were replaced by Kowal, Pochowski, and Yates.

**Subcommittees:** A Trails Sub-Committee was formed on March 18, 2010 as a result of the updated Transportation Commission Ordinance approved by City Council on November 3, 2009. The Sub-Committee consisted of two Transportation Commissioners that are appointed by the Transportation Commission Chair, and two non-Commission members that are appointed by City Council. The Trails Sub-Committee was established to advise the Transportation Commission as a whole and provide a public forum for issues surrounding paths and trails.

The Trails Sub-Committee at their meeting of December 6, 2013, and the Transportation Commission at their meeting of December 19, 2013, recommended that the City Council adopt a revised Ordinance No. 4148. At the City Council meeting of April 29, 2014, the Council adopted the Revised Ordinance No. 4148 that primarily changed the name of the Trails Sub-Committee to the "Paths & Trails Subcommittee" and increased the membership of the Paths & Trails Subcommittee to include a Parks & Recreation Commission representative.

**Ethics Training:** Yes; online ethics training was completed by all Commissioners prior to their first meeting on January 21, 2021

**Selected Officers:** Yes. The Transportation Commission appointed Commissioner Iacovo for Chair and Commissioner Anderson for Vice-Chair. Transportation Vice Chair Anderson and Commissioner Lall were appointed to the Paths & Trails to serve as member of the Paths & Trails Subcommittee.

**Reviewed Bylaws/City Code:** Yes, September 19, 2019.

**Anticipated Key Issues:**

**Future Significant Work Products:**

**Upcoming Opportunities, Challenges, or Outcomes**

Report Approved on:



## Paths & Trails Subcommittee Annual Report

Prepared by Mariah Maindonald, on January 5, 2021

Approved by the Transportation Commission on January 21, 2021

Web Site Address: [www.ScottsdaleAZ.gov/boards/PathsTrailsSubcommittee](http://www.ScottsdaleAZ.gov/boards/PathsTrailsSubcommittee)

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**Number of Meetings Held: 4**

**Public Comments: 0**

### Major Topics of Discussion / Action Taken:

- Presentation, Discussion and Recommendation on Capital Improvement Project Accounts *February*
- Presentation and Discussion on 68<sup>th</sup> Street and Thomas Road Projects *February*
- Presentation, Discussion and Recommendation on Capital Improvement Project Accounts *August*
- Presentation and Discussion on Bicycle Friendly Community Update *August*
- Presentation and Discussion on Non-Preserve Trail Program and Trail Inventory Projects *October*
- Presentation and Discussion on Indian Bend Wash Path Phase I Renovation, Proposed CIP Project *October*
- Information on Introduction of new members *December*
- Presentation and Discussion on Trail Maintenance Outreach Plan *December*
- Presentation and Discussion on Bike and Pedestrian Counts *December*

### Current Member Attendance:

Member Name, Title	Present	Absent	Service Dates
Donald Anderson, Vice Chair Trans. Comm.	1	0	From December to December
Kyle Davis, Subcommittee Member	3	1	From January to December
George Ertel, Transportation Commissioner	3	0	From January to October
Michael Kuzel, Transportation Commissioner	3	0	From January to December
Kent B. Lall, Transportation Commissioner	0	1	From December to December
William Levie, Subcommittee Member	4	0	From January to December
Jason Watton, Parks & Recreation Commissioner	1	1	From January to October

\*Ertel and Watton resigned in October and were replaced by Anderson and Lall in December.

**Background:** The Paths & Trails Subcommittee (formerly known as the Trails Sub-Committee) was formed on March 18, 2010 as a result of the updated Transportation Commission Ordinance approved by City Council on November 3, 2009. The Sub-Committee consisted of two Transportation Commissioners who are appointed by the Transportation Commission Chair, and two non-Commission members who are appointed by City Council. The Trails Sub-Committee was established to advise the Transportation Commission as a whole and provide a public forum for issues surrounding paths and trails outside of the boundary of Scottsdale's McDowell Sonoran Preserve.

The Trails Sub-Committee at their meeting of December 6, 2013, and the Transportation Commission at their meeting of December 19, 2013, recommended that the City Council adopt a revised Ordinance No. 4148. At the City Council meeting of April 29, 2014, the Council adopted the Revised Ordinance No. 4148 that primarily changed the name of the Trails Sub-Committee to the

“Paths & Trails Subcommittee” and increased the membership of the Paths & Trails Subcommittee to include a Parks & Recreation Commission representative.

**Subcommittees:** N/A.

**Ethics Training:** Yes; online ethics training was completed by all members of the Subcommittee by February 2, 2021.

**Selected Officers:** No. Commissioner Kuzel remained Chair for the year of 2019.

**Reviewed Bylaws/City Code:** Yes. As noted above, the Trails Sub-Committee at their meeting of December 6, 2013, and the Transportation Commission at their meeting of December 19, 2013, recommended that the City Council adopt a revised Ordinance No. 4148. At the City Council meeting of April 29, 2014, the Council adopted the Revised Ordinance No. 4148 that primarily changed the name of the Trails Sub-Committee to the “Paths & Trails Subcommittee” and increased the membership of the Paths & Trails Subcommittee to include a Parks & Recreation Commission representative.

**Anticipated Key Issues:**

**Future Significant Work Products:**

**Upcoming Opportunities, Challenges, or Outcomes**

Report Approved on:

# SCOTTSDALE TRANSPORTATION COMMISSION REPORT



**To:** Transportation Commission  
**From:** Dave Meinhart, Transportation Planning Manager  
**Subject:** Transportation Action Plan – Work Plan  
**Meeting Date:** January 21, 2021

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**Action:** Review staff work plan for updating the 2016 Transportation Master Plan.

**Purpose:**

Staff is in the initial stages of an in-house effort to update the 2016 Transportation Master Plan, with the goal of creating a Transportation Action Plan (TAP) that will include public input and receive the approval of the Transportation Commission and City Council in Fall 2021. Development of the TAP will be coordinated with the proposed General Plan Update in 2021. The TAP is expected to provide greater focus on refinement of the existing transportation system rather than adding extensive new infrastructure. This direction will emphasize livable streets/community over rapid traffic throughput.

**Information:**

The City's Transportation Master Plan (TMP) was adopted in 2008 and updated in 2016. The TMP supports the goals and objectives of the General Plan. It is intended to be a living document that also provides a reasonable level of certainty regarding future plans for transportation infrastructure needs, especially with regard to future roadway, transit, path and trail changes.

Considering the level of maturity in the City's existing transportation network, staff propose to slightly reorient the new plan as an action plan, rather than a master plan. This concept, which is now being used by several other communities around the country, is being driven by many factors. Among the most important factors for the reorientation are:

1. Continued viability and functionality of existing infrastructure is the highest priority.
2. Travel demand on most corridors has not grown significantly over the past 20 years, even with continued development.
3. Most major roadway improvements that have been planned for decades will be completed by the mid-2020s.
4. Events of 2020 have accelerated public use of, and demand for, improved non-motorized travel options.
5. Technology change is likely to further reduce congestion issues.
6. Land use patterns are very well defined and affect the need and/or capacity requirements for various forms of transportation infrastructure and services.

The work plan for the new Transportation Action Plan will use an introductory section to "tell the story" of the transportation system in a manner that is user friendly and understandable to citizens who do not have expertise in the field. System elements will address Streets, Transit, Paved Paths, Unpaved Trails and Sidewalks/Crossings ([see attachment](#)).

Anticipated key outcomes of the TAP include:

1. Street classification changes (primarily reductions) that reflect actual capacity needs, based on long-term volume trends and adjacent land use patterns.

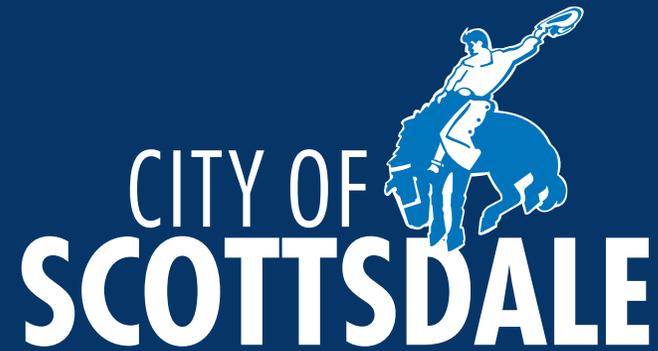
2. Clarification on the location of high priority transit corridors routes where higher service frequencies (typically 15 minute or less) or bus rapid transit may be viable.
3. Guidance regarding the use of circulator bus service and potential locations.
4. Removal of low feasibility future projects that have been mapped in previous transportation master plans (erase some lines).
5. Policy updates (e.g., pedestrian/bike safety, noise mitigation, signal timing).
6. Updates to standard street cross sections.
7. Identification of system gaps and key regional connections.
8. Proposed emergency access routes in the vicinity of the McDowell Sonoran Preserve.
9. An Implementation Plan to aid in prioritizing future infrastructure preservation and new capital projects.
10. Performance measures to track progress over time.

**Next Steps:**

Begin preparing the draft TAP and solicit public comment that follows after the final phase of General Plan public input. Provide regular updates to, and opportunities for input from, the Transportation Commission.

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**Contact:** Dave Meinhart, 480-312-7641, [dmeinhart@scottsdaleaz.gov](mailto:dmeinhart@scottsdaleaz.gov)

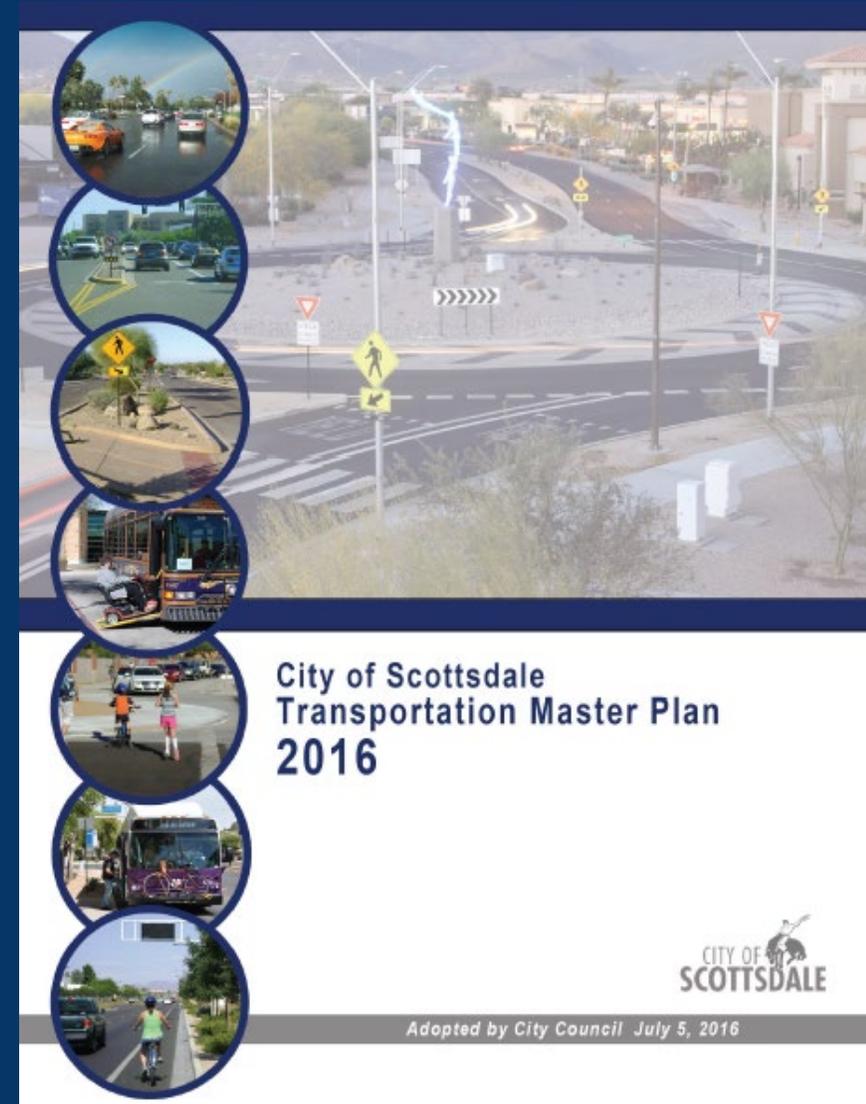


# Transportation Action Plan

Transportation Commission  
January 21, 2021

# Current Transportation Master Plan (TMP)

- Approved by City Council July 2016
  - Condensed from City's first Transportation Master Plan adopted in 2008
    - More specific on future transit routes
    - Continued focus on what infrastructure could be added in the future
    - No implementation plan to inform financial decisions



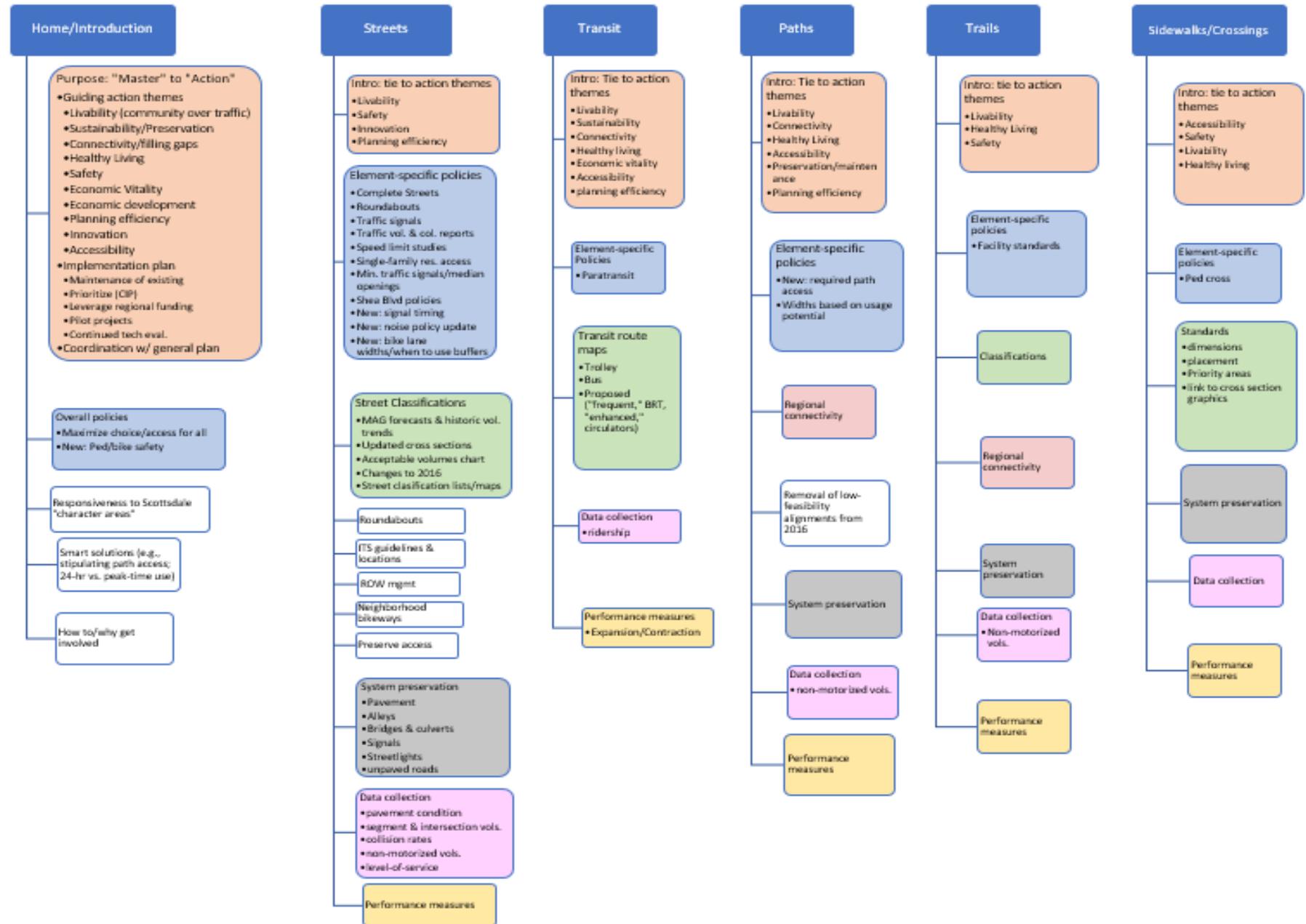
# Proposed Transition to Transportation Action Plan

- Coordinated with proposed General Plan Update in 2021
- Greater focus on refinement of the existing transportation system rather than adding new infrastructure
  - Example: change street classifications to reflect actual travel demand trends
- Emphasize livable streets/community over rapid traffic throughput

# Factors Influencing the Transportation Action Plan

- Viability of existing infrastructure is the highest priority
- Travel demand on most corridors has not grown significantly over the past 20 years, even with continued development
- Most major roadway improvements will be completed by mid-2020s
- Events of 2020 accelerated public demand for non-motorized options
- Technology change is likely to further reduce congestion issues
- Land use patterns are very well defined

# Draft Work Plan Outline

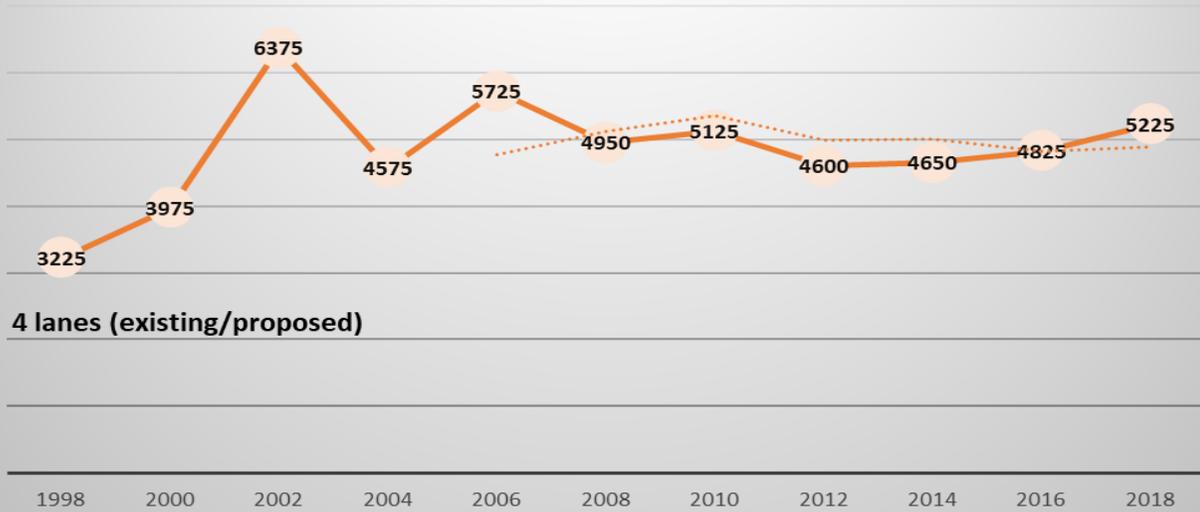


# Anticipated Key Outcomes for Transportation Action Plan

- Street classification changes to reflect actual capacity needs
- Clarification on high priority transit routes and use of circulators
- Removal of low feasibility future projects (erase some lines)
- Policy updates (e.g., pedestrian/bike safety, noise mitigation, signal timing) and updates to standard street cross sections
- Identification of system gaps and key regional connections
- Propose emergency access routes near McDowell Sonoran Preserve
- Implementation Plan and Performance measures

# Volume Trends and Land Use Patterns allow Reclassifications

**Pima Road - Happy Valley to Dynamite**  
Avg. Vehicles/Lane/Day  
(w/10-year moving average)



**124th - Via Linda to Cactus\***  
Avg. Vehicles/Lane/Day  
(w/10-year moving avg.)



# Opportunities Created Through Street Reclassifications



Major Collector



Minor Collector

# Opportunities Created Through Street Reclassifications



Minor Collector



Local Collector

# Affect of Land Use on Transportation Options



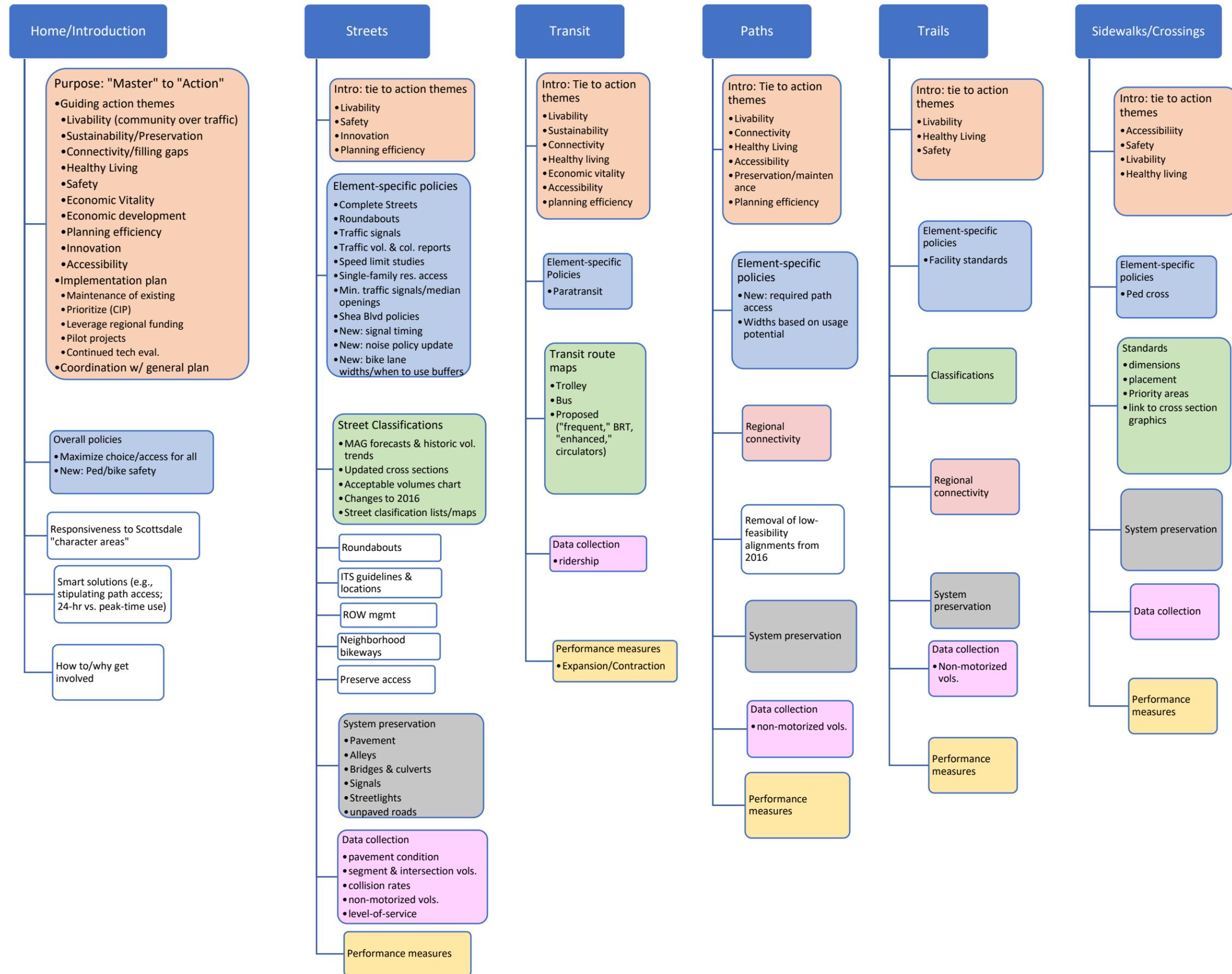
Multiple mode options



Limited mode options

# Process for Plan Development

- In-house preparation with input from Transportation Commission, citizens and City Council
- Staff coordination team meeting bi-weekly
- Goal is to develop a user-friendly, internet-based document that is easily understood by the general public
- Target for completion is Fall 2021



Draft

# SCOTTSDALE TRANSPORTATION COMMISSION REPORT



**To:** Transportation Commission  
**From:** Shayne Lopez, Paving Manager  
**Subject:** Pavement Management  
**Meeting Date:** January 21, 2021

## ITEM IN BRIEF

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**Action:** Presentation and discussion

**Purpose:** Provide information on the pavement management program.

### Background:

The city's pavement network is one of the largest asset groups, consisting of more than 20 million square yards of paved surface area with an estimated value of \$1 billion (per 2015 IMS Report). Successful management of the pavement network is critical to ensure a safe operating transportation infrastructure for the public. Pavement management is the process of evaluating, prioritizing, and maintaining pavements to provide maximum benefits from available funds. In short, pavement management aims to perform the right treatment at the right time using a data driven, defensible process.

The city currently utilizes four pavement treatments (ranging from least to most expensive): First, crackfill, which is the process of placing liquid asphalt tar into pavement surface cracks to prevent moisture from infiltrating the pavement section. Second, fog seal, which is a surface treatment consisting of water & asphalt emulsion that reduces pavement surface oxidation and loss of surface oils. Third, is microsurface slurry which is similar in action to a fog seal but with the added benefit of containing aggregate which acts as a surface wearing course. Finally, the most expensive and longest lasting treatment, aside from reconstruction, is the mill and overlay; where the pavement surface is ground down and replaced with a new layer of pavement.

The determination of which pavement treatment is most appropriate for a section of roadway is primarily a function of the roadway's pavement condition index (PCI). PCI is a numerical rating of the pavement condition, ranging from 0 to 100 and based on the type and severity of distresses observed/measured on the pavement surface. The city's strategic objective is to maintain a systemwide PCI rating of very good or 80 PCI. According to Infrastructure Management Services (IMS), the national PCI average range is 60-65. The current system PCI for Scottsdale is 77.2 based on data from the 2015 pavement condition survey and subsequent pavement treatments; however, the actual PCI may vary based on traffic volumes and pavement deformations in the past 5 years.

### Update:

The city contracted with IMS for the 2020 Pavement Condition Survey. Their scope of work includes PCI data collection, data analyzation, and data integration into the city's pavement modeling software, Lucity. Lucity is used to model pavement degradation, prioritize pavement treatments, and assist with budget forecasting. Using data from the pavement survey and Lucity, city staff can determine when and where to perform pavement rehabilitation and which rehabilitation techniques to use to accomplish the strategic goal of obtaining/maintaining a system PCI of 80.

As a best practice, pavement management staff participates in training sessions to maintain awareness of alternate treatment methods and emerging technologies. When a treatment not currently used by the city appears to offer value, a pilot study can be initiated to investigate. Pavement management is currently looking at 3 potential pilot studies in 2021:

- HA5 – A high-density mineral bond ideal for low-medium volume roads with a PCI of 75 or greater. This treatment is being used by municipalities around the valley. Research on the treatment indicates that HA5 slows down pavement oxidation and extends pavement life. It is characterized by the fact that the surface stays dark black for 5+ years.

- Chip Seal – Application of chip seal works to add a structural layer of fractured rock embedded in asphalt binders. Ideal for low-medium volume roads and can serve as an intermediary treatment between micro seal and overlay, depending on the roadway condition. This application can also be combined with a slurry seal on top as an additional surface wearing course; the combination of the two is known as a Cape Seal.
- Cool Pavement – This treatment is gray, compared to traditional seal coatings. Cool pavement reflects the sunlight that hits it. The City of Phoenix has documented a summertime surface temperature decrease of 10-15 degrees. This may have applications in pedestrian heavy areas such as Old Town Scottsdale.

Even though the primary focus of Pavement Management lies with the roadway network, the process often works in tandem with other groups as a comprehensive approach to asset management. Recently, Pavement Management coordinated with Traffic Engineering on the Indian School Overlay project which included striping updates to enhance multimodal safety. This coordination also presented creative opportunities for funding for the striping portion of the pavement treatment. Pavement Management also works with Traffic Operations to upgrade intersection camera detection systems when the pavement treatment impacts the traffic loops.

**Next Steps:**

Development of the 5-year paving plan takes careful consideration of the current budget, current treatment types, contractual pricing for treatments, and new pavement condition PCI data. The paving plan will provide treatment recommendations to effectively use the current budget. The development of the pilot studies will determine if certain treatment types provide more value for the city and under what conditions. The accuracy of the recommendations of a pavement model depends on reoccurring data collection of the actual condition of the roadway; on average agencies perform surveys every 3-5 years. With a functional pavement model, Pavement Management will be best equipped to focus on maximizing value with limited resources.

**Attachments:**

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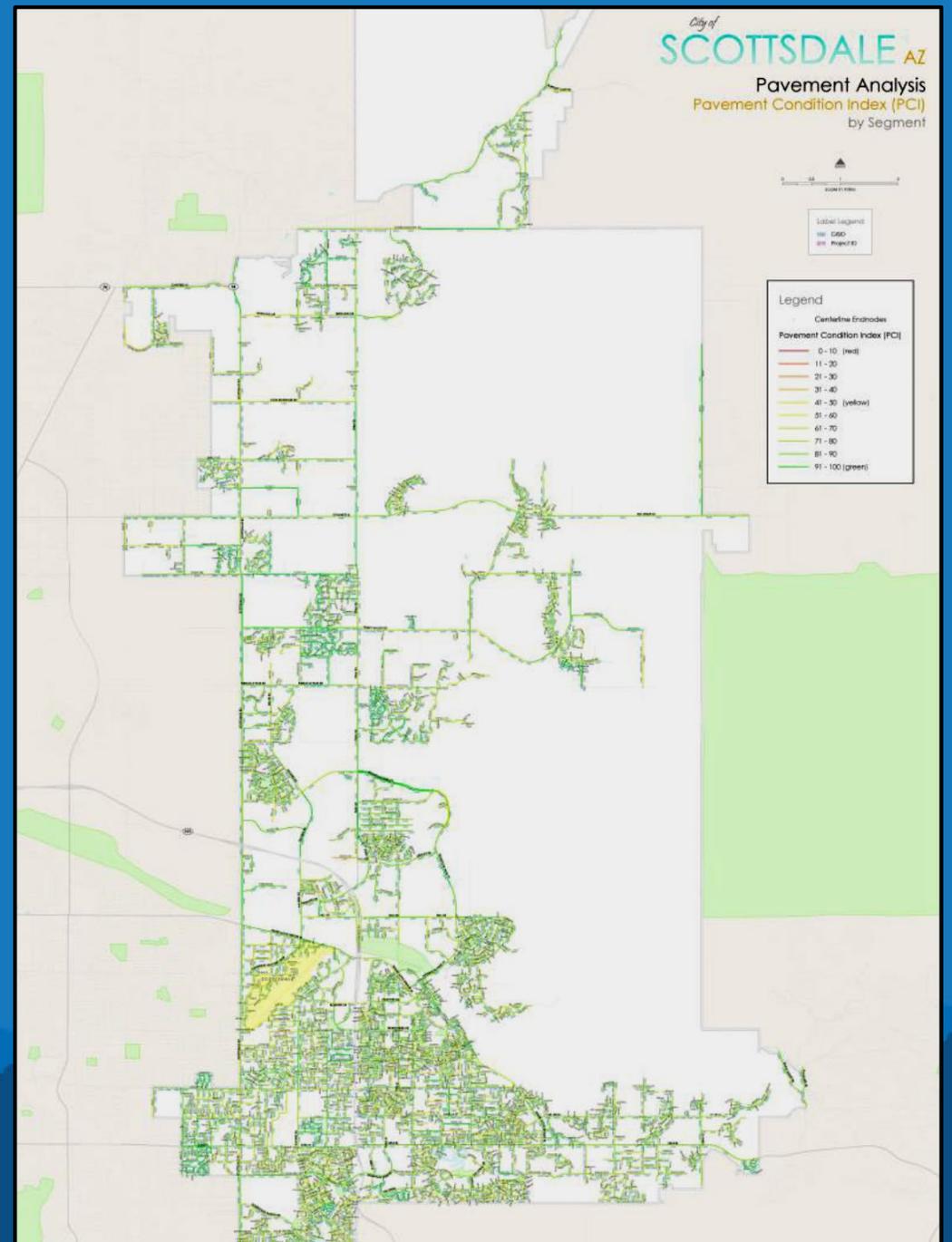
**Staff Contact:** Shayne Lopez, 480-312-5665, [slopez@scottsdaleaz.gov](mailto:slopez@scottsdaleaz.gov)

# Pavement Management

Transportation Commission  
January 21, 2021

# Scottsdale at a Glance

- Centerline Miles of Pavement: 909
- Square Yards of Pavement: 20+ Million
- Value Est.: \$1B
- All asphalt cement pavement, no Portland cement concrete roadways. Mostly curbed drainage conditions

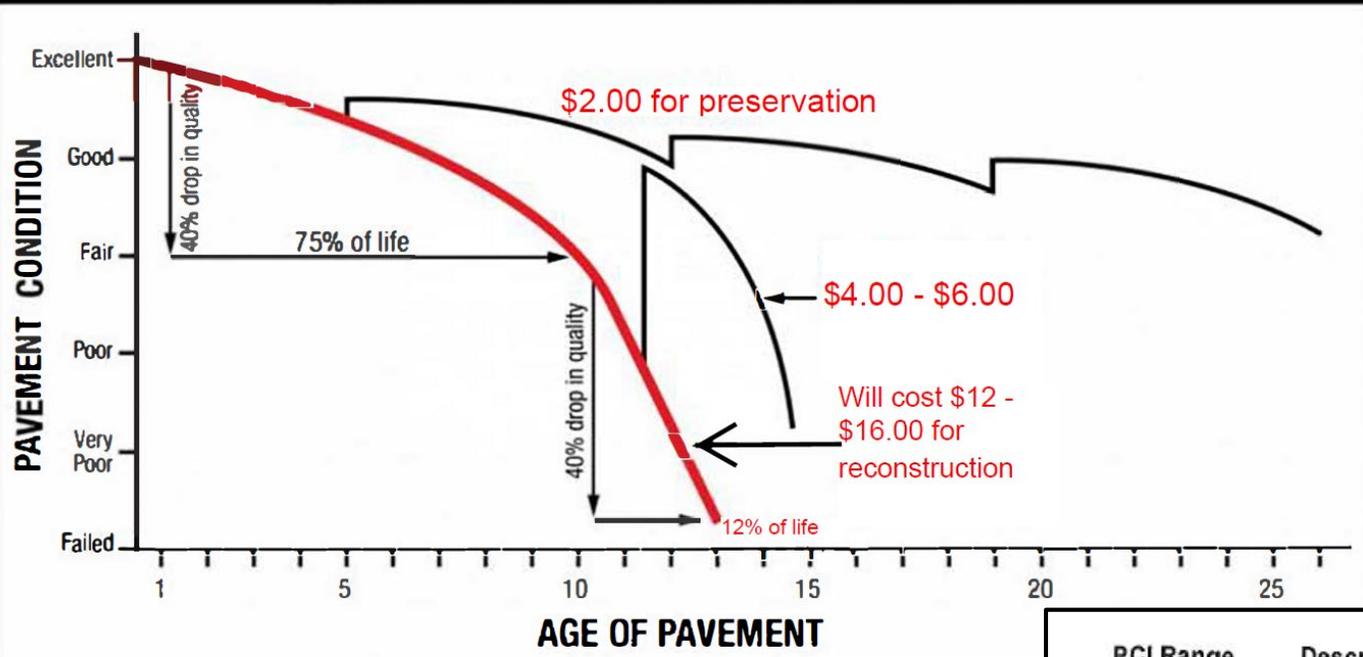


# Pavement Management

- “The RIGHT treatment at the RIGHT time”
- Treatments currently utilized:
  - Crack fill
  - Fog Seal
  - Microsurface Slurry Seal
  - Mill & Overlay



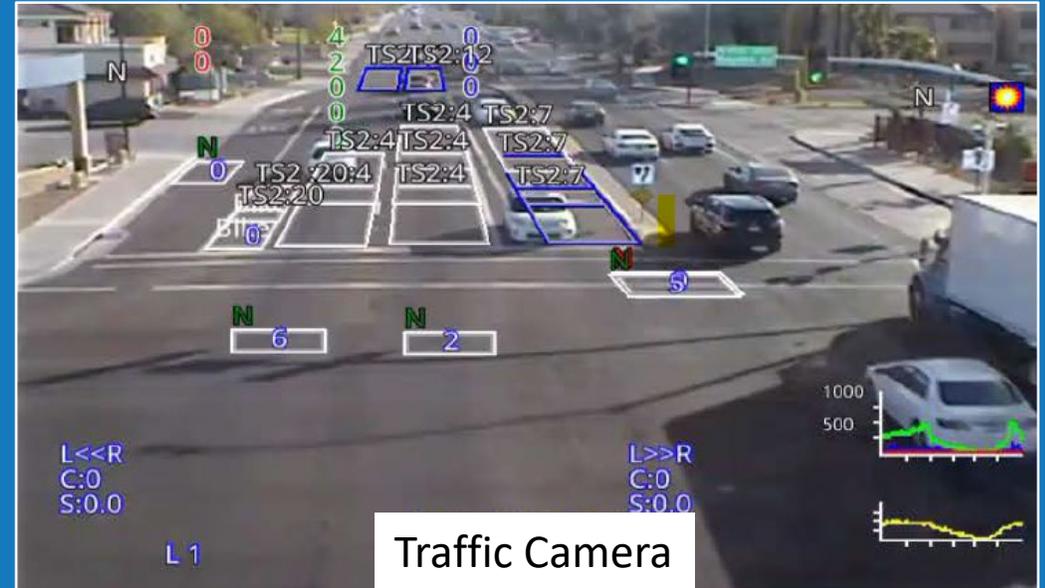
# PAVEMENT CONDITION INDEX



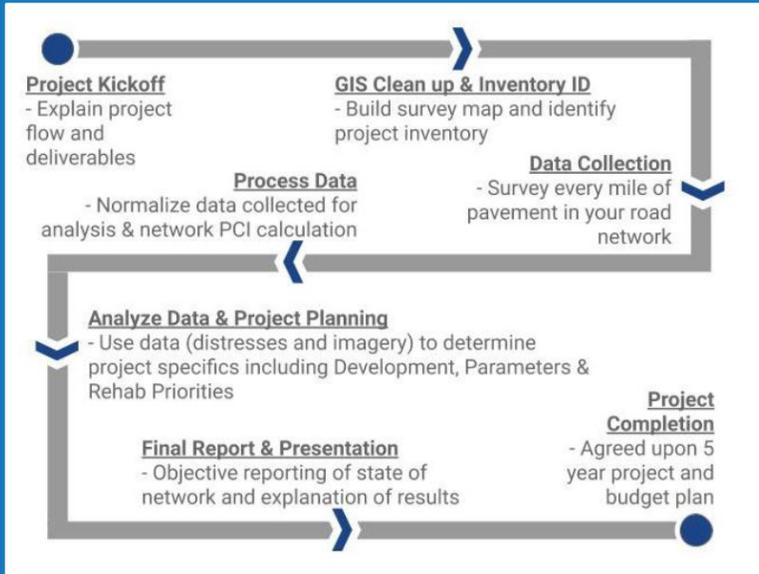
# Pavement Condition Index (PCI)

PCI Range	Description	Relative Remaining Life	Definition
85 – 100	Excellent	15 to 25 Years	Like new condition; little to no maintenance required when new. Routine upkeep such as crack and joint sealing on older streets.
70 – 85	Very Good	12 to 20 Years	Routine maintenance such as patching and crack sealing with surface treatments such as seal coats or slurries.
60 – 70	Good	10 to 15 Years	Heavier surface treatments and thin overlays. Localized panel replacements.
40 – 60	Fair to Marginal	7 to 12 Years	Heavy surface based inlays or overlays with localized repairs. Moderate to extensive panel replacements.
25 – 40	Poor	5 to 10 Years	Sections will require very thick overlays, surface replacement, base reconstruction, and possible subgrade stabilization.
0 – 25	Very Poor	0 to 5 Years	High percentage of full reconstruction.

# Comprehensive Approach

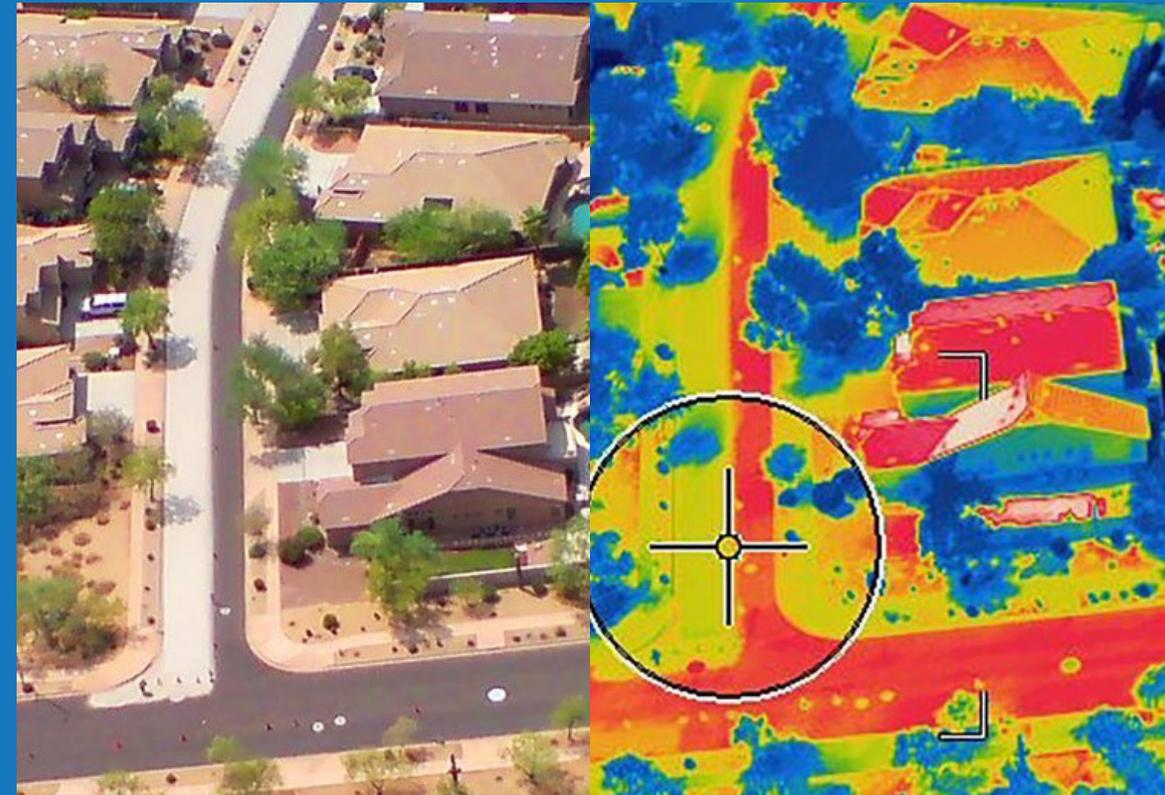


# Update - 2020 Pavement Condition Survey



# Update – Pilot Studies

- Alternate Pavement Treatments
  - HA5
  - Chip Seal
  - Cool Pavement



Premium polymer emulsion sealer installed May 2009. Picture taken FOUR YEARS after sealer was installed.

Magnified Section

HA5 installed May 2009. Picture taken FOUR YEARS after HA5 was installed.

Side-by-side performance comparison

## HA5™

HIGH DENSITY MINERAL BOND

15 years of proven durability  
No grainy residue like slurry or micro  
The choice of over 130 agencies  
Research showing 9X less cracking



### Cool Pavement

**Traditional Asphalt**  
**121°**

**106°**   **109°**   **111°**

# Next Steps – Paving Prioritization Plan

- 5-year plan
- Efficient use of current budget
- Budget forecasting
- Data Driven
- Modeled with Lucity using updated PCI data
- Resident Engagement
- Provide timeframes for treatment

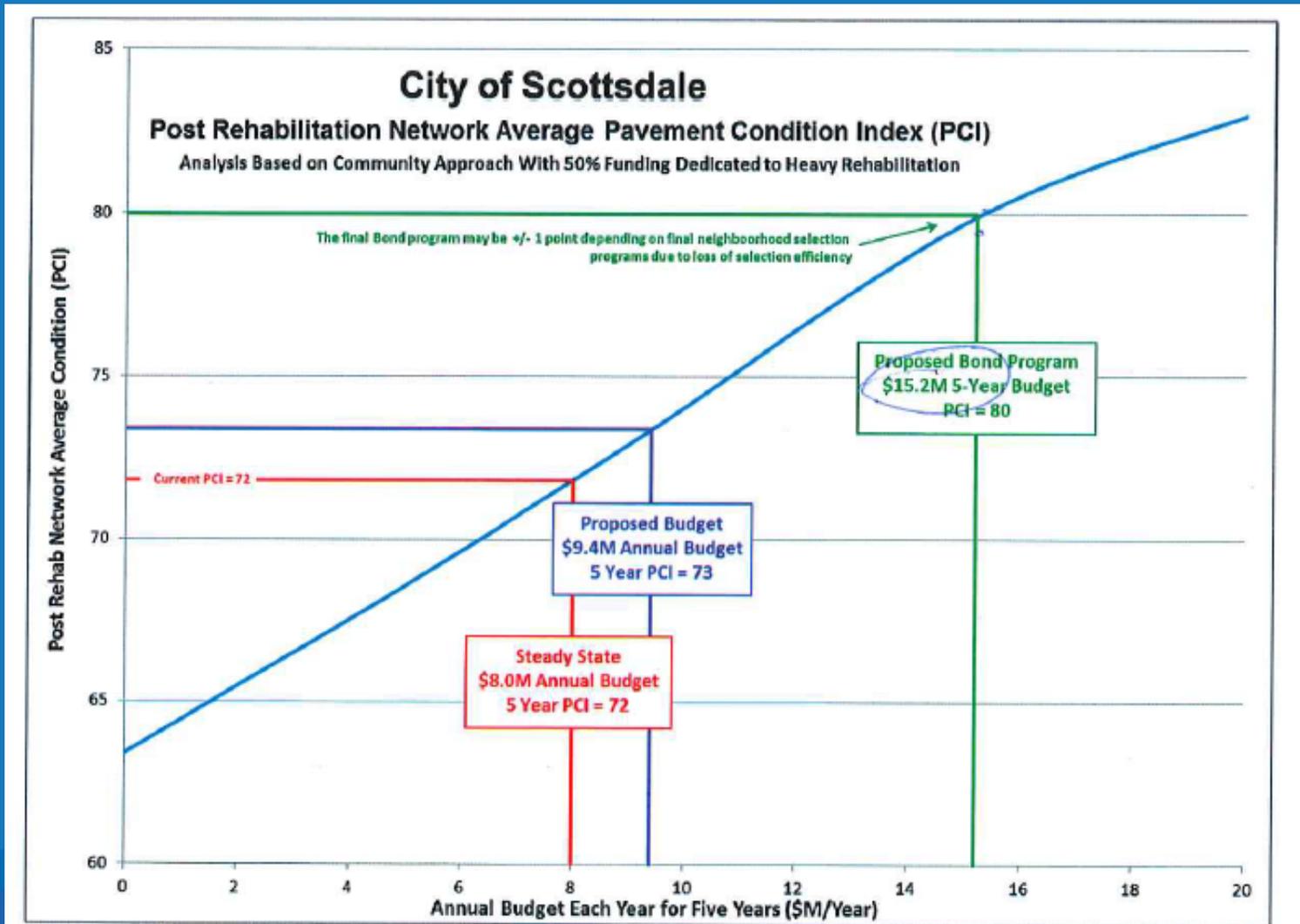


Figure 19 – 5 Year Post Rehab Network PCI Analysis Results

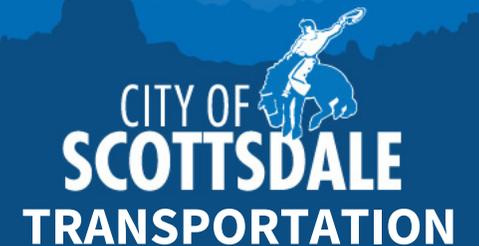
# Next Steps

- Treatment Pilot Studies
  - Identify locations
- Asset Maintenance
  - Continued focus on maximizing value with limited resources
  - Implement Parking Lots/Alleys into Lucity model
- Future Pavement Condition surveys
  - 2025 citywide (proposed)
  - 2021 Parking lot (proposed)

# Pavement Management

## Questions?

Transportation Commission  
January 21, 2021



# TENTATIVE FUTURE AGENDA ITEMS

Rev.12-20-2020

## TRANSPORTATION COMMISSION

### MEETING DATE: Feb 18, 2021

### REPORTS/PRESENTATIONS DUE Feb 12

- **Approval of Meeting Minutes** ..... Action  
*Approval of Regular meeting minute December 17, 2020*
- **Clever Devices Application on buses** .....Presentation and Discussion  
*Discussion of the status of the Clever Devices application that will provide computer aided dispatch a vehicle locator system*
- **Transportation concerns at a legislature level**.....Presentation and Discussion  
*Discussion of transportation tracking of concerns and issues at a legislature level – Brad Lundahl, Government Relations Director.*
- **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: Mar 18, 2021

### REPORTS DUE MAR 12

- **Approval of Meeting Minutes** ..... Action  
*Approval of Regular meeting minute November 19,2020*
- **Street Maintenance** .....Presentation and Discussion  
*Update on street maintenance – Joseph Zappanti, Shoulders and Drainage Manager*
- **Heat Island Effect**.....Presentation and Discussion  
*Update on Heat Island Effect – Mark Melnychenko, Transportation & Streets Director*
- **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*

### FUTURE ITEMS:

- **Impact on Parking**.....Presentation and Discussion  
*Latest parking study, Walter Brodzinski, Right-Way Supervisor*
- **November 2018 Sales Tax Projects**.....Presentation and Discussion  
*Status of Projects funded by November 2018 Additional Sales Tax*
- **MAG Overview**.....Presentation and Discussion  
*A MAG representative to give a presentation on their programs and relationship with Scottsdale*
- **McCormick-Stillman Underpass** .....Presentation and Discussion  
*Update on McCormick-Stillman Underpass*
- **Assist Business' during CIP Construction**.....Presentation and Discussion  
*Discussion on working with local business' during Capital Improvement Projects*
- **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.*
- **Dynamite Traffic Issues**.....Presentation and Discussion  
*Review of Capital Project improvements, U-turn issue at 101<sup>st</sup> way & Speed limit*
- **Neighborhood Traffic Management Policy Update** .....Presentation and Discussion  
*Revised policy for Commission to review.*
- **Pedestrian Crossing Policy** .....Presentation and Discussion  
*Draft policy for Commission review.*

- **Median Opening Analysis**.....**Presentation and Discussion**  
*Reviewing data for “pork Chop” median openings compared to standard median openings.*
- **New Project Development** .....**Presentation and Discussion**  
*Project development and how it ties in with Transportation*
- **Vacant Land** .....**Presentation and Discussion**  
*Impact on areas and traffic with new buildings created*
- **Study and Results from Truck Platooning** .....**Presentation and Discussion**  
*Update on Study and Results from Truck Platooning*
- **Sidewalk Conditions**.....**Presentation and Discussion**  
*Update condition of sidewalks within the city*
- **Electric Car Movement**.....**Presentation and Discussion**  
*Presentation on electric car movement – Hong Huo*
- **Shea and 124<sup>th</sup> Street Underpass** .....**Presentation and Discussion**  
*Update on underpass – Meinhart or Kercher*
- **Trolley usage**.....**Presentation and Discussion**  
*Update on trolley usage – Ratna Korepella*
- **General Plan Update**.....**Presentation and Discussion**  
*Update on general plan – Erin Perreault*

**PATHS & TRAILS SUBCOMMITTEE**

**MEETING DATE: Feb 2, 2021**

**REPORTS DUE Jan 21, 2021**

- **Approval of Meeting Minutes** ..... Action  
*Approval of Regular meeting minutes of October 15, 2020*
- **2020 Bicycle and Pedestrian Collision Report – David Smith, Traffic Engineer** ..... Information
- **70<sup>th</sup> Street Neighborhood Bikeway** ..... Presentation and Discussion  
*Update on 70<sup>th</sup> Street Neighborhood Bikeway – Susan Conklu, Senior Transportation Planner*
- **Old Town Bicycle Master Plan** ..... Presentation and Discussion  
*Update on Old Town Bicycle Master Plan – Susan Conklu, Senior Transportation Planner*
- **Other Transportation Projects and Programs Status**..... Information  
*Status of projects and programs –*
- **Subcommittee Identification of Future Agenda Items**..... Discussion  
*Subcommittee members may identify items or topics of interest for future Subcommittee meetings  
Planner*

**MEETING DATE: April, 6 2021**

**REPORTS DUE March 30, 2021**

- **Approval of Meeting Minutes** ..... Action  
*Approval of Regular meeting minutes of October 15, 2020*
- **Other Transportation Projects and Programs Status**..... Information  
*Status of projects and programs –*
- **Subcommittee Identification of Future Agenda Items**..... Discussion  
*Subcommittee members may identify items or topics of interest for future Subcommittee meetings  
Planner*

**FUTURE ITEMS:**

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